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Disassembly
Softproviding Meat
User Documentation

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Contents

1 Master Data: Disassembly

1.1 Overview

1.1.1 General

A variety of master data is required to create the Softproviding Meat calculations *Standard Cost Estimate* and *MRP Calculation*, as well as *Disassembly Orders*. Before you can start these applications, you need to create this master data.

The master data involved relates in particular to *cut* and *cut list,* as well as to *material*, *routing* and *work center*. If a cut is defined "without routing", neither of the master data items *routing* and *work center* is required.

Cut and cut list are Softproviding Meat-specific master data items in the disassembly process. Material, routing and work center are standard SAP master data items.

To create *cuts* you need material master data and routings, with the routings having work centers assigned, as well as other master data items such as activity types and cost centers.

Several cuts are combined to form a cut list. In the simplest case, a cut list is made up of one cut. Every cut can be used in more than one cut list.

The above-mentioned calculations and the disassembly orders are based on a cut list. This, in turn, is made up of n cuts. When you carry out a standard cost estimate or MRP calculation and create a disassembly order, the cut list and the related cuts are copied and their settings transferred. In the applications you can then adapt cuts to the cut list without modifying the original cuts.

A detailed description is provided below of how to create the master data items cut and cut list.

The master data items material, routing, work center, as well as activity type, cost center and profit center will be described insofar as they relate either to Softproviding Meat-specific settings and fields (especially in the material master) or to settings that you need to create the disassembly master data items *cut* and *cut list*.

With regard to the required standard SAP settings and activities that you need to create a material master and a routing, please refer to the relevant standard SAP documentation.

1.1.2 Cut / Cut List

The figure below illustrates the links between cuts and the cut list, as well as the input and output materials within this master data.

Cuts and Cut List
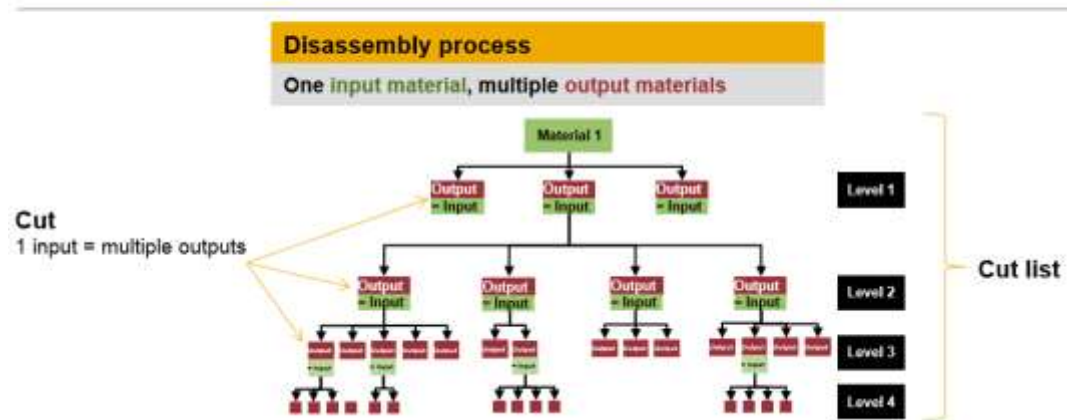
A cut comprises a top input material that is disassembled at Level 1. This disassembly process results in 1 – n output materials that are disassembled further or not at all.

If there is a further disassembly process, these output materials are, in turn, input materials for the next disassembly cut. If there is no further disassembly process, the output from the disassembly process is "discharged" and is generally posted to stock as a goods receipt.

1.2 Master Data

This section describes all the relevant master data you require to be able to create the master data for the disassembly process – cut and cut list.

One particularly important aspect is the settings in the material master in the Softproviding Meat-specific view *Meat Disassembly,* as well as the settings in the routing.

1.2.1 Material Master

The description of this task includes which Softproviding Meat-specific settings in the material master you require to create cuts and cut lists.

Prerequisites

The following settings are required beforehand to enable you to apply the settings described below in the material master:

Settings in Softproviding Meat Customizing
— The Softproviding Meat-specific views in the material master have been defined.
— Stock types have been created. Assignment is carried out in the material master in the Meat Disassembly 1 view.
— Disassembly processes have been created. You can already assign a disassembly process (e.g. primal cutting) in the material master. You will need the disassembly process to create the cut basic data and to apply it according to the presetting in the material master.
— Cost pools have been created. They are required to display the labor costs.

Please refer to the Disassembly Configuration Guide for details about the required settings.

Procedure

1. Open the *Change material master* activity using one of the specified options.

Menu	*Softproviding Meat > Production > Master Data > Material > Change*
Transaction	*MM02*

2. Enter the material number in the initial screen. Press Enter to confirm.

3. If you need to create a material from scratch, select the transaction MM01 and enter the material, industry sector and material type.

4. Select the *Meat Disassembly 1* and *Meat Disassembly 2* tabs. The following fields under these tabs are suitable to use for creating cuts.

Note

*The tab names in the material master (*Meat Disassembly 1 *and* Meat Disassembly 2 *in this case) can be defined by Softproviding or customized by the customer.*

1.2.1.1 *Meat Disassembly 1* Tab

Assignments

Field Name	Description
Stock type	A stock type is a species of animal, such as pig or cattle. The input and output materials for a cut must be of the same stock type. These disassembly materials are usually assigned to a stock type. However, you can also use these materials without them being assigned to a stock type within a cut.
Disassembly process	A disassembly process is an organizational process in slaughtering and disassembly (e.g. primal cutting, deboning).
Disassembly proc grp	Optional input. In the disassembly order the disassembly process group (e.g. shoulder, belly) is displayed at material level.
Loss type	Optional entry. The loss types are displayed in Disassembly Order (*Controlling* tab). Do note that these are target losses. A loss type displayed if it is assigned to at least one output material.

Units of Measure

Field Name	Description
Units material	If this box is checked, it means that the field *UoM (pieces)* is available for input in the Softproviding Meat Standard Cost Estimate and MRP Calculation, as well as in the case of disassembly orders. Otherwise, it is hidden. The unit of measure is taken from Softproviding Meat Customizing. If there are no entries in Customizing, PC (piece) is entered as the UoM. *Note* *You can also read the detailed description provided in this document in the section "Creating a Cut" (Basic data) in this chapter.*
UoM (weight)	This indicates a unit of measure for weight (e.g. kg). This unit of measure is defined in Softproviding Meat Customizing (Disassembly: Plant-dependent settings).
UoM (double)	This indicates a double unit of measure (e.g. kg, crate). You need to input an entry here to make sure that you can input an entry in this field in the SAP GUI input screens. However, the double unit of measure must not be used as the disassembly unit of measure. *Note* *You can also read the detailed description provided in this document in the section "Creating a Cut" (Basic data) in this chapter.*

Field Name	Description
Default price unit (Plant-dependent or Cross-Plant)	Optional input. The price unit is applied when creating a cut. If no value is input in the field, the value 1 is applied to the cut. In the cut the price unit should be considered in relation to the price. **Example** Quantity (weight) input material = 100 kg Price = 2.00 euro per kg Price unit = 5 kg Result: Total value = 40 euro

1.2.1.2 Calculation Settings

You can also input calculation data under *Calculation Settings* (prices, equivalents) on a *cross-plant* or *plant-dependent* basis.

By way of example, these settings relating to the *Plant-dependent* option are described below. These options also apply to the *Cross-plant* settings.

Note on using price sources
A price source is assigned in the cut under the *Basic Data* tab. You use the price obtained from this source to assess the inbound quantity of the cut material.

If price source A is selected in the cut, the *cross-plant* price data from the material master is used, and if price source B is selected, the *plant-dependent* price data is used. Other price sources are available, such as S = Standard price.

Example: Settings based on plant-dependent data
Click on the *Calculation data* button. You will access the cost data screen in the material master.

Material Data

Field Name	Description
Material	General: A material is an item that is the subject of a business transaction. In SAP materials such as raw materials, semi-finished products, operating supplies and finished products are identified using a unique material number. The material number is entered in this field.
Plant	The plant is an organizational, logistical unit, which structures the company from the perspective of production, procurement, maintenance and materials planning. Materials are produced and goods and services are provided in a plant. The plant is a company's production site. The plant is entered in this field.
Key date	The key date is a date by when a particular action will be carried out. You must input a key date. There is a prompt for the current date in the field. The cost data applicable to this date is displayed.

Material Costs – Output/quotients

You apply the settings for the cut materials' material costs in this section of the screen. In the cut this data is displayed under the *Material Costs* tab if price source A (general view) or B (plant-related view) is used there.

Click on the *Detail* button to edit these material costs. A pop-up appears with editable fields. Then click on the *Enter New Entries* button to create data for the fields below. Entries that are already available will be adjusted automatically if the relevant values for the individual entries are exceeded.

Select the *Delete Entry* button to delete an entry. Select first the row you wish to delete.

Field Name	Description
Valid from … Valid to	Entry's validity.
Equival.	This is for entering an equivalence for an output material. This figure is used to define the capitalized cost for this material. The equivalences for these output materials are values based on operational experience and must be defined by the customer. If a price is fixed (see the fixed indicator), the output materials do not need to have any equivalence.
Price	Price used to evaluate the input or output material.
Currency	The currency is represented by a 3-character currency key (e.g. EUR = euro; USD = US dollar). Amounts are registered in the system in this currency.
Price unit	This is for entering a price unit. This is entered when creating a cut for the material. If there are no entries available in this *Material costs* view, the value 1 is applied to the cut as the price unit.
Price unit of measure	Unit of measure relating to a price. This unit of measure is defined in Softproviding Meat Customizing.
Fixed price	This indicator applies to *Material costs*. The indicator shown here in the cut is determined according to the *Fixed price indicator source*.

Cost data

In this section of the screen all the *cost pools* created in Softproviding Meat Customizing are displayed. In the actual *cut,* cost pools appear under the *Other Costs* tab. Cost pools are required to display the disassembly labor costs in the calculations.

To edit a cost pool (create, change or delete data), you need to select this row and click on the *Select cost pool* button.

You can edit more than one cost pool by clicking on the *Mass change* button. Use the *Select All* or *Deselect All* buttons to do this.

You can input the following data for each *cost pool*:

Field Name	Description
Valid from … Valid to	Entry's validity.

Field Name	Description
Equival.	This is for entering an equivalence for an output material. This figure is used to define the capitalized cost for this material. The equivalences for these output materials are values based on operational experience and must be defined by the customer. If a price is fixed (see the Fixed indicator), the output materials must not have any equivalence. *Note* *Refer also to the note below about cost rollup.*
Int. fixed (P)	You can input internal fixed prices here (fixed prices for labor). If you wish to define internal fixed prices without a routing, you also need to assign a cost center and activity type here and check the *Fixed* indicator. The cost center and activity type are required in the calculation. You then need to enter an equivalence number. The equivalence number is overridden in the cut by the fixed price.
Int. var. (P)	You can input internal variable prices here (variable prices for labor). If you wish to define internal variable prices without a routing, you also need to assign a cost center and activity type and check the *Fixed* indicator. You then need to enter an equivalence number.
Price unit	This is for entering a price unit. This is entered when creating a cut for the material. If there are no entries available for the selected cost pool in this *Cost data* view, the value 1 is applied to the cut as the price unit.
Price unit of measure	Unit of measure relating to a price. This unit of measure is defined in Softproviding Meat Customizing.
Fix	This indicator applies to *Labor costs*. If fixed prices for labor are available in this view and the indicator is checked, you also need to specify a cost center and activity type so that the fixed labor costs can be distributed in the calculation. It is assumed, in this case, that there is no routing available for the cut.
Activity type	An activity type needs to be entered if the *Fixed* indicator is checked. Select the activity type you want using F4 Help.
Cost center	A cost center needs to be entered if the *Fixed* indicator is checked. Select the cost center you want using F4 Help. A cost center is an organizational unit within a controlling area. It is a clearly defined unit within which costs are incurred. When it is created, it is assigned to a company code and, therefore, indirectly to a plant as well.

Limitations

Inbound/Purchasing

Field Name	Description
Fields: Minimum/Maximum	You can use presettings for both these fields in the material master. The values available are displayed in the Softproviding Meat MRP Calculation and can be amended there. **Use** Both these fields can be used in the specified calculation if they are set for the procurement type to *External procurement* or *Both procurement types (= in-house production and external procurement)*. If a quantity calculated for a material in a calculation is less than the defined *Minimum quantity*, the inbound quantity is set to the minimum. **Example** Calculation = 2500 kg Minimum = 3000 kg **Result: Inbound is set to 3000 kg.** If a quantity calculated for a material in a calculation is more than the defined *Maximum quantity*, the inbound quantity is set to the maximum. **Example** Calculation = 4200 kg Maximum = 4000 kg Result: Inbound is set to 4000 kg.

Disassembly/Further use

Field Name	Description
Fields: Minimum/Maximum	You can use presettings for both these fields in the material master. The values available are displayed in the Softproviding Meat Standard Cost Estimate and MRP Calculation and can be amended there. **Use** Both these fields can be used in the specified calculation no matter which procurement type is selected *(In-house production, External procurement or Both procurement types)*. If the quantity in the calculation is less than the *Minimum*, the whole calculated quantity is outbound, i.e. will not be disassembled further.

Field Name	Description
	If the quantity in the calculation is more than the *Maximum*, the difference (calculated quantity minus the maximum quantity) is outbound, i.e. will not be disassembled further.

Note on cost rollup

As a general rule, even in complex cut lists containing different routings and activity types for the individual cuts, the labor costs calculated for the primary cuts are relevant to the secondary cuts.

This means that it is desirable and even necessary to pass on the labor costs incurred at the "top" of the cut list (e.g. during the disassembly process in slaughtering) to secondary cuts (e.g. to the next level of primal cutting or to other levels such as deboning).

This cost rollup process automatically takes place, i.e. you do not need to apply any special settings to do this.

Note: Material master setting

All the cost pools that have been created in Softproviding Customizing are displayed for each output material (under the Other Costs *tab in the cut list). If the cost rollup process described above is going to occur, an equivalence must be provided for the relevant materials in the cut.*

1.2.1.3 *Meat Disassembly 2* Tab

Entry Data

During the input of product data and its optimization, a production order often needs to be created or found for a disassembly process material. The disassembly process is required for this, along with, in special cases, the cut list which is to be used to create the disassembly order or find the existing disassembly order.
In order to meet this requirement, the fields below in the material master have been provided for inputting a disassembly process and cut list.

For example, cold half carcasses (output) and primal cuts are produced in a disassembly process *Cool down* and are disassembled further using the disassembly process *Disassembly*. Two different disassembly orders are often created for this.

Note

These settings are not used in the Softproviding Meat applications Standard Cost Estimate and MRP Calculation or in disassembly orders. They can be deployed in logistics when Softproviding Core (DGS and DPS applications) is introduced.

Input

Field Name	Description
Def. disass. proc.	You can select all the disassembly processes that have been created/are available.
Default cut list	You can select the cut lists that contain the material as input material as the default cut list for input.

Output

Field Name	Description
Def. disass. proc.	You can select all the disassembly processes that have been created/are available.
Default cut list	You can select the cut lists that contain the material as output material as the default cut list for output.

Field Name	Description
Post target/actual difference	**Use** For certain output materials, the difference between the calculated target weight and the entered actual weight is to be posted with a PDA data record when a disassembly order is closed. This function is of particular interest if you are dealing with output materials for which there is no data entry in the disassembly process or only part of the produced quantity is entered i.e. weighed. **Example** — Feathers which are vacuumed off via a pipeline and are not weighed — By-products like innards which are also not or only in part weighed It is important that the stocks for these materials are known since they may be used in downstream processes (e.g. Further Processing). *Note* *This functionality is not yet available in release v5.60. So far, only this indicator has been added to the material master database. If this indicator is set for a material, it becomes available in the cut list. However, the functionality for the creation of PDA data record has not been programmed. Should you as a customer be interested in using this function, please contact your Softproviding consultant.*

Result

After all the settings have been applied in the material master, you can save them by clicking on the *Save* button. This means that, in general, all the compulsory fields in the material master need to be completed according to the specifications of the material type for the material. The data that has been created can now be used when creating a cut.

1.2.2 Routing

The description of this task includes the settings in the routing that you require to be able to use so that the routing can be used in the cut. You must enter a routing in the cut if labor costs are going to be determined in the Standard Cost Estimate and MRP Calculation application or in the disassembly process (disassembly orders). If a cut is created without a routing, there is no need for you to create a routing for this material.

Prerequisites

— Material is available
— Work center is available
— Cost center and activity types are available

Note
If you require basic information about or help in creating routings or work centers, please refer to the relevant standard SAP documentation.

Procedure

1. Open the *Create routing* activity using one of the specified options.

Menu	*Softproviding Meat > Production > Master Data > Routing > Create*
Transaction	*CA01*

2. Enter a Material, Plant and a Key date in the initial screen. Press Enter to confirm.

   "Routing material" is used to mean the cut material, i.e. the material that is going to be used to create the cut.

3. Enter the following data in the header details.

Field Name	Description
Usage	A key is specified indicating in which area the plan can be used. **Example** 1 = Production
Status	Status is used to define the stage of editing a plan is at. **Example** 4 = Released (general)

4. Select the operation overview (*Operations* button) and enter operations for the routing as follows:

Field Name	Description
Work center	Select a work center from the entries function.

Control key	This key is generated automatically if required. If not, enter PP01. The control key determines which business operations will be carried out.
Description	You can enter a description of the operation.

5. Select a row and choose an *operation* (menu: *Details > Operation*). Enter standard values for the relevant operation:

Field Name	User Action and Values (Examples)	Description
Base Quantity	100	Quantity of material to be produced that the operation's standard values relate to.
Act./Operation UoM	kg	Unit of measure for the base quantity
Std value and Un	5 min	e.g. machine time
Acty type	420	Costs HR (hours)
Std value and Un	7 min	e.g. labor time
Acty type	420	Costs HR (hours)

Result

Once you have applied all the settings, you can click on the Save button to save the routing. The routing has been created and can now be used when creating a cut.

1.2.3 Digression: Work Center

To be able to assign the work center during the routing operation, you should create it beforehand. The key settings involved in this are described below.

Prerequisites

— Cost center is available
— Activity type is available

Procedure

1. Open the *Create work center* activity using one of the specified options.

Menu	*Softproviding Meat > Production > Master Data > Work center > Create*
Transaction	CR01

2. Enter a Plant, a Work center name and a Work center category in the initial screen.

The key settings in the various tabs for the work center are described below:

Field Name	Description
Usage	The usage key controls the task list types in which the work center can be used. **Example** 09 = All task list types
Standard value key	You use the standard value key to provide the relevant standard IDs (e.g. setup time, labor time) in the *Basic Data* and *Calculation* tabs. You can use self-defined standard value keys. **Example** SAP1 = Production normal
Control key	This determines which business operations will be carried out for the relevant object of a plan or order (e.g. scheduling or calculation). **Example** PP01 = Routing - internal production
Cost center	A cost center is an organizational unit within a controlling area. It is a clearly defined unit within which costs are incurred. **Example** 1000 = Disassembly of pigs
Activity type	Activity types represent the service provided to a cost center and are measured in time or units of measure. **Example** Activity type *Cooking*
Formula key	The formula key refers to a formula used, for instance, to calculate the costs of a service provided to a work center. To do this, activity and activity price definitions are required, in addition to this formula. They are determined using transaction KP26, which is also dependent on the cost center and activity type. Apart from the predefined SAP formula keys, such as SAP007 = *(Prod.: People Requirement)*, self-defined keys can also be used. Find out more about formula keys in the section „Disassembly Orders".

Determining labor costs
To be able to determine the labor costs within a calculation or a disassembly order, you should apply the settings specified for the work center, as well as the settings described in the Routing section.

To be able to select the formula key(s), you should define them in Customizing. Please refer to the Disassembly configuration guide for more information about these settings.

Result

Once you have applied all the settings, you can click on the Save button to save the work center. The work center has been created and can now be used when creating a routing.

1.2.4 Digression: Cost Center / Activity Type / Profit Center

Use

The description of this task includes the transactions that can be used to check the settings of the following master data:
— Cost centers
— Activity types
— Profit center
—
You use the SAP application menu to access this master data in each case.

Procedure

Creating/changing cost centers

Menu	*Accounting > Controlling > Cost Center Accounting > Master Data > Cost center > Individual Processing > Create/Change*
Transaction	KS01 (create), KS02 (change)

A cost center is an organizational unit within a controlling area. It is a clearly defined unit within which costs are incurred. You can assign activity types to a cost center, which describe the activities that can be carried out in a cost center.

The cost center is stored in the work center. The work center, in turn, is assigned in the routing operation.

Creating/changing activity types

Menu	*Accounting > Controlling > Cost Center Accounting > Master Data > Activity Type > Individual Processing > Create/Change*
Transaction	KL01 (create), KL02 (change)

Activity types represent the service provided to a cost center and are measured in time or units of measure (e.g. *hours* or *kilograms*). Examples of activity types include *thawing, stewing* or *disassembling*.

The activity type is stored in the routing operation and work center.

Creating/changing a profit center

Menu	*Accounting > Controlling > Profit Center Accounting > Master Data > Profit Center > Individual Processing > Create/Change*
Transaction	KE51 (create), KE52 (change)

The profit center is an internal accounting unit that breaks the company down into internal control aspects. You can use the results for a profit center.

The profit center is stored in the cost center's master record. One requirement for this is that Profit Center Accounting is active.

Result

Once you have applied all the necessary settings or made the checks in this master data, you can use them when creating a cut directly or indirectly via other master data (e.g. routing).

1.2.5 Creating/Changing a Cut

Use

The description of this task includes:
— how to create a cut
— the requirements for doing this
— how to use a cut
—

Cuts provide master data in Disassembly. A cut is made up of one input material and n output materials. A cut is the lowest unit in Disassembly and is defined for each plant.

In the simplest case, a cut list is made up of a single cut. Every cut can be used in more than one cut list.

Disassembly materials can be assigned in the material master to a stock type. A stock type is a species of animal, such as pig or cattle. However, this assignment is optional. Materials that are not assigned in this way can still be used when creating cuts, even if other materials in this cut have been assigned to a stock type. However, there can only be one stock type within a cut. Input and output materials with a different stock type assignment cannot be used together in a cut.

When a cut list is created, the cuts are copied and the data for the cuts is transferred to the cut list.

Prerequisites

The following Customizing settings are required to create a *cut*:
— The allowed *material types* have been defined. This means that only those materials in a material type – which have been included in this table – can be added in a cut as output materials.

— A number range has been created for the number range object *Cut number*.
— *Disassembly processes* have been created. They are required when creating cut basic data.
— At least 1 cost pool has been created. This is required to display the labor costs.
— The organizational unit *Plant* has been created as part of defining the company structure. A cut is always created for each plant.
—

Please refer to the *Disassembly* configuration guide for more information about these settings.

The following *master data* is also required to be able to create a cut:
— Materials (1 input material and at least 1 output material)
—
— The following master data is only required if a *cut with routing* is created:
— Routing (for cut material)
— Work center
— Cost center, activity type and profit center, if appropriate

Note
This master data has already been described in the previous sections.

Procedure

1. Open the *Create Cut* activity using one of the specified options.

Menu	*Softproviding Meat > Production > Master data > Cut > Create/Change*
Transaction	/SPMEAT/CUTA (create) /SPMEAT/CUTB (change)

2. Enter a Material, Plant and a Cut category in the initial screen.

Field Name	Description
Material	A material is an item that is the subject of a business transaction. In SAP materials such as raw materials, semi-finished products, operating supplies and finished products are identified using a unique material number.
Plant	The plant is an organizational, logistical unit, which structures the company from the perspective of production, procurement, maintenance and materials planning. Materials are produced and goods and services are provided in a plant. The plant is a company's production site.
Cut category	You can select the following cut categories: — 1. Organizational cut — 2. Classification cut — 3. Standard (suggested as default)

1.2.5.1 Cut Categories

A cut category is a type of cut. The differences between cut categories are as follows:

Organizational cut
When you create an organizational cut, the *Basic Data* and *Material* tabs are displayed, but the *Material Costs* and *Other Costs* tabs are not displayed. An organizational cut is therefore not assigned to a routing, and it does not have any equivalences either. You can only enter data, i.e. output materials under the *Material* tab. In the *Target Cuts* tab of the cut list, this cut is indicated as an organizational cut.

You can use an organizational cut as follows. If a *Disassembly material B* features in several cut lists, by combining these cut lists in an appropriate manner under an organizational cut (and therefore within a single new cut list to be created), you can manage to calculate an average material price for this material B. This is only possible under this structure where the top cut is an organizational cut. A separate material master – an "organizational material" – is generally created for the top input material in this organizational cut.

You can therefore use an organizational cut to merge several cut lists into one large cut list.

It is sensible to use the organizational cut at the top level of the cut list. Organizational cuts can even be integrated within a cut list, but this only makes sense for no more than layout reasons. You cannot perform a calculation within an organizational cut.

Example
The animals *Chicken-brown* and *Chicken white* become, after slaughtering, a *Stewing hen* in the disassembly process.

In Cut 20 *Chicken-brown* is the input material and *Stewing hen* the output material. In Cut 30 *Chicken-white* is the input material and *Stewing hen* the output material. This Stewing hen is disassembled further with Cut 40.

You now carry out the following steps:
— You create an organizational cut *Chicken-alive* (Cut 10). *Chicken-brown* and *Chicken-white* are assigned as outputs in this Cut 10.
— You can now create a cut list where *Chicken-alive* is the top material. By assigning Cut 10 as the target cut, the animals *Chicken-brown* and *Chicken-white* are displayed in the cut list structure.
— Both animals can now be assigned to Cut 20 and Cut 30 respectively. The output from both Cut 20 and Cut 30 is the *Stewing hen.*
— Assigning Cut 40 to Cut 20 and Cut 30 increases the cut list structure by adding the *Stewing hen* (and its outputs).

Figure illustrating example
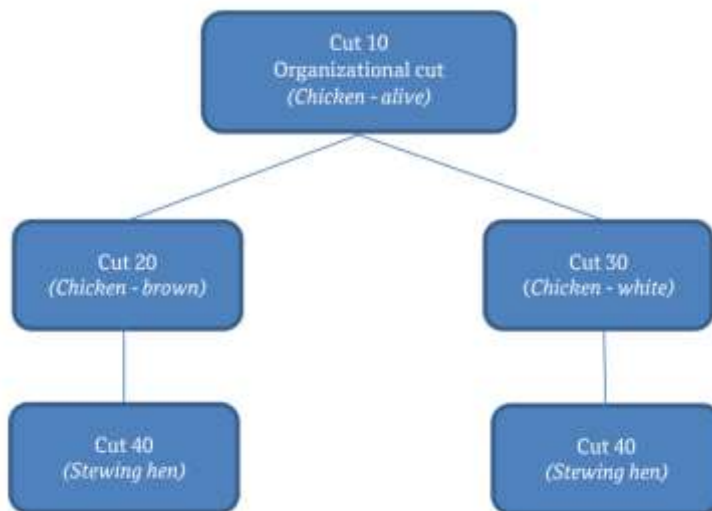
When performing the calculation with this cut list, you can now determine an average price for the *Stewing hen* by inputting different quantities and prices for the animals *Chicken-brown* and *Chicken-white*.

Example
Chicken-brown: 2,000 kg at a price of 2.00 euro/kg
Chicken-white: 1,000 kg at a price of 3.00 euro/kg

This means that a quantity of 3,000 kg is assigned to the *Stewing hen* at a price of 2.33 euro/kg. The outputs of the stewing hen then transfer, according to the assigned quotients (as %), their quantities and, based on the assigned equivalences and fixed prices, their prices per kg, based on the calculated average price (2.33 euro/kg in this case).

Classification cut
A *classification cut* is a cut without a routing. During the creation process, the *Cut w/o routing* indicator is checked. However, all the cut tabs are displayed when you create the cut and use it in calculations. A classification cut is generally not disassembled further. The input material from this cut is, by its nature, the same as all its output materials. However, these materials differ, for instance, in terms of weight class or quality.

In the calculations (Standard Cost Estimate and MRP Calculation) you can, in the case of classification cuts, replace the *quantity as %* transferred from the cut master data for the output materials by historical data from the *classification statistics*. Classification statistics are dependent on the cut and have a validity relating to the transaction /SPMEAT/CUTSB. When classification statistics are used, the valid entry is transferred based on the *Key date* field (*Calculation > Settings 2* tab). If there are no valid values in the t classification statistics for this key date, the quantities as % are used from the master data.

Classification cuts are mainly used in the case of units materials. Under the *Target Cuts* tab of the cut list, this cut is indicated as a classification cut.

Standard

Standard is provided as a default value when creating cuts. All the tabs and fields are displayed without any restriction.

Note
Cuts are generally created using the Standard *cut category. Therefore, an example is described below using this cut category, indicating which fields are required and which values you need to input when creating a cut.*

Note about Copy *button*
This function allows you to use existing cuts as a template for creating new cuts. After pressing the button you can select the template cut.
The cut to be copied can be used as a template for the same plant or a different one. You must bear in mind that all the materials (i.e. cut material and all the output materials) need to be created for the new plant.

1. Press *Enter* to confirm. The *Create Cut* screen is displayed.

   The following fields are displayed in the top section of the screen:

Field Name	Description
Plant	The plant is entered.
Description	This is a free text field for describing the cut.
Material	The material number is entered.
Stock type	The *Stock type* field is only displayed if a stock type has been assigned to this cut material in the material master in the *Meat Disassembly 1* view.

2. In the middle section of the screen the following fields are displayed under the *Basic Data, Qties., Material Costs* and *Other Costs* tabs.

Caution
You should enter the input in the fields in the basic data as described in the section below.

1.2.5.2 *Basic Data* Tab

Field Name	Description
Quantity (units)	You can enter the quantity (units) (PC) in this field regardless of the quantity (weight) and quantity (double). This field is available if the *Units calculation* has been activated in the material master. — Definition of units calculation A units calculation is relevant if — the input unit of measure = piece, or — for instance, a unit of measure = kg and the piece unit of measure = piece.

Field Name	Description
	When carrying out the units calculation, not every material from the cut list needs to be marked as units material in the material master. It is sensible to mark only primal cuts as units materials.
UoM (PC)	The piece unit of measure is transferred from the material master (*Meat Disassembly 1* tab).
Quantity (weight)	This relates to the quantity of input material which is used to perform the calculation within the cut.
Unit of measure (weight)	The unit of measure *weight* is transferred from the material master (*Meat Disassembly 1* tab). *Note* *This material master field is populated as follows according to Softproviding Customizing:* *1. Settings for the plant (Table /SPMEAT/TC001W)* *2. Global settings (Table /SPMEAT/TC001)* *If there are no entries in Customizing, kg (kilogram) is entered as the UoM.*
Quantity (double)	This field appears if entering a *double quantity* in the material master is permitted. *Note* *Refer also to the detailed description at the end of this table.*
Unit of measure (double)	The double UoM is shown (e.g. *PC*).
Price source	The price source provides the prices for assessing the input quantity (field: Quantity (weight)). There are different price sources available. S (=standard price) is used as the default entry. *Note* *The price sources available are described at the end of this table.*
Price	This is the price transferred from the price source selected above.
Currency	The currency based on the Softproviding Meat settings in Customizing is displayed and used (disassembly process currency).
Price unit	This is the number of units of measure that the price relates to.
Price unit of measure	The unit of measure displayed and used is based on the Softproviding Meat settings in Customizing.
Total Value	This value is produced by multiplying the quantity by the price, taking into account the price unit. The value is calculated.
Cut w/o routing	If this box is checked, the cut is used without a routing. This means that no *other costs* (labor costs) can be calculated for this cut.

Field Name	Description
	However, a cost rollup is performed if costs have been incurred in the cut list above this cut. ***Note*** *Refer also to the note above about cost rollup.*
Routing	You select a normal routing from the entries function.
Number (basis)	This field appears only for materials that have the *Units material* box checked (in the material master). This field is used along with the *Number M* field (under the *Qties* tab) to determine the quantity of pieces for output materials. **Example** Quantity (units) =　　100 Number (basis)　=　　2 Number (M)　　=　　5 Result　　　　=　　250 The following calculation is performed: Quantity (units) / Number (basis) * Number (M)
Key date	The key date is used to read the latest equivalences, prices, cost data and fixed indicators from the material master.
MPD version	The MPD version (MPD = Market Price Determination) option is required to access the Softproviding Meat program *Market Price Determination*. Market Price Determination is used to establish average market prices for materials from several vendors. You can use the results from market price determination in subsequent processes (e.g. MRP Calculation). To do this, you select the MPD version you want in these applications and price source D in the *Price source* field.
Disassembly process	A disassembly process is an organizational process in slaughtering and disassembly (e.g. primal cutting, deboning).
Prod. stor. location	You can optionally specify a production storage location for the cut input material. The production storage location is entered in the cut list and is displayed there in the disassembly order.
Default supply area	The default supply area is used as an interim storage (facility) in the production process in order to provide materials directly for production. The default supply area is primarily used, in the case of KANBAN materials that are supplied in a plant only or predominantly to a default supply area, so that this area can be saved in a simple manner in the system. To be able to assign values from the entries function, you need to create them in the appropriate manner in Customizing (*Logistics Execution > Inventory Management > Interfaces*). The default supply area is entered in the cut list and is displayed there in the disassembly order.

Field Name	Description
Disassembly plan	This is a completely optional, max. 4-digit code for identifying a disassembly plan. This definition can be applied in the cut. In the calculation (Standard Cost Estimate, MRP Calculation) you can access an evaluation for this. Please refer to the "Disassembly Orders" section for more information about the disassembly plan.
Valid from ... to	This is where you specify the cut's validity. *Note* *You must bear the following in mind if you are using cuts from the cut list. Cuts that are not yet valid or are no longer valid are discounted if a calculation is created using the cut list.* *This means that even if these cuts appear in a calculation cut list, they are still discounted during the calculation. They are excluded due to not being valid.*
Created by ... on	User and date when the cut was created.
Last Changed By ... on	User and date when the cut was last changed.

Detailed description of the *Price sources* field

The following price sources are available for material costs:

Price source	Description
1	Planned price 1
2	Planned price 2
3	Planned price 3
A	general view (view in material master: Meat Disassembly 1)
B	single-plant view (view in material master: Meat Disassembly 1)
C	SAP Calculation (material type)
D	MPD market price (net)
E	MPD market price (gross)
G	Tax-based valuation price 1
H	Tax-based valuation price 2
I	Tax-based valuation price 3
J	Commercial valuation price 1
K	Commercial valuation price 2
L	Commercial valuation price 2
M	MPE-market price (net) (obsolete)
N	MPE-market price (gross) (obsolete)
S	Standard price
V	Moving price
X	manual entry
Z	Default from cut list

Detailed description of the *Double unit of measure* field
On the input screen for the *Disassembly process* and *Further Processing* applications, there is another input field available to you, apart from *Entry quantity* (field: *Gross weight*) for another quantity of equal status known as the *double unit of measure*.

You use this field specifically for inputting a *double unit of measure* so that you can input quantities using two units of measure at the same time. This field is available for input if the double unit of measure has been defined in the material master as an *alternative unit of measure* (*Additional data > Units of measure*).

You can create a presetting for this field in the input screens by inputting an appropriate value in the material master field (*Meat Disassembly 1 tab; Double UoM* field*)*.

If there is no presetting in the material master, you can select a unit of measure from the entries function (F4) when inputting data. The quantity expressed in this alternative unit of measure (e.g. piece) is converted to the quantity in the input unit of measure (e.g. kilogram) using the conversion ratio featuring in the material master. You can make an adjustment during input.

Example in the disassembly process
While inputting the details of a disassembly process on a DGA, a goods issue (= disassembly input) involving carcass halves is posted to a disassembly order. The carcass halves are entered using the input unit of measure in kilograms, as well as the double unit of measure in pieces. The ratio between kilograms and pieces can vary every time data is input.

This additional step of inputting an *alternative unit of measure* in the Disassembly or Further Processing process is significant for the inventory management of double units of measure. You will find more information about double inventory management in the chapter "Inventory Management in the *Process Data* user guide. In the same chapter you will also find information on the functions available in SAP-CWM (Catch Weight Management) as well as on the use of flexible material prices

1.2.5.3 *Quantities* Tab

Under this tab you input in the *Material* field the materials produced (or to be produced) as output materials during disassembly. It is also used to determine the distribution of input quantities to the output materials based on quotients as %. There are no restrictions on inputting materials.

After inputting the entries and pressing Enter to confirm, a cut item number (0010, 0020 etc.) is assigned for each material and the following additional fields are made available for input:

Field Name	Description
Quot. %	The quantity is entered as % for each material, equivalent to the share this output material represents of the total quantity of input material. The total of the quotients of the output materials must be 100%.
Quantity (weight)	— Instead of entering a value for *Quot. %*, you can also enter the quantity for each material. Overall, the quantities of the

	individual materials must produce the total quantity of the cut input material.

Example

Material	Input	Calculation
Material A (Input)	100 kg	
Material B (Output)	20 kg	20%
Material C (Output)	50 kg	50%
Material D (Output)	30 kg	30%

Usually you enter the quantities for the outputs and the percentages are then calculated automatically. This means that the quantity of the inbound material is crucial. In practice, with this in mind, test cuts are often produced during disassembly, i.e. inbound materials are weighed, then cut and the disassembly result – the output materials – is also weighed. These quantities are then used as the entries input in the cut.

Note
If you double-click on a material number you can be taken directly to the material master. You should also bear in mind that you cannot enter the input material also as the output material. In this case, an error message will be generated.

Other fields in the *Qties* tab

Field Name	Description
Number (M)= (M = multiplier)	This field is used in the cut item (output) to determine the piece quantity in relation to the number (basis) from the cut header (input). This field appears only for materials that have the *Units material* box checked (in the material master). *Note* *Refer also to the description of the Number (basis) field above.*
Quantity (units)	This field is available if the *Units calculation* has been activated in the material master.
UUM	UUM = unit for the unit of measure: relevant unit of measure for the *Quantity (units)* field (generally PC = piece).
Quantity (dble)	This field is populated based on the quantity of output material entered if a *double unit of measure* (e.g. piece) was assigned in the material master (Material master view *Meat Disassembly 1*). The conversion is performed based on the conversion ratio stored in the material master. *Note* *You can also read the detailed description earlier on in this document.*
Double UM	Relevant unit of measure for the *Quantity (double)* field.

Field Name	Description
Storage location	You can optionally input a storage location for a cut output material. The storage location is entered in the cut list and is displayed there in the disassembly order.
Disassembly plan	This is a completely optional, max. 4-digit code for identifying a disassembly plan. This definition can be applied in the cut. In the calculation (Standard Cost Estimate, MRP Calculation) you can access an evaluation for this.
Disassembly plan - Free text	Description

You can also select the other following fields:

Field Name	Description
Calc. cut to compl. at zero	If this box is checked, an additional column will appear that you can use to check the *Calc. cut to compl. at zero* box. Checking this box therefore controls the option to activate it at material level. If this box is checked, no more than the quantities that were calculated in the reverse calculation will be cut (forward calculation). Technically, a system limit is set that can be overridden by a user limit. *Note* *This function is not intended to be used for the units calculation and should be used for calculations involving kilograms (kg). This function is not available for classification cuts. This indicator is only relevant for the MRP calculation and the modified standard cost estimate, but not for the standard cost estimate.*
Vari: Cumulate, not calculate	This field is only relevant for variance calculations. A variance calculation means the following: instead of determining the inbound quantities via the % of the outputs, only the total of the outputs is used. A requirement for this is that all the outputs have been entered.
Weight gain possible	If this box is checked, the total of the output quantities in a cut can be higher than the input quantity. The sum of the percentages for the outputs is then higher than 100. If the quantity is adjusted manually, the quotient as % changes accordingly. If the quotients as % are adjusted manually, the quantities change accordingly.
By-product	The *by-product* indicator can be checked in the cut for each material. If the box is checked, the material cannot be used for fulfillment of demand during the reverse calculation. But quantities generated from this cut are still calculated (by-product). The following example (from the point of view of a cut) should explain the by-product setting:

Field Name	Description
	— There is a Cut 10 with the outputs A, B and C. This cut is generally used if the outputs A, B and C are required. In this case, the 3 outputs are not marked as by-products. — However, in place of Cut 10, you can also produce a different cut to obtain, for instance, a special output D. So, this Cut 20 produces the outputs B, C and D, but not output A. — In this Cut 20, the outputs B and C should now be marked as by-products because this cut was not produced to obtain B and C, but only to obtain D and, therefore, to meet the desired requirement for D. — However, quantities B and C are still included in the calculation because they are actually produced as part of the disassembly of Cut 20. Therefore, this is important so as to prevent too much being cut from Cut 10. *Note* *The indicator has no impact on the forward calculation, which means that it is not relevant in the Standard Cost Estimate. This indicator is therefore relevant for the MRP calculation and for calculating disassembly orders. In particular, the performance of the calculation can be improved by checking indicators in a targeted, sensible manner.*

The following buttons are available:

Button	Description
Select item	If you select this button, a pop-up window appears for the desired material (by placing the cursor in the row you want). This provides a summary of information about quantity and price, as well as about material costs. These displayed fields were already described above (for *Quantity/Price*) or will be described later on (in the case of *Costs*).
Cost view	You can use this to access a cost view for material in the cut in different places. Please refer to the description in the „Disassembly Orders" section for an explanation of the cost view
Delete row	You can use this button to delete a material row (by placing the cursor in the relevant row).

1.2.5.4 *Material Costs* Tab

Under this tab you can display row by row the output materials created earlier under the *Quantities* tab. You can apply settings in terms of prices and equivalences here for any material.

Note
These price and equivalence settings do not feature in the cut list, but are first displayed in the calculations or in the disassembly order.

Fixed price (Fix) and *Equivalence (Equival.) indicators*
Fixed prices or *equivalence numbers* are used to distribute the material costs for the input material to the output materials. These prices and equivalences can be determined from different sources. These sources are explained in the table below.

Note
A material with a fixed price cannot have an equivalence, and vice versa. This means that the Fixed and Equival. settings are mutually exclusive for a material:
— *If the fixed price indicator is checked, there is no need for any equivalence, and the Equival. field is no longer available for input.*
— *If the Fixed indicator box is not checked, a source may be selected for equivalence.*
— *The source Equival. determines the equivalence which is obtained from assessing the output material quantities.*

Fields in the *Material Costs* tab

Field Name	Description
Source fixed price indicator	The following sources are available: A = general view (Meat Disassembly 1 view in material master) B = single-plant view (Meat Disassembly 1 view in material master) M = Master model (only for internal use). "Internal" means that this indicator is only checked internally if the Master model price strategy is used in calculations. X = manual entry Z = Default from cut list
Indicator: Fix	The *Fixed* indicator field is checked or unchecked (automatically) depending on the settings in the *Source fixed price indicator* field.
Source Equival.	The following sources are available: A = general view material master B = single-plant view material master X = manual entry Z = Default from cut list
Equival.	The equivalence number is a figure that is used to distribute the costs for an input material to the output materials. The higher the equivalence of an output material is, the more valuable it is and the higher the proportion of its cost. The equivalence is determined from the source or input manually.
Source Price (for material costs)	In the case of output materials, you can select the source you want to be used to determine prices. One crucial factor in doing this is the date in the *Key date* field under the *Basic Data* tab of the cut. The price sources available are shown at the end of this table.

Price	This price is calculated on the basis of the equivalences that have been input or is input manually as a fixed price or is determined from a fixed price source.
Price unit	This is the number of units of measure that the price relates to. The price unit (e.g. price 15.00 euro per 10 kg) is preset from Softproviding Meat Customizing, but you can change it by inputting a fixed price manually.
Price unit of measure	Unit of measure relating to a price (e.g. kg).
Total value	This value is produced by multiplying the quantity by the price.
Currency	Currency key (e.g. EUR) for the *Total value* field.
Costs/UoM	**Calculation** Costs per unit of measure = total labor costs / calculated quantity. The labor costs for each material are the total fixed and variable labor costs that are determined in all the cost pools.
Costs - Total	The total labor costs for all the cost pools are shown for each material.
Quantity (weight)	The quantities are taken and displayed for each material from the *Quantities* tab.
Cost Ctr	Key that uniquely identifies a cost center. A cost center can be input optionally at this point for reporting purposes. There is no link to standard controlling applications.

Detailed description of the *Price sources* field
The following price sources are available for material costs:

Price source	Description
1	Planned price 1
2	Planned price 2
3	Planned price 3
A	general view (view in material master: Meat Disassembly 1)
B	single-plant view (view in material master: Meat Disassembly 1)
C	SAP Calculation (material type)
D	MPD market price (net)
E	MPD market price (gross)
G	Tax-based valuation price 1
H	Tax-based valuation price 2
I	Tax-based valuation price 3
J	Commercial valuation price 1
K	Commercial valuation price 2
L	Commercial valuation price 3
M	MPE market price (net) (obsolete)
N	MPE market price (gross) (obsolete)
S	Standard price

V	Moving price
X	manual entry
Z	Default from cut list

Example

Source Fixed Price Indicator	Fixed price	Source Equival.	Equivalence	Source Price	Price
B = single-plant view	yes	Not possible	Not possible	X = manual entry	e.g. 2.50
B = single-plant view	no	X = manual entry	10	Not possible	Not possible

1.2.5.5 *Other Costs* Tab

The *Other Costs* tab screen is split into two sections. All the *cost pools* defined in Customizing are displayed on the left side, while the calculated output materials are displayed on the right side.

To apply the price and equivalence settings to each cost pool, click on the relevant cost pool. The materials are displayed row by row on the right side of the screen.

Other costs means labor costs.

Determining labor costs: routing or fixed price indicator
In general, the *labor costs* for the output materials are determined using the routing assigned in the *Basic Data* tab.

If, in a departure from this, fixed and variable labor costs per UoM (e.g. per 1 kg) need to be calculated, you can do this by assigning a fixed price indicator. In this case, you should enter an activity type and cost center for the material. The routing settings are not relevant here when determining the labor costs.

You can find out more about determining these costs in the "Disassembly Orders" section.

Fields in the *Other Costs* tab

Field Name	Description
Source fixed price indicator	The following sources are available: A = general view (Meat Disassembly 1 view in material master) B = single-plant view (Meat Disassembly 1 view in material master) M = Master model (only for internal use) X = manual entry Z = Default from cut list
Indicator: Fix	The *Fixed* indicator field is checked or unchecked (automatically) depending on the settings in the *Source fixed price indicator* field.
Act Typ	You need to enter an activity type if the *Fixed* indicator is checked.
Cost Ctr	You need to enter a cost center if the *Fixed* indicator is checked.

Field Name	Description
Source Equival.	The following sources are available: A = general view material master B = single-plant view material master X = manual entry Z = default from cut list
Equivalence	The equivalence number is a figure that is used to distribute the costs for an input material to the output materials. The higher the equivalence of an output material is, the more valuable it is and the higher the proportion of its cost. The equivalence is determined from the source or input manually.
Source price for cost pools	In the case of output materials, you can select the source you want to be used to determine prices. One crucial factor in doing this is the date in the *Key date* field under the *Basic Data* tab of the cut.
Currency	Currency key (e.g. EUR)
Int. fixed (P)	This internal fixed price is either calculated (using equivalences) or input manually.
Int. fixed (V)	Total price = Quantity of output material x Fixed price
Int. var. (P)	A variable price is determined from the *Source price for cost pools* input.
Int. var. (V)	Total price = Quantity of output material x Variable price
Ext. fixed (P)	This field is obsolete (not used).
Ext. fixed (V)	This field is obsolete (not used).
Ext. var. Costs (price)	This field is obsolete (not used).
Ext. var. Costs (value)	This field is obsolete (not used).
All fixed (P)	All fixed costs (price).
All fixed (V)	This shows all the fixed labor costs (external + internal).
All var. Costs (P)	All variable costs (price)
All var. Costs (V)	This shows all the variable labor costs (external + internal).
Price unit	Price unit.
PU-UoM	Unit of measure relating to a price.

Result

Once you have applied all the settings you can save the cut by clicking on the *Save* button. The cut has been created and it is assigned a consecutive cut number.

Change mode
You can access the cut that you have created in *Change* mode and customize it accordingly.

You can use the same transaction *Change cut* to delete a cut that you have created, if necessary, by clicking on the *Delete* button. If a cut is deleted, the cut number used for this cut can no longer be used for new cuts. However, a cut can only be deleted if it is not used in the cut list. If this is the case, the

following message will appear: *Cut cannot be deleted due to being used in cut lists.* A where-used list can be started in the cut (see the description below).

1.2.5.6 Cut – Other Functions

Cut check
If you select *Cut > Check*, the cut will be checked for consistent settings, i.e. the total of the quotients as % = 100. If there are no errors during the check, you can save the cut. If any *Error* messages occur, these errors must be corrected.

Where-used list
If you select *Cut > Where-used list*, you can verify in which cut lists the cut is used.

***Cost view* button**
You can use this to access a *cost view* for the input material in the cut. This button is available in the top section of the cut. Please refer to the section "Disassembly Orders" for further information about the cost view.

Change UoM
If you select *Edit > Change UoM,* you can change the disassembly process unit of measure (UoM) (e.g. from kg to kt). The quantities in the cut will be recalculated on the basis of the changed UoM.

Note
This function should only be used for test purposes.

Change currency
If you select *Edit > Change currency,* you can change the disassembly process currency (e.g. from EUR to USD). The prices and values in the cut will be recalculated on the basis of the changed currency.

Note about Customizing
To determine the exchange rate, you use the relevant exchange rates from exchange rate type M or the assigned, if necessary, variable exchange rate types *(e.g. EURX).*
—
Note
This function should only be used for test purposes.
—
Calculate
If you select *Edit > Calculate*, you can perform a cut calculation to test the details of the quotients as % and the equivalences used.

Update from material master
This button is available in the top section of the cut. This *update* reads the material master data again and applies any changes made.

1.2.6 Classification Cut – Statistics

1.2.6.1 Classification Cut – Change/Display

Use

The *classification cut statistics* is only used for *classification cut* type cuts. *Classification cuts* can – just like *standard* or *organizational cuts* – be integrated into cut lists and used when performing calculations.

In the calculations (Standard Cost Estimate and MRP Calculation) you can, in the case of classification cuts, replace the quantity as % transferred from the cut master data for the output materials by historical data from these classification cut statistics.

Classification cuts are mainly used in the case of units materials.

Prerequisites

Cuts have been created from cut category *X = Classification cut.*

Procedure

The transactions for the classification cut functions are called as follows:

Menu	*Softproviding Meat > Production > Master data > Cut > Classification Cut – Statistics > Change/Display*
Transaction	/SPMEAT/CUTSB (change), /SPMEAT/CUTSC (display)

1. Open the *Classification Cut– Statistics* activity using one of the specified options.

2. Enter in the *Cut number* field the cut number of a classification cut or select this type of cut using the entries function (F4). Select it via the cut category X (classification cut) to ensure that only classification cuts are displayed. You can refine this selection using other parameters (e.g. plant or stock type).

3. Press *Enter* to confirm. The *Transitional Cut – Statistics* screen appears.

4. The following fields are displayed in the top section of the screen:

Field Name	Description
Cut number	The input cut number is entered in this field.
Material	This material refers to the material that the cut was created for (top input material).

The following buttons, input options and information are displayed in the middle section of the screen under the *Qty distrib.* tab:

Create button

The range *Current date - 31.12.9999* appears when this button is selected. You can amend this default range using the *Create* button. You change to the new *Valid from - Valid to* interval by pressing the *Apply* button. You can add other ranges in the same way.

In the case of these ranges, you can assign *Quantity as %.* for the cut output materials that are displayed on the right side of the screen. You double-click on the validity range to display these values.

Delete row button

You can use this button to delete validity ranges after selecting them.

Output of the output materials: *Distribution: Cut output in %*

All the output materials for the classification cut are displayed in this view using the *ALV Grid Control*. The percentage distribution can be applied to the outputs in the *Qty (%)* column. The sum of the percentages must be 100, otherwise, the statistics cannot be used in the calculations, or, it can only be used together with the *Weight gain possible* indicator.

Other function - *Cut check*

You can use the *Check* button to check the input for consistency.

Note on ALV Grid Control
ALV Grid Control (ALV is the SAP List Viewer) is a flexible tool for displaying lists. It is used in a variety of applications both in the SAP standard system and in Softproviding products.
It consists of a toolbar, a title and the output table which is displayed in a grid control.

The following functions are generally provided. Depending on the program, one or more of these functions may not be provided and special functions not described here may be offered:
— Choosing details
— Sorting in ascending or descending order
— Finding terms
— Set filter/delete
— Calculating and deleting totals/averages/maximum/minimum
— Calculating and deleting subtotals
— Printing
— Choosing views
— Exporting data
— Selecting layout
— Displaying graphics
— User documentation
—

Click on the SAP online help to obtain more information about using the buttons.

Result

When you have entered all the data, you can click on the Save button to save it. This data input is then available in the calculations described earlier. You exit the transaction automatically after saving.

1.2.7 Update Classification Statistics

Use

This program allows you to automatically create classification statistics based on created PDA data records and therefore on effectively entered actual quantities. This program extends the manual statistics creation with the above-mentioned transaction *Change (or Create) Classification Cut*. For the output materials of the classification cut, the entered actual quantities are added per material and are put into relation to each other to calculate respective quotients in %. The total of the shares is always 100.

Prerequisites

PDAO data records are available. However they do not necessarily need to be posted.

Procedure

The transaction with which to create and update the classification statistics are started das follows:

Menu	*Softproviding Meat > Production > Master Data > Cut > Classification Cut – Statistics > Update Classification Statistics*
Transaction	/SPMEAT/CUT_CLSTAT_R

Selection Fields

The following fields are provided for data entry and selection:

Cut Area

Field Name	Description
Plant	The plant is an organizational, logistical unit which structures the company from the perspective of production, procurement, maintenance and materials planning. Materials are produced and goods and services are provided in a plant. The plant is a company's production site.
Cut category	Cut category X = classification cut predefined and fixed.

Field Name	Description
Cut number	The program will search for PDA data records for the materials of the cut number entered here. If data were selected, they may be stored as statistics data under this cut number. *Note* *Data are only determined for classification cuts.*
Valid on	This field must be filed even if it is not explicitly declared as a mandatory field. **Background information** The classification cuts entered in the *Cut number* field are checked against the *Valid on* field. Later, only the cuts are valid are filtered and used (field in cut *Valid from … to*).
Valid from	The statistics of the classification cut contains the validity *Valid from*.
Valid on	The statistics of the classification cut contains the validity *Valid to*.

PDAO Area

Field Name	Description
Document group	In SAP business transactions are represented by documents. This field combines documents in one group which are treated uniformly from the PDA (Process Data Acquisition) view. **Example** — C = Disassembly order *Note* *Since this program was developed to build statistics for the planning of disassembly calculations, only entry C (disassembly order) is useful here.*
Document category	In Softproviding Core and Softproviding Meat, business data entry operations are represented by document categories. **Example** — Document type WA (goods issue) — Document type WE (goods receipt) *Note* *Since the statistics for output materials are built in disassembly calculation, entries for GR (goods receipt) and SE (statistical receipt) are particularly useful.*
Created on	Here, the date specifies when the PDAO data record was created.
Terminal ID	The selection can be restricted to terminals.
External ID	The selection can be restricted to external IDs.
Storage location	The selection can be restricted to storage locations.

Field Name	Description
Object	The selection can be restricted to objects.
Vendor	The selection can be restricted to vendors.
Customer	The selection can be restricted to customers

Further Details

Field Name	Description
Call in simulation	If you select this option, determination and display is performed in test mode. No statistics data are updated.
	If this field is deselected, determination and displaying are performed in update. Statistics data are updated.

Selection Result

Display of the data on the screen is identical for test run as well as in update run. If an update run was executed, an additional success message, *"Classification statistics successfully saved"*, is displayed.

A repeated start of the section in update run will overwrite an existing statistics record. This is the case if further data entries for goods receipt or reversals of goods receipts were made.

Example for a Statistical Breakdown (Screen Output)

Saving Classification Statistics by PDAO

Cut:	182	MatNo.:	20005	Quantity (%):	20,00
Cut:	182	MatNo.:	20007	Quantity (%):	42,00
Cut:	182	MatNo.:	20010	Quantity (%):	38,00

1.2.8 Create/Change Cut List

Use

The description of this task includes:
— how you create a cut list
— the requirements for doing this
— how you use a cut list

Cut lists provide master data in the disassembly process. A cut list comprises 1 - n cuts. Cut lists are defined for each plant. In the simplest case, a cut list is made up of one cut. When a cut list is created, the cuts are copied and the data for the cuts is transferred to the cut list.

Cut lists are required to create a standard cost estimate and an MRP calculation, as well as disassembly orders.

Prerequisites

The following Customizing setting is required to create a cut list:
— A number range has been created for the number range object *Cut list number*. Please refer to the *Disassembly* configuration guide for details about these settings.
— Cuts master data must be available.

Procedure

1. Open the *Create cut list* activity using one of the specified options.

Menu	*Softproviding Meat >Production >Master Data >Cut List >Create/Change*
Transaction	/SPMEAT/CTLA (create) /SPMEAT/CTLB (change)

2. Enter a Material, Plant and a Variant in the initial screen.

Field Name	Description
Material	A material is an item that is the subject of a business transaction.
Plant	The plant is a production site in your company
Variant	Several cut lists can be created for a material. They are managed using the variant number. A variant is unique, which means that if there is already a cut list with a variant number, a free number must be input. You can determine this using the entries function for this field. If a variant that is already available is input, an error message is generated.

3. Press Enter to confirm. The Create Cut list screen is displayed.

   The following fields are displayed in the top section of the screen:

Field Name	Description
Cut list	The cut list's number is assigned automatically after saving it.
Description	You must enter a description for the cut list. You can create descriptions in other languages by clicking on the *Short texts* button. They will then be displayed if you have selected the relevant SAP logon language.
Variant	The variant number is displayed.
Material	The material number is entered.
Plant	The plant is entered.

4. The two tabs *Settings 1* and *Settings 2* (header data) are displayed in the middle section of the screen.

1.2.8.1 Key Settings

Settings 1 tab

Field Name	Description
Valid from … to	Settings' period of validity.
Calculation type	Calculation type is relevant for the MRP Calculation and for the calculations in the disassembly order, but not for the Standard Cost Estimate. The calculation type selected in the cut list (*Push* (Supply-oriented) or *Pull/Push* (Requirement- and supply-oriented)) is displayed in the MRP Calculation. This option is not displayed in the Standard Cost Estimate as this, by definition, performs a forward (push) calculation. **Use** The pull principle is requirement-oriented, whereas the push principle does not take requirements into account. This means that only if *Pull/Push* is selected will the necessary requirements be imported and taken into account during the calculation, thereby optimizing the quantity. The push calculation, on the other hand, performs a forward calculation where defined requirements are not taken into account and there is no attempt to optimize the quantity. During the push calculation, the settings for purchase strategy (Manual, All, Difference) and the Cut calculation to zero option are not available.
By-product source	In the cut and cut list, the *By-products* indicator can be checked for input and output materials. By using a presetting in the cut list by selecting an option in this *By-product source* field, this information is applied in the MRP calculation or in the cut list in the disassembly order. The following *By-product sources* are available: — Cut — Cut list If the cut settings for this indicator need to be applied in the calculations, *Cut* is selected as source. However, if the *Cut list* is to be the source, you should select it as source. Then the desired settings for this indicator can be applied in the cut list.

Field Name	Description
	You should bear in mind here that the *By-products* indicator is only displayed and available for input (under the *Source cut* tab) if you have selected the *Cut list* as the source. You can then override the settings for the by-product applied in cuts by making adjustments in the cut list. **Use** If the box is checked, the material cannot be used for fulfillment of demand during the reverse calculation. But quantities generated from this cut are still calculated (by-product). The indicator has no impact on the forward calculation (which means that it is not relevant in the Standard Cost Estimate). *Note* *You can also refer to the example provided in this document for by-product (see* Cut category > Quantities *tab above).*
Created By	The person who created it, date/time.
Last Changed By	The name of the user who last changed the object, date/time.

Settings 2 tab

Field Name	Description
Key date	The key date is used to read the latest equivalences, prices, cost data and fixed indicators from the material master.
MPD version name	Based on an MPD version (MPD = Market Price Determination), average market prices for materials are determined using the Softproviding Meat *Market Price Determination* application. These market prices can be used to assess *purchased quantities* of input and output materials in the DAO. To do this, you select the MPD version you want in the cut list and enter the relevant key date. You should also select an appropriate price source (MPD market price *gross* or *net*) at material level.
Nr. of units rnd.	A material can be marked as a *units material (Units material* field) in the material master (*Meat Disassembly 1* tab). As a result in the Softproviding Meat calculations and the disassembly order, the *Quantity (units)* field will be available for you to input a planned quantity for the relevant input or output material. This parameter will establish whether and, if yes, how rounding will take place for the quantity entered (in pieces). The following rounding options are available. — round up (+) — round down (-) — round to the nearest whole number (x) — no rounding (blank)

Field Name	Description
	Example If, in the MRP calculation or during manual planning in the disassembly order, you input the value 9.8 in the *Quantity (units)* field and rounding is set to *round to the nearest whole number,* the value in *Quantity (units)* will change to 10 after you press *Enter* to confirm.
Calculation variant	You can use this calculation variant option to apply material costs from preliminary processes (e.g. Livestock Management). At the level of the desired materials, you should then select price source C in the calculations (= SAP-calculation (*material* type). *Note* *You can use variants that have been created in Customizing from Product cost Controlling (transaction OKKN).*
Calculation version	Several calculations based on the same calculation variant can be used and managed using these versions.
Value type	There are different value categories (e.g. actual costs, planned costs, target costs) available in the value type.
Version	The *Version* option allows you to manage different planning data in parallel for the same object. Version 0 (Planned/Actual version) is usually used for activity and tariff planning (transaction KP26). Other plan scenarios may be used as an alternative. They should be created beforehand in Customizing in standard SAP (*Cost Center Accounting > Planning > Basic Settings for Planning*). Only the versions specified there in KP26 can also be planned.
Stock det. type	This setting is relevant for the MRP Calculation (but not for the Standard Cost Estimate). The stock determination type specified here is suggested in the calculation. The following types are available: — Available quantity (positive quantity for key date) — Current stock (key date independent) — **Use** Stock can be read and used at material level (input or output article). Using means that the stock that has been read (= displayed) is transferred to goods received (tab: Quantity/Material Costs). The selected stock determination type is used for this. *Note* *Reading and, in particular, using stocks in calculations is performance-intensive. For this reason, these settings should be applied deliberately and carefully.*

Field Name	Description
	Note
	Refer also to the explanation provided later in this section, featuring a detailed description of the fields Read stock *and* Use stock.
Reqmnts determinat.	The entry in this field is used as a presetting for the *Reqmnts determinat.* in the *MRP Calculation.*
	There are the following types of requirement determination:
	— Available quantity (negative)
	— Total dependent requirements
	— Total order reservations
	— Total dependent requirements and order reservations
	— Total requirements (LTP (long-term planning) only)
	— Total receipts and requirements (LTP only)
	Use
	You need the requirements determination type setting if you need to input in the MRP Calculation material requirements for the specified key date from the current stock/requirement list.
Selection rule	The selection rule extends the existing function of requirements determination. The selection rule defines which MRP elements to display availability- relevant and how to calculate the stock.
	Use
	— Long-Term Planning Calculation
	— MRP Calculation
	An entry in a cut list is a modifyable default setting for both of the above-mentioned calculations.
	For further details on the selection rule, please see the following documentation:
	— *Disassembly* configuration guide

Default Sources *Material costs*

You should bear in mind the following general note about the *Equivalence* and *Fixed indicator* fields in the following two tables. You can select the following settings in these fields and there are fields where you cannot enter any input.

You can select the following settings:
— None
— General view
— Single-plant view
— Master model (only for internal use; only if *Fixed indicator* is available). "Internal" means that this indicator is only checked internally if the *Master model* price strategy is used in calculations. This indicator should therefore not be selected manually.

—
— You cannot select the following settings:
— Manual entry

— Default from cut list

Field Name	Description
Equival.	This assigns a source of equivalences for the output materials.
Price source	This assigns a price source for the output materials. There is a large number of different sources available. Please refer to the entries function for this field. **Examples** — Standard price — Planned price 1 — MPD market price (net)
Fixed indicator	This assigns a fixed price source for the output materials.

Default Sources *Cost Pools*

Field Name	Description
Equivalence	This assigns a source of equivalences for the output materials.
Cost source	— This assigns a price source for the output materials.
Fixed indicator	This assigns a fixed price source for the output materials.
Cancel cut settings	If this box is checked, the default sources for *material costs* and *cost pools* are inserted in all the cuts in the calculation. The settings for the cuts are then overwritten by the cut list default values. This has the same effect as if you had selected source Z (Z = Default from cut list) for the materials in the calculation. This means that you can no longer enter a source manually at cut level. However, you can do this again by checking the *except manual entry* box. You can then use source X again at cut level.
Except manual entry	Refer to the description for *Cancel cut settings.* If this box is checked, all the sources will become Z, even if Z does not feature in the cut. The exception is X from the cut master data, which remains as X (X = manual entry).

—
—
—

1.2.8.2 Cut List Structure

The material for which the cut list is going to be created is displayed on the left side of the screen. Double-clicking on the material will make the *Settings* and *Target Cuts* tabs in the middle of the screen available for data input.

Settings **tab**

Target Cuts **tab**

Under this tab you select one or more cuts from the *Cut number* field (F4 Help). Using F4 Help displays those cuts that have been created for the selected material. If you click on the *Delete cut* button, you can delete cuts again.

Press Enter to confirm your selection. The following fields are then displayed for each cut by row:

Fields in the *Target Cuts* tab

Field Name	Description
Cut number	This has been input manually or selected.
Text	A description of the cut is displayed.
Organizational cut	You select this field if the selected cut is an organizational cut.
Classification cut	You select this field if the selected cut is a classification cut.
Cut blocked	If a cut is blocked by selecting this field, this cut is not included in the calculation. The quantity inserted is outbound. Entries in the *Priority, Cut usage (%), Fixed quantity, Surplus %* and *Surplus Fixed quantity* fields will be deleted.
Priority	Cut priority is used in the disassembly calculation (Standard Cost Estimate, MRP Calculation) to prioritize the cuts for a material. The cut with the higher priority is covered first. Higher number = higher priority; No number = lowest priority. Cuts with the same priority are processed according to their proportion in ascending order. Prioritization only applies to unit calculation. Do note that the *Priority* field is not designed for use in all cases of calculation. It may be used in Standard Cost Estimate (that is, a forward calculation) if it is carried out as a unit calculation. It may also be used to calculate surplus in cases where there is more than one surplus cut. However, it is not intended to use this field in reverse calculation (i.e. in MRP Calculation)) where it has no function. It is s displayed nonetheless, and entries may be made and used for information purposes.
Cut to complete at zero	This indicator is selected from the cut. *Note* *Please refer to the "Calc. cut to compl. at zero" description in this document (*Quantities Tab *section.*
Cut Usage (%)	This is the quantity as % that a target cut transfers from the primary material. The sum of the percentages of all cuts must be 100%.

Field Name	Description
Fixed quantity	A fixed quantity can be entered for any input material under the *Target Cuts* tab. The fixed quantity specifies an exact quantity to be cut for a particular cut. This means that there is a limit. 100% usage is automatically deleted after a fixed quantity is input.
FQU	Unit of measure (e.g. piece) for the *Fixed quantity* field.
Surplus - Cut Usage (%)	Any cut can be marked under the *Target Cuts* tab as a surplus cut. You do this either by inputting a percentage or fixed quantities. If you enter a percentage or quantity, the quantity of the surplus produced due to be included in this cut will be defined.
Surplus - Fixed quantity	This option allows you to define a cut as a surplus cut. If you enter a quantity, the quantity of the surplus produced due to be included in this cut will be defined. First of all, the input surplus fixed quantity is taken into account (i.e. transferred to the following cut), and then the surplus, if available, is calculated as %. These quantities are added together and transferred to the target cut. **Example** Input quantity:　　　　1000 kg Surplus fixed quantity:　900 kg Surplus as percentage:　10% **Calculation** 1000 kg minus 900 kg = 100 kg 10% of 100 kg = 10 kg Result: Transfer to the following cut: 910 kg (900 kg + 10 kg)
Surplus - Fixed quantity unit of measure (FQU)	Unit of measure for the *FQU* field.
Valid from … Valid to	Row's period of validity. This data is selected from the cut.
Disass. proc.	A disassembly process is an organizational process in slaughtering and disassembly (e.g. primal cutting, deboning).
Task List Type	This key differentiates routings according to their function. Routings in the disassembly process are generally *normal routings* (key N). The disassembly process is drawn from the cut.
Group	Key that uniquely identifies a plan group.
Group Counter	Key that uniquely identifies a plan with the plan group.
Short Text	Routing short text.

1.2.8.3 Displaying Cuts in Explorer

The cuts that have just been added are inserted in the cut list structure on the left side of the screen. They are presented in an Explorer-type window where the materials and cuts are listed with their relevant number and name.

The following functions (buttons) are available above this Explorer window:

Button	Description
Expand all	The cut list tree is expanded to display all its levels.
Collapse all	The cut list tree is minimized to hide all its levels.
Optimize column width	This optimizes the information displayed in columns.
Find	This is used to carry out a search based on material number, cut number or all (free text search).
Find next	This shows other results from the search.
Close	This closes the Explorer window and removes the buttons just mentioned.
Baumanzeige	This button is only available if the Explorer window has been closed. This is used to display the Explorer again, along with the buttons just mentioned.

After placing the cursor on a material or cut in the cut list, you can select additional functions by clicking the right mouse button. These are as follows:

Button	Description
Expand subtree	The selected area in the cut list is expanded.
Collapse subtree	The selected area in the cut list is reduced.
Material	If you place the cursor on a material, you can display its master data (change/display).
Remove cut	If you place the cursor on a cut, you can remove it from the cut list.
Change/Display Master Data	All cuts are considered master data in this case. If you place the cursor on a cut, you can display its master data.
Change/Display Routing	If you place the cursor on a cut, you can display the assigned routing.

The following additional functions are available above the Explorer buttons. They are also partially available in the menu:

Button	Description
Navigate back	You can use this button to retrace the individual navigation steps in Explorer (double-click on cut and material etc.).
Header data	The header data, i.e. the tabs *Settings* 1and *Settings 2* are displayed in the right-hand side of the table
Navigate forward	You can use this button to go forward again through the individual navigation steps in Explorer (double-click on cut and material etc.).
Long text	You can also include an additional description (in online documentation) of the cut list in long text form.
Display output materials	This displays the output materials available in the cut list and their short texts in a new screen. You can then edit the

Button	Description
	materials there using different functions, e.g. *Filter, Sort* or *Export list*.
Cuts	All the cuts available in the cut list are displayed in a new pop-up window. Other information about the individual cuts such as — Cut material — Organizational cut — Blocked (you can also use this to block a cut) — Cut usage — Disassembly process — or assigned routing is also output.
Check cut	This function is used to carry out a check on the cut in terms of various criteria such as: — Recursivity — Number of outputs, or — or cut usage as % Based on the checks carried out, error messages, warnings and success messages are displayed. *Note* *If an error message occurs, the cut list cannot be saved.*
Price strategy	*Note* *Refer also to the detailed description at the end of this table.*

Detailed description *Price strategy*
If you select this button, a new pop-up window appears that lists the materials relevant to price strategy. A material in a cut list is relevant to price strategy if it features in more than one cut. The default assignment for such materials is always the *Average price* price strategy.

This view now provides you with the option to assign the *Master model* price strategy to a material relevant to price strategy. You do this by selecting the average price icon next to the material you want. In a new pop-up window you can then choose a cut by clicking on the *Master model* radio button. In this case, only those cuts are displayed that have the selected material as output.

If you click on the *Average price* radio button and press *Enter* to confirm, this selection will be restored.

You can use the master model for Standard Cost Estimate and MRP Calculation. This master model setting should now be considered together with the calculation type setting in the Standard Cost Estimate. At header level an entry is input for the *MM calculation type* field under the *Settings 1* tab. However, there is no MM calculation type field in MRP Calculation, so the price strategy functionality is restricted to the update of the data to a manual calculation (for further information see the chapter "MRP Calculation).

If the strategy for a material is changed to *Master model*, the material and labor costs will be recalculated in all the relevant cuts for this material, according to the settings configured for this material under *Settings 1*. If this happens, the calculation of the specified costs for the material in the *Master cut* will remain unchanged. This means that the existing settings for fixed prices, equivalences, sources, etc. will remain unchanged.

In the case of slave cuts (i.e. any cuts that are not master cuts) for this material, the material and labor costs are calculated in dependence of the settings under *Settings 1*. The settings for fixed prices, equivalences, sources, etc. are replaced by the entry M and a checked Fixed indicator. The price for the slave is the calculated price of the master cut.

Please note that a recalculation will again change the price of the master cut material if this master cut material is not situated above the other slave materials in the cut list. This is because the slave cuts adopt the existing master price, and the recalculation causes the new price within the calculation.

Master model *Calculation Type* (this is a Standard Cost estimate field)
This setting defines how the master model is used. The default value is *Use for update only*. This means that the prices are changed only when the calculation results are updated in the SAP standard. The calculation itself remains unchanged. *Replace and recalculate* means that the prices in the calculation as mentioned above have been adjusted.
—
If you double-click on a cut or material, additional data will appear about this in the right side of the screen.

Selecting a cut
After double-clicking on a cut to select it, the *Basic Data* and *Qties (Quantities)* tabs appear. This is the data input when a cut is created. Refer to the field descriptions in the sections "Basic Data" and "Quantities" in the "Creating/Changing a Cut" chapter.

Selecting a material
After double-clicking on a material to select it, the material view fields (*Settings* tab) and the *Procurement type* field appear in the right side of the screen, as well as the *Source Cuts* and *Target Cuts* tabs.

You can select the procurement types *In-house production, External procurement or Both procurement types*. Depending on your selection, additional fields for *Purchasing* and *Strategy* are displayed (see descriptions below).

Presettings can be used in the *Settings* tab that are transferred to the calculation when the cut list is used on a subsequent occasion.

Fields in the *Settings* tab

Field Name	Description
Disassembly plan	This is a completely optional, max. 4-digit code for identifying a disassembly plan. This definition can be applied in the cut. In the calculation (Standard Cost Estimate, MRP Calculation) you can access an evaluation for this.
Read stock	Refer to the detailed description at the end of this table.

Field Name	Description
Use stock	Refer to the detailed description at the end of this table.
Purchasing Group	The key for a purchaser or a group of purchasers responsible for specific purchasing activities. This field is relevant if purchase requisitions are to be created from the MRP calculation. The purchasing group is then transferred to the purchase requisition. *Note* *You must configure the appropriate settings in Softproviding Meat Customizing if you want to generate purchase requisitions automatically for materials with the procurement type External procurement, after the MRP calculation has been approved.*
Minimum	Refer to the detailed description at the end of this table.
Maximum	Refer to the detailed description at the end of this table.
Calculation type	The calculation type is the method for calculating the distribution to several source cuts. This setting is relevant to all reverse calculations. The following settings can be applied: — Standard — Calculate output — Calculate output with remainder of a cut — Customer-specific (Enhancement)
Strategy	Refer to the detailed description at the end of this table.
Post target/actual difference	For information on the use of this field, see the description further up in this document (chapter "Material Master", section "Meat Disassembly 2 Tab".

Detailed description: Read stock/Use stock

These indicators are relevant in the *MRP Calculation*, but not in the Standard Cost Estimate. You can check the *Read stock* box (in dependence of the procurement type) for any input or output material. If this box is checked, the quantity of the material available is displayed in the *MRP Calculation* under the *Qties/Material Costs* tab (current stock + scheduled receipts - scheduled outward movements), and the other field *Use stock* is unchecked. Using stock means that the stock (from the SAP requirements/stock list, transaction MD04) that has been read is transferred to goods received.

Note
Reading and, in particular, using stocks in calculations is performance-intensive. For this reason, these settings should be applied deliberately and carefully.

For further details, please refer to the "MRP Calculation" section.

Detailed description: *Minimum/Maximum settings*
You can apply minimum and maximum settings in the cut list under the *Settings* tab as follows:

For purchasing

You can enter input (depending on the procurement type) for all materials (input and output). This setting basically controls the quantities calculated by the calculation, making it a type of plausibility check. For example, if a purchase quantity of 10,000 animals is produced in the calculation, but in reality no more than 6,000 animals can be purchased, the maximum is set to 6,000.

For further use

You can enter input for all input materials. You can consider this further use as a kind of capacity definition. For example, the disassembly line is not activated unless at least 400 kg (minimum) is available or 5,000 kg is entered as the maximum, if this is the line's maximum capacity.

If applicable, an additional field is displayed for both these options (purchasing and further use) for entering the double unit of measurement (UoM). However, this only happens if UoM (unit of measure) has been activated in the material master.

Note
Refer also to the explanations given above in this document for master data material.

For further details, please refer to the "MRP Calculation" section.

Detailed description: *Strategy*

The procurement strategies are displayed according to the procurement types. These procurement strategies are relevant to the MRP Calculation and disassembly order calculation, but not in the Standard Cost Estimate and actual or target calculations in the disassembly process. In the case of the options *External procurement* and *Both procurement types* (in-house and external), different purchasing strategies are available. They can be set at input and output material level, with the default setting being *Manual* or *Stock only*.

The following procurement types are possible:
— E = In-house production: No external receipt is permitted, which means that quantities can only be generated by calculating the cuts in the cut list.
— F = External procurement: Only external inbound quantities are permitted. This means that outputs from other cuts are not available or are ignored.
— X = Both procurement types: both scenarios are allowed or considered.

For further details, please refer to the "MRP Calculation" section.

Source Cuts and Target Cuts **tabs**

Under these tabs the *source cuts* for the selected material and the following additional fields are displayed:
— Organizational cut
— Cut to complete at zero
— Cut for surplus
— Cut blocked
— By-product (BP) This indicator is displayed if the cut list has been set to Source by-product in the header data for the cut list. You can also read the explanations about the by-product given earlier on in this document.
— Input material (= Input material for the relevant cut)
—

Other cuts can be input as *target cuts* (F4 should be used to select possible cuts), which are going to be used to disassemble the output material further.

Result

Once you have applied all the settings you can save the cut list by clicking on the Save button. Various checks are carried out during this. These are output in the log. If no errors occur, the cut list is created and assigned a consecutive number.

You can access the cut list with this cut list number in *Change* mode and customize it.

2 Standard Cost Estimate

2.1 Overview

The Softproviding Standard Cost Estimate – hereafter also referred to as Standard Cost Estimate – is a material value calculation. In the Softproviding Meat application menu it is located in the area of *Product Cost Planning > Standard Cost Estimate*.

Like the Softproviding MRP Calculation and the Softproviding Meat Disassembly Orders, the Standard Cost Estimate is based on a cut list. Cut lists consist of a number of 1 to n cuts. Cuts and cut lists are Softproviding Meat-specific master data in Disassembly.

When a Softproviding Meat Standard Cost Estimate is created, the settings from the cut list are transferred. These settings may be changed in the calculation.

By definition, the Standard Cost Estimate is a forward calculation, meaning the cut list calculates the cut list from top to bottom, from the topmost input material down to the output materials of the individual cuts. This type of calculation is also referred to as *push calculation* (push principle).

It is the objective of the Standard Cost Estimate to calculate the output materials (disassembly materials) of a cut list in terms of quantity and value, based on the valued quantities of one or multiple input materials.

In order to valuate these input quantities, various price sources may be used. An input material, for instance, which was purchased on an intermediate level may be valuated with the standard price from the material master database or with the average price from Softproviding Meat Market Price Determination (i.e. with the market price).

The calculation will distribute the input material quantities to the output materials according to the maintained quotas. The distribution of the material costs for the inputs to the outputs is carried out on the basis of equivalence numbers and fixed prices which may be assigned to these outputs via various sources.

Besides the distribution of the quantities and disassembly materials, labor costs, i.e. the costs of disassembly, may be determined and transferred to the outputs of Disassembly. This cost determination is based on SAP Standard routings which are assigned to each cut whereas the distribution to the outputs is carried out using equivalences and fixed prices too.

However, it is also possible to perform a standard cost estimate without labor costs, meaning without including the routings.

Data and results from preceding applications like the Softproviding Meat Market Price Determination and the Softproviding Meat Purchasing Decision may be used for the Softproviding Meat Standard Cost Estimate.

Softproviding Meat Purchasing may for instance be used to optimize Standard Cost Estimate with regard to the decision whether to produce input and output materials in-house (materials resulting from Disassembly) or to procure them from an external source (one or more materials procured from third parties are introduced into the disassembly process).

The results of the Standard Cost Estimate may be updated to a manual calculation (material calculation without quantity structure, i.e. a SAP Standard table) where the calculation data will be available for subsequent applications.

Examples of such subsequent applications are:
— Output materials from Disassembly may be components in a BOM, i.e. they are used for the production of a finished product. The result of the update (i.e. the material and labor costs of these disassembly materials) may then be used for the calculation of the BOM.
— Updating of the calculated material prices to the material master priced fields (e.g. periodically to the *Standard price* field).

2.2 Standard Cost Estimate vs. MRP Calculation

The Softproviding Meat Standard Cost Estimate and the Softproviding Meat MRP Calculation share a multitude of similarities but also a few crucial differences. For this reason, an overview of the most import and functions used in this context is given. Information is provide on:
— which functions are relevant in which calculation and influence them,
— which functions do exist without having an effect on the calculation itself, and
— which evaluations are available.

Function	Relevant in Standard Cost Estimate	Relevant in MRP Calculation	Relevance
Push & Push/Pull	Push	Push/Pull	Influences the calculation and its result
Requirements	No	Yes	Influences the calculation and its result
Procurement types	Yes	Yes	Influences the calculation and its result
Purchasing strategies	No	Yes	Influences the calculation and its result
Read/use stock	No	Yes	Influences the calculation and its result
Cut to zero	No	Yes	Influences the calculation and its result
By-products	No	Yes	Influences the calculation and its result
Price strategy	Yes	Yes	Influences the calculation and its result
Purchase requisitions (PurchReqs)	No	Yes	Creation of purchase requisitions for external procurement
Cost view	Yes	Yes	Evaluations in both calculations
Conversion to DAO (release)	No	Yes	Disassembly order (DAO) is created
Update	Yes	Yes (see note at the end of the table)	Transfers calculation data to SAP Standard table
Lock cut	Yes	Yes	Influences the calculation and its result
Fixed quantity	Yes	Yes	Influences the calculation and its result
Weight gain possible	Yes	Yes	Influences the calculation and its result
Purchasing minimum/maximum	No	Yes	Influences the calculation and its result

Function	Relevant in Standard Cost Estimate	Relevant in MRP Calculation	Relevance
Purchasing: Read use stock	No	Yes	Influences the calculation and its result
Surplus cut (% and fixed quantity)	No	Yes	Influences the calculation and its result
Further use minimum/maximum	Yes	Yes	Influences the calculation and its result

Note
The data update function in MRP Calculation must be explicitly allowed in Customizing. In Standard Cost Estimate the data update function is always available.

As mentioned in the overview of this section, Standard Cost Estimate does perform a forward calculation, meaning the program calculates a cut list from top to bottom. Starting with the topmost input material down to the cuts or the output materials of the individual cuts, the program checks whether, according to the cut list definition (and the individual cuts), quantities, material costs and labor costs need to be calculated.

This top-to-bottom calculation is carried out just once. In contrast to MRP Calculation – and this is a significant difference – there will be no repeated verification of the cut list and thus of the calculation itself. This type of calculation is also called push calculation (so-called push principle).

For this reason, those settings which are explicitly designed to support repeated calculation (i.e. multiple calculation operations from top to bottom, then bottom to top, and top to bottom again, etc.) are not relevant in Standard Cost Estimate. Such settings are, for instance, the *Cut to zero* or *By-product* indicators which may only be set for MRP Calculation and for the calculation of a disassembly order (see table above).

Note
Functions which are relevant in both Standard Cost Estimate and MRP Calculation are described in detail in this chapter, "Standard Cost Estimate". In the "MRP Calculation" section, these functions will only be treated in brief with reference to this chapter.

2.3 Creating a Standard Cost Estimate

Softproviding Meat standard cost estimates may be created using one of the following options:
— Via the Softproviding Meat application *Create Standard Cost Estimate*
— Automated, via the *DPS* application. For further information on this application see the Softproviding Core user documentation *Data Process System*.

Note
This document will describe the creation of a standard cost estimate using the Create Standard Cost Estimate *function.*

Note
The following description refers to a standard cut list, there will be no explicit description of organizational cuts or classification cuts. Information on these special types of cuts are provided in the section "Master Data: Disassembly" further up in this document.

Prerequisites

The *Create Standard Cost Estimate* application may be carried out once the following settings have been made:

Master Data settings
— The Softproviding Meat master data cut list has been created. For further information on the creation of cut lists please refer to the "Master Data: Disassembly" section further up in this document.

Customizing settings
— General and plant-specific Softproviding Meat settings for MRP Calculation
— General SAP Standard settings

Note
For further information on these settings please refer the Disassembly *configuration guide.*

Procedure

Menu	*Softproviding Meat > Production > Product Cost Planning > Standard Cost Estimate > Create*
Transaction	/SPMEAT/CLCA

1. Call the *Create Standard Cost* estimate activity using one of the above-mentioned options.

2. Start the input help (F4). A pop-up window with several fields for (multiple) selection for identifying a cut list is displayed

Note
The cut list as well as all cuts of this cut list are locked for other users until you have exited this transaction.

3. Start the search for a cut list with Enter and the select a cut list by double-clicking.

4. Again, confirm with Enter.

Result

The *Create Standard Cost Estimate* overview is displayed. At this point the calculation may already be saved by selecting the *Save* button without making any further settings. In this case a calculation order number is created with which the standard cost estimate may later called. However, it is possible to immediately start working without saving first, make your settings and save afterwards.

2.3.1 Header Data Screen Area

In the tool bar below the menu bar, the *Header data* button may be selected. In the right screen area the *Settings1* and *Settings 2* tabs are then displayed.

The setting options available in these tabs are described below.

Note
With the exception of the settings foe MM calculation type, the settings in the Settings 1 *tab have no impact on the calculation result. The settings in the* Settings 2 *tab, however, do include parameters relevant to the calculation result:* Calculation Parameters *and* Default Sources.

2.3.1.1 *Settings 1* Tab

Calculation Settings

Field Name	Description
MM Calculation Type	See description below.

Master Model (MM) Calculation Type

This setting is relevant in the context with the price strategy (*Price strategy* button). The price strategy may be used to set up a price determination using the *average price* principle or the *master*

model principle. These principles may be used to determine prices according to the average price model or the master model for materials used in more than one cut. The average price principle is the default setting.

Price strategy
If the *Price strategy* button is selected, a new pop-up window is displayed in which the materials which are relevant to the price strategy are listed. A material in a cut list is price-relevant if it occurs in more than one cut. In this overview you have the option to assign the master model price strategy to a material which is price-relevant. In order to do so, select the *Average Price* icon for the selected cut. After this , a cut (master cut) may be selected by choosing the *Master Model* radio button in the new pop-up window.

Selecting the *Average Price* radio button and confirming with Enter will undo this selection.

For the slave cuts (all cuts that are not master cuts) of this material the material and labor costs are recalculated in dependency of the settings in the *Settings 1* tab.

MM calculation type
For the *MM Calculation Type* field the following settings may be made:
— Use for update only (material costs only)
— Replace and recalculate (material costs only)
— Replace and recalculate (material and labor costs)

This setting defines how the master model is used. This setting is therefore only relevant if the price strategy was changed from *average price* to master model for one or multiple materials.

— **Use for update only (material costs only)**
If this setting option is selected and the price strategy is changed to master model, the newly calculated prices are not shown in the calculation. The master price for the valuation of the quantities for the master is only used after a data update has been performed. The calculation itself remains unchanged.
— **Replace and recalculate**
If this setting option is selected and the price strategy is changed to master model, all the old prices of the materials concerned (slave materials) in the calculation are replaced with the price of the master cut material. The settings of the slave cut material concerning fixed prices, equivalences, price sources or equivalence sources are replaced by an entry M and a set fixed indicator.

Note
The calculation uses average prices if no other setting option is selected for the price strategy. In this case, settings made for the MM calculation type are not relevant and do not influence calculation. The MM calculation type may be preset in Softproviding Meat Customizing.

Example

Based on material 2910 which occurs in two cuts, the following example shows how prices change if the price strategy is changed from average price to master model. The MM calculation type is set to *Replace and recalculate*.

Table 1

Average price

This is the standard setting option. The calculation will determine the specified quantities and prices.

	Cut 10	Cut 20
Material	2910	2910
Quantities	100	200
Price	2.10	2.50
Average price	2.37	

Result

On the output materials level, the individual price that was calculated is displayed. The aggregated materials view sums up the quantities per material and displays the average prices.

Table 2

Master model

In cut 10, material 2910 is marked as master. The MM calculation type is set to *Replace and recalculate*.

	Cut 10	Cut 20
Master/slave	Master cut	Slave cut
Material	2910	2910
Quantities	100	200
Price	2.10	2.10
Average price	There is no longer an average price for material 2910.	

Result

The master price of 2.10 for material 2910 (cut 10) is also transferred to cut 20. This example is based on the assumption that in the cut list cut 10 is situated above cut 20.

Note

Note that in cases where the slave cut is situated above the master cut in the cut list and adopts the price of the master cut, the master cut situated below will get a newly calculated price because of the new price for the slave cut.

This calculation logic is also valid if more than two cuts use the same material, i.e. there will be two or more slave cuts.

Update Parameters

This setting controls the update of the calculation results (quantities and values) to a calculation without quantity structure (so-called "manual calculation"). After the update, the results are available to subsequent applications (e.g. product calculation).

Field Name	Description
Costing variant	The costing variant determines how a calculation is carried out and valuated. The costing variant is a mandatory field in the application. However, it is only needed if an update of the calculation data is performed. Without the data update this variant does not have any function. *Note* *In Softproviding Meat Customizing, a default value May be specified for this field. You may use variants which were created in Product Cost Controlling customizing (transaction OKKN).* For detailed information on updating please see the detailed description on the menu item *Update* in chapter "Menu Items in the Menu Bar" further down.
Costing version	This version allows you to execute and manage multiple calculations/costings based on the same costing variant. Using multiple versions allows you to update different calculations which may vary with respect to quantity and price but which share the settings for the calculation variant and the different dates.
Costing date from/to	Shows the date range for which a calculation is valid.
Valuation date	Date with which materials and activities in a calculation/costing are valuated.
Proposal (button)	The dates for the calculation and valuation in dependency of the selected costing variant are proposed when this button is selected. These data may be overwritten.

Administration Data

This screen area shows the following administration information for the calculation (with date and time of the day):

Field Name	Description
Created by	This field shows the name of the user who created the calculation.
Last changed by	This field shows the name of the user who last changed the calculation.
Calculated	This field shows the name of the user who last calculated the object.
Update	This field shows the name of the user who last started the update.

Assignment

Field Name	Description
Purch. decision no.	If a standard cost estimate was created using the Softproviding Meat Purchasing Decision, the number of the purchasing decision is stored here. This field is only displayed if this is the case.

Field Name	Description
Mass calculation	If a standard cost estimate was created using the Softproviding Meat Mass Calculation, the number of the mass calculation is stored here. This field is only displayed if this is the case

2.3.1.2 *Settings 2* Tab

Calculation Parameters

Field Name	Description
Key date	This key date is used to read the current equivalences, prices, cost data and fixed indicators from the material master.

In Softproviding Meat Customizing the date in this field may be set up so that it adjusts to the basic start and end dates. This setting option is available for both Standard Cost Estimate and MRP Calculation.

System behavior
If this customizing setting was made, the system will behave as follows in the application:
— If the key date is less than the basic start date, the key date is set to the basic start date.
— If the key date is greater than the basic end date, the key date is set to the basic end date.
— If the key date lies between the basic start and end date it remains unchanged. |
| MPD version name | Softproviding Meat Market Price Decision is used to determine the average market prices of materials based on an MPD (Market Price Determination) version.

These market prices may be used to valuate quantities of externally procured input or output materials. In Standard Cost Estimate, the desired MPD version is selected and the respective key date is entered. On the material level, the respective price source (gross or net MPD market price) needs to be selected as well.

For a detailed description of Market Price Determination please refer to the "Market Price Determination (MPD)" section in the Softproviding Meat user documentation *Fresh Meat Purchasing*. |
| Nr. of units rounding | In the material master (*Meat Disassembly 1* tab), a material may be marked as unit material (*Units material* field) In Standard Cost Estimate the *Quantity (pieces)* field will then be available for the respective input or output material so a planned quantity may be entered. |

Field Name	Description
	The parameter *Number of units – rounding* is used to specify if, and if yes how the entered quantity (pieces) is to be rounded. The following rounding options are available: — Round to the next whole number (x) — No rounding (blank) — Round up (+) — Round down (-) **Example** If a planned quantity is entered manually in Standard Cost Estimate (e.g. the values 9.8. (*Inbound* tab, *Quantity (pieces)* field)) and the Rounding option is set to *Round to the nearest whole number*, the quantity (pieces) is set to 10 after the entry has been confirmed with Enter.

Externa Cost Determination

Field Name	Description
Calculation variant	This calculation variant is used to transfer material costs from preceding processes (e.g. from a livestock management calculation). On the level of the desired material the user must then select price source C (SAP costing, *Material* category) in the calculations. *Note* *It is possible to use variants which were created in the Product Cost Controlling customizing (transaction OKKN).*
Calculation version	This version allows you to perform and manage multiple calculations based on the same calculation variant.

Rate Settings

Field Name	Description
Value type	Various value categories (e.g. actual costs, planned costs, target costs are distinguished by value type.
Version	The version allows you to keep different planning data for the same object in parallel. Usually, version 0 (Planned/Actual version) for activity and price planning (transaction KP26) is used. Alternatively you may use other planning versions. These need to be created beforehand in SAP Standard Customizing (*Controlling > Cost Center Accounting > Planning > Basic Settings for Planning*). Only the version specified there may be planned in transaction KP26.

Default Sources

General information on the fields *Equivalence* and *Fixed indicator* in the two tables discussed below. The following settings may be chosen with these fields, or, fields are not available

The following setting options may be chosen:
— None
— General view
— Single-plant view
— Master model (internal use only). This option is only available for *Fixed indicator*. "Internal" means, this indicator is set by the program if price strategy *master model* is used in calculations. This indicator is not to be selected manually.

The following setting options cannot be chosen:
— Manual entry
— Default from cut list

Note
The settings for the default sources must be seen in context with the Cancel cut settings *indicator (see the respective field description below). The set default sources will only work in Standard Cost Estimate if this indicator is set.*

Default Sources – Material Costs

Field Name	Description
Equivalence	Assignment of an equivalence source for the output materials.
Price source	Assignment of a price source for the output materials. There is a multitude of various sources available. Please use the input help for this field. **Examples** — Standard price — Planned price 1 — MPD market price (net)
Fixed indicator	Assignment of a fixed price source for the output materials.

Default Sources – Cost Pools

Field Name	Description
Equivalence	Assignment of an equivalence source for the output materials.
Cost source	Assignment of a price source for the output materials.
Fixed indicator	Assignment of a price source for the output materials.
Cancel cut settings	If this indicator is set, the default sources of the material costs and cost pools are transferred to all cuts of the calculation. The settings in the cuts will then be overwritten with the default values of the cut list. This has the same effect as if source Z (default from cut list) were selected for the material in the calculation. Manually entering a source on cut level then is no longer possible. However, this may be undone by selecting the *Except for manual entry* field. Then, source X may be also used on cut level.
Except for manual entry	Please see the description for *Cancel cut settings* above.

Field Name	Description
	If this indicator is selected, all sources become Z, even if Z is not stored in the cut, with the exception of X from the cut master data. These remain X (manual).

2.4 Executing a Standard Cost Estimate

In this „Standard Cost Estimate" section you will find some references to descriptions to be found in other chapters in this *Disassembly* user guide. These are
—   "Master Data : Disassembly"
—   "Disassembly Orders"

Please pay particular attention to the section "Master Data: Disassembly" since it contains descriptions of all master data fields for the cuts. Since Standard Cost Estimate is based on a cut list (and hence on cuts), many of those master data fields are not described again in this chapter.

2.4.1 Overview

Based on the settings described above and below , a calculation of the cut list may be carried out.

The following data were already transferred with the cut list to the calculation when it was created and may, if necessary, be changed there or must still be entered for a successful execution of Standard Cost Estimate:

Transfer of information from the cut list (cannot be changed)
These are settings which are valid for the newly created cost estimate and cannot be changed there (fields tinted in grey). Examples are:
—   Procurement type of the topmost input material (always external procurement)
—   *Organizational Cut* indicator
—   *Classification Cut* indicator

Transfer of information from the cut list (may be changed)
These are settings which in general are always valid for the calculation and usually are not changed, but which still may be changed if necessary. Examples are:
—   All fields of the *Settings 1* tab (except *Administrative Data*) and the *Settings 2* tab.
—   Procurement type of the input materials (except for the topmost input material)
—   Cut without routing yes/no
—   Weight gain possible yes/now
—   Quantities of the output material (quantity in %)
—   *Cut locked* indicator (*Maintain cuts* button)
—   Equivalences and fixed prices (for the *Material Costs* and the *Other Costs* tab)

Activities to perform
These are activities which have to be performed variably for each standard cost estimate. These data are not transferred from the cut list. Examples are:
—   Entry of quantities for one or multiple input materials (to be maintained via the cut list or via the *Maintain inbounds* tab.
—   Enter fixed quantities (optional)
—   Enter minimum/maximum quantities (optional)

Procedure

The next sections describe the procedure for the execution of the Standard Cost Estimate. A distinction is made between activities

— concerning the checking of data transferred from the cut list, and
— activities to be carried out in order to obtain a calculation result from Standard Cost Estimate.

Activities for checks (in brackets: where these check takes place)
— Check of the settings of the *Settings 1* and the *Settings 2* tab, especially the *Costing Date From … To* (header data)
— Check of the quantity (in %) distributed to the target cuts (level of input materials or via the *Cuts* button)
— Check of locked cuts as well as the assignment of routings and procurement types (level of input materials or via the *Cuts* button)

These activities are optional. Basically, this is a check whether the data from the cut list or the data from the copy model of another standard cost estimate should be transferred for the new standard cost estimate to be created.

Activities for data maintenance (Quantities) (in brackets: where data maintenance takes place)
— Entry of quantities (weight) for input materials (level of input materials or via the *Inbounds* button)
— Entry of fixed quantities for input materials (level of input materials or via the *Inbounds* button)
— Entry of minimum/maximum values (quantities) for further use in the target cut (level of input materials)

2.4.2 Entering Quantities

In order to carry out a calculation after the Standard Cost Estimate was called, you first need to enter a quantity for the desired input material. This may be the topmost input material or – also supplementary – further quantities for input materials available in the cut list on intermediary levels.

The quantity field of these input materials may be called as follows:
— Calling the input material in the cut list by double-clicking
— Selecting the *Inbounds* button

2.4.3 Calling the Input Material via the Cut List

2.4.3.1 Step 1 – *Quantities / Material Costs* Tab

Selecting the *Quantities / Material Costs* tab (in order to enter quantities)
In the quantity fields that are ready for entry the desired quantities (e.g. kg or pieces) may be entered. Entering quantities in pieces is possible if the material was defined as *units material* in the material master database.

The entered or calculated quantities are transferred to the target cuts. This is ensured by entering percentages (*Target Cuts* tab). Fine-tuning this transfer is made possible by the fixed quantities and minimum/maximum settings described below.

Prerequisites
These quantity fields are ready for entry if the procurement type is set to *External procurement* or *Both procurement types (internal and external procurement)*.

Definition: Procurement type
The procurement type is a classification which specifies whether a material is to be produced in-house or procured externally or if both is possible.

Note
The procurement type may be selected freely for all input materials (with one exception). The following procurement types may be selected:
— *In-house production*
— *External procurement*
— *Both procurement types (internal and external procurement)*

The one exception here is the topmost input material. The default procurement type for this material is always external procurement *which cannot be changed. "External procurement" means, the input in the cut list. This may be procurement from an external vendor or procurement from own stocks. This setting is independent of the respective setting for Procurement in the material master database.*

2.4.3.2 Step 2 – *Target Cuts* tab

Selecting the *Target Cuts* tab (in order to enter fixed quantities)
The quantity field (fixed quantity) in this tab displayed per cut may be filled with a fixed quantity. The fixed quantity is the quantity which is passed on to the target cut. A fixed quantity may be entered for each cut input material. The fixed quantity specifies a quantity to be cut accurately for a certain cut. This is a limit.

The unit of the fixed quantity is the unit of measure in which data collection is performed (e.g. kg). If a material is defined as units material in the material master database, the fixed quantity unit is displayed in the unit of measure *pieces* or *eaches*.

By entering a fixed quantity, part of the inbound quantity for this cut may be put in outbound and is thus discharged from the disassembly process. Any value displayed in the *Usage in %* field will be deleted when a fixed quantity is entered.

Example
— Calculated quantity of an input material = 6,500 kg
— Fixed quantity cut A= 5,000 kg
— Fixed quantity cut B= 1,000 kg
— Fixed quantity cut C= no fixed quantity, not quotients in %

Result
A quantity of 6,000 kg is transferred to target cuts A and B. The difference of 500 kg is put into outbound and is not disassembled any further.

2.4.3.3 Step 3 – *Settings* Tab

Selecting the *Settings* tab (for the entry of minimum/maximum quantities)
The quantity fields (minimum/maximum) which are ready for entry may be used to enter the desired quantities for further use. "Further use" means transferring the quantities from the source cut and passing the quantities on to the target cuts.

The quantity fields in the entry UoM as well as the quantity fields in the DUM are available for entry if the material for the double unit measure was activated in the material master database.

Use
These two fields may be used in said calculation independent of the procurement type (in-house production, external procurement or both procurement types). If the minimum quantity is undercut in the calculation, the total calculated quantity is put into outbound, meaning it is not disassembled any further. If the maximum quantity is exceeded in the calculation, the difference (calculated quantity minus maximum quantity) is put into outbound, meaning it is not disassembled any further.

An additional quantity (externally) procured on an intermediate level is also included in the minimum/maximum calculation, meaning the quantity is added to the quantity coming from the source cut.

An entry is possible for all input materials. This further use may be understood as a kind of capacity definition. The disassembly line, for instance, will not be activated if not at least 400 kg (minimum) are available. Or, a maximum of 5,ooo kg is entered if this is the maximum capacity of the line.

Example
— Calculated quantity of an input material or a manually entered quantity of 10,500 kg
— Minimum field quantity: no entry
— Maximum field quantity: 9,000 kg

Result
The definition of a maximum of 9,000 kg means that 1,500 kg are not disassembled any further but are put into output. 9,000 kg will be included for further use in the target cut.

Fixed quantities

Any additionally entered fixed quantity is included in the calculation. If the fixed quantity is lesser than the maximum, the lesser fixed quantity is transferred to the target cut. If the fixed quantity is greater than the maximum, the lesser maximum is transferred to the target cut. This means the lesser quantity is always the limit to pass on to the target cut.

2.4.4 *Maintain Inbounds* Screen

The pop-up screen which the *Maintain Inbounds* button pens opens, lists, row by row, all materials for which a quantity may be entered. These are the cut materials as well all output materials since for those too an inbound quantity may be entered.

Note
The various fields contained in this screen are described in the "Further Functions" section further down.

2.4.5 Target Cuts

On the input materials level, the entry in the *Cut Usage (%)* in the *Target Cuts* tab determines what quotient of the input quantity will be passed on to the subsequent cut(s). The total of the percentages must be 100 if the quotients are entered in percent.

If **none** of the quotients for the available target cuts is entered as a percentage (which corresponds to 0%), a warning message is output in the cut check log. The calculation may nonetheless be saved.

Also conceivable are a combination of cut usage (percentage) and fixed quantities.

After the calculation has been executed using the *Calculate* button, the quantities are calculated in kg by target cut and are passed on to the target cut or put into outbound, i.e. not disassembled any further.

2.4.6 Relevance of the Tabs

On the right-hand side screen area, various tabs for input materials, output materials and cuts are displayed, depending on the selections made in the explorer on the left-hand side of the screen. The following table gives an overview of which tabs are relevant for which materials:

Tabs	For Materials (Input and Output)	For Cuts
Settings	Transfer from cut list	Not relevant
Basic Data	Not relevant	Transfer from cut list
Quantities	Not relevant	Transfer from cut list
Source Cuts	Transfer from cut list	Not relevant
Target Cuts	Transfer from cut list	Not relevant

Tabs	For Materials (Input and Output)	For Cuts
Quantities / Material Costs	Added in Standard Cost Estimate	Added in Standard Cost Estimate
Other Costs	Added in Standard Cost Estimate	Added in Standard Cost Estimate

Note
For a detailed description of the navigation options in cut lists, please see the respective passages in the "Master Data: Disassembly" section further up.

Note
For organizational cuts, only the Basic Data *and* Material *tabs are relevant. For further information see the respective passages in the "Master Data: Disassembly" section further up.*

Other than for all other input materials of the cut list, no Source Cut *tab is shown for the topmost input material.*

2.4.7 Relevance of the Quantities and Material Costs

The quantities relevant to the calculation are the quantities for the input materials. These quantities are multiplied with the price from the assigned price source and transferred to the source cut(s). The source cuts take over the quantities and the values (quantities times price) as specified by their respective percentage.

In a next step the cut inbound quantities are distributed to the output materials of this cut. This too is based on the respective percentages. In both cases, the total must be 100. If input and output materials are marked as unit materials in the material master database, this information will be transferred as well.

Together with the calculated quantity the cut also adopts the material costs which also need to be distributed to the cut outputs. The distribution of these material costs is carried out based on equivalences and fixed prices.

Note
For further details please refer to the "Disassembly Orders" chapter (section "Disassembly Costs") further down. Said chapter may refer to quantities and cost determination for a disassembly order, however, the logic for determining quantities and costs in standard cost estimate is the same is the same as for disassembly order.

Classification cut
The classification cut is something of a special case. Such a cut can be used to represent a situation in which multiple output materials share the same characteristics but differ with regard to, for instance, weight class or quality.

For further information see the "Master Data: Disassembly" chapter (sections "Cut Categories" and "Classification Cut").

After the classification cutis is selected in the Standard Cost Estimate explorer, the *Use statistics if available* indicator is displayed in the *Quantities* tab in the right-hand area of the screen. Selecting this indicator will transfer historical data from classification statistics (i.e. percentages of output materials) to the cut in Standard Cost Estimate. In this case, the existing values of the outputs (quotient in %) are deleted and replaced with the historical values (according to key date).

Once the data have been transferred, a re-calculation of the standard cost estimate must be carried out in order to calculate the quantities (weight) according to the new percentages. The classification cut is typically used with unit materials.

Note
Classification cuts are by definition cuts without routing and therefore have no labor costs of their own. However, the outputs of these classification cuts may take on labor costs that were incurred in superordinate cuts. In order to make this work, an equivalence (to the cost pool) must be stored in the material master database for the respective output material of the classification cut. This is done in the Meat Disassembly 1 *tab (calculation data – plant-dependent or cross-plant).*

In this context pleases see the section on cost rollup in the "Disassembly Orders" chapter (section "Cost Rollup").

Weight gain possible indicator
If this indicator is activated (on cut level, *Quantities* tab), the total of output quantities in a cut may be greater than the input quantity. The total of the percentages of the outputs will then be greater than 100. If this indicator is set, the quotient in % will change if manual adjustments to the quantities are made. If the quotient in % is adjusted manually, the quantities will change accordingly. The changes become effective when the calculation is carried out again.

Reducing the quantities so the total of the percentages will be lesser than 100 is still not allowed – not even if this indicator is activated. The cut check after the calculation would lead to an error message (output in log). It follows that output must always be 100%. If the outputs are lesser than 100% (e.g. 95%) the 100% are reached by defining loss articles (e.g. 5%).

2.4.8 Relevance of the Labor Costs

Apart from the distribution of the quantities and material costs to the distribution materials, the labor costs, i.e. the cost for disassembly, too can be determined and transferred to the disassembly outputs. This cost determination is based on SAP Standard routings which may be assigned to each cut. Here too, fixed prices and equivalences may be used to distribute the costs to the outputs.

It is also possible to perform a calculation without labor costs, i.e. without including routings.

Notes
For further details and an example please refer to the "Disassembly Orders" chapter (section "Disassembly Costs") further down. Although this example refers to the determination of quantities and costs for a disassembly order, the logic of the determination of quantities and costs for standard cost estimates is the same as for disassembly orders.

2.4.9 Result of the Standard Cost Estimate

Based on the settings and data entries made, the program will perform a calculation when the *Calculate* button is selected. Among others the following parameters will be checked and included in the calculation:
— Settings in the header data
— Entered quantities for input materials
— Entered fixed prices and equivalences of the materials for material cost calculation
— Entered fixed prices and equivalences of the materials for labor cost calculation

As discussed above, quantities and values are determined according to the definition in the cuts and cut lists and the settings made in Standard Cost Estimate.

The objective of the Softproviding Meat Standard Cost Estimate to distribute the valuated quantities of one or multiple input materials to the output materials (disassembly materials) based on the quotients in percent has been attained.

Calculation analysis
Information on the results of the Costing may be displayed using the following buttons:
— Display input materials
— Display output materials
— Maintain cuts
— Cost views

For further information on calculation analysis, please refer to the "Disassembly Orders" section.

2.4.10   Further Functions

This section describes all activities which may be started
— by selecting individual menu items in the SAP menu bar, or
— by selecting individual buttons in the application tool bar.

2.4.10.1 Menu Items in the Menu Bar

The following menus are available for selection in the menu bar:

Standard Cost Estimate

Menu Item	Description
Hierarchy display	This menu is activated when the explorer tree (left) is hidden..
Save	This menu item may be selected if the calculation is processed in the *Create* or *Change* status. Newly created data are saved, and the transaction is exited.
Exit	The behavior of the program after this menu item is selected depends on the type of transaction call-up:

Menu Item	Description
	Creating and changing With these call-ups, a popup window asking the user whether to save the data is displayed when *Exit* is selected. **Display** With this call-up type, the transaction is exited and the SAP initial screen is displayed when *Exit* is selected.

Edit

Menu Item	Description
Calculate	This function calculates the standard cost estimate. This means, the cut list is calculated according to the existing settings and the entered quantities (kg) and prices.
Change UoM	This function allows you to change the unit of measure with which the application can calculate, display and change the quantities. If, for instance, the quantity is changed from KG to TO (ton), all kilogram quantities are converted and displayed in tons. *Note* *This function should only be used for testing purposes.*
Change currency	This function allows you to change the currency with which the application calculates, displays and changes the prices and values. If, for instance, the currency is changed from EUR to USD, all values are converted to USD and displayed, provided the respective conversion rates are maintained (SAP Standard tables). *Note* *This function should only be used for testing purposes.*
Update	For a description of this function, please see the section following this table.
Cancel	The behavior of the program after this menu item is selected depends on the type of transaction call-up: **Creating and changing** With these call-ups, a popup window asking the user whether to save the data is displayed when *Cancel* is selected. **Display** With this call-up type, the transaction is exited and the SAP initial screen is displayed when *Cancel* is selected.

Update Menu Item (Details)

After saving and calculating the standard cost estimate, the values may be updated to a manual calculation. This is a calculation without quantity structure (a so-called manual calculation) which may be called with transaction KKPBN. This means, the calculation results are then available for subsequent applications.

Prerequisites
— The update parameters in tab *Settings 1* were configured.

The update is carried out using menu item *Edit > Update* by selecting the *Update costs/prices*. After this, a pop-up window with following message is displayed: "After the update, the calculation is saved and the transaction closed. Do you want to update?"

The update may now be carried out or terminated (*Continue* or *Cancel* button). If the update is executed, a log with the checks that were made is displayed. If there were no errors detected the update is executed. In the case of errors – if, for instance, there are messages of type red –, these must be corrected and the update is restarted.

With unchanged update parameters, an update may only be executed once per months. In the case of multiple updates, the message, "Calculation does already exist", is displayed in the update log.

Data
For the materials calculated successfully in the calculation, the following data are updated in dependence of the material:
— The calculation size, e.g. the calculated kg quantity
— The material price (or fixed price) per kg calculated in the Standard Cost Estimate
— If applicable, calculated labor costs (e.g. costs per kg or per hour)

The SAP Standard transaction CKR1 allows you to delete the updated data (test run possible) and a new update may be performed. Transaction CKR1 may be used in the test run to check which calculations are already available. It is recommended to restrict at least to the calculation variant and version.

Goto

Field Name	Description
Header data	This function allows you to display the header data. These are the *Settings 1* and *Settings 2* tabs. For closer information see the explanations made further up in this section.
Long text	The behavior of the program after this menu item is selected depends on the type of transaction call-up: **Creating and changing** With these call-ups, a text editor is displayed in which, by line, any text may be entered when *Long text* is selected. **Display**

Field Name	Description
	With this call-up type, the text editor is called in display mode when *Long text* is selected.
Graphic	This function provides a graphical display of the cut list.
Price strategy	This function allows you to set the so-called price strategy for the calculation. For certain materials, a price strategy following the average price principle or the master model principle may be selected. *Note* *Please see the detail description given under Master Model in the "Creating a Standard Cost Estimate" section.*
Output materials	By selecting this button, all output materials available in the cut list are displayed. The information is displayed by row and includes the following: — Material — Calculated quantity per output material — Calculated price per material — Total value of the material (quantity x price) — Total labor costs (per material) With further functions like e.g. filtering, sorting or list export, the functions may be further edited. The information in this menu item is displayed using an ALV Grid Control. *Note* *Please take note of the information on the use of the ALV Grid Control given in the "Master Data: Disassembly" chapter further up.*
Cost view	This function allows you to call a detailed cost analysis for the calculation. This is a cost view at header level. *Not* *For further information on this please see the "Cost Views" section in the chapter "Disassembly Orders" further down.*
Disassembly plan	Freely selectable, max. 4-digit key identifying a disassembly plan. This definition may be made in the cut. In the calculation (Standard Cost Estimate, MRP Calculation), a respective evaluation may be called. For further information on the disassembly plan, please see the "Disassembly Orders" chapter". The information in this menu item is displayed using an ALV Grid Control. *Note* *Please take note of the information on the use of the ALV Grid Control given in the "Master Data: Disassembly" chapter further up.*

Field Name	Description
Maintain inputs	For a description of this function, please see the section following this table.
Maintain cuts	For a description of this function, please see the section following this table.
Back	The behavior of the program after this menu item is selected depends on the type of transaction call-up: **Creating and changing** With these call-ups, a popup window asking the user whether to save the data is displayed when *Back* is selected. **Display** With this call-up type, the transaction is exited and the SAP initial screen is displayed when *Back* is selected.

Maintain Inbounds Menu Item (Details)

Selecting this function will display a pop-up window with the information for all materials stored in the cut list displayed below. This function may, for one thing, be used to make the selected settings in a compact view of the materials. It may also be used to verify settings previously.

The following column data are displayed for the materials. Some of these fields are ready for input and may be filled with values:
— Material and material description
— Procurement type
— Quantity (units) and unit of measure (units)
— Quantity (weight) and unit of measure (weight)
— Quantity (double) and double unit of measure
— Material costs price source
— Price and price unit
— Price unit of measure
— Total value
— Currency
— Minimum quantity and unit of measure
— Maximum quantity and unit of measure

On the *Quantity (units)* field
This field is ready for data entry if the *Units material* field in the material master database was activated.

On the *Quantity (weight)* field
This field is not ready for data entry if the procurement type for the material is set to *In-house production*.

On the *Quantity (double)* field

This field is ready for data entry if the procurement type for the material is set to *external procurement* or *both procurement types* and the *Quantity (double)* indicator in the material master database was activated.

On the *Price: Source for material costs* field

This field is ready for data entry if the procurement type for the material is set to *external procurement* or *both procurement types*. The price source which was entered is used to find the price with which the quantity procured on this level is valuated.

The following price sources are available:

Price Source	Description
1	Planned price 1
2	Planned price 2
3	Planned price 3
A	General view (view in material master DB: Meat Disassembly 1)
B	Single-plant view (view in mat. master DB: Meat Disassembly 1)
C	SAP calculation (material type))
D	MPD market price (net)
E	MPD market price (gross)
G	Tax-based valuation price 1
H	Tax-based valuation price 2
I	Tax-based valuation price 3
J	Commercial valuation price 1
K	Commercial valuation price 2
L	Commercial valuation price 3
M	MPE market price (net) (OBSOLETE)
N	MPE market price (gross) (OBSOLETE)
S	Standard price
V	Moving price
X	Manual entry
Z	Default from cut list

Example

— Quantity procured externally = 10,000 kg
— Price source S = (standard price, i.e. price from the material master database is determined)
— Price found (price source S) = 1.20 Euro
— Value = 12,000 Euro

On the *Minimum/Maximum* fields

These fields are fields for the restrictions of quantities in Purchasing. In Standard Cost Estimate they are of no relevance and can be ignored.

Maintain Cuts Menu Item (Detailed Description)

When this function is selected, a pop-up window with the information on all cuts and input materials of these cuts listed below is displayed. On the one hand, this function may be used to make the desired settings in a compact view on the materials, on the other hand, you may verify the settings you made (e.g. when you directly selected a material in the Explorer).

The following column information is displayed for the materials. Some of these fields are open and may be filled with values:
—   Cut number and cut description
—   Material and material description
—   *Organizational* cut indicator
—   *Cut locked* indicator
—   Cut usage in %
—   Cut priority
—   Limit: Limit cut quantity
—   Fixed quantity
—   Fixed quantity unit
—   Disassembly process
—   Production storage location and default supply area
—   Task list type, task list group and group counter
—   Quantity (units) and unit of measure (units)
—   Quantity (weight) and unit of measure (weight)
—   Quantity (double) and double unit of measure (double)
—   Material costs price source
—   Price and price unit
—   Price unit of measure
—   Total value
—   Currency
—   Plant

On the *Limit (limit cut quantity)* field
If this field is selected, a quantity may be entered in the *Fixed quantity* field.

Note
The menus Goto *and* Help *will not be discussed, since they are SAP Standard menus the use of which is described in the SAP Standard documentation.*

2.4.10.2 Application Toolbar

The following buttons are available in the application toolbar:

Button	Description
Navigate backwards	Single navigation steps which were made within the explorer (double-clicking on cut or material, etc.) may be reversed with this function.

Button	Description
Header data	This function allows you to display the header data. These are the *Settings 1* and *Settings 2* tabs. For closer information see the explanations made further up in this section.
Navigate forward	Single backward navigation steps may be reiterated with this function, i.e. a forward navigation.
Long text	Please see the detail description given for the menu items further up in this section.
Cost view	Please see the detail description given for the "Menu Items in the Menu Bar" section (menu Goto) further up in this section.
Display input materials	When this button is selected, all materials for which an input quantity was entered (procurement types *external procurement* and *both procurement types* were set) are displayed. The materials are represented by row and with the following information: — Material — Quantity (weight). This is the entered input quantity of the material procured externally — Price with which the input quantity is valuated — Total value of the material (quantity x price) With further functions like e.g. filtering, sorting or list export, the functions may be further edited. The information in this menu item is displayed using an ALV Grid Control. *Note* *Please take note of the information on the use of the ALV Grid Control given in the "Master Data: Disassembly" chapter further up.*
Display output materials	Please see the detail description given for the menu items further up in this section.
Maintain inbounds	Please see the detail description given for the menu items further up in this section.
Maintain cuts	Please see the detail description given for the menu items further up in this section.
Check cut	With this function, the calculation is checked for various criteria. **Example** — Recursivity — Cut usage in % According to the results of the checks, error, warning or success messages are displayed. *Note* *If an error message is displayed, the cut list cannot be saved.*

Button	Description
Calculate	Please see the detail description given for the menu items further up in this section.
Price strategy	This function allows you to set the so-called price strategy for the calculation. For certain materials, a price strategy following the average price principle or the master model principle may be selected. *Note* *Please see the detail description given under* Master Model *in the "Creating a Standard Cost Estimate" section.*
Update prices/costs	*Note* *Please see the detail description given for the menu item* Update (Details) *further up in this section.*

2.5 Changing/Displaying a Standard Cost Estimate

Standard cost estimates may be called at any time using Softproviding Meat-specific transactions, provided they have not been deleted.

Procedure

SAP Menu	*Softproviding Meat > Production > Product Cost Planning > Standard Cost Estimate > Change/Display*
Transactions	/SPMEAT/CLCB (change) /SPMEAT/CLCC (display)

1. Call the *Create/Change Standard Cost Estimate* activity using one of the above-mentioned options.

2. Use the input help (F4) to select an order and confirm your selection with Enter.

   The *Change Standard Cost Estimate* overview is displayed. It is subdivided into the following screen areas:
   — Menu bar and application toolbar with various buttons (upper screen area)
   — Explorer to represent the cut list (left-hand side)
   — Tabs which are displayed when a node in the cut list is selected (right-hand screen area)

Menu bar and application toolbar
For further information see "Further Functions" in this chapter "Standard Cost Estimate".

Explorer
For further information on the representation of the cut list in this explorer please refer to the section "Master Data: Disassembly" in this document.

Tabs
Information on the various tabs are given throughout this chapter „Standard Cost Estimate".

2.6 Copying a Standard Cost Estimate

The copy function allows you to use existing standard cost estimates when you want to create a new standard cost estimate.

Procedure

SAP Menu	*Softproviding Meat > Production > Product Cost Planning > Standard Cost Estimate > Create*
Transaction	/SPMEAT/CLCA

1. Call the *Create Standard Cost Estimate* activity using one of the above-mentioned options.

2. Select the copy function via the menu path *Standard Cost Estimate > Copy* or using the *Copy* button.

   The *Select Template* pop-up window is displayed where you may select a standard cost estimate number as a template using the input help (F4).

3. Confirm your selection with Enter.

Result

The standard cost estimate you copied is started in *Create* mode. The data which are displayed may be used, edited and saved as specified in the chapter "Creating a Standard Cost Estimate".

3 Purchasing Decision

This section will added soon.

4 Mass Calculation

4.1 Overview

Mass Calculation enables you to create several calculations simultaneously. Mass calculations are of the type *standard cost estimate* or *MRP calculation*.

Within the Mass Calculation planning cockpit, 1 – n standard cost estimates or 1 – n MRP calculations can be created. The benefit of this is that a particularly large number of calculations of a similar type can be created with less effort than with directly starting the Standard Cost Estimate and/or MRP Calculation applications.

A copy function is available for copying and editing existing mass calculations as well as creating new ones.

Both the mass calculation as well as each "individual calculation" within the Mass Calculation are saved under a unique calculation number. The mass calculation number is also recorded in the respective individual calculations.

The calculations created with the Mass Calculation can be called up via this application as well as via the respective *Standard Cost Estimate* or *MRP Calculation* applications.

Depending on the calculation type, certain fields are available for input or are only displayed (e.g. *Quantity, Weight*) and likewise function keys are either available or deactivated (e.g. *Requirements*). These interrelationships are detailed in this chapter.

Not all details regarding the Standard Cost Estimate and MRP Calculation are covered in this chapter. You can find further information on this in the relevant chapters within this document.

4.2 Create Mass Calculation

Requirements

In order to be able to start the *Create mass calculation* activity, the following master data are required:

— **Cut list**

For information regarding creating and using cut lists, please refer to the "Master Data: Disassembly" section in this document.

Procedure

1. Call up the *Create mass calculation* activity using one of the options specified.

Menu	*Softproviding Meat > Production > Product cost planning > Mass calculation > Create*
Transaction	*/SPMEAT/MSCA*

2. In the initial screen, select the calculation type (*standard cost estimate* or *MRP calculation*) and a plant.

3. Press *Enter* to confirm.

The mass calculation screen is displayed. This is divided into 3 sections:
— Cockpit (upper section)
— Calculations (middle section)
— Actions, Update and Administrative Data (lower section)

4.2.1 Screen Section: *Cockpit*

In the upper section of the screen, the following fields are displayed under the heading of *Cockpit*:

Field Name	Description
Mass calculation number	This calculation number is assigned by the program. There is one number range available, so that, regardless of the type of calculation (standard cost estimate or MRP calculation), calculation numbers are allocated consecutively.
Description	Description of the mass calculation. This is a mandatory field.
Category	This is the calculation type (standard cost estimate or MRP calculation). The entry from the initial screen is copied and entered here.
Key date	The key date is used for both types of calculation, to read the current equivalences, prices, cost data and fixed indicators from the material master. The field contains today's date. It can be overwritten with another date.

Field Name	Description
Unit rounding	In the material master (*Meat analysis 1* tab), a material can be flagged as *Unit material* (*Unit material* field). In the Mass Calculation calculations (in the middle section of the screen), the *Quantity* (*Unit*) field is then available for each line for entering data for the cut list header material. The *Unit rounding* parameter is used to set whether, and if so how, the rounding should be calculated for the quantity entered (in units). The following rounding options are available: — no rounding (blank) — round up (+) — round down (-) — commercial rounding (x) **Example** If the value 9.8 is entered in the *Quantity* (*Unit*) field in the calculation and rounding is set to *commercial rounding*, after confirming by pressing *Enter*, the *Quantity* (*Unit*) is set to 10.
MPD version	*Softproviding Meat Market Price Determination* is used to determine the average market prices of materials, based on an *MPD version* (Market Price Determination). These market prices can be used to value additionally purchased quantities of input or output materials in the *MRP Calculation* or *Standard Cost Estimate*. To do this, the MPD version is selected and the relevant key date (see field description above) is entered. To enable prices to be copied from the MPD version, the relevant price source (MPD market price gross or net) also needs to be selected in the cut list at the material level.
Dates from … to	These fields are shown as available in the cockpit only for input for *MRP calculation*-type calculations. These are the order start and order finish dates. These dates are required when creating the MRP calculation and subsequently when creating disassembly orders. The fields are populated by default with today's date. This can be overwritten with another date.
Order profile	This field is displayed in the cockpit only for calculations of the type *MRP calculation*. The order profile contains control parameters (e.g. the order type) and is required for creating the planned order when approving the MRP calculation. A default profile (e.g. *Order profile KB*) can be set up through settings in Softproviding Meat Customizing. It can be changed when creating the calculation.

4.2.2 Screen Section: *Calculations*

In the middle section of the screen, the following fields are displayed under the heading of *Calculations*:

Field Names	Description
Item number	The item number is assigned when adding a calculation. Numbers are assigned consecutively in increments of 10.
Cut list	Cut lists are Softproviding Meat-specific master data for creating calculations and disassembly orders. The cut list is the highest organizational unit in the analysis. It consists of 1-n cuts and depicts the analysis for a specific category (e.g. stock type *Beef*). The cut list is required for the calculation. It can be entered here manually or it can be selected using the drop-down selection list.
Calculation number	After saving the mass calculation, the program allocates the calculation number. This is the standard cost estimate or MRP calculation number, depending on which calculation type was used to start the Mass Calculation. A unique calculation number is assigned to each calculation (line).
Text	This text is the text from the cut list. It is copied.
Material	A material is an item that is the object of a business transaction. In SAP, materials such as e.g. raw materials, semi-finished products, operating supplies or finished goods are identified with a unique material number. The highest input material from the cut list is copied into this field and displayed.
Material descriptions	The material short text from the highest input material from the cut list is copied into this field.
Price: source for material costs	This field is concerned with the price source, which should be used to ascertain the price to value the quantity of the highest input material. Various price sources can be entered. The default setting suggests the price source recorded in Softproviding Meat Customizing for the respective calculation type. The price sources available are explained below.
Price	The *Price* field shows the price determined from the price source selected for the material costs. This price is used to value the quantity of the highest input material in the cut list.
Currency	The currency is indicated by a 3-character currency code (e.g. EUR = EURO; USD = US dollar). Sums are recorded in the system in this currency. This is the currency for the previous price field.
Price unit	The price unit describes the number of quantity units to which the price refers.
PU-UoM	The *price unit of measure* describes the quantity unit to which a price refers (e.g. kg).

Field Names	Description
Quantity (units)	In the material master (*Meat Analysis 1* tab), a material can be flagged as *Unit material* (*Unit material* field). In the calculations for the Mass Calculation, the *Quantity* (*units*) field is then available for each line for data entry for the cut list header material. If necessary, data entered in this field are amended (rounded) in accordance with the *unit rounding* settings explained above. **Standard Cost Estimate** With this calculation, a quantity is usually entered manually in the *Quantity* (*Weight*) field and the *Quantity* (*units*) is calculated. However, a quantity can also be entered in the *Quantity* (*units*) field. **MRP Calculation** The *Quantity* (*units*) is usually calculated (after entering the requirements), as the calculation is usually made with the purchase strategy *All* (setting in the cut list). Manual maintenance of the *Quantity* (*units*) requires the purchase strategy to be set as *Manual* (changeover in the cut list).
UUM	The *units unit of measure* is determined from Softproviding Meat Customizing. If no value is recorded in Customizing, the unit ST (Unit) is used.
Quantity (Weight)	The *Quantity* (*Weight*) is the calculation quantity that can be entered manually for the *standard cost estimate* calculation type. Alternatively, the *Quantity (units)* or the *Quantity* (*Double*) can also be entered (see field descriptions for these fields in this document). This field is not available for data entry for the *MRP calculation* type. After calculation, the program automatically populates the MRP calculation based on the specified requirement quantities.
WUM	The *weight unit of measure* is determined from Softproviding Meat Customizing. If no value is recorded in Customizing, the unit kg (kilogram) is used.
DQuantity	If a *quantity (double)* is recorded (*DUM* field) for this material on the calculation line in the material master (*Meat analysis 1* tab), the Quantity (Weight) that has been calculated or entered manually is converted to this *Double quantity*. The *Double quantity unit* is used for recording process data.
DUM	The *double unit of measure* is determined from the material master (also see the above explanation on the *Quantity (double)* field).
Flag: *Price update*	Select this field if an update of the calculation is to be enabled in an individual calculation. More than one calculation can be selected and updated at the same time. The update is performed by clicking on the *Update* button. This button is available only if Softproviding Meat Customizing basically allows updates. The

Field Names	Description
	Costing Date From date is definitive for the update (see explanation on the *Update* fields in this document).

Detailed description of the Price field: source for material costs

The following price sources for the material costs can be entered:

Price source	Description
1	Planned price 1
2	Planned price 2
3	Planned price 3
A	General view (tab in material master: *Meat Disassembly 1*)
B	Single-plant view (tab in material master : *Meat Disassembly 2)*
C	SAP calculation (material type)
D	MPD market price (net)
E	MPD market price (gross)
G	Tax-based valuation price 1
H	Tax-based valuation price 2
I	Tax-based valuation price 3
J	Commercial valuation price 1
K	Commercial valuation price 2
L	Commercial valuation price 3
S	Standard price
V	Moving price
X	Manual entry
Z	Default from cut list

4.2.3 Toolbar

Below the calculation lines, there is a toolbar available with the following buttons:
— Calculation
— Cost view
— Inbounds overview
— Outbounds overview
— Sort ascending
— Sort descending
— Select all
— Delete all selections
— Delete line

To use the individual buttons, select one or more calculation lines and click on the required button.

Toolbar functions – Details

Button	Description
Calculation	You can use this button to go straight to the selected calculation. The further information on the calculation selected, please refer to the details in both of the following chapters: — Standard Cost Estimate — MRP Calculation *Please note* *After calling up the calculation using this button, settings and entries made in the overview screen (e.g. maintain additional inbounds and maintain requirements), as well as the calculation results (after calculation), are copied into the relevant sections of the cut list (cuts, input and output materials), where they can be analyzed and, if necessary, amended.* *You can also maintain additional inbounds and requirements in the cut list and undertake the calculation there too.*
Cost view	The cost view gives an overview of the cost structure for the selected calculation. For further information on this detailed cost analysis, please refer to the following chapters: — Standard Cost Estimate — MRP Calculation — Disassembly Order
Inbounds overview	After completing the calculation, this overview shows information that includes which quantities for each material have been calculated or manually entered as inbound quantities, as well as which material prices have been determined.
Outbounds overview	This overview shows all output materials from the cut list and the output quantities determined according to the calculation, together with their prices, total values and labor costs.
Sort ascending	The calculation lines are sorted in ascending order.
Sort descending	The calculation lines are sorted in descending order.
Select all	This button can be used to select all calculation lines, in order to e.g. calculate all calculations or update calculation data.
Delete all selections	This button can be used to deselect all calculation lines.
Delete line	This button can be used to delete calculations. To do this, select the lines you wish to delete.

4.2.4 Screen Section: *Actions* – Buttons

In the lower section of the screen you will see the following under *Actions*:
— Various buttons
— Parameters for updating data
— Parameters for managing data

These buttons and fields are explained below.

After starting the Mass Calculation and entering or checking data in the relevant fields (e.g. key date, dates from...to, cut lists), the following buttons can be used in the next step:
— Maintain additional inbounds
— Maintain requirements
— Calculate

Select one or more calculation lines and click on the buttons *Maintain additional inbounds* and *Maintain requirements*. Enter the quantities for the materials required.

Button	Description
Maintain additional inbounds	Specifying *Additional inbounds* is optional. *Additional inbounds* means that an additional inbound quantity can be stipulated in the procurement type *Both procurement types* for the required materials. For further settings and entry options resulting from adjusting the *Purchasing strategy* and *Procurement type*, please refer to the following chapters: — Standard Cost Estimate — MRP Calculation
Maintain requirements	The *Maintain requirements* button is used to import or manually enter requirements for calculations of the type *MRP calculation*. This button is irrelevant for the Standard Cost Estimate and therefore is not available for this calculation type. **Traffic light control for the *Maintain requirements* button** — red light = no requirements have yet been maintained — amber light = requirements have already been entered For further options on entry and usage with regard to requirements, please refer to the following chapter: — MRP Calculation
Calculate	Once the required settings and entries explained above have been made, select the desired calculation lines and then click on the *Calculate* button. **Traffic light control for the *Calculate* button** — red light = no calculation has yet been done — amber light = Entries or amendments have been made to *Additional inbounds* or *Maintain requirements*, such that a recalculation is required — green light = a calculation has been done After a successful calculation, the calculated quantities (*Quantity (Weight)*, if applicable *Quantity (units)* and, if applicable *Quantity (Double)*) for the highest input material are then displayed in the calculation lines.

Button	Description
	Please note
	To enable the MRP calculation to be calculated successfully, in the cut list select the Purchasing strategy "All" for the highest input material (call up via the "Calculate" button), or
	select the strategy "Manual or stock only" to allow manual entry of the inbound quantity for the highest input material,
	or select the strategy "Manual or stock only" to import and use the stock for the highest input material.
	For further details on the calculation procedure, please refer to the following chapter:
	— MRP Calculation

4.2.5 Screen Section: *Actions/Update*

If, in principle, updating is permitted in Customizing, the update parameters are proposed in accordance with the settings in Softproviding Meat Customizing.

Values can be changed manually. The following fields are displayed:

Field Name	Description
Costing variant	The costing variant is the key that determines how a costing is completed and valued. This variant includes the costing type and valuation variant.
Costing version	This version is used to enable and manage several costings based on the same costing variant.
Costing date from	Date of the costing that determines from which date onwards a costing is valid.
Costing date to	Date until which the costing is valid.
Valuation date	Date used to value the materials and services in a costing.

Execution

Update **button**
To make this button available for selection, the mass calculation must first be saved and then called up again. The *Price update* flag is then selected for the calculations (lines) required.

After clicking on the *Update* button, a pop-up window appears with the following text:

"After the update, the calculation is saved and the transaction is completed. Do you wish to continue?"

Confirm by pressing *Enter*.

The checks made are then displayed in the log. If there are no errors, the update is completed. If there are any errors – for example, if any messages appear in *red* – they need to be corrected and the update needs to be re-started.

Proposal **button**
You can use this button to determine the date values for the *Costing date from*, *Costing date to*, and *Valuation date* fields. These dates can be changed manually.

Result

With this update, the values are written to the manual calculation (manual calculation = cost estimate without quantity structure). This manual calculation is a SAP standard cost estimate.

The calculation results are available after the update for subsequent applications (e.g. product calculation). The SAP standard transaction CKR1 (reorganization of calculations) can be used to delete these data (test run is possible) and to make a new update in the Mass Calculation.

For further details on the update, please refer to the chapter "MRP Calculation" in this document.

4.2.6 Screen Section: *Administrative Data*

This section displays the following administrative information for the calculation, including the respective date and time:

Field Name	User
Created by	This field contains the name of the user who created the calculation.
Changed by	This field contains the name of the user who last changed the object.
Calculated by	This field contains the name of the user who last calculated the object.
Update	This field contains the name of the user who last started an update.

4.3 Change/Display Mass Calculation

Calculations that have been created can be called up as follows.

Procedure

1. Call up the *Change or display mass calculation* activity using one of the options specified.

Menu	*Softproviding Meat > Production > Product cost planning > Mass calculation > Change or display*
Transaction	/SPMEAT/MSCB (Change) /SPMEAT/MSCC (Display)

2. In the entry screen, enter the *calculation number* or select a calculation from the drop-down list of values.

Please note
The mass calculations displayed in the drop-down list of values are of the type P or M, where:
— *P = MRP calculation*
— *M = Standard cost estimate*

3. Confirm by pressing *Enter*.

Result

The mass calculation selected is called up in *Change* or *Display* mode.

4.4 Copy Mass Calculation

The copy function can be used to use existing mass calculations to create new calculations.

Procedure

1. Call up the *Create mass calculation* activity using one of the specified options

Menu	*Softproviding Meat > Production > Product cost planning > Mass calculation > Create*
Transaction	*/SPMEAT/MSCA*

2. Select the copy function from the menu *Mass calculation > Copy* or by clicking on the *Copy* button.

3. A *Select template* pop-up window appears. In this pop-up window, you can select calculations as a template using the drop-down list of values (F4) for the *Mass calc. no.* field.

Please note
The mass calculations displayed in the template are of the type P or M, where:
— *P = MRP calculation*
— *M = Standard cost estimate*

4. Confirm by pressing Enter.

Result

The copied mass calculation selected is called up in the *Create* mode with all "individual calculations".

In accordance with explanations given in the chapter "Create mass calculation" in this document, the data and "individual calculations" displayed can be used and amended.

4.5 Calculation Types

In the Mass Calculation application, the two calculation types are distinguished with reference to the entries in the following fields:

Field Name	Standard Cost Estimate	MRP Calculation
Date from… to	Not relevant – Field deactivated	Relevant – Field activated
Order profile	Not relevant – Field deactivated	Relevant – Field activated
Quantity (Weight)	Manual entry	Field deactivated – Quantity is calculated and displayed.
Requirements **button**	Not relevant – Button deactivated	Relevant – Button activated– Mandatory input

The two calculation types *standard cost estimate* and *MRP calculation* are essentially distinguished by the type of calculation (forwards, or forwards and backwards calculation) and by the entry of input quantities or the definition of requirements that are required as output quantities.

The *Standard Cost Estimate*, by definition, is a forward calculation. The program calculates the cut list from top to bottom, i.e. from the highest input material to the output materials. It does this based on the quantities entered for the highest input material and if applicable additional inbounds at intermediate levels.

The *MRP Calculation* calculates forwards as well as backwards based on requirements entered. The aim of this calculation is to determine those input quantities with which demand can be fulfilled. The program determines the smallest possible quantity required in order to cover requirements (optimization). Requirements are indicated as being the material quantities that should emerge as output in the calculation.

For both calculation types, the percentage distribution of input quantities on outputs, the valuation of quantities and the calculation of labor costs, amongst other things, occur based on the definition in the cut list.

A disassembly order can be created via the MRP Calculation. This is not possible for the Standard Cost Estimate.

For further details on the Standard Cost Estimate and MRP Calculation, please refer to the respective sections in this *Disassembly* user documentation.

5 Long-Term Planning Calculation

5.1 Overview

The Long-Term Planning (LTP) Calculation is used for carrying out medium- to long-term planning. This planning is simulated only, i.e. it does not usually have any impact on operational planning.

There is a specific transaction available in the *Softproviding Meat menu* for starting a long-term planning calculation. This calculation is located *Production > Procurement Planning > Disassembly*. It is created on the basis of a *cut list* and a *planning scenario*. It is located in the disassembly process area.

There are only slight differences between the processes for performing a long-term planning calculation and for performing an *MRP Calculation*. Only these distinctions are therefore illustrated in this manual.

Both calculations are based on cut lists, which consist of Softproviding-Meat-specific disassembly master data. Both also involve performing a quantitative and value-based cut list calculation. The general aim of both calculations is to optimize the required input quantities needed to meet the desired requirements. The LTP Calculation also takes additional requirement settings into account, which makes it possible to carry out a differentiated analysis.

— For more detailed information about the MRP Calculation, please see the "MRP Calculation" section.
— For details about the cut lists, please see the "Master Data: Disassembly" section.
— Long-term planning is an SAP standard planning tool. For more detailed information about this planning tool, please see the SAP Standard Documentation.

5.2 Master Data - Configuration

5.2.1 Creating a Planning Scenario

Use

The planning scenario provides the control parameters and data for long-term planning. These parameters and data are applied when setting up a *long-term planning calculation* and include, for example, the plant in which the long-term planning is intended to take place, the planning period and the planned independent requirements version.

It is possible to incorporate receipts and issues from operational planning or from stock, for example, into the planning scenario. This enables a mixture of real and simulative requirement elements to be included in the LTP Calculation.

Prerequisites

The planning scenario can only be released and saved if the following customization settings have been applied:

—   Weekly requirements planning must be activated
—   A planned independent requirements version must be defined

For information about these settings, please see the "Long-Term Planning Calculation" section in the Softproviding Meat Configuration Guide *Disassembly*. This configuration guide also outlines the optional *selection rules* described later on.

Procedure

SAP Menu	*Softproviding Meat > Production > Material Requirements Planning > Disassembly Processes > Long-Term Planning Calculation > Planning Scenario > Create*
Transaction	MS31

1. Call up the *Create planning scenario* action via one of the options given.

2. Enter values for the following fields in the initial screen:

Field Name	Note
Planning scenario	Free input of a numerical key (3-digit).
Designation	Brief description. Any name may be chosen.
Define default settings for control parameters	Depending on the selection made, various parameters are preset in the planning scenario (e.g. *Include safety stock; Dependent requirements for based materials too*). Please note the explanatory notes relating to this below.

Explanatory notes on defining default settings for control parameters

The following options are available:

Field Name	Note
Long-term planning	The following default settings are applied for long-term planning: *1. Safety stock as opening stock* *2. Dependent requirements for consumption-based materials*
Gross long-term planning	This indicator ensures that the control parameters that are important for gross requirements planning in long-term planning are set as default. 1. Safety stock as opening stock 2. Dependent requirements for consumption-based materials 3. Switch off scrap calculation 4. Use exact lot size for gross planning
Short-term simulation	This indicator ensures that the control parameters that are important for a short-term simulation in long-term planning are set as default. 1. Plant stock at the time of planning 2. Dependent requirements for consumption-based materials 3. Consider sales orders 4. Use direct production 5. Use make-to-order and project planning 6. Include firm receipts, fixed purchase requisitions and fixed planned orders
Copy parameters from scenario	This indicator ensures that the control parameters from the planning scenario you have specified are set as default.

3. Confirm the settings by pressing Enter. The planning scenario table is displayed.

4. The following setting options are available within the planning scenario.

   The example below shows the recommended settings for the meat industry:

Field Name	User Action and Values (Example)	Note
Planning scenario	001	Carried over
Designation	Planning scenario A	Carried over
Status	The status is assigned by the system.	Possible status: 1 = Not released 2 = Released 3 = Release cancelled
Planning period for independent requirements	01/01/2000 to 31/12/9999	The start and end dates determine the period in which the long-term planning is carried out.

Opening stock	2 = Plant stock at the time of planning	This indicator specifies how the opening stock is to be determined in the LTP Calculation.
Dependent requirements for consumption-based materials	Yes = flag set	This indicator determines whether dependent requirements are to be created for consumption-based materials too and taken into account in planning.
Consider sales orders	No = flag not set	This indicator specifies that sales orders are to be included in the LTP. The sales orders are carried over automatically from operational planning.
Switch off planning time fence	No = flag not set	This indicator deactivates the LTP planning time fence for materials for which a planning time fence applies and has an effect on requirements planning.
Use direct production	No = flag not set	This indicator ensures that direct production can be used in the long-term planning. This means that a collective order is created for planning involving materials that have been assigned the *direct production* special procurement key. If this indicator is not set, individual planned orders will be generated rather than a collective order.
Use make-to-order and project planning	No = flag not set	This indicator specifies that make-to-order and project planning are also to be carried out as part of the long-term planning. The customer requirements are carried over automatically from operational planning.
Switch off scrap calculation	Yes = flag set	This indicator ensures that no scrap calculation is carried out in the LTP run.
Use gross lot size	No = flag not set If yes, a lot size must be specified.	This indicator ensures that the lot size specified in the planning scenario is used for calculating lot sizes for all materials in the LTP, regardless of any material-specific settings.
Include firm receipts	Yes = flag set	This indicator specifies that purchase orders, production orders and reservations will be taken into account in the LTP Calculation.
Include firm purchase requisitions	Yes = flag set	If this field is flagged, firm purchase requisitions are taken into account in the LTP Calculation. This means that they are carried over from operational planning and included as a receipt element.
Include firm planned orders	Yes = flag set	If this field is flagged, firm planned orders are taken into account in the LTP Calculation. This means that they are carried over from operational planning and included as a receipt element.
BOM selection ID		A key that determines the priorities for bill of material usage.

Active version		A number used to identify the active version of available capacity. The active version is always the one shown in the capacity header data screen.
Purchasing info system version	This field is filled automatically if an evaluation has been carried out in the SAP standard system (SAP menu: *Production > Production Planning > Long-Term Planning*).	The number of the planning version for an information structure.
Inventory controlling version	This field is filled automatically if an evaluation has been carried out in the SAP standard system (SAP menu: *Production > Production planning > Long-Term Planning*).	The number of the planning version for an information structure.
Last transfer to PURCHIS	This field is filled automatically if an evaluation has been carried out in the SAP standard system (SAP menu: *Production > Production planning > Long-Term Planning*).	The date on which the report for the transfer of external procurement data from long-term planning to the purchasing info system was last started.
Last INV.CO data transfer	This field is filled automatically if an evaluation has been carried out in the SAP standard system (SAP menu: *Production > Production planning > Long-Term Planning*).	The date on which the report for the transfer of stock data from long-term planning to inventory controlling was last started.

5. The following additional settings in the planning scenario are required in order for it to be released and saved:
   — Allocation to one or more plant(s):
     To do this, select the *Plants* button and create a *new* entry.
   — Allocation to a planned independent requirements version:
     To do this, select the *Planned independent requirements* button and create a *new entry*. Select the version for *long-term planning* and specify a validity date. This date must fall within the planning period for the scenario.

6. Next, select the *Release and save* button. Confirm the pop-up window, *"Do you want to release and save the planning scenario",* which is displayed with *Yes*.

Once the planning scenario has been released, the *planning file entries* can be created. Another popup window is displayed.

7. Confirm this pop-up window by clicking the *Immediately* button. A log showing the number of *planning file entries* created will then be displayed.

8. You can abort the *create* transaction by pressing *Back*.

Result

Once the settings have been made, the planning scenario can be saved by clicking the *Save* or *Release and Save* button. The control data for the scenario has now been generated.

5.2.2 Changing a Planning Scenario

SAP Menu	*Softproviding Meat > Production > Material Requirements Planning > Disassembly > Long-Term Planning Calculation > Planning Scenario > Change*
Transaction	MS32

1. Call up the *Change planning scenario* action via one of the options given.

2. In the initial screen, enter the code for the relevant planning scenario and confirm the dependent data by pressing Enter.

3. The control data applied when creating the planning scenario are displayed and can be changed provided that the scenario has not yet been released.

Deleting dependent data
In the planning scenario, dependent data (e.g. planning file entries and planned orders) can be deleted. The scenario must be released for this purpose. To delete data, select the following menu options: *Planning scenario > Delete > Dependent Data*.

Deleting a planning scenario
A planning scenario can be deleted. To delete a planning scenario, select the following menu options: *Planning Scenario > Delete > Scenario*. The dependent data must be deleted first. Confirm the deletion by clicking *Yes* in the pop-up window, *"Do you really want to delete this planning scenario?"*, that appears.

Cancelling a release
The release of a planning scenario can be cancelled by clicking the *Cancel release* button. The status of the planning scenario will be changed accordingly. Once this has been done, changes can be made (e.g. adding another plant allocation).

5.3 Executing a Long-Term Planning Calculation

Prerequisites

The following master data and settings are required in order to start a long-term planning calculation:

— Cut list (please see the "Master Data: Disassembly" section in this document.
— Planning scenario
— Number range: long-term planning calculation (please see the "Long-Term Planning Calculation" section in the Softproviding Meat Configuration Guide *Disassembly*).

Procedure

SAP Menu	*Softproviding Meat > Production > Material Requirements Planning > Disassembly > Long-Term Planning Calculation > Create*
Transaction	/SPMEAT/CLLA

1. Call up the *Long-Term Planning Calculation* action via one of the options given.

2. In the initial screen, select a cut list and a planning scenario from the list of possible entries. Confirm your selection by pressing Enter.

Please note:
There are no differences between the calculation for long-term planning and the MRP Calculation.

For information on the extensive options available in the MRP Calculation, therefore please refer to the MRP Calculation *user manual.*

Long-term planning: current stock/requirements list
The requirements determined in the LTP can be verified in the current stock/requirements list. To use the *Display filter* and *Selection rule* filters, you must check the *With Filter* box when calling up transaction MS04.

5.3.1 Simulative Planned Orders and Dependent Requirements

The following parameters and settings control which material requirements are imported into the LTP Calculation:

— Key date
— Requirements determination
— Selection rule

Once the requirement quantities have been imported and the calculation has been carried out, the long-term planning calculation is *released* and *saved*.

Depending on the LTP customization settings, either one planned order per calculation or one planned order per disassembly process is created when the calculation is released.

Simulative dependent requirements are created for the other output materials.

Caution
It is not possible to convert a long-term planning calculation into a disassembly order.

5.3.2 Activating the Planned Independent Requirements Version

Once the simulative planning results have been evaluated and adjusted, the planned independent requirements version in the planning scenario can be activated and assigned a new version number if required.

To do this, select the following menu options: *Edit > Activate Independent Requirements*.

For details of the procedure for carrying out this optional step, please see the information in the SAP Standard Documentation.

5.3.3 Use in MRP Runs

In the MRP plan, which is carried out as a required preliminary stage for executing an MRP run, the specific characteristics of a long-term planning calculation (planning scenario) can be applied when setting up the *Disassembly process* process type.

A long-term planning calculation will then be generated when the MRP run is executed.

5.3.4 Comparison between MRP and Long-Term Planning Calculations

The differences between the two types of calculation are illustrated once again in the following overview:

Process/action	MRP Calculation	Long-Term Planning Calculation
Planning time fence	Short-term	Medium- to long-term
Required for setting up the calculation	Cut list	Cut list and planning scenario

Is it possible to create a planned order?	Yes – planned orders are created in a preliminary stage prior to the disassembly order	Yes – simulative planned orders
Is it possible to create a disassembly order?	Yes	No
Is it possible to set up purchase requisitions?	Yes	No
Is it possible to update the calculation?	Yes	Yes

5.3.5 Evaluations

LTP evaluations can be carried out using various SAP transactions. For example:

—   MS04 (Long-term planning: current stock/requirements list, comparison of planning scenarios)
—   MS12 (Long-term planning: change planned order)
—   MS44 (Long-term planning: flexible evaluation)

Further transactions can be found in the SAP application menu as follows:

SAP Menu	*Logistics > Production > Production planning > Long-Term Planning*

6 MRP Calculation

6.1 Overview

The Softproviding MRP Calculation – hereafter also referred to as MRP Calculation – is a material requirement calculation. In the Softproviding Meat application menu it is located in the area of *Production > Disassembly Processes > Disassembly*.

Like the Softproviding Standard Cost Estimate and the Softproviding Meat Disassembly Orders, the MRP Calculation is based on a cut list. Cut lists consist of a number of 1 to n cuts. Cuts and cut lists are Softproviding Meat-specific master data in Disassembly

When a Softproviding MRP Calculation is created, the settings from the cut list are transferred. These settings may be changed in the calculation. The calculation is carried out in terms of quantity and value according to the cut list definition.

The MRP Calculation may be carried out as a push/pull calculation, a push calculation or as a pure pull calculation. This is controlled by the settings for the calculation type which is transferred from the cut list as well as by entering specific requirement quantities or external inbound quantities.

If the MRP Calculation is carried out as push/pull or a pure pull calculation, meaning, by entering requirement quantities, it is the objective to determine those input quantities with which the requirements may be covered. If besides the requirements additional inbound quantities are entered, this is called a push/pull calculation (requirements being the pull element, inbounds the push element). If a pure requirement planning is to be carried out, meaning requirements but no inbound quantities are entered, this is called a pull calculation.

Whether the required quantities can be covered with the defined inbound quantities may be verified by running an evaluation.

Without entering requirements and by solely using inbound quantities, the MRP Calculation may be run as a pure push calculation. In this case, the calculation values will be determined in the same way as for the Softproviding Meat Standard Cost Estimate.

The difference between push, pull and push/pull will be dealt with further down in this section. Typically, the MRP Calculation is run as pull/push (requirement- and supply-based) or as pull calculation (requirement-based).

Requirements are those material quantities that are to result as outputs in the calculation. Requirements may be read in MRP Calculation or entered manually.

Using the Softproviding Meat Purchasing Decision, the MRP Calculation may be optimized with regard to the decision whether to produce input and output materials in-house (materials are the result of disassembly) or to procure them externally (one or multiple materials from external sources are entered in the disassembly processes).

In order to valuate these input quantities, various price sources may be used. An input material, for instance, which was purchased on an intermediate level may be valuated with the standard price from the material master database or with the average price from Softproviding Meat Market Price Determination (i.e. with the market price). If the current prices are known they may also be entered manually.

As a result of the calculation, the quantities of the input materials are distributed to the output materials based on percentages stored in the system. The distribution of the material costs of the inputs to the output is based on equivalence numbers and fixed prices which may be allocated to these outputs via various sources.

Besides the distribution of quantities and material costs to the disassembly materials, the labor costs, too, may be determined and transferred to the outputs of Disassembly. This cost determination is based on SAP Standard routings which are assigned to each cut whereby equivalences and fixed prices are used for the distribution to the outputs.

It is also possible to run a calculation without labor costs, i.e. without using routings.

After a successful calculation, the MRP calculation may be released, whereupon the program will create planned orders which may then be converted into disassembly orders. These disassembly order will then be available for the entry of input and output quantities.

Together with the release of the MRP calculation, purchase requisitions may be created which then may be converted into purchase orders. This functionality is optional and may be configured in the Softproviding Meat Customizing. The disassembly orders also show the planning data of the MRP calculation. After collecting (weighing) the input and output quantities in the disassembly order in, a planned/target/actual comparison is possible.

A manual creation and planning of a disassembly order without preceding MRP calculation is also possible. Data and results of preceding applications like the Softproviding Meat Market Price Decision and the Purchasing Decision may be used for the Softproviding Meat MRP Calculation.

The results of the MRP Calculation may be updated to a manual calculation (material cost estimate) without quantity structure (SAP Standard table). There, the calculation data are available for subsequent applications. However, this function must be activated explicitly in Softproviding Meat Customizing.

The calculation results may be used as follows:
— Output materials from Disassembly may be components in a bill of materials, i.e. they are used for the manufacturing of a finished product. The results of the update (i.e. material and labor costs of these disassembly materials) may be used for the calculation of the BOM.
— Updating the calculated material prices to the priced fields of the material master database (e.g. periodically to the *Standard Price* field).

6.2 MRP Calculation vs. Standard Cost Estimate

The Softproviding Meat MRP Calculation and the Softproviding Meat Standard Cost Estimate share a multitude of similarities but also a few crucial differences. For this reason, an overview of the most import and functions used in this context is given. Information is provide on:
—   which functions are relevant in which calculation and influence it,
—   which functions do exist without having an effect on the calculation itself, and
—   which evaluations are available.

Recommendation

In order to better understand the information given in this chapter we recommend to first look into the main Disassembly master data and the Softproviding Meat Standard Cost Estimate which are described in the following chapters in this document:
—   "Master Data: Disassembly"
—   "Standard Cost Estimate"

6.2.1 Basic Principle of the MRP Calculation

As previously mentioned in the overview, the MRP Calculation may be used to carry out various types of calculations or costings (push, pull or push/pull), while typically the push/pull (requirement- and supply- based and the pull calculation (supply-based) are used.

Factoring in any manually entered inbound quantities, the input material quantities which are needed to get the desired requirements (optimization) are determined. In an iterative process, the cut list is calculated multiple times from top down and, again, from bottom to top. Requirements are those material quantities which are to result as outputs in the calculation.

From the topmost input material down to the cuts i.e. the output materials of the individual cuts, the program checks whether, based on the definition of the cut list (and the individual cuts), quantities, material costs and labor cost must be calculated. This calculation is carried out multipole times by the application. This means, the cut list and the calculation itself are checked repeatedly which constitutes an important difference between MRP Calculation and the Softproviding Meat Standard Cost Estimate.

Settings which were explicitly designed to support and influence this iterative calculation are, for instance, the indicators *Cut to zero* or *By-products* as well as the entry of material requirements. These settings may only be used in MRP Calculation as well as in the calculation of a disassembly order as can be seen in the table overview further down.

6.3 Push vs. Push/Pull Principles

In the cut list, the settings for the calculation type (push or push/pull) determines which kind of calculation can be carried out in MRP Calculation.

Valid setting options for this field are
— Pull/push = requirement- and supply-based
— Push = supply-based

In this field, the calculation type stored in the cut list is displayed. It cannot be changed later in the MRP calculation. Also note that the cut list setting *Push = supply-oriented* has the effect that the MRP Calculation is run as a pure push calculation, meaning it is essential a standard cost estimate which does not factor in requirements.

Caution
Consequently, cut lists which are used in both Standard Cost Estimate and MRP Calculation should always be set to pull/push (requirement- and supply-based). If an MRP calculation is started with a cut list set to push (supply-based), all the those specific MRP functionalities (see list below) are either not available (e.g. purchasing strategies, cut to zero), i.e. they are not displayed or they are displayed but are not factored in when the calculation is carried out (e.g. requirements).

Requirement-orientation thus focuses on the subsequent processes in Disassembly (e.g. subsequent production or binding sales order) whereas the term supply-orientation refers to preceding processes in which producers of livestock offer a certain quantity of animals for slaughter.

Note
These setting options regarding the calculation type are not available In Softproviding Meat Standard Cost Estimate since, per definition, it carries out a forward calculation (push).

6.3.1 Push, Pull and Push/Pull Explained

Push Principle
With the push principle, in the protein industry, live animals or primal cuts of already slaughtered animals (e.g. halves) quarters are introduced into the disassembly process. The quantity is not controlled by production requirements or traders (customers) but by the supply of animals on the market which determines the quantity of animals to be slaughtered.

The advantages of a production (disassembly) based on the push principle lie in the fact that machinery and personnel operate at optimal capacity. Building multiple warehouse stock using this form of production allows you to guarantee good ability to deliver.

These advantages, however, are contrasted by the disadvantage of a possible overproduction by building large warehouse stocks. Short-term requests for amendment by the customers may make further adjustments to production (disassembly) necessary, which again may make it difficult to sell the goods in warehouse and tie up capital.

In the protein industry it is far more likely that due to sales order the requirements are higher than the available raw materials (number of living animals, primal cuts). If this is the case, sales orders would have to be reduced or cancelled.

In case of excess (i.e. there are more animals and raw materials than trade and end users demand), existing sales orders might be increased or new sales orders created in order to get the goods into the market, i.e. sell it.

Pull Principle

The pull principle stands for a production upon request and is therefore requirement-based. Production is executed if the customer or trader orders the desired products. With this principle, only the ordered quantities of meat parts or finished products are produced. In Softproviding Meat MRP Calculation the pull principle is carried out by entering requirements and therefore requires appropriate organization of the delivery and production process. The basic idea behind the pull principle is to produce just as many units of a product as the subsequent (consuming or ordering) parties require. This principle works best with standard products with a steady requirement history and only few variants

The advantage of the pull principle lies in the fact that a just-in-time production helps to prevent overly large warehouse stocks and tied-up capital, and that it allows you to respond quickly and flexibly to customer requests. The disadvantages lie in a greater dependency on vendors since quantities and qualities not delivered in time might lead to loss of production.

Requirements

Requirements may be interpreted as product ordered by the customers or as preliminary products needed for production (e.g. meat parts). The requirements in MRP Calculation therefore are the material quantities to result as outputs in the calculation. After the requirements (e.g. in kg or PC) are entered, MRP Calculation will calculate the actual input quantity to be stored in the cut list (in internal and/or external procurement; e.g. the number of living animals), that are actually needed to reach the desired quantity of meat parts (e.g. kg) after Disassembly. This efficient (optimized determination of the quantities of input materials (e.g. number of living animals) is achieved by entering the requirements.

Push/Pull Principle

MRP Calculation is a combination of the two principles, push and pull. One push principle element is, for instance, the indicators *Read stock* and *Use stock*, since this function allows you to include existing stocks in the calculation. The decisive pull element in MRP Calculation is the possibility to enter material requirements. With pull and push/pull calculation, the system calculates repeatedly forward and backwards in an iterative process to reach an optimization of the quantities.

Summary

The two types of production – push and pull – differ in the direction in which the information and the orders for disassembly and production are passed on. With the push principle, the program reacts to goods offered by producers and vendors, whereas with the pull principle the demand side is the main influence, i.e. production (disassembly is mainly driven by the customers' purchase orders.

The following table gives an overview of these functionalities:

Calculation Type	Description
Push calculation	— The push calculation performs a forward calculation (calculating the cut list from top to bottom). — The Standard Cost Estimate is a pure push calculation. — With the push calculation, defined requirements are not factored in. — No quantity optimization with the push principle.
Push/pull calculation	— MRP Calculation is a combination of push and pull calculation — The push principle is demand/requirement-based. — Only the push/pull calculation will factor in the needed requirements. — Quantity optimization is performed — A pure pull principle may also be termed "get" principle.

6.4 Overview of the Functions

Function	Relevant in Standard Cost Estimate	Relevant in MRP Calculation	Relevance
Requirements	No	Yes	Influences the calculation and its result
Procurement types	Yes	Yes	Influences the calculation and its result
Purchasing strategies	No	Yes	Influences the calculation and its result
Read/use stock	No	Yes	Influences the calculation and its result
Purchasing minimum/maximum	No	Yes	Influences the calculation and its result
Cut to zero	No	Yes	Influences the calculation and its result
Fixed quantity	Yes	Yes	Influences the calculation and its result
Surplus cut (% and fixed quantity)	No	Yes	Influences the calculation and its result
Lock cut	Yes	Yes	Influences the calculation and its result
By-products	No	Yes	Influences the calculation and its result
Price strategy	Yes	Yes	Influences the calculation and its result
Purchase requisitions (PurchReqs)	No	Yes	Creation of purchase requisitions for external procurement
Weight gain possible	Yes	Yes	Influences the calculation and its result
Further use minimum/maximum	Yes	Yes	Influences the calculation and its result
Conversion to DAO (release)	No	Yes	Disassembly order (DAO) is created
Update	Yes	Yes	Transfers calculation data to SAP Standard table
Cost view	Yes	Yes	Evaluations in both calculations

Note
Functions which are relevant in both Standard Cost Estimate and MRP Calculation are described in detail in the "Standard Cost Estimate" chapter. In the "MRP Calculation" section, these functions will only be treated in brief with reference to the "Standard Cost Estimate" chapter.

6.4.1 The Functions in Detail

The functions listed below were already discussed in the chapter on the Standard Cost Estimate. Since they are also of some relevance in MRP Calculation they will be described in brief. For a detailed description please see the "Standard Cost Estimate" section. Those functions are:
— Procurement types
— Fixed quantity
— Lock cut
— Price strategy
— Weight gain
— Further use minimum/maximum
— Data update

The following functions particularly relevant to MRP Calculation are also described in this chapter:
— Cut to zero
— Surplus cut
— By-product

6.4.1.1 Procurement Types

The procurement type is a classification which determines whether a cut input material was produced in-house or procured from a third party, or whether both is possible.

Note
Please take note that this setting for the procurement type in the cut list or calculation is made independent of the settings in the material master database (MRP 2 tab). These settings must looked at from the point of view of the cut list.

The setting options *in-house production*, *external procurement* and *both procurement types* are possible. Depending on the procurement type, the following setting parameters are provided:
— Purchasing strategies (max. 4 strategies)
— Read stock / use stock
— Purchasing minimum/maximum

Apart from these parameters there is the *Inbound* field (*Quantities /Material Costs* tab) which is influenced by the selections made for the procurement type and the settings for the purchasing strategy:

Note
The procurement type may be selected freely for all input materials (with one exception). The following procurement types may be selected:

— *In-house production*
— *External procurement*
— *Both procurement types (internal and external procurement)*

The one exception here is the topmost input material. The default procurement type for this material is always external procurement which cannot be changed. For this material there is no source cut and only one inbound into the cut list from an external source. This may be procurement from an external vendor or procurement from own stocks. This setting is independent of the respective setting for Procurement in the material master database.

Purchasing strategies
The purchasing strategies are shown in dependence of the procurement type. For external procurement or both procurement type (in-house and external), several purchasing strategies are available. These may be configured at the level of input and output materials. The default setting is *Manual, or stock only*.

Depending on the settings for this purchase strategy, the proposed quantities are automatically passed on to inbound or may be entered manually.

The following four strategies are available for procurement type *both procurement types*:
— Manual, or stock only
— All
— Difference (inhouse preferred)
— Difference (external preferred)

For procurement type *external procurement*, only the following two strategies are available:
— Manual, or stock only
— All

Please take note of the following feature:
Entering quantities manually in the above-mentioned field *Inbound* (*Quantities / Material Costs* tab) is only possible with strategy *Manual, or stock only*.

Procurement type *inhouse production* has the following features
— The read stock /use stock function is not available
— Purchasing strategies functions are not available
— Inbound quantities in the *Quantities* tab may not be entered manually

Table: Procurement Types / Stock / Purchasing Strategy

Procurement Type	Read Stock and Use Stock	Purchasing Strategies	*Quantities* Tab (Quantities Entry)
Inhouse production	Function not available	Function not available	Function not available
External procurement	Can be used	Function available: Manual All	Only available with strategy *Manual/stock only*
Both procurement types	Can be used	Function available: Manual All	Only available with strategy *Manual/stock only*

Procurement Type	Read Stock and Use Stock	Purchasing Strategies	*Quantities* Tab (Quantities Entry)
		Difference (internal) Difference (external))	

6.4.1.2 Fixed Quantity

In the *Target Cuts* tab a fixed quantity may be entered for every input material. The fixed quantity specifies a quantity to be accurately cut for a certain cut. This value is a limit. After a fixed quantity is entered, the 100% usage is deleted automatically. The fixed quantity is the quantity which is transferred to the target cut.

Note
This setting may be made independent of other settings. Exception: the indicators Lock cut *or* Cut to zero *are set. In this case the* Fixed quantity *field is not ready for data entry.*

6.4.1.3 Lock Cut

If a cut is locked by selecting this field, the cut is not used for the calculation. The transferred quantity is put in outbound. Entries in the fields *Priority, % cut usage* and *Fixed quantity* will be deleted.

6.4.1.4 Price Strategy

If the *Price strategy* button is selected, a new pop-up window is displayed in which the materials which are relevant to the price strategy are listed. A material in a cut list is price-relevant if it occurs in more than one cut. In this overview you have the option to assign the master model price strategy to a material which is price-relevant. In order to do so, select the *Average Price* icon for the selected cut. After this, a cut (master cut) may be selected by choosing the *Master Model* radio button in the new pop-up window.

Selecting the *Average Price* radio button and confirming with Enter will undo this selection.

Price strategy options in Standard Cost Estimate are more comprehensive than in MRP Calculation.

In **Standard Cost Estimate** the user may select between the following settings (*MM Calculation Type* field:
— Use for update only (material costs only)
— Replace and recalculate (material costs only)
— Replace and recalculate (material and labor costs)

In **MRP Calculation** only the following setting is available and selected by default:
— Use for update only (material costs only)

Use for update only (material costs only)

If the price strategy is changed to master model, the newly determined master price is not shown or saved in MRP Calculation. Only after a data update to a manual calculation has been performed, the master price is used to valuate the quantities for the master model material. The calculation itself remains unchanged.

Note

The calculation uses average prices if no other setting option is selected for the price strategy. In MRP Calculation, there are no setting options available for the MM calculation type.

For further information on price strategies please refer to the following chapters in this document.
—   „Master Data: Disassembly"
—   „Standard Cost Estimate" (with example)

6.4.1.5 Weight Gain

If the *Weight gain* indicator is activated (at cut level, *Quantities* tab), the total of the output quantities in a cut may be greater than the input quantity. The total of the output percentages is then greater than 100. Manual adjustment of the quantities or quotas in percent will need to a redetermination of the quantities and quota in percent of all outputs if a re-calculation is performed.

Example

One example for weight gain in Disassembly is the use of the so-called spin chiller. After slaughtering, chicken carcasses are spun in a water/ice bath in these cooling machines and are cooled down quickly and efficiently. They absorb certain quantities of water and thus gain weight.

6.4.1.6 Further Use Minimum/Maximum

In the *Settings* tab the *Minimum* and *Maximum* fields may be used to enter quantities for each input material. "Further use" means the quantities are transferred from the source cut and are then passed on to the target cuts. These fields may be used in the calculation independent of the procurement type (inhouse production, external procurement, both procurement types).

6.4.1.7 Data Update

Once the data are saved, the values of the MRP Calculation may be updated into a SAP Standard table. This is a calculation without quantity structure (a so-called manual calculation) which may be called with transaction KKPBN. After the update, the calculation results are available to subsequent applications. The update is carried out with *Update prices/costs* button.

However, this function must be activated explicitly in Softproviding Meat Customizing. For further information on this topic, please refer to the "Standard Cost Estimate" section in this document.

6.4.1.8 Cut to Zero

This indicator *Calculate cut to complete at zero* may be set for each cut in the calculation for each cut in the calculation. If this field is selected, an additional column is added for all output materials of this cut which allows you to set the indicator individually per material.

Significance

If this indicator is set per material, only those maximum quantities are cut (forward calculation) which were calculated in the reverse calculation. From a technical point of view, a system limit is set which may be overruled with a user limit.

6.4.1.9 Surplus Cut

In the *Target Cut* tab each cut may be marked as a so-called surplus cut. This is either done by entering percentages or a fixed surplus quantity. This will define what quantity of the surplus is passed on to this cut.

Example

A combination of a fixed quantity and a surplus cut (quota and quantity). The input quantity for these 3 cuts is 5,000 kg. Without limiting each cut would receive its quantity according to predefined quotas in percent.

Input Quantity = 5,000 kg				
Cuts	Fixed quantity in kg	Surplus in %	Surplus in kg	Quantity in kg (transfer)
10	500	0	0	500
20	0	0	2,500	2,500
30	0	10	0	200

By setting limits (500 kg, 10% and 2,500), the quantities to transfer to the target cuts are recalculated according to the defined limits.

A limit of 10% is calculated as follows: (5,000 kg – 3,000 kg) * 0.10 = 200 kg.

The fixed quantity (kg) and surplus (kg) are added up and subtracted from the input quantity. From this result, 10% are calculated. In all, a total of 3,200 kg are transferred to the target cuts. 1,800 kg are put into outbound and not disassembled any further.

6.4.1.10 By-Product

The *By-Product* indicator may be set per material in the cut, or, at cut level (*Source Cut* tab). If this indicator is set, the material is not used to cover requirements when reverse calculation is carried out. However, quantities which arise from this cut are calculated (by-product).

Note
This indicator is relevant for MRP Calculation and the calculation of disassembly orders, but not for forward calculation (i.e. not relevant in Standard Cost Estimate).

Most of all, the performance of the calculation may be improved by thoughtfully setting indicators.

For further information see the explanation and the example in the chapter "Master Data: Disassembly" in this document.

6.5 Creating an MRP Calculation

MRP calculations may be created as follows:
— Via the Softproviding Meat application MRP Calculation.
— Automated, via the Softproviding Core DPS application. For more on this see the *Data Process System* documentation.

Caution
This document describes the creation of an MRP calculation via the *Create MRP Calculation* function.

Prerequisites

The MRP Calculation application may be carried out when the following settings have been made:

Master Data Settings
— The Softproviding Meat Master Data cut list was created. For information on how to create cut lists, please refer to the "Master Data: Disassembly" section.

Customizing Settings
— General and plant-specific Softproviding Meat setting for MRP Calculation
— General SAP Standard settings

Note
For closer information on these settings please refer to the Disassembly *configuration guide.*

Procedure

Menu	*Softproviding Meat > Production > Material Requirements Planning > Disassembly Processes > MRP Calculation*
Transaction	/SPMEAT/CLPA

1. Start the *Create MRP Calculation* activity using one of the options mentioned above.

2. Start the F4 input help. A pop-up window with various fields for the (multiple) selection of a cut list is displayed.

Note
In selection fields, an individual value and, where appropriate, a range can be entered in the pop-up selection window. Using the Multiple selection *button, you can:*
— *restrict the entries via selection options (for example, larger or smaller than an individual value and inside or outside a range)*
— *select several individual values or ranges which are to be used when creating a report*
— *exclude several individual values or ranges which are not to be used when creating a report*

For more information about multiple selections, see the SAP standard system documentation.

3. Start your search for a cut list by hitting Enter and then select a cut list by double-clicking.

4.   Again, confirm with Enter.

Result

The *Create MRP Calculation* overview is displayed. At this point the calculation may already be saved using the *Save* button without any other settings having been made. In this case, a calculation number is assigned with which the calculation may be called again later on. You may, however, work with the calculation, make any relevant settings, and save the calculation later on.

6.5.1 *Header Data* Screen Area

In the application toolbar below the menu bar you may select the *Header Data* button. In the right-hand screen area the tabs *Settings1* and *Settings 2* as well as *Order Overview* and *Administrative Data* are shown.

The setting options available in these tabs are described below:

6.5.1.1 *Settings 1* Tab

Dates

Field Name	Description
End	Basic end date. This date is relevant for the reading of the requirements. Reference is made to the stock/requirements list (transaction MD04).
Start	Basic start date. This date is relevant for the reading of the requirements. Reference is made to the stock/requirements list (transaction MD04).
Shift	In this field, a shift may be entered. **Example** — Early shift — Middle shift — Late shift This field is for informational purposes only. It is also transferred to the disassembly order.

Update Parameters
Please see the description in the "Standard Cost Estimate" section.

Settings

Field Name	Description
Calculation type	The calculation type defined in the cut list (push = supply-driven, or pull/push = demand- and supply-driven) is displayed here in MRP Calculation. In Standard Cost Estimate this setting option does not exist, since by definition the application performs a forward calculation. **Use** The pull principle is demand-driven whereas requirements are disregarded when the push principle is selected. This means that only with push/pull, the requirements are read and factored in during calculation and quantities are optimized as well. If you want to perform MRP Calculation factoring in requirements, this parameter must be set to pull/push.

Calculation Parameters

Field Name	Description
Planned order profile	When the planned order is created the planned order profile determines the order type, procurement type, the special procurement type as well as the account assignment category. **Use** This order profile is needed to create the planned orders when the MRP calculation is released. The planned order may then be converted into disassembly orders. For further information please see the description of the release of disassembly orders in this section. **Background** This profile is stored in Softproviding Meat Customizing and cannot be changed. Without assignment this field is mandatory in the application. **Recommendation** For Customizing it is recommended to use profile LA (warehouse order). This profile has the correct parameters for this process.

6.5.1.2 *Settings 2* Tab

Note
All setting options available in this tab are relevant to Standard Cost Estimate and were already described there. For further information on these settings please refer to the "Standard Cost Estimate Chapter" in this document.

In addition, MRP Calculation features the following setting options:
:

Settings

Field Name	Description
Stock determination type	In MRP Calculation the following stock determination types are available: — Available quantity on key date — Current stock (key date-independent) **Use** On material level (input or output material) stocks may be read and used. "Use" means the read (i.e. displayed) stock is transferred to inbound (*Quantities / Material Costs* tab). This is done using the stock determination type selected in this field. It follows that this setting is only relevant for the procurement types *external procurement* and *both procurement types*, but for the *inhouse production* option.
Requirements Determination	The following requirements determination types are available: — Available quantity (negative) — Total dependent requirements — Total order reservations — Total dependent requirements and order reservations — Total requirements — Total receipts and requirements **Use** The settings for the requirements determination type is needed, if you want to read in material requirements from the current stock requirements list (transaction MD04) in MRP Calculation. The default value in this field is selected in the Softproviding Meat Customizing. Moreover, the reading of these quantities is based on the basic start and end dates from the *Settings 1* tab.
Selection rule	The selection rule extends the existing options for requirements determination. The selection rule defines which MRP elements are displayed as affecting availability and how stocks are calculated **Use** — MRP Calculation — Long-Term-Planning Calculation An entry in the cut list is a modifiable default setting in both above-mentioned calculations. For further details on the selection rule see the following documents: — *Disassembly* configuration guide

6.5.1.3 *Order Overview* Tab

Assignment

Field Name	Description
Purchase requisition	Once the MRP calculation is released this field is filled with the number of the purchase requisition. By double-clicking on the purchase requisition number, the purchase requisition can be called in display mode. **Background** Input materials for a cut may be purchased (*external procurement* procurement type) or produced in-house within the calculation in Disassembly (*inhouse production* procurement type). Controlling takes place at input material level with settings for the procurement type. If desired, for materials which were procured externally purchase requisitions may be created for which, in a further step, purchases can be created. *Note* *It must be specified In Softproviding Meat Customizing whether you automatically want to create purchase requisitions for materials with procurement type external procurement. This field is only displayed if in Softproviding Meat Customizing the creation of purchase requisitions (per calculation or per material) is allowed.*
Planned order	This field is filled with the number of the planned order once the MRP calculation is released. **Background** This field is only displayed if the following setting was made in Softproviding Meat Customizing: *Create 1 planned order per calculation*. Alternatively, 1 planned order per disassembly process may be created. In this case the following setting was made in Softproviding Meat Customizing: 1 *Create 1 planned order per disassembly process*. For more on this see the following table (field *Plan*).

Order Overview

Field Name	Description
DAP	In this field, the abbreviation for the disassembly process which is relevant in the cut list and therefore also in MRP Calculation is displayed. Each disassembly process is displayed in its own row. **Examples**

Field Name	Description
	— SCHL = slaughtering — GROZ = primal cutting — FEIN = deboning
Profit center	A profit center is an organizational unit in accounting that reflects a management-oriented structure of the organization for the purpose of internal control. Entries in this field are preselected according to Softproviding Meat Customizing and cannot be changed here. In Softproviding Meat Customizing each disassembly process can be assigned a profit center which is displayed in this field. When the disassembly order is created, this profit center is copied into this field. When the PDA records are posted, a profit center document is created with the accounting document, and this profit center is posted to (prerequisite: profit center accounting is active).
Plan	After the MRP calculation is released, this field is filled with the number of the planned order. The planned order is prerequisite for creating a disassembly order. Using the *Disassembly Order* function the planned order is then converted into a disassembly order. **Background** This field is only displayed if the following setting was made in Softproviding Meat Customizing: *Create 1 planned order per disassembly process*. Alternatively, 1 planned order per disassembly process may be created. In this case the following setting was made in Softproviding Meat Customizing: 1 *Create 1 planned order per calculation*. For more on this see the following table (field *Planned order*). This means, field *Create 1 planned order per calculation* is not selected Double-clicking on the planned order number will take you directly to the planned order (in display mode). Once the planned order has been converted into a disassembly order, the planned order may no longer be called.
DAO	The number of the disassembly order is written into this field. The disassembly order is created with the *Create disassembly order* function. The disassembly order(s) are based on the planned order created beforehand. A separate disassembly order is created for each planned order. Double-clicking on the planned order number will take you directly to the planned order (in display mode). The order release function is described in the "Further Functions" section below.

6.5.1.4 *Administrative Data* Tab

In this area, the administrative data for the calculation are displayed with date and time:

Administrative Data

Field Name	Description
Created by	This shows the name of the user who created the calculation.
Changed by	This shows the name of the user who last changed the object.
Calculated by	This shows the name of the user who last calculated the object.
Update	This shows the name of the user who last started an update
Release	This shows the name of the user who released the calculation.
DA orders	This shows the name of the user who created the disassembly order(s).

6.6 Running an MRP Calculation

As started in the table overview on the Standard Cost Estimate and the MRP Calculation, there are a wide range of setting options in MRP Calculation that may be used to configure an individual MRP calculation and run it successfully. Below, you see which function may or must be used with this type of calculation.

The following functions will usually cause an adjustment of the calculation result:
— Requirements
— Procurement type
— Purchasing strategies
— Read/use stock
— Purchasing minimum/maximum
— Further use Minimum/maximum
— By-product
— Cut to zero
— Lock cut
— Weight gain
— Surplus cut
— Fixed quantity
— Price strategy

The following functions which may be carried out after the actual calculation has been completed do not affect the calculation result:
— Purchase requisition
— Conversion into a disassembly order (including release)
— Data update
— Cost view
— Post target/actual difference (In release v5.60, this indicator does not have any functionality. For more information on this field, see the "Master Data: Disassembly" chapter.)

6.6.1 Overview

Based on the settings and fields described in this chapter, a calculation of the cut list can be carried out.

Information from the cut list was already transferred when the MRP calculation was created and may, in part, be altered later on. Since this was already discussed in the chapter on the Softproviding Meat Standard Cost Estimate we will refer to the respective sections in the "Standard Cost Estimate" chapter for further information.

This concerns the following topics:
— Transferring information from the cut list (cannot be changed)
— Transferring information from the cut list (can be changed)
— Activities to create a calculation

The statements made in the Standard Cost Estimate documentation (see the "Creating a Standard Cost Estimate" section) are also valid for MRP Calculation.

An important difference, however, is the entry of requirement quantities which, in MRP Calculation, are entered using the *Requirements* button. This is described in detail in the following section.

Procedure

In the following, the procedure for the execution of MRP Calculation is described in detail. It will be differentiated between activities,

— concerning the checking of data transferred from the cut list, as well as
— activities to be made in order to get a calculation result using MRP Calculation.

Activities for the checking of data (in brackets where those checks take place)
— Checking the settings in the tabs *Settings 1* and *Settings 2*, especially the from/to calculation date and the start/end dates (header data).
— Checking the quantity distribution (percentages) to the target cuts (input materials level or via the *Cuts* button).
— Checking
    — Locked cuts and assignment of routings (*Cuts* button)
    — Procurement types and purchasing strategies (*Inbounds* button)

These activities are optional. Basically, this checks are made in order to determine whether to use the data from the cut list or the data from the copy model of another MRP calculation for the new calculation.

Activities for data maintenance (quantities; in brackets where this data maintenance may take place)
Entry of requirements (quantities) for output materials (*Requirements* button)
— Entry of fixed quantities for input materials (input materials level)
— Entry of quantities and percentages as surplus cut (input materials level)
— Entry of minimum/maximum values (quantities for further use in the target cut (input materials level)

6.6.2 Entering Requirement Quantities

In order to carry out a calculation effectively, a requirement quantity for at least one output material must be entered. This data is entered in the *Requirements* pop-up window which is called via the *Requirements* button or the menu path *Goto > Requirements*.

In this pop-up window, a list of materials is displayed for which material requirements may be entered. Material rows may already be marked. This marking (as default setting) is carried out in the respective material master database (*Meat Disassembly 1* tab).

Requirements may be read in from the SAP stock and requirements list for all selected materials (transaction MD04). In order to do this, the *Read requirements* button is selected. Afterwards, a pop-up window with the message "All previous information will be overwritten" is displayed.

If this information is confirmed, quantity determination is carried out as follows:

— To read in requirements, the basic start and end date from the *Settings 1* tab and stored requirement determination type (*Settings 2* tab) are used. Once requirements were read in automatically further material requirements may be entered and requirements that have were read in may be changed manually.

6.6.3 Calling Input Materials via Cut List

1. Select the *Quantities / Material Costs* tab (in order to enter quantities).

   Entering quantities in this quantity field (receipts/inbound) is possible if the requirement type and the procurement type are configured accordingly. The following table shows these dependencies:

Procurement Type	Quantity Entry Function (*Quantities* Tab)
Inhouse production	Function is not available
External procurement	Function is only available with strategy *Manual*
Both procurement types	Function is only available with strategy *Manual*

2. Select the *Target Cuts* tab (in order to enter fixed quantities).

   See the respective description in the "Standard Cost Estimate" section which also do apply here.

3. Selecting the Settings tab (for the entry of minimum/maximum quantities).

   See the respective description in the "Standard Cost Estimate", section which also do apply here.

6.6.4 Calling the *Maintain Inbounds* Screen

The pop-up screen which the *Maintain Inbounds* button opens, lists, row by row, all materials for which a procurement type, purchasing strategies and, in dependence of the purchasing strategy, quantities may be entered. These are the cut materials as well as all output materials since for those too an inbound quantity may be entered.

Note
The various fields contained in this screen are described in the "Standard Cost Estimate" section or elsewhere in the "MRP Calculation" chapter.

6.6.5   Relevance of the Tabs

See the respective description in the "Standard Cost Estimate", section which also do apply here.

6.6.6 Relevance of the Quantities and Material Costs

In MRP Calculation the quantities relevant to the calculation usually are the requirement quantities. The calculated quantities are multiplied with the price from the assigned price source and transferred to the target cut(s). The source cuts take over the quantities and the values (quantities times price) as specified by their respective percentage.

In a next step the cut inbound quantities are distributed to the output materials of this cut. This too is based on the respective percentages. In both cases, the total must be 100.

Together with the calculated quantity the cut also adopts the material costs which also need to be distributed to the cut outputs. The distribution of these material costs is carried out based on equivalences and fixed prices.

Note
For further details please refer to the "Disassembly Orders" chapter (section "Disassembly Costs") further down. Said chapter may refer to quantities and cost determination for a disassembly order, however, the logic for determining quantities and costs in standard cost estimate is the same is the same as for disassembly order.

6.6.7 Relevance of the Labor Costs

See the respective description in the "Standard Cost Estimate", section which also do apply here.

6.6.8 Excursus on the Calculation Type

On the input material level, settings with respect to the calculation type may be made. This is a special setting which is only relevant to reverse calculation in variance calculation (for a description of variance calculation please see the "Disassembly Orders" chapter)

The following four settings may be made:
— Standard
— Calculate yield
— Calculate yield with rest to a cut
— Customer-specific (enhancement)

This setting is a method to calculate the distribution to multiple source cuts.

Note
This setting has nothing to do with the settings for the calculation type in the MRP Calculation header data (Settings1 tab).

6.6.9 The Result of the MRP Calculation

Based on the settings and data entries made, the program will perform a calculation when the *Calculate* button is selected. Among others the following parameters will be checked and included in the calculation:

— Settings in the header data
— Entered requirement quantities and input materials
— Entered fixed prices and equivalences of the materials for material cost calculation
— Entered fixed prices and equivalences of the materials for labor cost calculation

Quantities and values are determined according to the definition of the cuts and the cut list as well as the settings made in MRP Calculation.

The objectives of the Softproviding Meat MRP Calculation have been attained:

— Determination of the input quantities needed to cover the requirements
— Distribution of the calculated quantities and values to the output materials
— Preparation of the data for the use of data/prices in follow-on functions (update)

Calculation analysis
Information on the results of the Costing may be displayed using the following buttons:

— Display input materials
— Display output materials
— Maintain inbounds
— Maintain cuts
— Cost views

Via the cut list, the results of the calculation may also be called per cut and material (by double-clicking).

For further information on calculation analysis, please refer to the "Disassembly Orders" section.

6.6.10 Further Functions

This section describes all activities which may be executed
— by selecting individual menu items in the SAP menu bar, or
— by selecting individual buttons in the application tool bar.

6.6.10.1 Menu Items in the Menu Bar

The following menus are available for selection in the menu bar:

MRP Calculation

Menu Item	Description
Navigate backwards	Please see the description in the "Standard Cost Estimate" chapter.

Menu Item	Description
Navigate forward	Please see the description in the "Standard Cost Estimate" chapter.
Hierarchy display	This menu is activated if the structure (explorer on the left side) is hidden.
Save	This menu item may be selected if the calculation is processed in the *Create* or *Change* status. Newly created data are saved, and the transaction is exited.
Exit	Please see the description in the "Standard Cost Estimate" chapter.

Edit

Menu Item	Description
Calculate	This function calculates the MRP calculation. This means, the cut list is calculated according to the existing settings and the entered quantities (kg) and prices.
Change UoM	Please see the description in the "Standard Cost Estimate" chapter.
Change currency	Please see the description in the "Standard Cost Estimate" chapter.
Release > Release	By starting the release of the MRP calculation, planned orders are created (per disassembly order or per calculation, depending on the customizing settings made). If there are no planning data available for disassembly process, the following message is displayed: *"Disassembly process XXXX has planned quantity 0. Therefore, no planned order is created."* Starting the release of the MRP calculation will also create purchase requisitions, if the respective settings were made in Softproviding Meat Customizing. In order to carry out the release, the calculation must be saved first. Releasing the calculation will hide the *Calculate* button, since no more changes must made in the calculation. At the same time the *Create disassembly orders* button is displayed.
Release > Cancel release	This function may be used to cancel the release of the MRP calculation. Planned orders that have been created are deleted, purchase requisition that were created get a deletion flag. The respective numbers are deleted from the fields. The *Calculate* and *Release* buttons are displayed again. The *Create disassembly orders* button is removed again.
Create disassembly orders	See the description further down in this chapter.
Cancel	Please see the description in the "Standard Cost Estimate" chapter.

Goto

Menu Item	Description
Header data	Please see the description in the "Standard Cost Estimate" chapter.
Long text	Please see the description in the "Standard Cost Estimate" chapter.
Graphics	Please see the description in the "Standard Cost Estimate" chapter.
Price strategy	Please see the description in the "Standard Cost Estimate" chapter.
Output materials	Please see the description in the "Standard Cost Estimate" chapter.
Requirements	Please see the description in the "Standard Cost Estimate" chapter.
Cost view	Please see the description in the "Standard Cost Estimate" chapter.
Disassembly plan	Please see the description in the "Standard Cost Estimate" chapter.
Maintain inbounds	Please see the description in the "Standard Cost Estimate" chapter.
Maintain cuts	Please see the description in the "Standard Cost Estimate" chapter.
Back	Please see the description in the "Standard Cost Estimate" chapter.

Requirements Menu Item (Details)

In order to be able to effectively carry out a calculation, usually at least one material and a requirement quantity are entered.

Note

By carefully setting surplus quantities and/or surplus quotas, a calculation may be run successfully without entering requirement quantities. In this case, however, entering external quantities for an input material is necessary.

Requirements are entered in the *Requirements* pop-up window which opens after the *Requirements* button or the *Goto > Requirements* menu item is selected. In this pop-up window, a list of materials is displayed for which material requirements may be entered.

The following fields are displayed in this pop-up window:

Field Name	Description
Material	A material is an item which is the subject of a business activity. In this field the material number is shown.
Material short text	This field shows the short text for the material.

Field Name	Description
Do not use requirements for the calculation (indicator)	If this indicator is set, entered requirements will not be factored in the calculation for this material. This indicator is set in the respective material master (*Meat Disassembly 1* tab).
Quantity (units)	This field is ready for data entry if *Units UoM* was activated for the material in material master (*Meat Disassembly 1* tab).
UUM	Unit unit of measure. The unit of measure for the field *Quantity (units)*. Usually PC (pieces).
Quantity (weight)	This is the quantity of the output material with which the calculation is carried out within the cut.
WUM	Weight unit of measure. The weight unit of measure is determined from Softproviding Meat Customizing. If there is no value stored in Customizing, the unit kg (kilo) is used.
Quantity (double)	This field is ready for data entry if *Double unit of measure* was activated for the material in material master (*Meat Disassembly 1* tab).
DUM	Double unit of measure. The unit of measure for the field *Double UoM*. Usually PC (pieces).

After confirmation with Enter, the requirements are transferred and the pop-up window is closed. In order to perform the calculation, the *Calculate* button must be selected.

6.6.10.2 Application Toolbar

The following buttons are available in the application toolbar:

Button	Description
Navigate backwards	Please see the description in the "Standard Cost Estimate" chapter.
Header data	Please see the description in the "Standard Cost Estimate" chapter.
Navigate forward	Please see the description in the "Standard Cost Estimate" chapter.
Long text	Please see the description in the "Standard Cost Estimate" chapter.
Cost view	Please see the description in the "Standard Cost Estimate" chapter.
Material overview	See the description at the end of this table.
Display input materials	Please see the description in the "Standard Cost Estimate" chapter.
Display output materials	Please see the description in the "Standard Cost Estimate" chapter.

Maintain inbounds	Please see the description in the "Standard Cost Estimate" chapter.
Maintain cuts	Please see the description in the "Standard Cost Estimate" chapter.
Requirements	See the description further up in this chapter.
Check cut	Please see the description in the "Standard Cost Estimate" chapter.
Calculate	This function calculates the MRP calculation, meaning the cut list is calculated according to the existing settings and the entered quantities and prices. Once the calculation is released, this button is no longer available. Should the release be canceled, the button is displayed again.
Release	See the description for the *Release* menu item further up.
Create disassembly orders	This button is made available after the calculation was released. If this button is selected a pop-up window with the following message is displayed: *"Plan needs to be saved first. Do you want to save?"* This message may be confirmed as follows: — *Yes*: If the message is confirmed with *Yes*, a second pop-up window is displayed where the disassembly process(es) may be selected for which a disassembly order is to be created. When the disassembly orders are selected and confirmed with Enter, the message *"Disassembly order xxx saved."* Is displayed. The order number is stored in the order overview. — *No* or *Cancel*: The activity is canceled. No disassembly order is created. *Note* *The selected disassembly orders must be assigned to the same profit center. Only if this is the case, a disassembly order is created.*
Price strategy	Please see the description in the "Standard Cost Estimate" chapter.
Update prices/costs	Please see the description in the "Standard Cost Estimate" chapter.

Material Overview Menu Item (Details)

Selecting this button will display all materials of the cut list. The materials are displayed by row and with the following information:
— Materials
— Various quantity fields like, for instance, quantities (weight), requirement quantities and calculated output quantities

Further functions like filtering, sorting or list exporting allow you to further process this information.

The information in this menu item are displayed by means of the ALV Grid Control.

Note
Please refer to the description of the ALV Grid Control given in the "Master Data: Disassembly" chapter further up in this document.

6.7 Changing/Displaying an MRP Calculation

MRP calculations may be called at any time using Softproviding Meat-specific transactions, provided they have not been deleted.

Procedure

Menu	*Softproviding Meat > Production > Material Requirements Planning > Disassembly Processes > MRP Calculation > Change/Display*
Transaction	/SPMEAT/CLPB (Change) /SPMEAT/CLPC (Display)

1. Call the *Change MRP Calculation* activity using one of the above-mentioned options.

2. Use the input help (F4) to select a calculation and confirm your selection with Enter

    The *Change MRP Calculation* overview is displayed. It is subdivided into the following screen areas:
    — Explorer to represent the cut list (left-hand side)
    — Tabs which are displayed when a node in the cut list is selected (right-hand screen area).
    — Toolbar with various buttons (upper screen area)

Depending on the "status" of a calculation (e.g. the calculation has already been released and a disassembly process created), adjustments can be made and a new calculation can be executed.

6.8 Copying an MRP Calculation

The copy function allows you to use existing MRP calculations when you want to create a new MRP calculation.

Procedure

Menu	*Softproviding Meat > Production > Material Requirements Planning > Disassembly Processes > MRP Calculation > Create*
Transaction	/SPMEAT/CLPA

1. Call the *Create MRP Calculation* activity using one of the above-mentioned options.

2. Select the copy function via the menu path *MRP Calculation > Copy* or using the *Copy* button.

   The *Select Template* pop-up window is displayed where you may select an MRP calculation number as a template using the input help (F4).

3. Confirm your selection with Enter.

Result

The MRP calculation you copied is started in *Create* mode. The data which are displayed may be used, edited and saved as specified in the chapter "Creating an MRP Calculation".

7 Disassembly Orders

7.1 Overview

Disassembly orders (hereinafter also referred to as DAO) are required to enable entry of input and output materials for *disassembly process entry (inbound)* and *disassembly process entry (outbound)*.

Disassembly orders are Softproviding Meat-specific production orders that are only used in disassembly. They are based on a *cut list*, which in turn is a combination of various *cuts*.

Cuts and cut lists are Softproviding Meat-specific master data in disassembly.

When creating a DAO, the cut list is copied and its settings are applied. In the *Change Disassembly Orders* application, cuts and/or cut lists can thus be modified without changing the original cuts and/or cut lists. Conversely, changes to original cuts or original cut lists do not affect the copy of the cuts list used for the DAO.

A disassembly order can be created for several cuts and materials and thus also for different disassembly processes. Thus it is possible, for example, to edit various materials e.g. on one or more disassembly lines and invoice the disassembly materials arising in the various cuts on the disassembly order.

Disassembly orders can be created as follows:
— Directly via the function *Create disassembly order*
— Via an MRP calculation (= calculation based on requirements)
— Automatically via the Softproviding Core application DPS (Distribution Process System)

Note
This function in the DPS application needs to be set individually as part of a customer project, as access is via a BAPI. This is not possible in DPS standard.

When a disassembly order is created, a SAP standard production order is created at the same time, with the same order number. This standard production order documents, among other things, the order progress (e.g. goods movements and cost situation) and furthermore is needed to perform period-end operations once all entries have been made.

You can find further information on period-end closing, in the section entitled "Period-End Closing – Disassembly Order" in this document.

Actual data is then entered in the disassembly orders
— directly in SAP via SAP GUI applications (SAP Graphical User Interface)
— by means of Softproviding DGA applications (DGA = *Device Gateway Applet*; e.g. DGA-TPE, DGA-TPA) or
— via Softproviding RAF applications (= *Remote Application Framework*)

Softproviding-specific transactions are provided in the SAP GUI for these entries. The disassembly orders themselves are similarly accessed via a separate Softproviding transaction. Entries to the disassembly order (inbound/outbound) result in the creation of what are known as *process data records*. These are updated in Softproviding-specific tables for data entry (in particular /SPDGS/PDAO table). These data records remain available for further processing (e.g. stock-relevant update).

For further details regarding process data, please refer to the "Process PDA Operation" section in the *Process Data* user documentation.

Regardless of how the entries were made (SAP GUI, DGA or RAF), the actual data is updated in the disassembly order on a cumulative basis by material. These actual quantities are updated in the DAO as soon as the entries are made, there is no time delay. This ensures they are available for immediate display.

In the disassembly order, you can check the entries and compare target and actual data.

Disassembly orders are usually daily orders. This means that entries are usually completed at the end of the day so that orders can be reported on the same day or in the days that follow.

References

At various points in this document, you will be referred to further information contained in other documentation. This relates to
— references to upstream *master data documents*
— documents detailing customizing (configuration)
— and documents detailing subsequent activities and subsequent processes.

7.2 Create Disassembly Order

Disassembly orders can be created as follows:
— Directly via the *Create disassembly order* function, i.e. with no preceding MRP calculation and/or without using the DPS.
— Via the Softproviding application *MRP Calculation.* Please also see the "MRP Calculation" section in this document.
— Automatically via the *DPS* application. Please also see the *Data Process System* user documentation.

Caution
What follows in this document is the description of the creation of a disassembly order via the *Create Disassembly Order* function.

Note
A separate order type is required to create disassembly orders. This needs to be created in advance and assigned to the Disassembly Process *order type in Softproviding Core Customizing.*

Prerequisites

The *Create Disassembly Orders* application can be executed if the following settings have been applied:
Master data settings
— The Softproviding Meat master data *cut list* has been created

For the creation of cut lists, please refer to the "Master Data – Disassembly" section.

Customizing settings
— General and plant-specific Softproviding Meat settings for the disassembly order
— General SAP standard settings

For the settings required, please refer to the explanations in the *Disassembly* configuration guide.

Procedure

1. Call up the *Create disassembly orders* activity via one of the stated options.

SAP Menu	*Softproviding Meat > Production > Execution > Disassembly Processes > Disassembly Orders > Create*
Transaction	*/SPMEAT/CTOA*

2. Star the input help (F4). A pop-up window appears containing various fields for (multiple) selection by cut list.

Note
In selection fields, an individual value and, where appropriate, a range can be entered in the pop-up selection window. Using the Multiple selection *button, you can:*

—   Restrict the entries via selection options (for example, larger or smaller than an individual value and inside or outside a range)
—   Select several individual values or ranges which are to be used when creating a report
—   Exclude several individual values or ranges which are not to be used when creating a report

For more information about multiple selections, see the SAP standard system documentation.

3.   Press Enter to start your search by cut list, then select a cut list by double-clicking on it.

4.   Confirm again by pressing Enter. A pop-up window is then displayed from which you can make your disassembly process selection.

Note
If the cut list only contains 1 cut or several cuts with the same disassembly process (e.g. ZERL = Disassembly), this pop-up window does not appear as no disassembly process needs to be selected.

Field descriptions for the *Disassembly Process Selection* pop-up window

Field Name	Description
Select "lines" (Set indicator)	If a disassembly process has this indicator, it is copied when creating the disassembly order. At least 1 disassembly process needs to be selected.
Disassembly processes	A disassembly process is an organizational process in slaughtering and disassembly (e.g. primal cutting, deboning). The disassembly processes from the selected cut lists are copied and displayed.
Profit Center	The profit center is an internal accounting unit that organizes companies according to aspects of internal control. Results can be established for a profit center. Entries in this field are preset according to Softproviding Meat Customizing. They cannot be changed here.
Continue **button**	This button is used to confirm selection of the disassembly process.
Select all **button**	This button is used to select all disassembly processes.
Delete all selections **button**	This button is used to deselect all disassembly processes.
Cancel **button**	This button is used to cancel the process for creating the DAO.

Note – Profit Center
In Softproviding Meat Customizing, disassembly processes can be assigned to profit centers. When creating a DAO, care should be taken when selecting disassembly processes to ensure the order can then only be created when the selected disassembly processes have been assigned to the same profit center. If disassembly processes without profit centers exist, this will not prevent the creation of a DAO if disassembly processes with profit centers have also been selected.

The profit center needs to be assigned in the disassembly process so that a profit center document can be created with the assigned profit center. If disassembly processes are not assigned to any profit center, the profit center from the respective material master is entered in the profit center document or, if no profit center is stored in the material master, the dummy profit center is used. Naturally, the general requirement for this is that profit center accounting is activated.

5. Select the required *disassembly process*es and confirm by pressing Enter.

Note – Disassembly Processes
If, for example, only 1 disassembly process is selected (e.g. SCHL = slaughtering) the DAO includes only the cuts and thus the materials that are assigned to this disassembly process in the cut list. Several disassembly orders can thus be created for various disassembly processes in a list.

6. If applicable, the *Maintain settlement rule* screen then appears. No entries should be made in this settlement rule. At the bottom of the screen, a notice appears stating "Distribution rule could not be created automatically".

7. Click the *Back* button to exit this screen. Creation of the disassembly order is resumed.

Note – Settlement Rule
When creating a disassembly order this settlement rule is shown, if necessary. This is a SAP standard screen. The settlement rule is required to enable various activities to be completed as part of period-end closing, such as e.g. "Preliminary settlement of disassembly orders" (Softproviding activity).

The appearance of this settlement rule can be suppressed. However, this means a change is required. The activities required for this are detailed in the Disassembly *configuration guide.*

Result

The *Create disassembly order* overview is displayed. Click on the Save button to save the order. An Order number is then assigned.

7.2.1 Order Release

After saving, disassembly or production orders are assigned with one of several systems statuses (e.g. EROF, FREI).

When the disassembly order is created, the order can also be automatically released at the same time as being opened. This functionality is used, if, e.g. no time is required for preparation activities between opening and releasing orders. This automatic release is specified in the *production control profile* (transaction OPKP). This profile is assigned accordingly in Softproviding Meat Customizing.

For settings, please refer to the appropriate documentation in the *Disassembly* configuration guide.

Alternatively, orders that are not automatically released and, which consequently remain in the status of *EROF (Open)*, can be released manually as follows:
— Use the transaction CO02 to call up the production order.
— Select *Functions > Release* from the menu. *Save* the order.
— Called up the disassembly order with the transaction /SPMEAT/CTOB.
— Select *Functions > Release* from the menu. Save the order.

Note
The disassembly order must be released to ensure that entries can be applied to disassembly orders.

Use of Released Orders

Released disassembly orders are processed using Softproviding entry functions
— Disassembly process entry (inbound) and
— Disassembly process entry (outbound)

Entry activities in these applications are detailed in a separate document. Please refer to the "Process Data Acquisition: Disassembly" section in the *Process Data* documentation.

Caution
Entries (process data) applied to input and output materials are assumed below when describing the DAO.

7.3 Change Disassembly Order

As long as they have not been archived, disassembly orders can be accessed at any time using Softproviding Meat-specific transactions.

Procedure

SAP Menu	*Softproviding Meat > Production > Execution > Disassembly processes > Disassembly orders*
Transactions	/SPMEAT/CTOB (Change) /SPMEAT/CTOC (Display)

1. Call up the *Change disassembly orders* activity via one of the aforementioned options.

2. Use the input help (F4) to select an order and confirm by pressing Enter.

3. The *Change Disassembly Order* overview is displayed. This is split into 2 sections:
   — *Order data* (upper section)
   — *Tab overview* (middle section)

7.3.1 *Order Data* Section

In the upper section of the screen, the following fields are displayed under *Order Data*:

Field Name	Description
Order	The order number is entered in this field when the DAO is created or accessed. Disassembly orders are Softproviding Meat-specific production orders that are only used in disassembly.
Short text	A description of the order can be entered in this field. The field can be pre-populated with the cut list text *(*Softproviding Meat Customizing*).*
Cut list	Cut lists are Softproviding Meat-specific master data for the creation of calculations and disassembly orders. The cut list is the highest organizational unit in the disassembly. The cut list number used to create the disassembly order is entered in this field. *Note* *This cut list field is replaced by the* MRP calc. *field if the disassembly order was created based on an MRP calculation.*
Status	The system status for the order appears in this field. **Examples** $EROF = Open

	ABRV = Settlement rule entered
	FREI = Released
	To the right of the status, there is a blue (information) button. Information provided here includes
	— active/inactive system status
	— permitted/prohibited business operations for the status.
Plant	The plant is an organizational unit in logistics that structures the company in terms of production, procurement, maintenance and materials planning. Materials are produced and goods and services are provided in a plant. The plant is a company's production site.
Disassembly process	The disassembly processes from the selected cut lists are copied and displayed. To the right of the disassembly processes, there is a blue (information) *button*. Information is provided here regarding
	— disassembly processes for the order and the assigned profit center.

7.3.2 *Tab Overview* Section

In the center of the screen, you will see an *overview* of the following *tabs*:
— General
— Cuts
— Inbound
— Outbound
— Controlling
— Long text
— Disassembly plan

The information contained on these tabs is detailed below.

The *Cuts, Inbound* and *Outbound* tabs specify those cuts or materials for cut lists for whose disassembly processes the order was created. Cuts and materials from disassembly processes that were not selected when creating a DAO are also not copied into the DAO. Consequently, there is also no possibility of entering quantities for these materials.
Please note that the disassembly processes (and consequently their cuts and materials) not selected still feature in the cut list, such that other disassembly processes (and consequently cuts and materials) can subsequently be copied to the DAO. The cut list used can still be called up within the DAO. For further information on this subject, refer to the key words "Cut list view" in this document.

Materials in *Inbound* are *input materials* that are imported into the disassembly process as part of disassembly as per the cut list and then further disassembled or discharged as output from the disassembly process if there is no further disassembly.

Materials in *Outbound* are *output materials* that arise as part of disassembly as per the cut list and that are then either further disassembled or discharged from the disassembly process and posted as goods receipt into the warehouse.

Note
The individual fields in the Cuts, Inbound and Outbound tabs are displayed in the following colors:
— *Actual data = green*
— *Planning data = red*
— *Target data = yellow*
— *Requirements = gray*

7.3.2.1 *General* Tab

Field Name	Description
Total quantity	The total quantity is the total planned quantities of cut input materials (*Inbound* tab). This can be the manually planned quantity or the planned quantity copied from the upstream MRP calculation. If no planned quantities are available, the system enters a value of 1. The field is a display field. *Note* *The transfer of a manually planned quantity into this field is explained in this document in the Plan manually field description.*
Unit of measure (UoM)	The *Weight UoM* from the material master (*Meat Disassembly 1* tab) of the highest input material in the cut list is copied as the unit of measure. *Note* *In this* Weight UoM *field, the setting as per Softproviding Meat Customizing is in turn copied in the following order:* *1. Plant (/SPMEAT/TC001W)* *2. Global (/SPMEAT/TC001)* *3. KG (Kilogram (fixed))* *The field in the material master is a display field into which this customizing information is written.*
Basic start and basic finish dates	When creating the DAO via an MRP calculation, the dates are copied from the MRP calculation. When the order is created directly via the cut list, today's date is used for both fields. These dates can be changed manually. If you do this, you should note that the scheduling type changes the dates, if necessary, after the order has been manually released or saved.
Scheduling type	Key specifying the scheduling type for detailed scheduling. Scheduling type proposals are copied from the settings for the scheduling parameters (transaction OPU3).

Field Name	Description
Variance key	Entry of a key to determine *variances* as part of period-end closing. This field can be pre-populated with a proposal from Softproviding Meat Customizing. Variances can only be determined for orders for which a variance key has been entered.
Profit center	In Softproviding Meat Customizing, a profit center can be assigned to each disassembly process. When creating a DAO, this profit center is copied into this field. When PDA data records are posted, a profit center document, as well as the accounting document, is created and a posting is made to this profit center (requirement: *Profit center accounting* is active).
Shift	This field is for information only. If shifts have been created in Softproviding Meat Customizing, they can be assigned here. **Example** — Morning shift — Evening shift
Comment	A free entry field that can be used for customer-specific purposes (e.g. reports). This field is for information only.
Vendor	A vendor is a business partner who supplies materials or services. The vendor incurs an obligation for deliveries made or services rendered. The input help can be used to select and assign a vendor. This field is for information only.
Customer	A customer is a business partner with whom business relationships regarding the provision of products or services can exist. This field is for information only.
Key date	This key date is used to read the current equivalences, prices, cost data and fixed indicators from the material master. The field is populated as follows: — Copy from the MRP Calculation if the DAO is based on an MRP calculation. — Today's date if the DAO was created directly via the cut list. **Field adjustment** In Softproviding Meat Customizing, the date in this field can be adjusted so it adapts to the basic star and basic end date fields. These settings are also available for Standard Cost Estimate and MRP Calculation. **System behavior** If the above-mentioned customizing settings were made, the system behavior in the application is as follows: — If the key date is less than the basic start date, the key date is set to the basic start date. — If the key date is greater than the basic end date, the key date is set to the basic end date.

Field Name	Description
	— If the key date lies between the basic start and end date it remains unchanged.
Plan manually	The *Plan manually* field is only active if the DAO was created directly, i.e. based on a cut list. The indicator is inactive if the DAO was created based on an MRP calculation, as in this case, the planning data will be copied from the MRP calculation. This indicator is only set in special cases. It is then possible to enter planned quantities and planned prices for materials, as follows: — Planning data for input materials in the *Cut* tab — Planning data for input materials in the *Inbound* tab for all procurement types (E, F and X) — Planning data for output materials in the *Outbound* tab — Requirements for output materials in the *Outbound* tab However, please note here that the DAO regarding the planning data and requirements is not changed by *calculation*, i.e. these manually entered planning values remain without restriction. The Total quantity field (*General* tab) is populated with the total from the *Inbound* planned quantities. **Internal MRP calculation** A distinction should be made in cases where this indicator is not set. Planning values and requirements can then be entered as follows: — Planning data for input materials in the *Inbound* tab, however, only for the procurement type X (= both procurement types) — Requirements for output materials in the *Outbound* tab In this case, the program calculates according to the *calculation*, as with an MRP calculation. The Total quantity field (*General* tab) is populated with the total from the *Inbound* planning quantities. *Note* *If subsequent reference is made in this document to an "internal MRP calculation" it is where the aforementioned indicator has not been set. As a result of entering requirements and, if appropriate, planning quantities in the input, planning data is calculated in the DAO after the calculation.*
MPD version	*Softproviding Meat Market Price Determination* is used to determine average market prices of materials based on an MPD version. These market prices can be used to value additionally purchased quantities of input or output materials in the DAO. To do this, the required MPD version is selected in the cut list and the relevant key date is entered. The relevant price source (MPD market price *gross* or *net*) should also be selected at material level.

Field Name	Description
	For further information on market price determination, please refer to the "Market Price Determination (MPD)" section in the *Fresh Meat Procurement* user documentation.
Unit rounding	In the material master (*Meat Disassembly 1* tab) a material can be flagged as a unit material (*Unit material* field). In the DAO, the *Quantity* (*Unit*) field is then available for entering a planned quantity (double-click on the material line) for the corresponding input or output material. The *Unit rounding* parameter can be used to specify whether and how rounding should be undertaken for the quantities entered (in units). The following rounding options are available: — Round up (+) — Round down (-) — Round to the nearest whole number (x) — No rounding (blank) **Example:** If a planned quantity is entered manually in the DAO (e.g. a value of 9.8 in the *Quantity* (*Unit*) field (in the *Inbound* tab)) and rounding is set to "Round to the nearest whole number", the *Quantity* (*Unit*) will be set to 10 upon pressing *Enter*.
Master target calculation	In the disassembly order, the master target calculation can be set in the *General* view (values *Target 2, Variance* or *Target-actual*). This setting controls — which calculation is displayed in the *Outbound* view (yellow Target columns) — which calculation is shown in the cost view under *Target 2* — and which calculation is used as the basis for the *Target 1* calculation. — In this regard, the indicator *Target: total instead of calculate* is still in the cut list for the cut under the *Quantities* tab. This flag is only relevant for the variance calculation
Batch	A batch is a material subset that is handled separately from other subsets of the same material. Each batch is identified based on its specific batch number, rather than purely on its material number. This is a batch that is proposed for all materials that are always handled in batches for entries in disassembly outbound (= goods receipt). However, a different batch can be selected when making the entry.

Field Name	Description
	Note
	The Batch *field is only available here if the batch is assigned uniquely at plant level as per SAP standard customizing (transaction OMCE). If the batch is assigned uniquely at material level or uniquely at client level for a material, this field is not available in the disassembly order. In these cases, the output batch is assigned as per Softproviding Meat Customizing (batch per material or per cut and material).*
Calculate actual inbound quantity ('F' only)	If this indicator is set, the actual quantity is calculated in the *Inbound* tab based on the actual quantities entered in *Outbound*. However, this only applies for inbound materials, which have been assigned with a procurement type 'F' (= third-party procurement) in the cut list.
Default sources: *Equivalence*	For output materials, the source from which the *equivalences* need to be established, can be selected. To establish equivalences, the date is required in the *Key date* field in the *General* tab in the disassembly order. The following sources are available: — None (blank) — General view — Single-plant view — Manual entry — Default from cut list *Note* *A proposed entry can be copied from the cut list for this field. To do this, the* Default sources material costs equivalence *(Settings 2 tab) in the cut list needs to be maintained.*
Default sources: *Price source*	For output materials, the source from which the prices need to be established, can be selected. To establish prices, the date is required in the *Key date* field in the *General* tab in the disassembly order. The *price sources* available are listed at the end of this table. *Note* *A proposed entry can be copied from the cut list for this field. To do this, the* Default sources material costs price source *(Settings 2 tab) in the cut list needs to be maintained.*
Default sources: *Cost source*	For output materials, the source from which the *cost block costs* need to be established, can be selected. To establish cost block costs, the date is required in the *Key date* field in the *General* tab in the disassembly order. The following *cost sources* are available for selection: — None (blank) — General view

Field Name	Description
	— Single-plant view — Manual entry — Default from cut list *Note* *A proposed entry can be copied from the cut list for this field. To do this, the* Default sources cost block cost source *(Settings 2 tab) in the cut list needs to be maintained.*
Administrative data *Entry*	The user, date and time data relating to the creation of the DAO is entered in this field.
Administrative data *Change*	The user, date and time data relating to the last order data change is entered in this field.

Detailed description for the *Default sources* field: *Price source*
The following price sources for material costs can be entered:

Price Source	Description
1	Planned price 1
2	Planned price 2
3	Planned price 3
A	General view (tab in material master: *Meat Disassembly*)
B	Single-plant view (tab in material master: *Meat Disassembly*)
C	SAP calculation (material type)
D	MPD market price (net)
E	MPD market price (gross)
G	Tax-based valuation price 1
H	Tax-based valuation price 2
I	Tax-based valuation price 3
J	Commercial valuation price 1
K	Commercial valuation price 2
L	Commercial valuation price 2
S	Standard price
V	Moving price
X	Manual entry
Z	Default from cut list

Quantity fields: weight, unit, double quantities

Note
For the Cut, Inbound *and* Outbound *tabs explained below, the quantity fields of Weight, Unit and Double quantities and the associated unit of measure fields are explained again. The quantity fields mentioned can exist as plan, actual, target and requirement quantities.*

To simplify the explanation and facilitate understanding, the explanations begin with the following introductory and generally applicable information for the fields stated.

The following table provides an overview of which *quantity fields* are relevant in which tabs:

Tab	Planned Quantity	Actual Quantity	Target Quantity	Requirement Quantity
Cut	relevant	relevant	not relevant	not relevant
Inbound	relevant	relevant	not relevant	not relevant
Outbound	relevant	relevant	relevant	relevant

The following table provides an overview of the application from which these *quantity fields* are populated:

Tab	Planned Quantity	Actual Quantity	Target Quantity	Requirement Quantity
Cut	MRP calculation or "internal MRP" (manual entry)	Entry disassembly process inbound	not relevant	not relevant
Inbound	MRP calculation or "internal MRP" (manual entry)	Entry disassembly process inbound	not relevant	not relevant
Outbound	MRP calculation	Entry disassembly process outbound	DAO calculation	MRP calculation or "internal MRP" (manual entry)

Note
"Internal MRP calculation" (manual entry) refers to the case where nothing appears in the Plan manually *field (*General *tab).*

The *Planned quantity* fields are either populated by planning (*MRP calculation* or *"Internal MRP calculation"* (= manual entry)) or remain empty if there has been no planning or if none is required.

The *Actual quantity* fields are populated by entries made in disassembly process entry inbound and outbound. Materials with no entry show a quantity of 0 (zero).

7.3.2.2 *Cuts* Tab

This tab shows all relevant *quantity and price information* line by line *per cut*.

Please note that the *Actual data* fields that exist in this tab are only populated if an inbound on a cut has been entered.

Note
The Inbound tab (see below) shows the quantities entered both for the cut and the material.

Note
In general, entries are made for the material, not for the cut.

Information in this *Cut* tab is displayed using the ALV Grid Control.

Note
ALV Grid Control (ALV is the SAP List Viewer) is a flexible tool for displaying lists. It is used in a variety of applications both in the SAP standard system and in Softproviding products. It consists of a toolbar, a title and the output table which is displayed in a grid control.

The following functions are generally provided. Depending on the program, one or more of these functions may not be provided and special functions not described here may be offered:
— *Choosing details*
— *Sorting in ascending or descending order*
— *Finding terms*
— *Setting and deleting filters*
— *Calculating and deleting totals/averages/maximum/minimum*
— *Calculating and deleting subtotals*
— *Printing*
— *Choosing views*
— *Exporting data*
— *Selecting layout*
— *Displaying list graphics*
— *User documentation*

Click on the User documentation *button or access the SAP online help to obtain more information about using the buttons.*

All available fields are explained below.

Field descriptions *Cuts (Input)* tab

Field Name	Description
Cut	Cuts are master data in Disassembly. A cut consists of an *input material* and *n output materials*. The cut is the lowest unit in Disassembly and is defined for each plant. Similar types of cut are assembled into a cut list. This output table shows those cuts in the cut list that were selected by selecting the disassembly processes when starting the DAO.
Description	The description of the cut is stated.
Disassembly process	As each cut is assigned to a disassembly process, this field is always populated. Those cuts and consequently disassembly processes are shown that were selected by selecting the disassembly processes when starting the DAO.
Input material	**General** A material is an item that is the subject of a business transaction. In SAP, materials such as e.g. raw materials, semi-finished

Field Name	Description
	products, operating supplies and finished products are identified using a unique material number.
	An input material is a material which, as the highest material of a cut is defined and thus assembled and consequently "destroyed". As a result, 1-n output materials are formed. The input material of the cut is displayed in this field.
Description	The material description of the input material is stated.
Plan - quantity (unit)	This shows the planned quantity (in units) of the cut input material. **Prerequisites** In the material master (*Meat Disassembly* tab) the *unit material* indicator (*Unit material* field) has been set. If it has, this field is updated with — the planned quantity of the *MRP calculation* or — the planned quantity of the *"internal" MRP calculation*. **Unit calculation definition** Reference is made to a unit calculation, if — the entry unit of measure = PC or — e.g. the unit of measure = kg and the unit unit of measure = PC. For the unit calculation, it is not mandatory for each material in the cut list to be flagged as unit material in the material master. It makes sense just to flag the primal cuts as unit materials.
Unit of measure (unit)	The unit of measure *Unit* is copied from the material master (*Meat Disassembly 1* tab). *Note* *This material master field is populated as per Softproviding customizing as follows:* *1. Settings for the plant (table /SPMEAT/TC001W)* *2. Cross-plant settings (table /SPMEAT/TC001)* *If no entries are maintained in customizing, PC (pieces) is used as the unit of measure.*
Plan - quantity (weight)	This shows the planned quantity (weight) of the cut input material. This field is updated with — the planned quantity of the *MRP calculation* or — the planned quantity of the *"internal" MRP calculation*.
Unit of measure (weight)	The unit of measure *Weight* is copied from the material master (*Meat Disassembly* tab).

Field Name	Description
	Note *This material master field is populated as per Softproviding Customizing as follows:* *1. Settings for the plant (table /SPMEAT/TC001W)* *2. Cross-plant settings (table /SPMEAT/TC001)* *If no entries are maintained in customizing, kg (kilogram) is used as the unit of measure.*
Plan - quantity (double unit of measure)	This shows the planned quantity (double unit of measure) of the cut input material. **Prerequisites** A unit of measure is stored in the *UoM (double)* field in the material master (*Meat Disassembly 1* tab). If this is the case, this field is updated with — the planned quantity of the *MRP calculation* or — the planned quantity of the *"internal" MRP calculation*.
Unit of measure (Double unit of measure)	Plan unit of measure in the double unit of measure (e.g. PC) *Note* *Please also refer to the explanation on double unit of measure following this table.*
Plan PU = price unit (planned price)	Number of units of measure to which the price refers. The price unit is established based on the price source of the planned price (e.g. for standard price in the material master (*Accounting 1* tab, *Price unit* field)
PUM = (Price unit of measure (plan))	Unit of measure to which price refers.
Plan - value	This is the planned total value of the respective cut.
Currency key	The 3-character currency key (e.g. EUR = Euro) that represents a currency. Amounts are administered in the system in this currency.
Plan - work time	This field shows the sum total of time calculated from the routing for this cut.
WUM = (Plan work time unit of measure)	The aforementioned plan work time is assigned a unit of measure for the work time (e.g. min = minutes, H = hours). This assignment is made in Softproviding Meat Customizing (Softproviding Meat > *Production > Central Settings*).
Actual quantity (unit)	If the unit calculation is used, the actual quantity of the unit calculation is shown in this field.
UUM = actual unit of measure (unit)	The unit of measure for the unit calculation (e.g. ST, EA, PC) is copied from the material master (*Meat Disassembly 1* tab).

Field Name	Description
Actual quantity (weight)	This field shows the cumulative quantities entered (when entering on the cut) for the disassembly order, *inbound*. The information is displayed as soon as the entry is made and thus as soon as the PDA data records have been created. A posting of these PDA data records and consequently a goods movement in SAP must not yet have been made.
Actual unit of measure (weight)	The *Weight* unit of measure is copied from Customizing. If no entries are maintained in Customizing, *kg (kilogram)* is used as the unit of measure.
Actual - quantity (double unit of measure)	This field shows the cumulative double quantities entered (when entering on the cut) for the disassembly order, *inbound*. **Prerquisites** A unit of measure is stored in the *UoM (double)* field in the material master (*Meat Disassembly 1* tab).
Actual double unit of measure (Double UOM)	Actual unit of measure in the double unit of measure (e.g. PC). *Note* *Please also refer to the explanation on the double unit of measure following this table.*
Actual price	The actual price in the cut is a value calculated in the calculation. There is no price source in the cut.
PUM Price unit of measure (actual)	Unit of measure to which an (actual) price refers.
Actual value	The actual value represents the total (actual) value of the disassembly order. Calculation: Actual value = actual price * actual quantity.
Currency key	The 3-character currency key (e.g. EUR = Euro) that represents a currency. Amounts are administered in the system in this currency.
Actual work time (duration)	The work time (e.g. in minutes) is calculated from the *Labor time* setting in the routing (*Standard details > Standard values*). The actual routing is assigned to cuts in the cut list (input material). **Example** Standard value in the routing: 30 min per 100 kg ACTUAL quantity entered: 150 kg Output in the *Actual work time (duration)* field = 45 The *actual work time* is equivalent to the *target work time*, if no other setting has been applied for this. A setting in Softproviding Meat Customizing (*Disassembly orders > Plant-dependent settings*: *Use actual labor costs* indicator) can be used to establish the actual labor costs. Further information on the consequences of this setting can be found in the configuration guide for *Disassembl*.

Field Name	Description
Actual work time (unit of measure)	The following settings determine the units of measure for work time (e.g. minutes) specified here: 1. Routing (default details -> default values *Un* field). 2. Softproviding Meat Customizing: *Softproviding Meat > Production > General Settings: Work time UoM field.* The setting in 2 overrides the setting in 1. **Example** min has been set in 1 HR has been set in 2 **Result** HR is specified **Caution** If there is no entry in 2 the work time UOM cannot be found.
Disassembly process group	Materials can be assigned to a disassembly process group in the material master (*Meat Disassembly 1* tab) This is represented by a key that has a maximum of three characters. **Example** 020 = Halves 030 = Ham 040 = Shoulder This disassembly process group is shown in the disassembly order at material level. It is available as a selection criterion in the disassembly process entry selection screen (inbound or outbound).
Disassembly process group text	Description of the disassembly process group
Plan type	The plan type is the key that distinguishes plans by their functionality. **Example** N = Normal routing Q = Inspection plan Routings in disassembly are usually always created as *normal routings* and are consequently of the type N.
Plan group	Key that uniquely identifies a plan group. Plan groups give you e.g. the opportunity to group two routings for different production processes to one material.
Plan group counter	The plan group counter is a key, which together with the plan group, uniquely identifies a plan. It is used to indicate alternative production processes in plans and to distinguish between similar plans.

Field Name	Description
Indicator	This field is obsolete (it is not used).

Definition: double quantities
Double unit of measure: as well as the entry quantity (*Gross weight* field), an additional quantity known as a double unit of measure can be entered in the entry screens for the *Disassembly process* and *Further processing* applications. This field is used for the exact entry of a double unit of measure, to enable quantities for two units of measure to be entered in parallel. This field is available for data entry if the double unit of measure has been defined as *Alternative unit of measure* in the material master (*Additional data > Units of measure*) and if a unit of measure has been assigned in the *UoM (double)* field (material master: *Meat Disassembly* 1 tab).

This initial entry from the material master can be changed at the time of entry (input help (F4)). The quantity for this alternative unit of measure (e.g. piece) is converted into the quantity of the *Entry unit of measure* (e.g. kilogram) based on the conversion ratio stored in the material master. Quantities can be changed when being entered.

Example in the disassembly process: for a disassembly process entry on a DGA, a goods issue (= disassembly inbound) for halves is posted to a disassembly order. Halves are entered in the *Entry unit of measure* kilogram and also in the *Double unit of measure* piece. The relationship between kilogram and piece can vary for each entry.

This additional entry of an alternative unit of measure in the disassembly or further processing process is significant for the inventory management of double units of measure. For further information on double stock management, please refer to the section on "Inventory Management" in the Softproviding Core user documentation *Process Data*.

Cuts tab details
When you double-click on a cut row, a pop-up window appears with the following data:
— Cut data
— Planning data (copied from the MRP calculation or the "internal" MRP calculation)
— Actual data (displays the actual data entered and calculated (quantities and prices))

The fields in this pop-up window were explained in the previous section or are sufficiently self-explanatory such that no further explanation is required.

Note
If, when specifying a cut, it is stipulated that the labor costs for a cut should not be calculated as part of the calculation (= cut with no routing), the Routing *and* Work time *fields are not populated.*

Cost view
A *Cost* view can be called up for each cut. To do this, select the cut row and then click the *Cost view* button.

Note
Information on cost view content is specified in this document in the section entitled "Cost Views".

7.3.2.3 *Inbound* Tab

This tab shows all relevant quantity and price information line by line for each *Cut inbound material*.

Information is specified for
—   Planning data and
—   Actual data

Please note that the actual data fields available in this tab are populated both for the *Entry for cut* as well as for the *Entry for material.*

Information in this *Inbound* tab is displayed using the ALV Grid Control.

Note
Please note the foregoing references to ALV Grid Control.

All available fields are explained below.

Field descriptions *Inbound (Input)* tab

Field Name	Description
Material	**General** A material is an item that is the subject of a business transaction. An input material is a material which, as the highest material of a cut is defined and thus assembled and consequently "destroyed". As a result, 1-n output materials are formed. The highest input material for the cut is displayed in this field.
Description	The material description of the input material is stated.
Plan - quantity (unit)	This shows the planned quantity (in units) of the input material. **Prerequisites** In the material master (*Meat Disassembly 1* tab) the *Unit material* indicator has been set. If this is the case, this field is updated with — the planned quantity of the *MRP calculation* or — the planned quantity of the *"internal" MRP calculation*.
Unit of measure (unit)	The unit of measure *unit* is copied from the material master (*Meat Disassembly 1* tab). *Note* *This material master field is populated as per Softproviding customizing as follows:* *1. Settings for the plant (table /SPMEAT/TC001W)* *2. Cross-plant settings (table /SPMEAT/TC001)* *If no entries are maintained in customizing, PC (pieces) is used as the unit of measure.*

Field Name	Description
Plan - quantity (weight)	This shows the planned quantity (weight) of the input material. This field is updated with — the planned quantity of the *MRP calculation* or — the planned quantity of the *"internal" MRP calculation*.
Unit of measure (weight)	The unit of measure *weight* is copied from the material master (*Meat Disassembly 1* tab). *Note* *This material master field is populated as per Softproviding customizing as follows:* *1. Settings for the plant (table /SPMEAT/TC001W)* *2. Cross-plant settings (table /SPMEAT/TC001)* *If no entries are maintained in customizing, kg (kilogram) is used as the unit of measure.*
Plan - quantity (double unit of measure)	This shows the planned quantity (double unit of measure) of the input material. **Prerequisites** A unit of measure is stored in the *Double quantity* field in the material master (*Meat Disassembly 1* tab). If this is the case, this field is updated with — the planned quantity of the *MRP calculation* or — the planned quantity of the *"internal" MRP calculation*.
Units of measure (Double UOM) - plan	The unit of measure *double UoM* is copied from the material master (*Meat Disassembly 1* tab). The conversion is made based on the conversion ratio stored in the material master.
Plan - price source	The price for valuing the planned quantity is determined from this price source. The price sources available are detailed in the *Price Sources* section of this document. The price source can be changed in the Details screen (double-click on the material line). *Note* *This field is populated according to the settings made in Softproviding customizing (general settings for the disassembly order).*
Plan - price	This planned price is the price established from the aforementioned price source. The planned quantity is valued using this price.
Plan - Price unit (PU)	Number of units of measure to which the price refers. **Example** Price source: 2 (= planned price 2)

Field Name	Description
	Plan - price: 2.20 Euro (= price from the price source Planned price 2) Plan - PU: 1 1 kg of the material *S-Carree* is valued with the price of 2.20 Euro in the plan.
Price unit of measure (plan)	Unit of measure (e.g. kg) to which a price refers.
Plan - value	This is the total value of the respective input material (*Total value plan = planned price * planned quantity*).
Currency	The 3-character currency key (e.g. EUR = Euro) that represents a currency. Amounts are administered in the system in this currency.
Actual quantity (unit)	This shows the actual quantity (in units) entered for the cut input material. **Prerequisites** In the material master (*Meat Disassembly 1* tab) the *Unit material* indicator (*Unit material* field) has been set. If this is the case, this field is updated with — the planned quantity of the *MRP calculation* or — the planned quantity of the "*internal MRP*" *calculation*.
UUM = actual unit of measure (unit)	The unit of measure for the actual quantity (in units) is copied from the material master (*Meat Disassembly 1* tab).
Actual quantity (weight)	This field shows the cumulative quantities entered (when entering on the material) for the disassembly process entry *inbound*. The information is displayed as soon as the entry is made and thus as soon as the PDA data records have been created. These PDA data records must not yet have been reposted.
UUM = actual unit of measure (weight)	The *weight* unit of measure is copied from Customizing. If no entries are maintained in customizing, *kg (kilogram)* is used as the unit of measure.
Actual - quantity (double unit of measure)	This field shows the cumulative double quantities entered (when entering on the material) for the disassembly order *inbound*. **Prerequisites** A unit of measure is stored in the *UoM (double)* in the material master (*Meat Disassembly 1* tab).
Actual double unit of measure (Double UOM)	The actual unit of measure in the double unit of measure (e.g. ST, EA, PC) is copied from the material master (*Disassembly 1* view).
Actual price source	The price for valuing the actual quantity is determined from this price source. The price sources available are detailed in the *Price sources* section of this document. The price source can be changed in the Details screen (double-click on the material line).

Field Name	Description
	Note *This field is populated according to the settings made in Softproviding Meat Customizing (Disassembly order > General settings).*
Actual price	The actual price is established using the actual price source (see above field). The actual quantity is valued using this price (quantity from the *Quantity weight* field).
Actual PU (price unit)	Number of units of measure to which the price refers. The price unit is determined based on the actual price source. For example, the price unit for the standard price is copied from the accounting view of the material master.
Price UoM (actual)	The Price UoM (actual) is the unit of measure (e.g. kg) that refers to a price. This unit of measure is the same as the UoM for quantities (weight).
Actual value	The actual value represents the total value of the quantities entered (per material = per line). Calculation: actual value = actual price * actual quantity
Actual standard price	The standard price is copied from the material master into this field.
Actual PU standard price	**General** Number of units of measure to which the price refers. This field specifies the price unit for the standard price from the material master.
Actual price UoM (standard price) - PUM	The Price UoM is the unit of measure (e.g. kg) that refers to a price.
Actual value (standard price)	The actual value represents the total value of the quantities entered (per material = per line). Calculation: actual value = standard price * actual quantity
Actual currency	The 3-character currency key (e.g. EUR = Euro) that represents a currency. Amounts are administered in the system in this currency.
Disassembly process (DAP) group	A material can be assigned to a *disassembly process group* in the material master (*Meat Disassembly 1* tab) This is represented by a key that has a maximum of three characters. The disassembly process group is shown in the disassembly order at material level. **Use** The disassembly process group is available as a selection criterion in the disassembly process entry selection screen (inbound and outbound).
Disassembly process group text	Text description of the disassembly process group
Procurement type	The procurement type is a classification that specifies whether the cut input material is produced in-house or procured from a third party or whether both options are possible.

Field Name	Description
	The following procurement types and indicators are possible: — *E = In-house production* (e.g. no external receipt possible for this material. Quantities can only arise as a result of cut calculation) — *F = External procurement* (e.g. external receipt possible for this material. Outputs from other cuts are not available or are ignored) — *X = Both procurement types* (both cases are permitted or considered) *Note* *The procurement types detailed here describe the use in cuts and cut lists. They should not be compared with the procurement types as they are used in the SAP standard material master.* *Further information on procurement can be found in the sections entitled "MRP Calculation" and "Standard Cost Estimate".*
Purchasing: manual (standard)	This *Procurement: manual (standard)* indicator is one of the 4 procurement strategies that can be set in the cut list for input materials depending on the procurement type (see above). If this strategy has been set to *Manual, or, stock only* in the cut list for the procurement of an input material, the indicator *X* is set in this field. *Note* *The strategy* Manual, or, stock only *can be set for procurement types* External procurement *and* Both procurement types. *For the In-house production procurement type, no procurement strategy can usually be set, as, by definition, the goods are produced in-house and are not procured.* *Further information on procurement can be found in the sections entitled "MRP Calculation" and "Standard Cost Estimate".*

Details *Inbound* tab

When you double-click on a *material row*, a pop-up window appears with the following data:
— Material and procurement type
— Planning data (copied from the MRP calculation or the "internal" MRP calculation)
— *Actual data* (displays the actual data entered and calculated (quantities and prices))

Fields to which some changes can be made in this pop-up window include
— Planned quantities and
— Price sources for planned price and actual price

The price source for the actual price can only be changed in this tab.

The fields in this pop-up window were explained in the previous section, or are sufficiently self-explanatory such that no further explanation is required.

7.3.2.4 *Outbound* Tab

This tab shows all relevant quantity and price information line by line for each *outbound material*.

Information is specified for
— Planning data and requirements
— Actual data and target data and
— Planned/actual comparisons and target/actual comparisons

Planning data
As with the *Cut* and *Inbound* tabs, planning data is either copied from the upstream *MRP calculation* or the *"internal" MRP calculation* in the disassembly order.

Actual data
Actual data arises from corresponding entries via the *Softproviding* entry functions *Disassembly process Entry Inbound* or *Outbound*.

Prerequisites
Material quantities, that should emerge as outputs in the calculation (MRP calculation), are described as requirements. Of course, requirements can be entered manually in the DAO (by double-clicking on the material). However, requirements are usually transferred from the MRP calculation to the DAO.

Target data
To enable target quantities to be calculated in the *Outbound* tab for the materials specified there, an *actual inbound* and an *actual outbound* needs to have been entered for at least 1 material. Without at least one of these entries, target quantities for the disassembly order calculation cannot be reasonably calculated.
Note
Target quantities indicate how the respective output quantities, according to the definition in the cut list, and based on the actual input quantities entered, should have originated in disassembly.

Target/actual comparison
The target/actual comparison indicates which quantity and percentage differences have arisen for each material between the actual quantities actually entered and the target quantities calculated.

Planned/actual comparison
The planned/actual comparison indicates which quantity and percentage differences exist for each material between the actual quantities actually entered and the planned quantities calculated.

Information in this *Outbound* tab is displayed using the ALV Grid Control.

Note
Please note the foregoing references to ALV Grid Control.

In contrast to the procedure regarding the explanation of field information for the *Cut* and *Inbound* tabs, all the fields in this *Outbound* tab are no longer listed or described. The reason for this is that many fields have already been described in both of the previous *Cut* and *Inbound* tabs. Examples of this include:

— Disassembly process group
— Planned quantity (weight) and Planned price
— Actual quantity (weight) and Actual price

Note
For the fields specified below
— *WUM (weight - unit of measure)*
— *UUM (unit - unit of measure)*
which are specified for the planned quantities, actual quantities and target quantities fields, the following note applies:

*In the material master (*Meat Disassembly *tab), these quantity fields are populated as per Softproviding customizing according to the following priority and then displayed in the disassembly order:*
— *Settings for the plant (table /SPMEAT/TC001W)*
— *Global settings (table /SPMEAT/TC001)*
— *If no entries are maintained in customizing, kg (kilogram) is used as the unit of measure.*

Output **Tab**

Field Name	Description
Material	**General** A material is an item that is the subject of a business transaction. This field shows the output materials for the cut list. An output material is a material that arises upon disassembly in accordance with the definition in the cut list.
Requirement - quantity (weight)	**Requirements definition** Material quantities, that should emerge as outputs in the calculation or in disassembly, are described as requirements. The requirement quantity in Weight is — copied into this field from the MRP calculation — or entered here manually.
WUM (weight - unit of measure)	The unit of measure *Weight* is copied from the material master (*Meat Disassembly 1* tab).
Requirement - quantity (unit)	This shows the requirement quantity of the output material in *units*. **Requirement** In the material master (*Meat Disassembly 1* tab), the *unit material* indicator (*Unit material* field) has been set. If this is the case, this field is updated with — the requirement quantity of the MRP calculation or — a requirement quantity that has been entered manually.

Field Name	Description
UUM (unit - unit of measure)	The unit of measure *Unit* is copied from the material master (*Meat Disassembly* tab).
Requirement - quantity (double)	The requirement quantity of the output material is shown - as a *double quantity*. **Requirement** A unit of measure is stored in the *UoM (double)* field in the material master (*Meat Disassembly 1* tab). If this is the case, this field is updated with — the requirement quantity of the MRP calculation or — a requirement quantity that has been entered manually.
DUM (double unit of measure)	The unit of measure *Double UoM* is copied from the material master (*Meat Disassembly* tab).
Various plan fields	Please refer to the details for these fields in the *Cuts* and *Inbound* tabs.
Target - quantity (weight)	The calculated target quantity is specified in the stored weight unit of measure. **Definition target quantities** Material quantities that should emerge from disassembly, according to the cut list and the actual input quantities entered, are described as target quantities.
WUM (weight - unit of measure)	The *Weight* unit of measure is copied from the material master (*Meat Disassembly 1* tab).
Target - quantity (unit)	The target quantity of the unit calculation is specified.
UUM (weight - unit of measure)	The *Unit* unit of measure is copied from the material master (*Meat Disassembly 1* tab).
Target - quantity (double)	The calculated target quantity is specified in the stored double unit of measure.
DUM (weight - unit of measure)	The *Double UoM* unit of measure is copied from the material master (*Meat Disassembly 1* tab).
Difference: target: actual	This field specifies the difference between the actual output quantities and the target quantities in a *target/actual comparison:* — If actual quantity > target quantity: difference = positive — If actual quantity < target quantity: difference = negative
Target - price	The calculated target material price is specified. It is calculated based on the target quantities and the corresponding equivalences or fixed prices.
Target - PU	Number of units of measure to which the price refers. The price unit is copied from the material master (*Disassembly 1* tab). If nothing is entered there, the value is copied from customizing.
Target - PUM	The Price unit of measure is the unit of measure to which the price refers. The price unit is copied from customizing or the material master (*Disassembly 1* tab).

Field Name	Description
Target - value	The target value for each material is calculated as follows: *Target value = target quantity * target price/target PU*
Target - costs/PU	This refers to the calculated labor costs per price unit. The price unit is copied from the *Target PU* field. The labor costs calculated can be explained as follows: See description in the following *Target - costs (total)* field.
Target - costs (total)	Target costs (total) refer to labor costs. They are calculated as follows: *Target costs (total) = target quantity (T) * target costs (PU) / target PU* *Note* *Follow the menu* Goto > Calculation analysis > Target *to access the target calculation. The values here can be explained as follows:* — *Double-click to select the material* — *Select a cost block* — *Click on the* Breakdown *button* The total labor costs are specified. In Softproviding Meat Customizing, a setting can be applied to determine whether the labor costs for all cost blocks (i.e. all cost groups such as e.g. FEK (direct costs of production)) should be displayed or only those labor costs for a specifically assigned cost group.
Various actual fields (e.g. quantity fields)	Please refer to the details for these fields in the *Cuts* and *Inbound* tabs.
Actual - costs/PU	This refers to the calculated labor costs per price unit. The price unit is copied from the *Actual PU* field. The labor costs calculated can be explained as follows: See description in the following *Actual - costs (total)* field.
Actual - costs (total)	Actual costs (total) refer to labor costs. They are calculated as follows: *Actual costs (total) = Actual quantity (T) * actual costs (PU)/actual PU* *Note* *Follow the menu* Goto > Calculation analysis > Actual *to access the actual calculation. The values here can be explained as follows:* — *Double-click to select the material* — *Select a cost block* — *Click on the* Breakdown *button* The total labor costs are specified. In Softproviding Meat Customizing, a setting can be applied to determine whether the labor costs for all cost blocks (i.e. all cost groups such as e.g. FEK (direct costs of production)) should be displayed or only those labor costs for a specifically assigned cost group.

Field Name	Description
Actual price (std.)	The Standard price from the material master for the corresponding material is specified here.
Actual - PU (std.)	Number of units of measure to which the price refers. The price unit is copied from the material master (*Accounting* tab).
PUM (price unit of measure)	Unit of measure to which the price refers.
Actual - value (std.) - Total	The actual value (based on the *Std* standard price) is calculated as follows: *Actual value (std) = actual quantity (T) * actual price (standard price)*
Currency	The 3-character currency key (e.g. EUR = Euro) that represents a currency. Amounts are administered in the system in this currency.
Comparison - price	This field specifies the calculated target price. It does this by accessing the *Target price* field (see above).
Comparison - price unit	Number of units of measure to which the price refers. The price unit is copied from Softproviding Meat Customizing according to the following priority: — Settings for the plant (table /SPMEAT/TC001W) — Cross-plant settings (table /SPMEAT/TC001) Where there is no entry, a fixed value of 1 is entered.
PUM (comparison - price UoM)	Unit of measure to which the price refers.
Comparison - value (total)	This value is calculated as follows: *Comparison value = comparison price * actual quantity (T)* **Example** Comparison value = 411.00 Euro (Use, see below)
Currency (comparison - currency)	The 3-character currency key (e.g. EUR = Euro)
Diff. - target: comparison	This value is calculated as follows: *Diff. - target: Comparison = actual value - comparison value* **Example** Diff. - target: Comparison = 639.00 Euro (Use, see below)
Currency	The 3-character currency key (e.g. EUR = Euro)
In percent	Ratio between *Diff. - target: Comparison* and *comparison - value*. The figure is specified as a percentage. **Example** 639.00 / 411.00 * 100 = 155.47 %
% (percent)	The % character displayed here belongs to the *In percent* field.

Field Name	Description
Diff. - target: actual	The difference between the target quantity and the actual quantity is specified: — Actual quantity > target quantity: difference is positive — Actual quantity < target quantity: difference is negative
WUM	Base unit of measure (e.g. Kg)
In percent	Ratio between target quantity and actual quantity. The figure is specified as a percentage.
% (percent)	The % character displayed here belongs to the *In percent* field.
Diff. - plan: actual	The difference between the *planned quantity* and the *actual quantity* is specified: — Actual quantity > planned quantity: difference is positive — Actual quantity < planned quantity: difference is negative
WUM	Base unit of measure (e.g. Kg)
In percent	Ratio between *target quantity* and *actual quantity*. The figure is specified as a percentage.
% (percent)	The % character displayed here belongs to the *In percent* field.
Batch	A batch is a material subset that is handled separately from other subsets of the same material. This is a batch that is proposed for all materials that are always batched for entries in disassembly output (= goods receipt). *Note* *For a more detailed explanation of the* Batch *field, see the* General *tab section earlier in this document.*
Inspection lot number	An inspection lot is identified in SAP by an inspection lot number. An inspection lot is a request for a plant to conduct a quality inspection on a particular quantity of material.
Loss type	The *loss type* indicator, assigned to the material in the material master, is specified here. **Example** K = Cooling loss Z = Disassembly loss
Disassembly process group	Materials can be assigned to a disassembly process group in the material master (*Meat Disassembly 1* tab) This is represented by a key that has a maximum of three characters. **Example** 020 = Halves 030 = Ham 040 = Shoulder

Field Name	Description
	Note *This disassembly process group is shown in the disassembly order at material level. It is available as a selection criterion in the Disassembly Process Entry selection screen (Inbound and Outbound).*
Disassembly process group - text	Description of the disassembly process group
Indicator: Manual entry	This field is obsolete (it is not used).

Details *Outbound* tab
When you double-click on a material row, a pop-up window appears with the following data:
— Planning data (copied from the *MRP calculation* or the "*internal" MRP calculation*)
— Actual data (displays the actual data entered and calculated (quantities and prices))
— Target data and comparison data
— Requirement quantities
— Differences

The fields in this pop-up window have been explained in previous sections, or are sufficiently self-explanatory such that no further explanation is required.

Cost view
A cost view can be called up for each output material. To do this, select the material row and then click the *Cost view* button.

Note
Information on cost view content is specified in this document in the section entitled "Cost Views" further down.

7.3.2.5 *Controlling* Tab

This *Controlling* tab provides an overview of the calculations and entries made in both planned and actual.
They are displayed in the following three variance categories:
— Disassembly process variance (variance of actual with regard to input and output materials)
— Plan variance input (variance planned to actual for input materials)
— Plan variance output (variance planned to actual for output materials)

These displays are used to
— control the entries made in the total (planned quantities/actual quantities
— control the calculations made (prices used and values calculated)
— and to analyze the corresponding variances.

Note
The Controlling *view does not show any target quantities (except possible target losses) and does not undertake any corresponding comparisons.*

Disassembly process variance

The disassembly process variance refers to the actual quantities entered in the input and output. Planned quantities are ignored. This overview always specifies the weight UoM as the unit of measure (UoM) It is kg in this example. If the entry unit of measure is e.g. PC (= unit), this unit UoM is converted into the UoM (kg in this example) as per the conversion factor in the material master.

Table for disassembly process variance

Field Name	Quantity (kg in this Example)
Input - actual	**Output** Total of all input quantities entered (actual entries)
Loss	**Output** Total of individual loss types (see note at the end of this table)
If applicable, individual loss types	**Output** Total of respective loss type (see note at the end of this table)
Subtotal	Determination as follows: *Subtotal = input - actual* minus *target - loss (total)*
Output - actual	**Output** Total of all output quantities entered (actual entries). Losses entered (material is flagged as loss in material master) are not added to this.
Disassembly process variance in KG and %	Determination as follows: *Output - actual* minus *subtotal*: — Positive values if the output-actual is greater than the subtotal — Negative values if the output-actual is less than the subtotal **Output** in kg or %

Field Name	Quantity (kg in this Example)
	If losses exist (and are displayed), these are entered into the disassembly process variance calculation as target losses (see note at the end of this table).
Total variance in KG	Determination as follows: *Output-actual* minus *Input-actual*. Negative values if the output-actual is less than the input-actual. **Output** in kg or % For total variance, target losses are ignored.

Table for Calculation price

Field Name	Price per 1,000 kg	Total Value
Calculated price	**Calculation** *Calculated price = actual input value total/actual input quantity total*	**Calculation** *Total value = actual input quantity * actual price* (of individual materials; then total)
Subtotal	Value copied from the *Calculated price* field	Value copied from the *Calculated price* field
Comparison price (this is an average price)	**Calculation** *Comparison price = comparison value/actual output quantities total*	**Calculation** *Comparison value = actual output quantities * calculated target price* (of individual materials; then total)
Disassembly process variance in EUR		Calculation as follows: total value *Calculated price* minus total value *Comparison price* **Output** in kg or % *Note* *Price rounding may result in smaller variances.*

Note
Added value *field:* *Please note that there is no added value here in the table for the calculated price. The added value in the DAO is shown in the table for the standard price (see table below).*

Loss *field:* *Losses in disassembly can be shown in the disassembly process variance. Please note that these are target losses.*

Depending on the customizing setting, a statement shows these as split by loss type or in total. The statement can be waived. Again, in the material master, a loss type (e.g. cooling loss, loss due to cutting) can be assigned to a material. These loss types are displayed in accordance with the aforementioned customizing settings.

Note
Price per 1,000 kg *field: The price unit (per 1000 kg) is used if no other unit has been stored in Softproviding Meat Customizing.*

Table for Standard price

Field Name	Price per 1,000 kg	Total Value
Standard price (S price)	An *average standard price* is calculated and specified. The calculation is undertaken using all the materials entered in *Input*. Consequently, the calculation is based on the actual input quantities on the respective S prices for the materials. (Example, see below)	Total value based on all *Input materials* entered. **Calculation** Total value per material = a*ctual input quantity * standard price.* **Output** The *total* of all materials is specified.
+ Value added	Specification of price per 1 kg	The value here is identified as value added, this resulting from the calculation of labor costs. The production costs (PC) from the costs view are specified. This field is not populated if the feedback is made via SAP standard rather than via the DAO (see explanations on feedback in this document).
Subtotal		*Subtotal* = Total value (*standard price*) + total value (*value added*)
Standard price (S price)	An *average standard price* is calculated and specified. The calculation is undertaken from all the materials entered in *Output*. Consequently, the calculation is based on the actual input quantities on the respective S prices for the materials. Example: see below	Total value based on all *Output materials* entered. **Calculation** Total value per material = *actual output quantity * standard price.* **Output** The *total* of all materials is specified.

Field Name	Price per 1,000 kg	Total Value
Disassembly process variance in kg	Determination as follows: *Total value S Price output* minus *Total value subtotal.* **Output** in kg or %	
Standard price (S price)	An average standard price is calculated and specified. The calculation is undertaken using all the materials entered in *Output*. Consequently, the calculation is based on the actual input quantities on the respective S prices for the materials. Example: see below	Total value based on all Output materials entered. **Calculation** Total value per material = *Actual output quantity * standard price.* **Output** The *total* of all materials is specified.
Disassembly process variance in kg	**Calculation as follows** Total value S Price output minus Total value subtotal. **Output** in kg or %	

Disassembly process variance - interpretation
It should generally be assumed that the average S price for the output is higher than the average S price for the input.

Furthermore, there will also be a difference to the effect that, when totaling the input quantities and output quantities, the output is smaller than the input (owing to disassembly loss).

These values (standard prices and quantities) thus influence the result, i.e. the disassembly process variance in kg.

Note
The total values calculated for the input and output materials and for the disassembly process variance must correspond to the values calculated in the SAP production order (transaction CO02) (menu: Goto > Costs > Analysis*).*

Example
Calculation of average standard price (applies for input and output)

Input Material	Actual Quantity (kg)	S Price for Material	Value	Average S Price
UP400	400	2.16	864.00	
UP402	100	3.00	300.00	
UP404	200	1.60	320.00	
Totals	700		1484.00	2.12

Plan variance - input

This overview always specifies the weight UoM as the unit of measure (UoM) It is kg in this example. If the entry unit of measure is e.g. PC (= unit), this unit UoM is converted into the UoM (kg in this example) as per the conversion factor in the material master.

Plan variance - input			
	Quantity	Price per 1,000 KG	Total value
Input - planned	2.000,000 KG	2,50 EUR	5.000,00 EUR
Input - act	2.900,000 KG	0,60 EUR	1.730,00 EUR
Plan variance - input	900,000 KG		3.270,00- EUR
	45 %		65,40- %

Field Name	Quantity	Price per 1,000 kg	Total Value
Input - planned	**Output** Total of all plan input quantities	An *average planned price* is calculated and specified.	Total value based on all input materials with planned quantities. **Calculation** Total value per material = *Input planned quantity * planned price.* **Output** The total of all materials is specified.
Input - actual	**Output** Total of all actual input quantities entered	**Calculation** *Price = actual input value total/actual input quantity total*	**Calculation** Total value = *Actual input quantity * actual price* (total of individual materials)
Plan variance - input	**Output** Value difference between *input actual* and *input plan* in kg		**Output** Value difference between *input actual* and *input plan* in EUR
Plan variance - input	**Output** Difference between *input actual* and *input plan* in %		**Output** Difference between *input actual* and *input plan* in %

Plan variance - output

This overview always specifies the weight UoM as the unit of measure (UoM) It is kg in this example. If the entry unit of measure is e.g. PC (pieces), this unit UoM is converted into the UoM (kg in this example) as per the conversion factor in the material master.

Plan variance output			
	Quantity	**Price per 1,000 KG**	**Total value**
Output - planned	2.800,000 KG	1,00 EUR	2.800,00 EUR
Output - actual	2.500,000 KG	0,69 EUR	1.730,00 EUR
+ Loss	156,000 KG		
Plan variance output	144,000- KG		**1.070,00- EUR**
	5,14- %		38,21- %

Field Name	Quantity	Price per 1,000 kg	Total Value
Output - plan	**Output** Total of all plan output quantities.	An *average planned price* is calculated and specified.	Total value (plan) = Quantity * Price
Output - actual	**Output** Total of all actual output quantities entered	An *average actual price* is calculated and specified.	Total value (actual) = Quantity * Price
+ Loss	Loss in kg	No price	No value for loss.
Plan variance - input	**Output** Difference between output actual and output plan in kg.		**Output** Difference between output actual and output plan in EUR.
Plan variance output	**Output** Difference between output actual and output plan in %.		**Output** Difference between output actual and output plan in %.

7.3.2.6 *Long Text* Tab

This tab provides the option to
— insert a text from the clipboard
— search for terms in text and replace them
— load and insert texts and data from a text file (however, existing texts are overwritten in the process)
— save text entered as a local file (.txt).

7.3.2.7 *Disassembly Plan* Tab

To enable data to be displayed in this tab, a sort number needs to be entered in the *Cuts* and *Cut list* master data or later in planning (MRP calculation) or in the actual disassembly order. The sort number is a key that can be freely selected up to a maximum of 4 digits, which specifies the order in which lines should be displayed in the disassembly plan. It is also possible to enter a description for the sort number, which can also be freely defined.

The following 3 options exist for maintaining sorting for the disassembly plan:
—   In the cut list at material level (*Settings* tab)
—   In the cut at header level (*Basic data* tab)
—   In the cut for the output material (*Settings* tab)

If the material essentially needs to be displayed with its data (cut reference), regardless of whether it is input or output, then sorting needs to be maintained using option 1. If additional data from the cut needs to be displayed, a sorting abbreviation needs to be maintained as per option 2.

As well as for cut input data, sort numbers can also be specified for individual output materials. If more than one output material from a cut needs to be displayed in the disassembly plan, then the cut line is copied for each additional output material. If the cut itself has no sort number on the header, no output material is displayed, even if it should have a sort number.

Please note that the data for the disassembly plan is always copied from the MRP calculation. This means that changes to sort numbers and descriptions made in the DAO do not affect the *Disassembly plan* tab.

The disassembly plan sort numbers from the disassembly order cut list only apply if the disassembly order is created directly, i.e. without reference to an MRP calculation.
However, this needs to be recalculated after a change to the DAO cut list so that these changes become effective in the disassembly plan.

Disassembly plan tab field descriptions
The fields in this tab are self-explanatory or have already been explained in this document, such that no further explanation will be provided at this point.

Information in this *Disassembly plan* tab is displayed using the ALV Grid Control.

Note
Please note the foregoing references to ALV Grid Control.

7.3.3 Other Functions

Under this heading *Other Functions*, there follows an explanation of all activities that can be started
—   by calling up individual menu items (e.g. Functions > Calculate order) or
—   by clicking on individual *buttons*.

7.3.3.1 Menu Items

The following menu items are available in the *menu bar*:

—

Menu item *Disassembly order*

Field Name	Description
Create	If you select this menu item, you will exit the DAO without any changes being saved. This is regardless of whether the DAO is being edited in *Display* or *Change* status. **Caution** Amended data is not saved and there is no prompt asking if you want to save your data.
Change	This menu item can be selected if the DAO is being edited in *Display* status. The DAO is exited immediately.
Display	This menu item can be selected if the DAO is being edited in *Change* status. The DAO is exited immediately. **Caution** Amended data is not saved and there is no prompt asking if you want to save your data.
Save	This menu item can be selected if the DAO is being edited in *Change* status. Amended data is saved and the transaction is exited.
Exit	If this menu item is selected, the transaction is exited and the basic SAP screen is displayed. If the DAO is being edited in *Change* mode, the user is asked whether or not they wish to save their data.

Menu item *Functions*

Field Name	Description
Disassembly process > Display	Those disassembly processes, for which the disassembly process was created, and the corresponding profit centers assigned to them are displayed in a pop-up window in *display mode*.
Disassembly process > Change	All disassembly processes and the corresponding profit centers assigned to them are displayed in a pop-up window in *change mode*. Those disassembly processes for which the DAO was created are selected; the disassembly processes for which the DAO was not created, are not selected. In this mode, it is now possible to make changes regarding disassembly process use. i.e. that other disassembly processes can be "activated" for this disassembly order or existing assignments to disassembly processes can be canceled. This results in the following changes:

Field Name	Description
	1. The disassembly processes are amended accordingly in the order data table (blue button: *Information*). 2. Cut list view (*Cut list* button): the cuts in the cut list are amended accordingly, such that the cuts used (and consequently disassembly processes) are grayed out and cuts not used are displayed in white. 3. The associated cuts, input and output materials are amended accordingly in the *Cuts*, *Inbound* and *Outbound* tabs (supplemented and/or deleted). The changes for point 3 also result in changes being made accordingly to materials, for which an entry (inbound/outbound) is possible.
Release	Disassembly orders that are not released automatically (see the *Order release* section in this document) can be released using this menu item. If DAOs are released automatically, this function is no longer available for selection. *Note* *The disassembly order must be released to ensure that entries can be applied to disassembly orders.*
Scheduling	**General** With scheduling, the start and end dates for orders and processes in the order are calculated. This function can be used to start scheduling manually at any time. If changes relevant to scheduling are made in the order (e.g. scheduling type and/or dates), the order status is set to NTER (schedule not up-to-date). In this case, the order is automatically rescheduled when *saving*, if at least one of the following conditions is satisfied: — The *Automatic scheduling* indicator is set in customizing — The order is released (status FREI) Manual rescheduling after a change is not required in this case.
Order > Calculate	This function is used to calculate the DAO. This means that the order is calculated according to the cut list and the entries made. Likewise, the calculation is used to calculate target quantities and target values, if the conditions (input and output entries made) exist. The results can be checked using *Calculation analysis actual*.
Create batches	Check or creation of batches complete.
Restrict processing > Block	This function is used to *block* the DAO. The status of SPER is set in the order. The impact of the block is such that the order can no longer be changed. When starting the DAO in *Change* mode, the message *Change is not allowed (ORD XXXXXXX)* is displayed.

Field Name	Description
Restrict processing > Unblock	This function is used to *unblock* the DAO. The status of SPER is removed in the order. The impact of unblocking is such that the order can continue to be processed.
Restrict processing > Technically complete	With this function, the DAO is *technically completed*. The status of TABG is set in the order. When starting the DAO in *Change* mode, the message *Change is not allowed (ORD XXXXXXX)* is displayed. Inbound/outbound entries are no longer possible.
Restrict processing > Cancel technical completion	With this function, *technical completion* is canceled. The status of TABG is removed in the order. The order can be called up again in *Change* mode and it is once again possible to make inbound/outbound entries.
Restrict processing > Close	With this function, the DAO is *closed*. The status of ABGS is set in the order. When starting the DAO in *Change* mode, the message *Change is not allowed (ORD XXXXXXX)* is displayed. Inbound/outbound entries are no longer possible.
Restrict processing > Cancel closing	With this function, *closing* is canceled. The status of ABGS is removed in the order. The order can be called up again in *Change* mode and it is once again possible to make inbound/outbound entries.

Menu item *Goto*

Note

Some of the analysis functions explained below can also be started using the transactions for the SAP production order (CO02 or CO03). Where this is possible, a note will be displayed indicating that "Access is also possible using transactions CO02 or CO03".

Field Name	Description
Cost view	See the explanations in the "Costs view" section of this document.
Calculation analysis > Planned	See the explanations in the "Calculation analysis" section of this document.
Calculation analysis > Target	See the explanations in the "Calculation analysis" section of this document.
Calculation analysis > Target (alternative price)	See the explanations in the "Calculation analysis" section of this document.
Calculation analysis > Variance	See the explanations in the "Calculation analysis" section of this document.
Calculation analysis > Actual	See the explanations in the "Calculation analysis" section of this document.
Data analysis > Header	This function takes you to the SAP production order (transaction CO03). The order data is saved there in various tabs. This analysis can be used to check this data.

Field Name	Description
	Note *Access is also possible using transactions CO02 or CO03. However, these orders should NOT be processed or changed using transaction CO02, as these changes are not copied into the DAO and consequently variances between these two orders may occur.* For further details, please refer to the SAP standard documentation.
Data analysis > Operations	This function takes you to the *operations overview* of the SAP production order. The data for operations is saved there line by line. This analysis can be used to check this data. *Note* *Access is also possible using transactions CO02 or CO03.* For further details, please refer to the SAP standard documentation.
Data analysis > Component	This function takes you to the *components overview* of the SAP production order. The data for the disassembly order material is saved there line by line. This analysis can be used to check this data. *Note* *Access is also possible using transactions CO02 or CO03.* For further details, please refer to the SAP standard documentation.
Data analysis > Settlement rule	This function takes you to the *settlement rule* for the SAP production order. This rule is required to enable various activities to be completed as part of period-end closing, such as e.g. preliminary settlement for disassembly orders (Softproviding activity). *Note* *Access is also possible using transactions CO02 or CO03.* If entry in the disassembly is complete, the actual or target equivalences are calculated using the *Preliminary Settlement for Disassembly Orders* program. When preliminary settlement is started, the actual or target values for the output materials are ascertained from the disassembly calculation, each is then multiplied by 100 and then written as equivalence figures into the settlement rule. The settlement rule is empty until the aforementioned preliminary settlement has been completed. If a settlement rule exists, another system status is set in the order (*ABRV* = settlement rule).

Field Name	Description
	Note *If the preliminary settlement has not yet been completed, the message KD100* *"Enter a percentage, equivalence figure or amount" is issued after exiting the settlement rule.* *Manual entries should not be made in the settlement rule.* For further information on the settlement rule, please refer to the "Period-End Closing" section of this document.
Costs > Analysis	This function takes you to the *cost analysis* for the SAP production order. The cost information for the order is displayed as a plan/target/actual comparison in the form of the *ALV Grid Control* *Note* *Please note the foregoing references to ALV Grid Control.* *Note* *Access is also possible using transactions CO02 or CO03.* For further details, please refer to the SAP standard documentation.
Costs > Itemization breakdown	This function takes you to the SAP standard production order to display the itemization breakdown. The costs of individual resources (e.g. material, internal activity) are displayed in the form of the ALV Grid Control. *Note* *Please note the foregoing references to ALV Grid Control.* *Note* *Access is also possible using transactions CO02 or CO03.* For further details, please refer to the SAP standard documentation.
Costs > Cost components	This function takes you to the *cost components* of the SAP production order. This information for the order is displayed in the form of the ALV Grid Control. *Note* *Please note the foregoing references to ALV Grid Control.* *Note* *Access is also possible using transactions CO02 or CO03.*

Field Name	Description
	The *cost components* is a freely definable summary and breakdown of calculated costs by cost element across all levels of production. This definition is made in customizing for the *Cost elements procedure* (transaction OKTZ). For further details, please refer to the SAP standard documentation.
Costs > Balances	This function takes you to the *balance analysis* of the SAP production order. *Note* *Access is also possible using transactions CO02 or CO03.* This information is shown in an additional pop-up window.
Logs > Scheduling	All error, warning and information messages triggered during scheduling are gathered together in this log. If no log exists, a pop-up window appears displaying the following information message: "Scheduling log does not contain any entries". This log information is displayed in the form of the ALV Grid Control. *Note* *Please note the foregoing references to ALV Grid Control.* *Note* *Access is also possible using transactions CO02 or CO03. Logs are SAP standard logs for the production order.*
Logs > Release	If available, logs for order release are issued. If no log exists, a pop-up window appears displaying the following information message: "There are no entries in the release log". Log examples, if the DAO has been created but not yet saved, are as follows: — Start capacity availability check — There is no provision for a material availability check — Order %00000000001 was released This log information is displayed in the form of the ALV Grid Control. *Note* *Please note the foregoing references to ALV Grid Control.* *Note* *Access is also possible using transactions CO02 or CO03. Logs are SAP standard logs for the production order.*

Field Name	Description
Logs > Read PP master data	If available, logs for PP (production planning) master data are issued. If no log exists, a pop-up window appears displaying the following information message: "The log contains no entries". Examples of logs, if the DAO has been created but not yet saved, are as follows: Standard sequence and operation 0010 were created This log information is displayed in the form of the ALV Grid Control. *Note* *Please note the foregoing references to ALV Grid Control.* *Note* *Access is also possible using transactions CO02 or CO03. Logs are SAP standard logs for the production order.*
Logs > Cost determination	If available, logs for *cost determination* are issued. If no log exists, a pop-up window appears displaying the following information message: "The costs log contains no entries". *Note* *Access is also possible using transactions CO02 or CO03. Logs are SAP standard logs for the production order.*

Menu item *Environment*

Field Name	Description
Confirm	For confirmation, see the following details:

Details for the *Confirm* field

General: the confirmation documents the status of operation and sub operation processing. Amongst other things, a confirmation serves to determine the quantities produced in an operation as yield and the actual activity performed for the individual operations. This function is used to confirm the entire disassembly order. If this function is selected, a pop-up window appears with the following question: *"Order needs to be saved first. Do you want to save?"*

The following options are available for selection:
— *Yes* (confirmation is made)
— *No* (confirmation is canceled)
— *Cancel* (confirmation is canceled)

If this pop-up window is confirmed by selecting *Yes*, the disassembly order is saved, confirmation is made and the order is exited. The message "Confirmation of order xxxxxxx saved" is issued. The order status is set to *TRÜCK* (partially confirmed) or *RÜCK* (confirmed). Confirmations can be checked using the transaction CO14.

After an order has been confirmed, entries to the DAO (input and/or output) can still be made. Thus, the DAO, despite confirmation, is not yet "complete".

Disassembly orders are generally *closed* and then *confirmed* only after all entries are complete (disassembly process inbound and disassembly process outbound). This *closing* is completed in the entry transactions. If an order is closed, no further entries can be made.

Partially confirmed, *confirmed* and *order complete* can be canceled. Partially confirmed and confirmed statuses can be canceled using the SAP standard transaction CO13, order completion is canceled using the transaction SPDGS/AFKORECO. Depending on the setting in Softproviding Meat Customizing, there are various ways of applying (partial) confirmation.

The following settings are possible:
— *Confirm and exit* (order is confirmed and exited)
— *Only confirm* (order is only partially confirmed)
— Only exit (order is saved, exited, but not confirmed)

Note
"Only confirm" means that the order is partially confirmed. The order status is set to TRÜCK. It is still possible to make further entries and new confirmations. In contrast, "Confirm and exit" means that the order status is set to RÜCK and no more confirmations can be made.

Furthermore, a setting can be made in Softproviding Meat Customizing to specify whether the confirmation should be made based on the *actual, target 1, target 2* or *variance values*. Confirmations are always based on input quantities, i.e. depending on the customizing settings (actual, target 1, target 2 or variance), actual quantities or target quantities are used for the confirmation.

The following settings option is also available in Softproviding Meat Customizing. Under *Plant-dependent settings*, the indicator *Use actual labor* can be set. Setting this indicator has the following effect:
— The confirmation function in the disassembly order is deactivated, as confirmations must be made via SAP standard (transaction CO11N).
— Confirmation data for the actual calculation is read.
— In the Controlling view of the disassembly order, the *value added* value from the actual calculation is used (instead of from the target calculation). Data is copied from the operation view in the production order (*Quantities/services* tab).

Caution
If services have not been translated, they are not read! Prices are used as for the target calculation.

Note
Values are only read if the disassembly order is restarted and recalculated. The Update actual data *button serves no purpose for this function.*

Definition: confirmation and order completion

	Individual Processing	**Mass Processing**
Confirmation	— Made in the disassembly order. — Entries are still possible.	— Made with the report /SPMEAT/R_TPA_CONFIRM — Entries are still possible.

	Individual Processing	**Mass Processing**
Cancellation of confirmation	— This is currently only possible with the SAP transaction CO13.	— Only individual cancellation with the SAP transaction CO13 possible. — There is no function for mass cancellation.
Order completion	— Made in the transactions for the disassembly order (entry inbound and outbound). — Entries are then no longer possible.	— Mass processing is completed using the report / SPDGS/AFKOCOMP. — Entries are then no longer possible.

Further information on order completion and confirmation can be found in the following documents:
— Softproviding Core user documentation *Process Data,* "Process Data Acquisition: Disassembly"
— Softproviding Core user documentation *Process Data*, "Close Production Orders (PDA)"

7.3.3.2 Buttons

The following buttons are available above the *Order data* table:

Button	**Description**
Cut list (cut list view)	This button can be used to call up the cut list used to create the DAO. This is a copy of the original cut list, which can be partially modified, if required. See below for further details.
Scheduling	This button can be used to start DAO scheduling.
Check an create batches	This button is displayed in the DAO if the batch allocation level is set to *Batch unique at material level* or *Batch unique at client level for material* (transaction OMCE). This button allows you to check or, if necessary, recreate the batches automatically created for the output materials.
Calculate order	This button is used to calculate the DAO.
Cost view	This button can be used to call up the cost view for the DAO.
Actual (update actual data)	This button is used to update the actual data.

Cut list (cut list view) - details
The *cut list* can be called up at any time. In *Change* mode, changes are also possible for some fields.

If entries have already been made for the DAO, the following information message is issued when calling up the cut list: "PDAO do already exist. Restricting changes possible." Confirm by pressing Enter to call up the cut list.

Note
If PDA data records already exist, cuts can no longer be deleted. However, it is still possible to insert cuts into the cut list.

For further information on *Cut/cut list* master data, please refer to the "Master data disassembly" section.

7.3.4 Calculation Analysis

Use the menu item *Goto > Calculation analysis* to call up the following calculations:
— Planned
— Target & Target (alternative price)
— Variance
— Actual

A calculation analysis is always based on the cut list used to create the disassembly order. These analyses are based on the respective entries and calculations made.

It particularly makes sense to call up these analyses if the relevant data (e.g. planning data from MRP calculation or entries in Input and Output) exists.

These functions, particularly the actual calculation analysis, can also be used for error analysis.

Calculation analysis - Planned
If the disassembly order was created based on an MRP calculation, the function call *Calculation analysis > Planned* is used to call up the MRP calculation in *Display* mode (transaction /SPMEAT/CLPB). The calculation analysis is then completed using the planned quantities from the MRP calculation.

The *Calculation analysis > Planned* analysis can only be called up, if the *Plan manually* indicator (*General* tab) has not been set.

You will find information on this *Plan manually* field in the field description in the section entitled "*General* tab" in this document.

For further information on the MRP calculation, please refer to the "MRP Calculation" section of this document.

Calculation analysis - Target
It makes sense to start the *Target calculation* analysis if all inbound and outbound entries have been made.

Target quantities indicate how the respective output quantities, according to the definition in the cut list, and based on the actual input quantities entered, should have originated in disassembly. The entire actual input quantity (total of all inputs) is also distributed as target output quantity, as per the planned percentage breakdown according to the cut list.

The output quantities that were actually entered usually deviate from what is planned in the cut list. Furthermore, they have no impact on the calculation of target quantities. In addition, the calculation of the target quantity is "cut-dependent". This means that only target quantities for a

cut's outputs can be calculated, even if only 1 output has been entered for this cut. If this is not the case, the actual input quantity entered for the material is also shown as target output quantity.

Without the actual entry of at least one input material, no target quantities can be calculated. The entry of output materials without the entry of at least one input material similarly results in making it impossible to calculate target quantities and target prices.

Note
However, please note the following exception: if the Calculate actual inbound quantity (F only) *indicator is set (*General *tab), the actual inbound material quantity is calculated based on the actual outbound material quantities entered. However, this only applies for inbound materials, which have been assigned with a procurement type 'F' (= third-party procurement) in the cut list. In this case, target quantities are also calculated without any explicit entries of input quantities.*

The target calculation always makes the following calculation with regard to quantities and values:
—   Total of actual input quantity = total of target output quantity
—   Total actual value (of the valued actual input quantities) = total target value (of valued target quantities)

Note
The target calculation cannot be properly completed if actual entries are made on the cut. Entries should always be made on the material, not on the cut.

Calculation analysis - Target (alternative price)
The above statements made for the target calculation analysis apply in principle for this analysis (see above).

The input materials are valued with an *alternative price*. The price source (e.g. planned price 1, planned price 2) for this price is determined by a setting in Softproviding Meat Customizing (*Production > Execution > Disassembly Orders > General Settings, Planned/target price 1* field). However, only the material costs are recalculated; quantities and labor costs remain unchanged.

Calculation analysis - Variance
The variance calculation is an alternative target calculation. Based on the output quantities entered, with the aid of the percentage ratio of this output, quantity ratios are determined and then the input quantity for this cut is calculated. Actual output quantities actually entered are interpreted as requirements (and written into the corresponding requirement fields for these materials). In contrast to the actual or target calculation, outbound negative quantities for the variance calculation are also possible and permitted.

By contrast with the target calculation, output quantities are amended in consideration of actual quantities entered. The percentage allocation to outputs remains unchanged.

Example: In accordance with the cut list, material A can be cut into materials B, C and D. An actual quantity of 100 kg is entered for material B.

Material	Ratio (%)	Quantities (kg)
Output material B	30	100.00

Output material C	30	100.00
Outputmaterial D	40	133,33

The quantities listed in the table are calculated for materials B, C and D. The total of these quantities (333.33 kg) is transferred to the cut material A.

The *Vari: cumulate, not calculate* setting can have an impact on the variance calculation. This setting means that the inbound quantities of an input material are ascertained by means of the total outbound quantities (i.e. quantities per cut) rather than by means of the percentage of the output. This indicator is set at cut level in the cut list.

Calculation analysis - Actual

The *Actual calculation* calculation analysis is used to display the actual quantities of input and output materials entered and the corresponding actual prices and values. Input materials are valued with the price from the selected price source (e.g. standard price). This price source is preset by a setting in Softproviding Meat Customizing *(Production >Execution > Disassembly orders > General settings, Actual price* disassembly process field).

In particular, the *Display input materials* and *Display output materials* can be used for this analysis.

The actual quantities in this calculation analysis are ascertained from the PDA records, in other words, they are not calculated. The material costs for the input material (calculated: quantity * price) are subsequently distributed to outputs entered as per the distribution key (fixed indicator and equivalence figures). However, if for example no output quantities have been entered for the cut in Actual, the material costs for the input material for this cut are lost.

The labor costs are copied from the target calculation, unless the *Use actual labor costs* indicator has been set in Softproviding Meat Customizing. In this case, values are copied from the SAP standard confirmations. This is because, when setting the aforementioned indicator, the disassembly order needs to be confirmed by means of the SAP standard confirmation.

The labor costs copied from the target calculation (the aforementioned indicator has not been set) are distributed to the output materials in accordance with the distribution key (fixed indicator and equivalence figures).

7.4 Determining Quantity and Price in the Order

The following overview shows the sources used to determine the quantities and prices in the planned, target and actual quantities for the disassembly order.

Table 1

Tab	Planned Quantity	Planned Price	Target Quantity	Target Price	Actual Quantity	Actual Price
Inbound	MRP calculation or "internal MRP" (manual entry)	See point 1 below	There are no target quantities in inbound	There is no target price in inbound	Originate from actual entries	See point 1 below
Outbound	From the MRP calculation	Price from the MRP calculation	See point 2 below	See point 2 below	Originate from actual entries	See table 2 below

Point 1
Ascertained via the price source as per the default setting in Customizing when creating the DAO. The price source can be changed in the DAO.

Point 2
Target quantities and target prices are calculated as per the cut list. Requirement: actual input and actual output quantities must be entered. The following applies: Total of actual input quantity = total of target output quantity.

The following overview shows how the plan, target and actual values are determined:

Table 2

Tab	Plan Value	Target value	Actual value
Inbound	Value = Quantity x price Copy from MRP calculation or "internal MRP" (manual entry)	Not relevant for inbound	Is calculated. Actual value = Quantity x price
Outbound	Value = Quantity x price Copy from the MRP calculation	See point 3 below	Actual value = Quantity x price. Price is determined via fixed prices and equivalences. Total actual value output must equal total actual value input (*value inbound = value outbound*).

Tab	Plan Value	Target value	Actual value
			Caution At least 1 material must have an equivalence.

Point 4

The following applies: Total actual value (of the estimated actual input quantities) = total target value (of estimated target quantities).

7.5 Error Analysis

There follows an explanation of several errors that can occur in practice:

Error	Evaluation/solution
Despite the DAO calculation, no target costs have been calculated.	Check whether both input and output quantities have been entered. A target calculation can only be made if inputs and outputs have been entered. You should note here that an output, as well as an input, needs to have been entered in a cut.
Despite the DAO calculation, no actual prices and actual values have been calculated.	It is important that input and output materials have been entered in accordance with the cut list, so that the calculation can also make the connection between the input and output materials. In principle, there must also be a corresponding input, from which the output was cut in the disassembly process. Potential sources of error here include e.g. data transferred via interface from upstream systems or processes into the disassembly process. Other sources of error then arise regarding the calculation of prices and values, if unplanned materials have been entered. Unplanned materials should never be entered. Missing or not entered quantities in actual can result in actual values not being calculates or being "lost".
Not all costs are transferred (= rolled up) to the subsequent cuts.	To ensure that costs can be accumulated correctly, an equivalence must be stored for the relevant materials in the subsequent cut.
Material costs: all outputs of a cut are set to a fixed price.	It is not possible to allocate costs correctly. At least one equivalence must be assigned to an output material, so that the costs of the input material can also be fully allocated to the outputs.
For material costs, an output has been specified with a **negative** (or **positive**) fixed price. One or more other outputs that are based on variable pricing (i.e. no fixed price) are assigned a **positive** (or **negative**) value after the calculation. The total of all values comes to zero.	This error suggests that an inbound quantity exists in a cut above this output, for this quantity. However no material price was entered, such that it was not possible to determine a total value for the inbound quantity.

7.6 Planning Data & Requirements in the Disassembly Order

The following overview presents those differences that can arise as a result of a disassembly order being created *directly* or alternatively via an *MRP calculation*. The key difference is that when using an MRP calculation, automatic planning data is available for the disassembly order.

Process/activity	DAO is created directly	DAO is created via an MRP calculation
Planning data available?	No automatic planning data available.	Planning data is copied from the MRP calculation into the DAO.
Can planning data be created manually?	Yes. The fields for planning data are activated in *Cut*, *Inbound* and *Outbound* tabs. Data can be read in or entered manually.	No. Planning data is copied.
Material requirements	Requirements need to have been entered manually (for the output materials in the *Outbound* tab.	Requirements are copied from the MRP calculation into the DAO.

Note
Planning data and requirements are not necessary to enable inbound and outbound entries for the order.

7.7 Disassembly Costs

Prerequisites

When allocating input material costs, equivalences play a key role with reference to both *material costs* and *labor costs* (= *other costs*). In addition to fixed prices, used principally for by-products and waste, equivalences are the critical factor for the allocation of material and labor costs to the output materials originating in the disassembly. These costs are calculated in the calculation before costs are allocated. This calculation is performed using the *formula keys* and *formula parameters* detailed below.

To ensure these calculations, and consequently the statement of costs in the *Other costs* tab in the disassembly order, are made correctly, the following settings need to be applied:

1. **SAP customizing:** if necessary, specify appropriate standard value key

2. **SAP customizing:** if necessary, specify appropriate formula key

3. **SAP customizing:** if necessary, specify appropriate formula parameter

4. **Softproviding Meat Customizing:** definition and assignment of activity types to cost block

5. **Cut list:** the cut list has been created with all the relevant assignments (routing, work center, formula parameter, fixed prices, equivalences, etc.)

6. **Price planning:** planning of fixed and variable costs

Overview of transactions

Customizing	Transaction	Description
Standard value key	OPCM	The standard value key is assigned in the center.
Formula key (= formulae)	OPKM	The formula key is assigned in the center.
Formula parameter	OPKL	The formula parameter is assigned in Customizing.

Master data	Transaction	Description
Price planning	KP26	Planning of fixed and variable costs for cost center and activity type

Also see the "Master Data: Disassembly" section in this document and specifications in the *Disassembly* configuration guide.

7.7.1 Formula Key and Formula Parameter

The *formula key* (= *formula*) and *formula parameter* are both required in Disassembly to enable the labor costs for the disassembly to be calculated for the disassembly order calculation. A formula key consists of formula parameters.

The formula key is stored in the work center in the *Calculation* tab. To ensure the required formula keys are available there, as in the work center (*Basic data* tab), an appropriate standard value key is assigned to the formula key.

In the work center, the formula keys are assigned to the required activity types. Up to six combinations of activity type and formula key can be stored in the work center.

The routing applies this information by assigning the work center to the routing operation. The *routing* in turn is copied into the disassembly order by the corresponding assignment to cuts and cut lists.

The labor costs are calculated in conjunction with the settings for activity and price planning. The settings for the combination of cost centers and activity type are made in this planning (e.g. fixed and variable cost rates).

Note
In customizing, separate formula keys and formula parameters can be specified or the predefined formulae provided by SAP can be used.

Example

Formula key	**SAP007** (Production: labor requirements) = SAP_03 * SAP_09 / SAP_08
Formula parameter operation	**SAP_03** (labor hours in min), calculate using the standard value for the
Formula parameter value quantity)	**SAP_09** (operation quantity), calculate using the MGVRG field (standard
Formula parameter	**SAP_08** (base quantity), calculate using the BMSCH field (base quantity)

The *formula* is used to calculate the actual time required (e.g. in min) for an activity type (e.g. labor hours). This is then valued using the price for the relevant activity type.

For the ACTUAL calculation analysis in the disassembly order, the calculation is made based on the actual cut quantity in kg.

Example of calculation
Calculation based on the formula **SAP007** (Production: labor requirements) = **SAP_03 * SAP_09 / SAP_08**.

Formula Element	Quantity/Amount	Quantity/Time Unit	Explanation
Operation quantity V	300.00	kg	SAP_09 (quantity as per disassembly)
Base quantity B	100.00	kg	SAP_08 (as per standard value in the routing)
Labor hours P	30.00	min	SAP_03 (as per standard value in the routing)
Duration = P * V / B	90.00	min	Is calculated
Cost in EURO fixed per HR	40.00	EUR	Value from price planning
Cost in EURO variable HR	10.00	EUR	Value from price planning
Cost in EURO fixed per MIN	0.67	EUR	Is calculated
Cost in EURO variable MIN	0.17	EUR	Is calculated
Calculation costs fixed	60.00	EUR	Is calculated
Calculation costs variable	15.00	EUR	Is calculated
Calculation costs total	75.00	EUR	Is calculated

The total costs calculated amounting to 75 Euro and the fixed and variable costs (60 Euro / 15 Euro) are shown in the calculation in the *Other costs* tab in the relevant cut.

Note
This calculation can be reproduced by a formula test in the work center (transaction CR02), in the Calculation *tab (*Test formula *button).*

Other Examples

Other examples of *formula keys*, *formula parameters* and *standard value keys* are given below. If necessary, there is a note explaining how cost can be calculated using these parameters in the specific feature in operation.

Formula key (self-defined)

Formula Key	Name	Formulae
Z00001	Slaughtering kg	(SAP_09 / SAP_08) * Z001
Z00002	Disassembly kg	(SAP_09 / SAP_08) * Z002

Formula Key	Name	Formulae
Z00004	Slaughtering machine time	SAP_02 * Z001 / SAP_08 / SAP_11
Z00005	Slaughtering labor time	SAP_03 * Z001/ SAP_08 / SAP_11
Z00006	Disassembly machine time	SAP_02 * Z002 / SAP_08 / SAP_11
Z00007	Disassembly labor time	SAP_03 * Z002 / SAP_08 / SAP_11

Formula parameter (self-defined)

Formula Parameter	Name	Description
Z001	Slaughtering kg	Operation quantity in kg in slaughtering
Z002	Disassembly kg	Operation quantity in kg in disassembly

Formula key (SAP standard)

Formula Key	Description	Formula Parameter (Formulae)
SAP001	Production: duration setup	SAP_01
SAP002	Production: duration machine	SAP_02 * SAP_09 / SAP_08 / SAP_11
SAP003	Production: duration labor	SAP_03 * SAP_09 / SAP_08 / SAP_11

Formula parameter (SAP standard)

Formula Parameter (Formulae)	Name	Description
SAP_01	Setup time	Time required for setup.
SAP_02	Machine time	Machine time required to produce a specific quantity.
SAP_03	Labor time	Labor time required to produce a specific quantity.
SAP_08	Base quantity	Base quantity to which the time refers (e.g. machine or labor time).
SAP_09	Operation quantity	Quantity for a specific operation in the routing.
SAP_11	Operation splits	Operations splits are used to reproduce parallel operations. In other words, to be able to complete an operation faster, it may be done on 3 machines, for example, rather than one.

Standard value key

To be able to maintain the standard values at the work center, appropriate standard value keys need to be specified, or must already be stored. This standard value key consists of the necessary components (i.e. the formula parameters) for use in the work center.

Example

Standard value key	Description	Formula parameter (key)
SAP1	Normal production l	SAP_01 (setup time) SAP_02 (machine time) SAP_03 (labor time) Z001 (labor kilogram)

7.7.2 Cost Calculation

The following example shows how costs are calculated for a disassembly order calculation.

Example

The following cut was created as part of a disassembly order. Material 2000 is the input material, materials 2001, 2002, 2003 and 2004 are output materials.

A quantity of 1000 kg was entered for the input material 2000. This quantity is valued at the price of 2.00 EUR per kg.
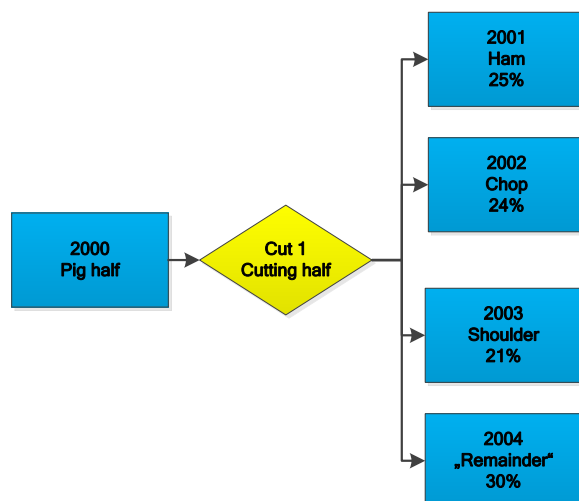
Input material

Material	Quantity	UoM	Price per kg	Total price	Currency
2000	1000	kg	2.00	2000.00	EUR

The inbound value for the input in cut 1 amounts to 2000.00 Euro. This value is allocated to the individual outputs in line with the *fixed prices* and *equivalences*. In the total, the output material value must equal the input material value (see the following calculation).

Material costs calculation

The output material costs are calculated using fixed prices and equivalences. Please note that for this cost calculation and allocation to outputs, the materials are always initially covered i.e. considered with the fixed price when costs are stored. The costs are then calculated for the outputs with equivalences.

Note
A fixed price can be positive as well as negative.

At least 1 output material per cut must have an equivalence. If this is not the case, the program will use the first material in the output list for this to record costs. Outputs with existing fixed prices are also considered first of all in this case.

If the first output material has a positive or negative fixed price, the output list will use the first "variable" output (i.e. output with no fixed price and no equivalence) to bear the remaining costs.

A material has an equivalence or a fixed price. It is not possible to assign both to one material.

Material	Equivalence	Fixed Price per kg in EUR	Output Quantity kg	Price per kg in EUR	Total Value of Outputs in EUR
2001	1	-	250	1.97	492.02
2002	2	-	240	3.94	944.68
2003	1	-	210	1.97	413.30
2004	-	0.5	300	0.5	150.00
Total			1000 kg (= input quantity)		2000 EUR (= input value)

1. **Price per kg** and **total value output** for the fixed price material
    — **Material 2004**: 300 * 0.5 (quantity multiplied by fixed price) = **150 Euro**

2. **Price per kg** of outputs with equivalences
    — **Step 1:** Materials 2001, 2002 and 2003: 250 * 1 + 240 * 2 + 210 * 1 = **940**
    — **Step 2:** 2000 EUR – 150 EUR (total value minus value of fixed price material) / 940 = **1.97 EUR**
    — **Interpretation:** The price per kg for the outputs with the equivalence of 1 is 1.97 EUR
    — **Step 3:** Price per kg for the remaining outputs: Equivalence * 1.97 EUR
3. Total value of outputs with equivalences
    — (250 * 1 + 240 * 2 + 210 * 1) * 1.97 EUR = **1850 EUR**

Calculation of other costs

The following shows the calculation of *other costs* (= labor costs). A routing has been assigned to cut 1 (cut half) as follows:

Note
At least 1 output material per cost block must have an equivalence. If this is not the case, no labor costs are calculated for this cost block. In this case, costs are lost.

Both positive and negative fixed prices can be stipulated directly in the calculation for the outputs. These are multiplied by the respective output quantities and shown as fixed values for the respective material. These fixed costs are calculated and shown in addition to the costs calculated and to be allocated in accordance with equivalences.

Routing for cut 1

Routing Operation	Base Quantity operation	Standard Value Labor Time	Unit	Work Center
0010	100	15	min	9999

Work center 9999

Work Center	Standard Value Key	Activity Type	Unit	Formula Key	Activity Type
9999	Z009	420	min	SAP003	420

Work Center	Standard Value Key	Activity Type	Unit	Formula Key	Cost Center
9999	Z009	420	min	SAP003	1000

A self-defined *standard value key* Z009 is used. This contains the necessary components (= parameters) for the formula key SAP003.

The formula key is: **SAP003** = SAP_03 * SAP_09 / SAP_08 / SAP_11

Activity planning
The prices for the activity type 420 (labor time) are stored in activity planning as follows:

Price Fixed	Price Variable	Unit	Price Unit
0.10 EUR	0.50 EUR	min	1

The disassembly of 100 kg on work place 9999 thus requires a total of 15 minutes and generates 1.50 Euro for fixed costs (15 min * 0.10 EUR) and 7.50 Euro for variable costs (15 min * 0.50 EUR).
In this example, 1000 kg of half pigs were disassembled. The costs are allocated by means of equivalences to the individual outputs. 1000 kg has generated total costs amounting to 90 Euro. The costs consist of 15.00 Euro fixed costs and 75.00 Euro variable costs.

In the following example, costs are allocated using the equivalences specified.

Material	Quantities	Equivalence	Fixed Costs (calculated, see below)	Variable Costs (calculated, see below)	Currency
2001	250	2.60	4.77	23.85	EUR
2002	240	3.23	5.69	28.44	EUR
2003	210	1.52	2.34	11.71	EUR
2004	300	1.00	2.20	11.01	EUR

Material	Quantities	Equivalence	Fixed Costs (calculated, see below)	Variable Costs (calculated, see below)	Currency
Total	1000		15.00	75.00	EUR

Fixed and variable costs are calculated using these equivalences in a similar way as for calculating material costs. The calculated values are included in the *Fixed costs* and *Variable costs* columns in the above table.

1. **Fixed costs per material**
   - **Step 1:** 250 * 2.6 + 240 * 3.23 + 210 * 1.52 + 300 * 1 = **2044.40**
   - **Step 2:** 15 EUR / 2044.4 = **0.007337 EUR**
   - Interpretation
     The costs per kg for the outputs with an equivalence of 1 is **0.007337 EUR**
     The costs per kg for the remaining outputs: **Equivalence * 0.007337 EUR**
   - **Step 3:** Calculation of total costs per material: **Quantity * costs per kg**

2. **Variable costs per material**
   - **Step 1:** 250*2.6 + 240*3.23 + 210*1.52 + 300*1 = **2044.4**
   - **Step 2:** 75 EUR / 2044.4 = 0.03668558 EUR
   - Interpretation
     The costs per kg for the outputs with an equivalence of 1 is **0.03668558 EUR.**
     The costs per kg for the remaining outputs: **Equivalence * 0.03668558 EUR**
   - **Step 3:** Calculation **Variable costs per material**: Quantity * costs per kg

7.7.3 Cost Rollup

In general, even in complex cut lists with different routings and activity types for individual cuts, the labor costs calculated in the higher-level cuts are relevant for the subordinate cuts.

This means it is preferable and also necessary to pass on (= rollup) the material and labor costs arising "higher up" in the cut list (e.g. in the disassembly process for slaughtering) to lower-level cuts (e.g. the next level primal cutting or even other levels, such as e.g. deboning).

This cost rollup takes place automatically, i.e. no special settings are required to ensure it is done.

Note – Setting - material master
All cost blocks created in Softproviding customizing are shown for each output material (in the Other costs *in tab in the cut list). An equivalence needs to be stored for the relevant materials in the cut if the aforementioned cost rollup is required.*

7.7.4 Cost Views

Cost views can be called up in the disassembly order at *order level*, for *cuts* and *output materials*.

In the cost views, *quantities*, *costs* and *cost rates* are shown in the following column categories:
— Requirements
— Planned quantities
— Target quantities
— Actual quantities

This is done for each cost group specified, such as e.g. *direct material costs, direct production costs, costs of goods manufactured* or *overheads*.

—

Notes

These cost groups are specified in a system table and should not be changed. See explanations in the Disassembly *configuration guide.*

—

Depending on Softproviding Meat Customizing, a distinction is also made between the costs of the cut and rolled up costs.

The cost view enables costs to be compared at order as well as cut level (all costs) and for individual output materials.

The price sources to be used for the valuation and the subsequent calculation of the planned prices, the target 1 prices and the actual prices can be stored in Softproviding Meat Customizing. You can also specify which fixed and variable costs should be displayed from which cost block (and consequently, from which activity types) and in which cost group (e.g. direct production costs). Please see the relevant notes in the *Disassembly* configuration guide.

For reasons of clarity, the individual column categories are each shown separately below.

The upper section of the cost view shows the following information:
— Disassembly order
— Cut list
— Cut (if the cost view for a cut is selected)
— Input material (if the cost view for an input is selected)
— Output material (if the cost view for an output is selected)
— Price unit

The following shows an example of *field description* at order level.

Requirements column category

Quantities	Weight	DUM
Accumulation level	Output of *requirements* (*total*)	Output is available in *double UoM*
Variances (quantity)	**Plan-Requirement Variance**	
	Output of the difference (positive or negative) between the *planned quantity* and *requirements* (*total*)	Output is available in *double UoM*
	Output of the variance as a %	

Costs	Abbreviation	Indicator	Costs	Cost Rate
Direct material costs	MEK	*cumulative*	Calculation: *Weight * cost rate*	The direct material costs calculated based on the material prices for the input and the equivalences and fixed prices for the output (based on the quantity calculated or entered).
Direct production costs	FEK	*cumulative*		
Production overhead	FGK	*cumulative*		
Production costs	FK	*calculated*	Total: *FEK + FGK*	
Costs of goods manufactured	HK	*calculated*	Total: *FK + MEK*	
Overhead	GK	*cumulative*		
Primary costs	SK	*calculated*	Total: *SK + HK*	

Production Depth	Abbreviation	Indicator	%
Internal labor	EL	%	Output of the variance as a %

Variances (Values)	Structure Variance - Plan	
	Costs	Cost Rate
Marginal costs basis		
	Structure variance - plan = MEK requirement minus MEK plan This calculation applies for — the calculation of costs (*Costs* column) — the cost rate — and the output of the variance as a %	

Planned column category

Quantities	Weight	DUM
Accumulation level	Output of *planned quantity* (*total*)	Output is available in *double UoM*
Variances (quantity)	**Actual-Requirement Variance**	
	Output of the difference (positive or negative) between the *output actual quantity* (*total*)	Output is available in *double UoM*

Quantities	Weight	DUM
	and the *requirements quantity* (*total*). *Output actual quantity > requirement*: positive difference *Output actual quantity < requirement:* negative difference	
	Output of the variance as a %	

Costs	Abbreviation	Indicator	Costs	Cost Rate
Direct material costs	MEK	*cumulative*	Calculation: *Weight * cost rate*	The direct material costs calculated based on the material prices for the input and the equivalences and fixed prices for the output (based on the quantity calculated or entered)
Direct production costs	FEK	*cumulative*		
Production overhead	FGK	*cumulative*		
Production costs	FK	*calculated*	*Total: FEK + FGK*	Total of the FEK and FGK
Costs of goods manufactured	HK	*calculated*	*Total: FK + MEK*	Total of the FK and MEK
Overhead	GK	*cumulative*		
Primary costs	SK	*calculated*	*Total: SK + HK*	Total SK + HK

Production Depth	Abbreviation	Indicator	%
Internal labor	EL	%	Output of the variance as a %

Variances (Values)	Structure Variance - Plan	
	Costs	**Cost Rate**
Marginal costs basis		
	Structure variance - actual = MEK requirement minus MEK target 1 This calculation applies for — the calculation of costs (*Costs* column)	

Variances (Values)	Structure Variance - Plan	
	Costs	**Cost Rate**
	— the cost rate — and the output of the variance as a %	

Target/target 1 columns category
Note
Target/target 1 corresponds to the target calculation analysis (alternative price).

Quantities	Weight	DUM
Accumulation level	Target quantity (total) in the weight unit of measure	Target quantity in the double unit of measure
Variances (Quantity)	**Plan Variance**	
	Output of the difference (positive or negative) between the *target quantity* and *planned quantity*	Output is available in *double UoM*
	Output of the variance as a %	

Costs	Abbreviation	Indicator	Costs	Cost Rate
Direct material costs	MEK	*cumulative*	Calculation: *Weight * cost rate*	Price source: In Softproviding IMG > *Plan/target price 1* field
Direct production costs	FEK	*cumulative*		
Production overhead	FGK	*cumulative*		
Production costs	FK	*calculated*	Total: *FEK + FGK*	Total of the FEK and FGK
Costs of goods manufactured	HK	*calculated*	Total: *FK + MEK*	Total of the FK and MEK
Overhead	GK	*cumulative*		
Primary costs	SK	*calculated*	Total: *SK + HK*	Total SK + HK

Production Depth	Abbreviation	Indicator	%
Internal labor	EL	%	Output of the variance as a %

Variances (values)	Structure variance - plan	
	Costs	**Cost Rate**
Marginal costs basis		
	Price variance = MEK target 1 minus MEK target 2 This calculation applies for	

Variances (values)	Structure variance - plan	
	Costs	**Cost Rate**
	— the calculation of costs (Costs column) — the cost rate — and the output of the variance as a %	

Target/target 2 columns category

Note

Target/target 2 corresponds to the target calculation analysis.

Quantities	Weight	DUM
Accumulation level		
Variances (Quantity)	**Target-Actual Variance**	
	Output of the difference (positive or negative) between the *actual quantity* and *target quantity*	Output is available in *double UoM*
	Output of the variance as a %	

Costs	Abbreviation	Indicator	Costs	Cost Rate
Direct material costs In contrast to target 1, target 2 is calculated (see above)	MEK	*cumulative*	Calculation: *Weight * cost rate*	The direct material costs calculated based on the material prices for the input and the equivalences and fixed prices for the output (based on the quantity calculated or entered)
Direct production costs	FEK	*cumulative*		
Production overhead	FGK	*cumulative*		
Production costs	FK	*calculated*	Total: FEK + FGK	Total of the FEK and FGK
Costs of goods manufactured	HK	*calculated*	Total: FK + MEK	Total of the FK and MEK
Overhead	GK	*cumulative*		
Primary costs	SK	*calculated*	Total: SK + HK	Total SK + HK

Production Depth	Abbreviation	Indicator	%
Internal labor	EL	%	Output of the variance as a %

Variances (Values)	Structure variance - plan	
	Costs	**Cost Rate**
Marginal costs basis		
	Usage variance = MEK target 1 minus MEK actual This calculation applies for — the calculation of "costs" (Costs column) — the cost rate — and the output of the variance as a %	

Actual columns category

Quantities	Weight	DUM
Accumulation level	Actual quantity (total of all actual outputs) in the weight unit of measure	Actual quantity in the double unit of measure
Variances (Quantity)	**Total Variance**	
	Output of the difference (positive or negative) between the *planned quantity* and *actual quantity*	Output is available in *double UoM*
	Output of the variance as a %	

Costs	Abbreviation	Indicator	Costs	Cost Rate
Direct material costs	MEK	cumulative	Calculation: Weight * cost rate	The direct material costs calculated based on the material prices for the input and the equivalences and fixed prices for the output (based on the quantity calculated or entered)
Direct production costs	FEK	cumulative		
Production overhead	FGK	cumulative		
Production costs	FK	calculated	Total: FEK + FGK	Total of the FEK and FGK
Costs of goods manufactured	HK	calculated	Total: FK + MEK	Total of the FK and MEK
Overhead	GK	cumulative		
Primary costs	SK	calculated	Total: SK + HK	Total SK + HK

Production Depth	Abbreviation	Indicator	%
Internal labor	EL	%	Output of the variance as a %

Variances (Values)	Structure Variance - Plan	
	Costs	**Cost Rate**
Marginal costs basis		
	The total variance is the sum total of the individual variances (structure, plan and actual, price and usage variance). This calculation applies for the calculation of costs (Costs column) the cost rate and the output of the variance as a %	

Note
The information for the purchasing decision (EKE) in the cost view is then only shown if EKE-relevant objects are stated. You will find the corresponding explanations for this in the "Purchasing Decision" section in this document.

7.7.4.1 Cost Views – Layout Modification

The layout of the cost views can be modified. This is done by means of a modification to the programs stored in Softproviding Meat Customizing. Please see the relevant notes in the *Disassembly* configuration guide.

The customer-specific layout modifications of the cost views can be made by copying the aforementioned programs and making a corresponding assignment in customizing. BADI */SPMEAT/BADI_CTL_CVIEW* provides enhanced options for amending cost views.

Note
The BADI methods available for this are explained in the Disassembly *configuration guide.*

7.8 SAP Production Order

When a disassembly order is created – as previously explained in the "Overview" section – a SAP standard production order with the same order number is also created at the same time. The data from the disassembly order is thus copied into the SAP standard production order. This can be called up using SAP standard transactions.

A production order specifies
— which material should be produced, by when, where it should be produced and which activity should be used.
— It also specifies which resources need to be used
— and how the order costs should be calculated.

Production orders are used to control and monitor production within a plant and as a controlling tool in controlling.

The SAP standard production order is particularly necessary for the following reasons:
— To display and control goods movements and costs for the order
— To complete period-end closing work

The order can be called up as follows:

Menu	*Logistics > Production > Shopfloor control > Order*
Transaction	*CO02 (Change)* *CO03 (Display)*

1. Call up the *Display production order* or *Change production order* activity via one of the aforementioned options.

2. Use the input help to select an order and confirm by pressing Enter.

For options regarding editing and analyzing these production orders, please see the SAP standard documentation.

Note
However, this SAP standard production order should not be changed using the transaction CO02.

7.9 Completion of Disassembly Orders

If all entries have been made, the disassembly order can be completed and confirmed. *Period-end closing work* can then be completed, in order to bill the costs accumulated on the order (material and labor costs) to the receiving objects.

Orders are *completed* in the transaction used for data entry (*inbound/outbound*). Orders cannot be completed in the disassembly order.

Confirmation of a DAO is made in the actual order. The confirmation documents the status of operation and sub operation processing. Amongst other things, it serves to determine the quantities produced in an operation as yield and the actual activity performed for the individual operations.

Disassembly orders are generally completed and then confirmed only after all entries are complete (disassembly process inbound and disassembly process outbound).

Confirmed and *order complete* can be canceled. *Confirmed* statuses can be canceled using the SAP standard transaction CO13, order completion is canceled using the transaction SPDGS/AFKORECO. Regarding the *Order completion confirmed* activity, please see the section entitled "*Close Production Orders (PDA)*" in the *Process data* documentation.

You can find further information on *period-end closing*, in the section entitled "Period-End Closing - Disassembly Orders" in this document.

8 Period-End Closing: Disassembly Orders

8.1 Overview

Within the general scope of period-end closing, a range of activities is carried out in order to settle the actual costs incurred on a disassembly order with one or multiple receiving objects (e.g. the material to produce, or a sales order).

When a disassembly order is created, at the same time a SAP Standard production order with the same order number is created. This standard production order is required to, among other things, carry out the period-end closing operations for the order after all entries have been made.

These closing works include the following, partly optional, operations:
— Overhead (optional, via the *Surcharges* option in v5.30)
— Preliminary settlement for disassembly orders
— Preliminary settlement for co-products
— Work in process (optional)
— Variances (optional)
— Settlements

If you want to carry out period-end closing operations, these actions are to be executed in the specified order. Operations for *Preliminary settlement for disassembly orders* are carried out using Softproviding Meat programs. All other closing operations are SAP standard activities.

All operations and the respective prerequisites are described in the sections below. For additional information on the SAP standard activities please refer to the respective SAP standard documentation.

As preparation for the actual period-end closing operation additional operations may be carried out. These are:
— **Checking the disassembly orders (DAO) regarding their data entry**
  Checking the data entries made for completeness (inbound/outbound). The desired orders may be searched for with transactions COOIS or /SPMEAT/CTOC.
— **Checking the PDA data records regarding their posting status**
  This check may be carried out using transaction /SPDGS/PDAON with the PDA Data Cockpit. Since disassembly orders are usually day orders, date and goods movement status may be used as search criteria. Further checks might be made by using the weighing evaluation (transaction /SPMEAT/WGAU).
— **Cost analysis**
  Rounding differences put aside, the cost in the disassembly order and the costs in the SAP production order must match.

These checks do make sense and are recommended by Softproviding.

Period-end closing operations should only be made after
— All data entry on the disassembly order have been made.
— All PDA data records have been processed (i.e. posted, cancelled or deleted.
— Confirmation has been made.

Prerequisites

In various places this document refers to prerequisites which must be given so that the activities described here may be carried out.

These are the following SAP standard customizing settings as well as settings to be made in Softproviding Meat and Softproviding Core Customizing respectively.

SAP Standard Customizing
—   Order type
—   Order type-dependent parameters
—   Settlement profile
—   Source structure
—   Costing variants
—   Variance key
—   Target Cost Versions
—   Variance variant
—   Work in process
—   Applied overhead (*surcharges* in Softproviding Meat v5.30)

Softproviding Meat and Softproviding Core Customizing
—   Assigning source structures

These settings are described in detail in the *Disassembly* configuration guide.

8.2 Overhead

The *Overhead* closing work type is a SAPO standard activity which was integrated into the process of period-end closing works of the disassembly orders (i.e. in the Softproviding Meat menu tree).

Performing overhead costing is optional, i.e. it need not necessarily be carried out. It is used for percentage- or quantity-based overhead allocation. Overhead calculation is performed on the basis of the actual costs incurred previously. In a manufacturing plant these usually are labor costs and material costs.

In release Softproviding Meat v5.60 it is not possible to report overhead for disassembly orders. However, there is an option to identify these costs by customized programming of BAdI /SPMEAT/BADI_CTL_CVIEW. This BAdI is described in detail in the *Disassembly* configuration guide.

The procedure to calculate the overhead via a costing sheet therefore concerns the identification of the overhead in the SAP production order which is created simultaneously with the disassembly order.

Prerequisites

In order to make an overhead costing, a costing sheet is required.

8.2.1 Determining the Costing Sheet

The order type required for creation of the disassembly orders is defined in Softproviding Core Customizing.

The order type-dependent parameters include the costing (calculation) variants *Planned* and *Actual* (transaction OPL1). These are transferred when the disassembly order is created. The costing variants specify a valuation variant which in turn contains the costing sheet needed for the overhead calculation. In Customizing, these parameters are called with transaction OPL0, the calculation variants with OPL1.

Procedure

SAP Menu	*Softproviding Meat > Production > Execution > Disassembly > Disassembly Orders > Period-End Closing > Overhead*
Transaction	KGI2

1. Call the *Overhead* activity via one of the above-mentioned options.

Note
If you are prompted to enter a controlling area, do so and confirm with Enter.

2. The following fields are displayed:

Field Name	Description
Order	Order number of the disassembly order. Disassembly orders are Softproviding Meat-specific production orders which are only used in Disassembly. Here, enter the order number for which you want to carry out the overhead.
Period	Period (e.g. month) which represents the beginning of the analysis or processing period. If only one period may be entered, this will be the period for which the system will perform the processing.
Fiscal year	Usually a period of twelve months for which a company regularly creates financial statements and checks inventories. The fiscal year may correspond exactly to the calendar year, but this is not obligatory.
Test run	If this indicator is set, a test run will be carried out. This will not delete data from the database. If this indicator is not set an update run will be started and your data will be updated to the database.
Dialog display	This indicator controls whether overhead calculation will be carried out with dialog display.

3. Overhead calculation is started by selecting the *Execute* button or the F8 key.

4. In order to simulate the overhead calculation, select *Test run*.

5. Check the *Dialog display* field if you want check the calculated overhead. Based on the costing sheet sired in the production order you will then get an overview of the determined condition values.

Result

The list with the order reasons is displayed. It contains information on the execution type (e.g. *overhead executed* or *overhead canceled*) and the processing mode (*test run* or *update run*). The Enter key or the *Next list level* button will take you to the order debits overview. The order is debited with the overhead. In the production order, the applied overhead is updated. It may then be evaluated accordingly.

Infosystem

The following evaluation options are available:
— Actual line items (transaction KOB1). The applied overhead is displayed.
— In the production order (transaction CO02), menu item *Goto > Costs > Analysis* or *Itemization* allows you to start a target/actual comparison where the posted applied overhead is shown.

Further Function

— **Reverse overhead calculation**
The latest calculation may be reversed. In order to do this, select *Overhead Calculation > Reverse* and enter the appropriate reversal period. It is started in update run by selecting *Execute* (F8). In the detail view, select the *Dialog display* indicator.

Note
You may repeat the overhead calculation for each period as often as you like. If the values in the object (e.g. internal order, cost center, business process) or in the overhead calculation itself have changed, the system will only update the difference. This may be a positive or negative value. Collective processing is possible with transaction CO43.

8.3 Preliminary Settlement for Disassembly Orders

Once all data entries in Disassembly are completed, the *Preliminary Settlement for Disassembly Orders* application can be used to settle actual or target equivalences. Typically the orders are confirmed prior to this settlement. However this is not a mandatory requirement for this preliminary settlement.

Definition: equivalences and equivalence numbers
Equivalences or equivalence numbers are weighting numbers used to distribute costs. In disassembly calculation, equivalence numbers are determined on the basis of actual values or, if desired, on the basis of target values.

Note
In Softproviding Meat Standard Cost Estimate and MRP Calculation, equivalences are assigned to the output materials in order to distribute the costs of an input material to the output materials based on the cost-by-cause principle. The higher the equivalence of an output in proportion to other output equivalences the higher this output material is valued and the higher the costs it has to bear. The equivalence is either determined from a source or entered manually.

Determining the equivalence numbers
After the preliminary settlement is started, the actual or target values for the output materials from disassembly calculation are determined and multiplied by 100 (this is done to prevent decimal places). These values are then written as equivalence numbers to the settlement rule. This preliminary settlement may be performed as individual or collective processing of orders.

It is specified in Softproviding Meat Disassembly Customizing whether the actual values or the target values from Disassembly (i.e. the values determined via calculation in the disassembly order) are to be used for the determination of the equivalence numbers. These values are the entered output quantities (multiplied with their price) or the calculated labor costs (based on the output quantities; output quantities * labor costs per kg).

It follows that equivalences for the material costs as well as the labor costs are determined for all relevant materials.

Note
Typically, the actual values are used as the basis for the determination of the equivalence numbers. After the calculation was carried out you will then see the values used for the determination of the equivalence numbers in the Actual Values *column of the* Output *tab.*

Softproviding recommends that you use this setting because the equivalences must be determined on a source-related basis, meaning, only those disassembly order items are used that were actually cut and must therefore bear the costs. The more valuable an output material is, the higher the costs it must bear.

Prerequisites

—	A source structure was created. The source structure is used to settle the costs incurred on the sender order, by cost element or cost element group to different receivers (order items).

Note

Softproviding recommends to create an assignment for the material costs and an assignment for labor costs in order to convert these costs into equivalence numbers separately (see the example in section "Settlement Rule" further down).

— A source structure was assigned in Softproviding Meat Customizing (*Production > Execution > Disassembly Orders > Plant-Dependent Settings*). Important: This source structure must not be stored in the settlement profile.
— In Softproviding Meat Customizing (*Production > Execution > Disassembly Orders > Plant-Dependent Settings*) the type of equivalence number determination was specified.
— There is a settlement profile in place. This profile must allow the settlement of costs as well as equivalence number settlement.
— The settlement profile is assigned to the order type used for Disassembly.

8.3.1 Processing

8.3.1.1 Program: *Individual Processing*

SAP Menu	*Softproviding Meat > Production > Execution > Disassembly > Disassembly Orders > Period-End-Closing > Preliminary Settlement for Disassembly Orders*
Transaction	/SPMEAT/CTOV

Procedure

1. Call the *Preliminary Settlement for Disassembly Orders* activity via one of the above-mentioned options.

   The following fields are displayed:

Field Name	Description
Order	Order number of the disassembly order. Disassembly orders are Softproviding Meat-specific production orders which are only used in Disassembly.
Test run	If this indicator is set, a test run will be carried out. This will not change data in or delete data from the database.
Display dialog	This indicator controls whether overhead calculation will be carried out with dialog display.
Use calculation from database	If this indicator is set, the calculation stored in the database is used and the order does not need to be calculated again. This can considerably improve system performance. This indicator should only be set if the order has already been completely calculated and saved.

2. Execute preliminary settlement selecting the *Execute* button or F8.

3. A pop-up window with a settlement rule is displayed in which the distribution rules are empty. You may exit this screen by selecting the *Back* button.

4. Confirm the warning and information messages with Enter. The settlement rule with the values determined in Disassembly is displayed.

5. Leave the settlement rule by selecting the *Back* button. Again, confirm any warning or information message with Enter.

8.3.1.2 Program: *Collective Processing*

SAP Menu	*Softproviding Meat > Production > Execution > Disassembly > Disassembly Orders > Period-End-Closing > Preliminary Settlement: Das (Multiple)*
Transaction	/SPMEAT/CTOVM

Procedure

1. Call the *Preliminary Settlement: Das (Multiple)* activity via one of the above-mentioned options.

   The following fields are displayed

Field Name	Description
Order	Enter the number of the disassembly order for which the preliminary settlement is to be performed.
Plant	The plant is an organizational unit in logistics which structures the company from the perspective of production, procurement, maintenance and materials planning. Materials are produced and goods and services are provided in a plant. A plant is a company's production site.
Basic start date	This field shows the basic start date of the disassembly order.
Basic finish date	This field shows the basic end date of the disassembly order.
Simulation / test run	If this indicator is set, a test run is carried out. No data in the database will be changed or deleted.
Use calculation from database	If this indicator is set, the calculation stored in the database is used and the order does not need to be calculated again. This can considerably improve system performance. This indicator should only be set if the order has already been completely calculated and saved.

In selection fields, an individual value and, where appropriate, a range can be entered in the pop-up selection window. Using the Multiple selection *button, you can:*

— *restrict the entries via selection options (for example, larger or smaller than an individual value and inside or outside a range)*
— *select several individual values or ranges which are to be used when creating a report*
— *exclude several individual values or ranges which are not to be used when creating a report*

For more information about multiple selections, see the SAP standard system documentation.

2. After the program was executed by selecting F8, the orders are displayed according to the selection. The actual execution, i.e. the preliminary settlement, is carried out by means of the *Presettle* button.

Result

After the update run, the determined values are written to the settlement rule of the order as equivalence numbers for both individual and collective processing of orders.

— The settlement rule may be called and the determined values inspected in both the production order and disassembly order.
— In the order, system status ABRV (settlement rule entered) is set.

8.3.2 Settlement Rule

The settlement rule is created in *Preliminary Settlement for Disassembly Orders* and is later used for the closing operations for *Preliminary Settlement for Co-Products* and *Settlement.*

Below you see a description of the most important fields used in the settlement rule:

Field Name	Description
Account assignment category	The order item will be automatically and always used as account assignment category.
Settlement receiver	The order item (i.e. the material of the item is the receiver of the settlement. In this field, a two-part key (order and order item) is written. The number of settlement receiver rows depends on the definition of the assignment (source structure). See the example below.
Receiver short text	This field is automatically filled with the output material of the disassembly order.
Equivalence no.	The equivalence numbers for the settlement rules are calculated from the disassembly calculation data. According to the definition in Customizing, the actual and target values from Disassembly are written to these fields.
Settlement type	Settlement type FUL (full settlement) is always used for disassembly orders. With full settlement, all costs incurred on a sender object are settled.

Field Name	Description
Source assignment	The assigned source structure and the assignments defined there determine the number of rows per material in this settlement rule. See the example below.

Example

The following two examples demonstrate in a simplified case (only two output materials) the differentiation of material and labor costs in the settlement rule if the source structure contains 2 entries (for material and labor respectively as shown in example 1) or only one entry (for material and labor combined as shown in example 2).

Example 1
Assignment in Customizing (source structure) was made as follows:
— 1 = material
— 2 = costs

In the disassembly order, this results in the following values for material 103:
— Material costs: 1`200,00 Euro (quantity 600 kg x price 2,00 Euro)
— Labor costs: 31,25 Euro

In the disassembly order, this results in the following values for material 110:
— Material costs: 900,00 Euro (quantity 750 kg x price 1,20 Euro)
— Labor costs: 25,70 Euro

For the preliminary settlement, equivalence numbers are determined using the following rule: multiplication of the labor or material cost by 100 (to prevent decimal places).

Settlement receiver	Equivalence no.	Source assignment
1002723 (material (item) 103 / for material costs)	120`000	1 = material
1002723 (material (item) 103 / for labor costs)	3`125	2 = labor costs
1002723 (material (item) 110 / for material costs)	90`000	1 = material
1002723 (material (item) 110 / for labor costs)	2`570	2 = labor costs

Example 2
Assignment in Customizing (source structure) was made as follows:
— 1 = material and labor costs

In the disassembly order, this results in the following values for material 103:
— Material costs: 1`200,00 Euro (quantity 600 kg x price 2,00 Euro)
— Labor costs: 31,25 Euro

In the disassembly order, this results in the following values for material 110:
— Material costs: 900,00 Euro (quantity 750 kg x price 1,20 Euro)
— Labor costs: 25,70 Euro

For the preliminary settlement, equivalence numbers are determined:

Settlement receiver	Equivalence no.	Source assignment
1002723 (Material 103 / for material costs and labor costs)	123`125	1 = material & labor costs
1002723 (Material 110 / for material costs and labor costs)	92`570	1 = material & labor costs n

Result

If two rows are created in the settlement rules as shown in example 1, the equivalence numbers are displayed separately. If this is not the case, equivalence numbers are added per material.

Note
Due to performance purposes no planning equivalences are determined when the disassembly order is created. After the disassembly order has been created the settlement rule is empty.

In update run, the Preliminary Settlement for Disassembly Orders *may started as often as necessary if, for instance, if subsequent actual entries have been made. Prerequisite, however, is that no preliminary settlement for co-products was started out in update run. The preliminary settlement for co-products must be reversed if you want to start the* Preliminary Settlement for Disassembly Orders *again.*

The actual entry of the output quantity already suffices to get equivalence numbers based on the actual values in the settlement rule. It is not mandatory to post the PDA records which were created at the time of data entry.

However, for the next process step – the preliminary settlement for co-products – the PDA records must be posted.

For further information on the settlement rule, please refer to the section "Disassembly Order" in the Disassembly user manual.

8.3.3 Digression: Order Confirmation

The optional order confirmation mentioned under "Preliminary Settlement for Disassembly Orders" may be performed as *individual processing* or *collective processing* as follows:

8.3.3.1 Program: *Individual Processing*

SAP Menu	*Softproviding Meat Production > Execution > Disassembly > Disassembly Orders >Change*
Transaction	/SPMEAT/CTOB

1. Call the *Change Disassembly Orders* activity using one the above-mentioned options.

2. Enter the order number and confirm with Enter.

3. In the menu, select *Environment > Confirm*.

4. Prior to confirmation you have to save the order. Do confirm the prompt with *Yes*.

8.3.3.2 Program: *Collective Processing*

For collective processing of orders program /SPMEAT/R_TPA_CONFIRM may be used. This program is called with transaction SE38. The following fields are displayed for selection.

Field Name	Description
Order	Enter the number of the disassembly order for which the preliminary settlement is to be performed.
Plant	The plant is an organizational unit in logistics which structures the company from the perspective of production, procurement, maintenance and materials planning. Materials are produced and goods and services are provided in a plant. A plant is a company's production site.
Basic start date	This field shows the basic start date of the disassembly order.
Basic finish date	This field shows the basic end date of the disassembly order.
Simulation / test run	Select this field if you want to perform a test run.

Note
In selection fields, an individual value and, where appropriate, a range can be entered in the pop-up selection window. Using the Multiple selection *button, you can:*
— *restrict the entries via selection options (for example, larger or smaller than an individual value and inside or outside a range)*
— *select several individual values or ranges which are to be used when creating a report*
— *exclude several individual values or ranges which are not to be used when creating a report*

For more information about multiple selections, see the SAP standard system documentation.

After the program was executed with F8, the orders are displayed according to the selections made. The actual execution, i.e. the confirmation, is started by selecting the *Confirm* button. In order to do this, the order must be marked accordingly. The *Confirm* button may be used for the test run as well as for the update run. In test run mode the order confirmation is merely simulated.

Result

After an execution in update run, the order is confirmed. System status CNF is added in the order and system status DLV (delivered) is set.

Note
For further information on the settlement rule, please refer to the section "Disassembly Order" in the Disassembly *user instructions.*

8.4 Preliminary Settlement for Co-Products

The closing operation *Preliminary Settlement for Co-Products* is a SAP standard activity which was integrated in the process of period-end closing operations of disassembly orders (i.e. in the Softproviding Meat menu tree).

The material costs (goods issues) are collected on the order header of the order. At the end of the period, these costs are distributed (presettled) with this preliminary settlement. The costs are distributed to the respective order items for which quantities were entered during Disassembly. The distribution is based on the determined equivalence numbers. The co-products for which equivalence numbers were determined are thus debited with actual costs according to their share. The order is the sender of the costs and is therefore relieved of them, whereas the order items are the recipients of the costs and are debited accordingly.

The costs of the sender are those which resulted from entry of the goods issue quantities (disassembly input) multiplied with the price drawn from the material master (standard price or moving average price).

Prerequisites

— *Preliminary Settlement for Disassembly Orders* was executed in update run.
— PDA data records (goods issue for the disassembly order) were posted.

Note
Goods removals (goods issues) are stored in the production order (cost analysis and balance) with a positive value, goods receipts with a negative value. The balance of the production order results from the balancing of all relevant values and may be either negative or positive.

Procedure

SAP Menu	*Production > Execution > Disassembly > Disassembly Orders > Period-End-Closing > Preliminary Settlement for Co-Products*
Transaction	CO8B

1. Call the *Preliminary Settlement for Co-Products* activity using one of the above-mentioned options.

Note
If you are prompted to enter a controlling area, do so and confirm with Enter.

The following fields are displayed:

Field Name	Description
Order	Enter the number of the disassembly order for which you want to perform this preliminary settlement.

Field Name	Description
Settlement period	According to the settlement rule, the settlement will be performed with type FUL (full settlement). This means that the costs/revenues for the preliminary settlement for co-products are calculated up to month specified in the *Settlement period* field.
Fiscal year	Indicates the fiscal year.
Posting period	The result of the settlement is posted to the posting period. The posting period may be equal or greater than the settlement period. If no entry is made here, the posting period will be the same as the settlement period.
Test run	This indicator controls whether a test run will be carried out or not.
Test transactional data	If this indicator is set the system will check whether transactional data were posted to the sender after the last settlement before it starts processing. If there were no transactional data posted. The sender will not be processed. *Note* *In certain cases, the system will – despite a set indicator, – not check for transactional data. For further information please use the F1 help function for this field.*

2.   Start the *Preliminary Settlement for Co-Products* by selecting the *Execute* button or hit F8.

Result

The basic list is display. It delivers information on
—   The chosen selection parameters,
—   Process control (e.g. settlement executed or settlement reversed), and
—   Statistics.

Further Functions

Within the transaction *Preliminary Settlement for Co-Products* the following functions may called by selecting the respective buttons or menu items:
—   **Displaying detail lists**
   By selecting the *Detail* button, details regarding sender and receiver are displayed. Which of the displayed cost types are results from the goods receipt consumption postings and the labor costs.
—   **Calling accounting documents**
   Within the detail list, FI documents (e.g. profit center and cost accounting documents) may called via the *Extras* menu item. These are only created with the update run (i.e. not with the test run).
—   **Reversing the preliminary settlement.**
   The last settlement carried out may be reversed. In order to do this, transaction CO8B is started, the respective parameters (order, period, test/update run) are entered under *Presettle > Reverse* and the test run is started.

— **Calling FI documents after reversal**
Within the detail list FI documents may be called using the *Extras* menu.
— **Previous settlements – detail list**
The last settlement may be called via the menu *Goto > Previous Settlement*. After a successful update run, a list with positive values is displayed; after successfully executed reversals a list with values = 0 is displayed
— **Collective processing**
Collective processing may be started via the menu *Environment > Collective Processing*.

Note
If settlement is started again after a successful update run, the following system message is displayed: "No transaction data posted since last settlement".

Note
For co-production, variance calculation and settlement are carried out with reference to the order item. For this reason, the preliminary settlement for co-products is always run out before those two functions are executed.

— **Displaying the settlement rule**
Details regarding the settlement rule may be called via *Goto > Settlement rule* or the *Settlement Rule* button.

Infosystem

— **Evaluation option**
Transaction KOB1 (actual line items). Goods issue postings as well as settlement documents created with this preliminary settlement are displayed.

8.5 Work in Process (WIP)

The closing operation *WIP* (work in process) is a SAP standard activity which has not been included in the process of the period-end closing operations for disassembly orders (i.e. it was not included in the Softproviding Meat menu tree).

In Disassembly, disassembly orders generally are orders for specific dates, meaning they are usually opened and closed within the same day (completed and, if possibly, confirmed). However, there may be partial processes within a cut list which, if created as individual disassembly orders, may remain in an opened state over several days or even weeks. This may apply to orders in connection with the cooling ore maturing of certain cuts, which may take weeks. This means the matter of work in process may be relevant in Disassembly.

Prerequisites

—   The necessary customizing settings for the products costs by order (*Period-End Closing > Work in Process*) have been made.

Procedure

SAP Menu	*Logistics > Production > Shop Floor Control > Period-End Closing > Work in Process > Individual Processing > Determine*
Transaction	KKAX

1. Call the *Determine work in process* activity via one of the above-mentioned options.

2. Enter the order number and the desired parameters for the order control.

3. Select F8 to execute the option.

As for production orders in SAP which are based on a BOM, work in process may be determined for disassembly orders. The program calculates WIP in order to determine what costs were incurred for materials which have not yet been delivered to the warehouse and thus the value of the unfinished products.

The WIP calculation for the valuation of unfinished products (work in process) is carried out using the actual costs. Work in process is calculated from the difference between debits for material withdrawals, internal activities, external activities and overhead (i.e. the actual costs assigned to the object) and the actual credits through goods receipt postings when the goods are delivered to the warehouse. Work in process therefore corresponds to the difference between the debits and credits of an order that has not yet been delivered.

Determined work in process can be transferred to Financial Accounting and Profit Center Accounting by period. Settlement to Financial Accounting ensures that the work in process is included in the balance sheet and the profit and loss statement. The calculated work in process is updated to the order under the results analysis cost elements.

8.6 Variances

The *variances* closing operation is a SAP standard activity which has not been included in the process of the period-end closing operations for disassembly orders (i.e. in the Softproviding Meat menu tree). Optionally, variances may be determined before a disassembly order is settled.

Prerequisites

— The disassembly order must be delivered (status DLV) or technically completed (status TECO). With this order status it is no longer possible to make data entries on the disassembly order.
— A variance key must be specified in Softproviding Meat Customizing (*Production > Execution > Disassembly Orders > Plant-Dependent Settings*).
— Target cost version 0 (target costs for total variances) was assigned its own variance variant for disassembly orders (SAP Standard Customizing, transaction OKV6).

Procedure

SAP Menu	*Softproviding Meat > Production > Execution > Disassembly Processes > Disassembly Orders > Period-End Closing > Variances*
Transaction	KKS2

1. Call the *Variances* activity with one of the above-mentioned options. If you are prompted to enter a controlling area, do so and confirm with Enter.

   The following fields are displayed:

Field Name	Description
Order	Enter the number of the order for which you want to carry out the variance calculation.
Period	Indicates the period (month) for which processing should be performed.
Fiscal year	Indicates the fiscal year for which processing should be performed.
All target cost versions	This indicator causes variances to be determined across all target cost version for the controlling area.
Selected target cost versions	Using menu item *Extras > Set Target Cost Versions...* target cost version 0 (and/or another target cost version) may be selected. *Note* *Only variances which were determined on the basis of the target cost version 0 are relevant to settlement.*
Test run	This indicator controls whether a test run is to be carried out.
Detail list	This indicator controls whether a detail list is displayed or not

2. Start the variance calculation by selecting *Execute* or F8.

Result

After the update run was executed, variances are determined and displayed in an overview list. If the variance calculation is carried out in a target cost version which is relevant to settlement, status VCAL (variances calculated) is set.

Infosystem

In the order infosystem (transaction COOIS) status VCAL may be used to select the orders for which the variances were calculated.

Further evaluation options
— Transaction KOB3 (Display line items for order)
— In the production order (transaction CO02) a target/actual analysis may be started via the menu path *Goto > Costs > Analysis*. The target costs and with them the target/actual variances are only available after this step of the variance calculation was carried out.

Further Functions

Within the *Variances* transaction the following functions may be called via the menu:
— **Reverse variance calculation**
  The variance calculation carried out last may be reversed. In order to do this, enter the respective reversal period and start an update run (menu: *Variance Calculation > Reverse*).
— **Target cost versions**
  The target cost version specifies the basis for the calculation of the target costs.
— **Collective processing**
  Via the *Goto > Other Selection* menu the *Collective Processing* transaction (KKS1) may be called.

8.7 Settlement

The closing operation *Settlement* is a SAP standard activity which was included in the process of the period-end closing operations for disassembly orders (i.e. in the Softproviding Meat menu tree). Settlement is a complete or partial allocation of the calculated costs of one object to another. Settlement is used to forward actual costs posted to the order to one or multiple receiving objects (usually the produced material).

The order items are senders of the costs. They are credited. The following costs are settled to the receivers:
— Transferred costs from the *Preliminary Settlement for Co-Products* (goods issue value)
— Own costs from goods receipt postings

Receivers of the costs are the materials. These are debited. The following costs are transferred from the sender:
— The balance resulting from the above-mentioned costs.

Prerequisites

— The disassembly order must be delivered (status DLV) or technically completed (status TECO). With this order status it is no longer possible to make data entries on the disassembly order.
— The PDA data records were posted.
— The *Preliminary Settlement for Disassembly Orders* was carried out.
— The *Preliminary Settlement for Co-Products* was carried out.

Note
It is not mandatory that a previous variance calculation has been performed.

Procedure

SAP Menu	*Softproviding Meat > Production > Execution > Disassembly Processes > Disassembly Orders > Period-End Closing > Settlement*
Transaction	KO88

1. Call the *Settlement* activity via one of the above-mentioned options.

   The following fields are displayed:

Field Name	Description
Order	Enter the number of the order for which you want to carry out the settlement.
Settlement period	Indicates the period (month) for which processing is to be performed.
Fiscal year	Indicates the fiscal year for which processing is to be performed.
Processing type	For disassembly orders the processing type must be set to *Automatic* since the settlement type in the settlement rule for

Field Name	Description
	these orders is always set to FUL (full settlement). Therefore, all distribution rules of a sender are selected. A production order with a FUL rule to material is only settled after it is technically completed or delivered.
Test run	This indicator controls whether a test run is to be carried out or not.
Check transactional data	If you set the indicator, the system performs a check at the beginning of processing a sender. This checks whether any transactional data were posted to that sender after the last settlement. If no transactional data were posted, sender processing is stopped. In certain cases, however, transactional data are not checked despite the set indicator. Please see the F1 help function for this field.
Posting period	The settlement results are posted in the posting period. The settlement period is the same as the posting period unless you make an entry stating otherwise.
Asset value date	The asset value date is the value date for Asset Accounting.

2.   Start the settlement by selecting *Execute* or F8.

Result

The basic settlement list is displayed. It shows information on
—   The selection parameters chosen
—   The processing options (e.g. *settlement executed* or *settlement reversed*
—   The statistics for the settlement

After the settlement, the order balance in the production order is zero. Besides the settlement document, an accounting document for the part of the settlement that is relevant to accounting and a cost accounting document for the part of the settlement that is relevant to cost accounting are created.

Further Functions

Within the *Settlement* transaction the following functions may be called:
—   **Displaying detail lists**
    The *Detail lists* button allows you to display details on sender and receivers.
—   **Calling accounting documents**
    Within the detail list the accounting documents (accounting document, cost accounting document) may be called using the *Extra* menu item.
—   **Previous settlement – detail list**
    The last settlement may be called if you choose *Extras > Previous Settlement*. A list with senders and receivers (order items) is displayed.

— **Collective processing**
Choosing *Environment > Collective Processing* will call a collective processing. Order-independent settlements are possible.

Note
For co-production, variance calculation and settlement are carried out with reference to the order item. For this reason, the preliminary settlement for co-products is always run before those two functions are executed.

— *Settlement rule* **button**
You may call details regarding the settlement rule by choosing *Goto > Settlement Rule* or by selecting the *Settlement Rule* button.

— **Reversing the settlement**
The settlement performed last may be reversed. In order to do this, the respective reversal period must be entered and the update run started. Debits and credits of receivers and senders are canceled, and the accounting documents are undone with a respective posting.

8.8 Evaluations

8.8.1 Cost Analysis

As stated in in the introduction to "Period-End-Closing" section, with every creation of a disassembly order an SAP standard production order with the same order number is created. The data from the entries for the disassembly order are also transferred to the SAP standard production order. This allows you to carry out an analysis of the costs via the SAP production order which is called using transaction CO02. From the menu, select, *Goto > Costs* and perform an order analysis via the following menu items:

— Analysis
— Itemization
— Cost component structure
— Balance

The analysis of the disassembly order may be performed using transaction /SPMEAT/CTOC. For further information on cost analysis in disassembly orders please refer to sections "Standard Cost Estimate", "MRP Calculation" and "Disassembly Order" in this document.

Note
Rounding differences put aside, the costs documented in the disassembly order and the costs of the SAP production order must match.