Automation of Actual Costing Run (CKMLCP) in Material Ledger

In Material ledger, Actual Cost calculation is an important part, which includes multiple steps that need to be executed by the business controllers. These steps include production/process order closing, overhead cost calculation, execution of assessment/distribution or indirect activity allocation cycles, actual cost split, actual activity price calculation and the most important CKMLCP execution in material ledger.
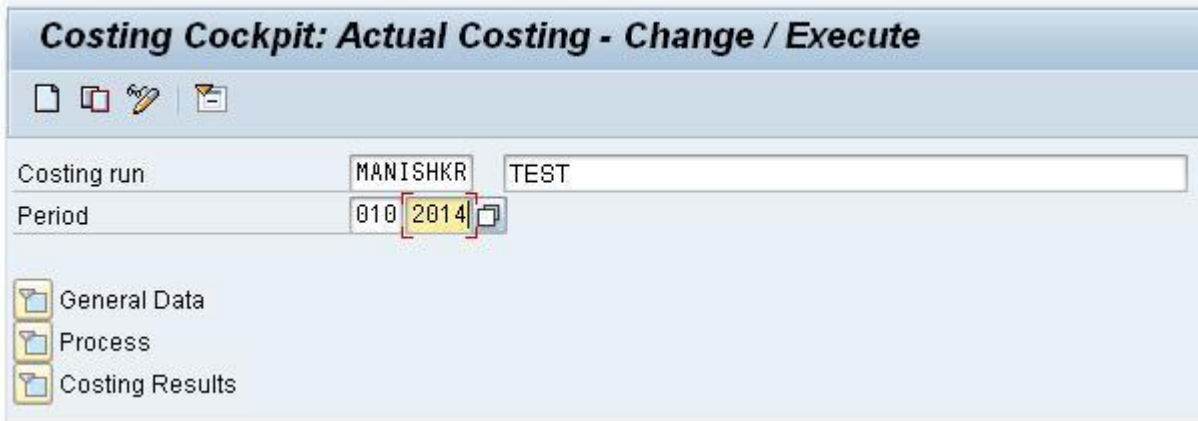
CKMLCP includes multiple steps that took many hours to get executed. If we take an example of a MNC organization presence all over the world, then execution of period end closing took more than 10 to 15 hours. In this document, I will explain how we can atomize the execution of CKMLCP and reduce the execution of time.

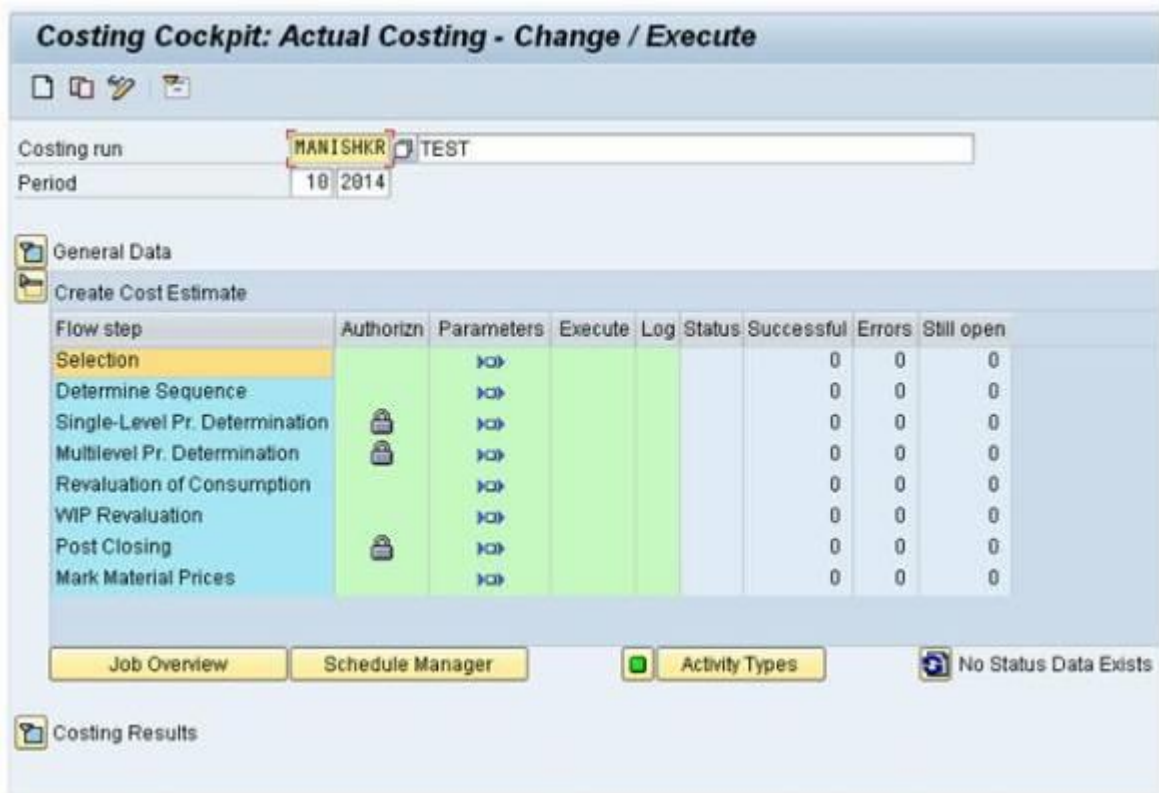Period End Closing CKMLCP Overview:

CKMLCP is executed to calculate Period Unit Price (PUP), which basically represent average actual cost for material or semi finished goods. Execution of CKMLCP includes the below steps:

I. Selection

II. Determine Sequence

III. Single level price determination

IV. Multilevel price determination

V. Revaluation of consumption

VI. WIP revaluation

VII. Post closing

VIII. Mark material price

Define the costing run name and period in transaction CKMLCP

Costing Cockpit: Actual Costing - Change / Execute

Costing run	MANISHKR	TEST
Period	010 2014	

📁 General Data
📁 Process
📁 Costing Results

Select all the plants for at General data and save the costing run.

Costing Cockpit: Actual Costing - Change / Execute

Costing run	MANISHKR TEST	
Period	10 2014	

📁 General Data
🔑 Create Cost Estimate

Flow step	Authorizn	Parameters	Execute	Log	Status	Successful	Errors	Still open
Selection		▸▢▸				0	0	0
Determine Sequence		▸▢▸				0	0	0
Single-Level Pr. Determination	🔒	▸▢▸				0	0	0
Multilevel Pr. Determination	🔒	▸▢▸				0	0	0
Revaluation of Consumption		▸▢▸				0	0	0
WIP Revaluation		▸▢▸				0	0	0
Post Closing	🔒	▸▢▸				0	0	0
Mark Material Prices		▸▢▸				0	0	0

Job Overview	Schedule Manager	🟩 Activity Types	🔵 No Status Data Exists

📁 Costing Results

Now click on Parameters of each steps (for selection, determine sequence, Single –level, multilevel etc.), define the parameters criteria and save the variant.

Selection:

Execution of Selection steps identified, the list of materials for which the Periodic Unit Price calculation need to be executed during CKMLCP. The selection step work on the below concept:

Ø Selection of all the materials for those plants specified at creation of CKMLCP costing run

Ø It includes the list of materials for which any goods movement happened during the current period or any of the previous periods after the go-live off plant in Material ledger

Ø The material for which ML active indicator is done material master

Ø Material with status other than not defined or new.

Click on change parameter for selection step:

Select background processing and Save log, click on Save button to save the variant. Note down the variant name (it will be same in all the other steps under the same costing run in CKMLCP for a single period). Don`t need to execute the steps now.
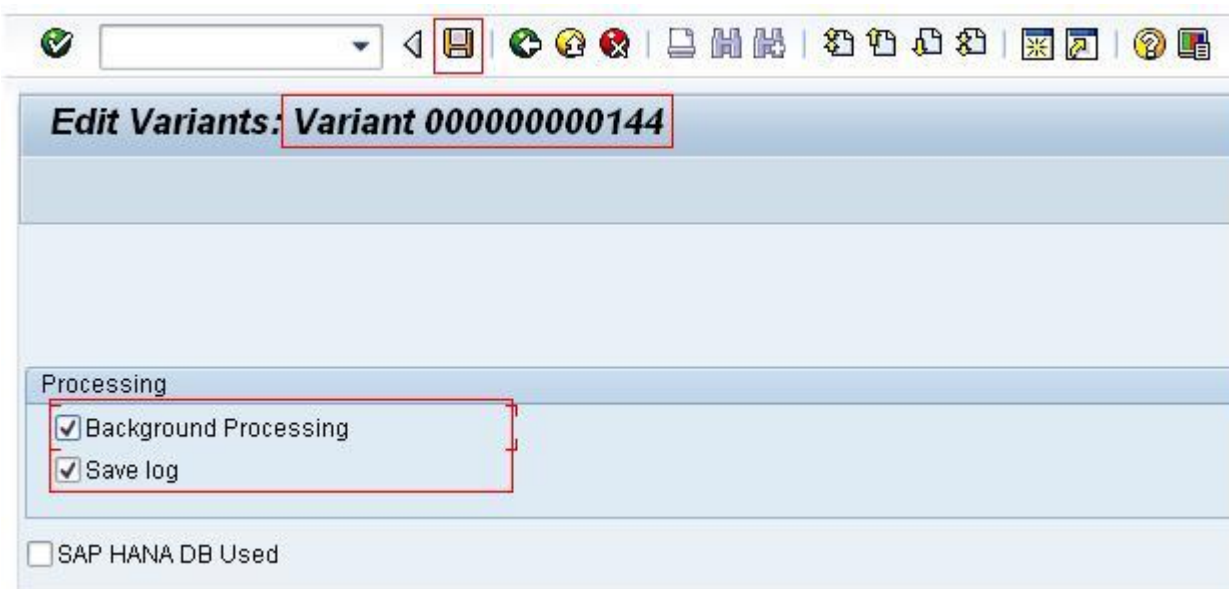
Determining Sequence:

Execution of this step determines the sequence of materials in which the actual cost needs to be calculated for those materials.

It determine the group of materials, the cost of which don`t depend the cost of any other materials. Generally these are externally procured materials from external vendor (not from internal organization transfer, or purchase from some other plant of same company). These materials are considered for actual PUP calculation at single level price determination. All the other materials, manufacture in-house, sub-

contracting, purchase from some other affiliates in the same company are considered for multilevel price determination.

Click on change parameter for determining sequence step

Select background processing and Save log, click on Save button to save the variant.
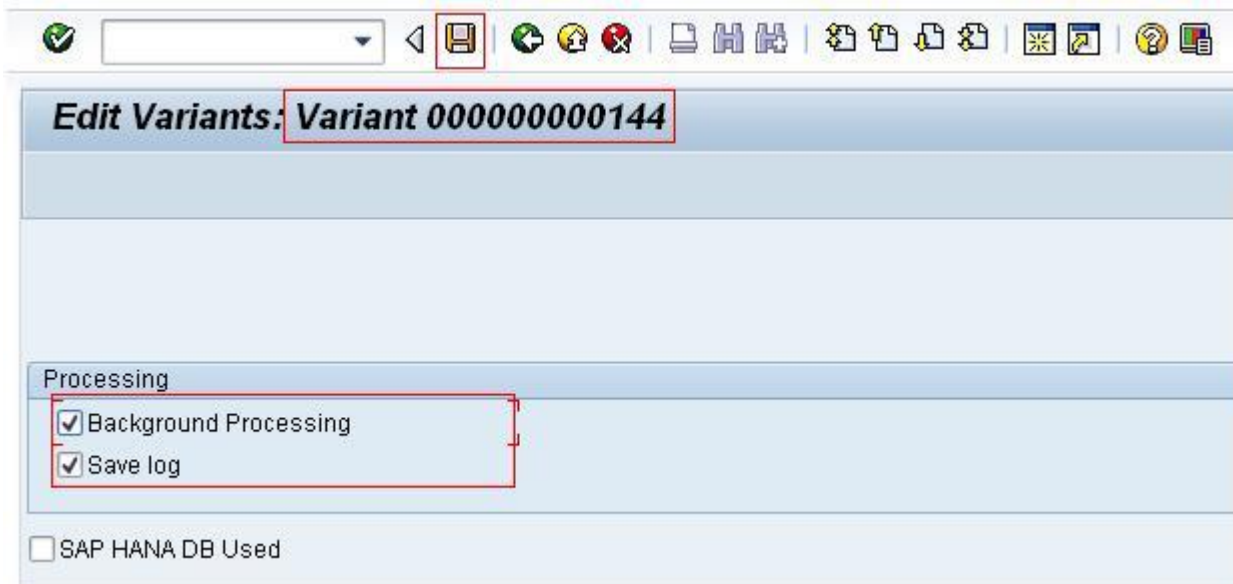
Single level price determination:

In this step system calculate a single level periodic unit price based on:

Ø Standard price of single level materials

Ø Considering the variances (single level price variance, exchange rate difference)

Ø External or internal group purchase price and landing and nationalization cost variance, etc

Single level price determinations mainly do the price calculation for material procurement type **F** (external procurement).

Allow Single & Multilevel: Click on authorization and allow single and multilevel price determination

Costing Cockpit: Actual Costing - Change / Execute

Costing run   MANISHKR   TEST
Period   10 2014

General Data

Create Cost Estimate

Flow step	Authorizn	Parameters	Execute	Log	Status	Successful	Errors	Still open
Selection		▶□▶	⊕			0	0	0
Determine Sequence		▶□▶	⊕			0	0	0
Single-Level Pr. Determination	🔓	▶□▶						
Multilevel Pr. Determination	🔓	▶□▶						
Revaluation of Consumption		▶□▶						
WIP Revaluation		▶□▶						
Post Closing	🔒	▶□▶						
Mark Material Prices		▶□▶						

Click on change parameter:

Select Treating materials already processed to process again or don`t process.
Select the other criteria as specified in below screen short. Save the variant

Edit Variants: Variant 000000000144

Variant Attributes

Treating Materials Already Processed
⦿ Process Again   ○ Do Not Process

Parameters
Warning For Changes Larger Than   [   ] %
Error When Change Larger Than   [   ] %
○ Check Against Standard Price For Period
⦿ Check Against Moving Avg Price In Preceding Period

Stock Coverage Check
☐ No Stock Coverage Check

Processing Options
☑ Background Processing
☑ Save log
No. of Materials in ML Doc.   [   ]

Parallel Processing
Logon/server group   [   ]
Number of Tasks   [   ]

Multilevel price determination:

In this step system do the PUP price calculations by considering the below prices:

Ø Variance between the Standard price of raw materials with the Single level PUP calculated at single level price determination

Ø Variance between Plan activity rate with Actual activity rate

Ø Variance allocation performed through the actual flow of goods on actual quantity

Ø Variance between inter-plant (under same company, may or may not be under the same co. codes) transfer are also consider if any goods movement happened between these plants, otherwise not

Ø All other variances having an impact on lower level materials actual cost are consider for calculating actual PUP for higher level materials.

Click on change parameter for multilevel price determination:

Select Treating materials already processed to process again or don`t process. Select the other criteria as specified in below screen short. Save the variant

Revaluation of consumption:

In this step system do the revaluations of all the consumption based on the actual PUP calculated at single level or multilevel price determination. The main purpose of this step is to bring the cost of consumption to actual cost, so that the profit margins are not over or under stated.

Click on change parameter for revaluation step:

Select Treating materials already processed to process again or don`t process. Select the other criteria as specified in below screen short. Save the variant

WIP revaluation:

In this step system do the revaluations of all the Work in progress based on the actual PUP calculated at multilevel price determination.

Click on change parameter for WIP revaluation step

Select Treating materials already processed to process again or don`t process. Select the other criteria as specified in below screen short. Save the variant

Post closing:

At post closing step, system do the posting of all the variances calculated during single level or multilevel price determination and do the revaluation of consumption and closing inventory, and passed the necessary entries.

Allow Post closing: Click on authorization and allow post closing for the current period

Costing Cockpit: Actual Costing - Change / Execute

| Costing run	MANISHKR	TEST
Period	10 2014	

General Data

Create Cost Estimate

Flow step	Authorizn	Parameters	Execute	Log	Status	Successful	Errors	Still open
Selection		▷□▷	⊕			0	0	0
Determine Sequence		▷□▷	⊕			0	0	0
Single-Level Pr. Determination	🔓	▷□▷	⊕			0	0	0
Multilevel Pr. Determination	🔓	▷□▷	⊕			0	0	0
Revaluation of Consumption		▷□▷	⊕			0	0	0
WIP Revaluation		▷□▷	⊕			0	0	0
Post Closing	🔒	▷□▷				0	0	0
Mark Material Prices		▷□▷				0	0	0

Job Overview	Schedule Manager		Activity Types		No Status Data Exists

Click on change parameter for Post closing step

Select processing type as Execute; Select the other criteria as specified in below screen short. Save the variant.
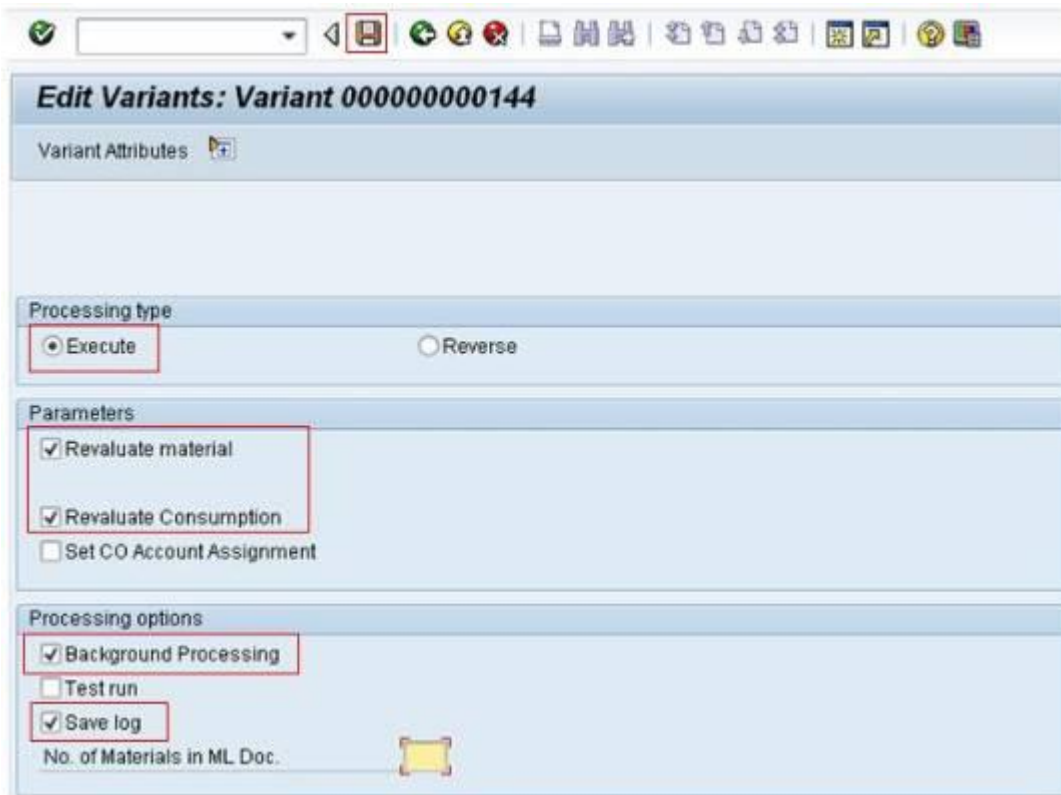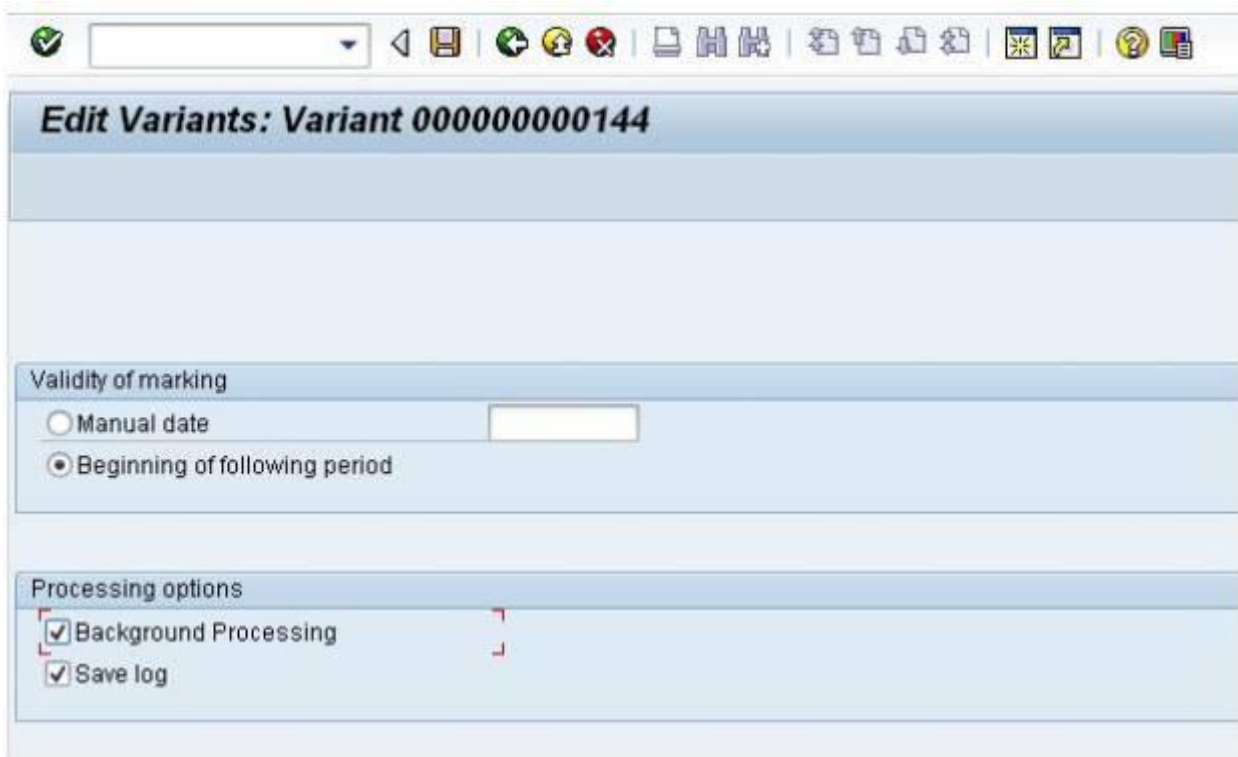
Mark material price

Material ledger provides the functionality of converting the current Periodic unit Price (PUP) as standard cost of next month. This can be done via executing the Mark material price step.

After executing this step, the PUP of current months gets updated as marked cost estimate for coming month. For converting, the PUP of current month as standard cost of next month, we need to activate Dynamic price release.

Click on change parameter for Mark material price step:

Select the other criteria as specified in below screen short. Save the variant.

Edit Variants: Variant 000000000144

Validity of marking

○ Manual date

⦿ Beginning of following period

Processing options

☑ Background Processing

☑ Save log

Don't execute any steps while changing the step; if we execute the steps at that point of time, then we need to wait for first step to get executed to start the next step.

Automation of steps for CKMLCP

All the steps for CKMLCP can be executed in one step by designing the process flow with the help of background job schedule.

Now Automate through job runs with the programs used for executing all the different steps. In the below table I have mentioned the name of program used for executing the steps by SAP. We can used the name of program specified in the below table

Sequence	Step Description	Program	Variant
01	Selection	SAPRCKMLMV_RUN_BASIC_LIST	000000000144
02	Determine Sequence	SAPRCKMLMV_RUN_CREATE_STEPS	000000000144
03	Single- Level Pr. Determination	SAPRCKMA_RUN_SETTLE	000000000144
04	Multilevel Pr. Determination	SAPRCKMLMV_RUN_MLEVEL_SETTLE	000000000144
05	Revaluation of Consumption	VNB_REVALUATE_SL_CONSUMPTION	000000000144
06	WIP Revaluation	WIP_PRICE_DETERMINATION	000000000144
07	Post Closing	SAPRCKMA_RUN_CLOSE	000000000144
08	Mark Material Price	SAPRCKM_PRMT_RUN_TYPE	000000000144

Transaction SM36

Define the background job, click enter

Now at step 1: define the details for selection steps.

Click on Save

Now click on new step and at step 2, define the details of determine sequence:

Click save

In the same way define all the steps in the right order.

Till the step 6, the details will be:

Define for the remaining two and execute the background job run.

Define the jobs to start immediate and save the variant. After finishing the jobs, if there are no errors, we can check that all the steps for CKMLCP get executed successfully.

Costing Cockpit: Actual Costing - Change / Execute

Costing run   MANISHKR TEST

Period   10 2014

General Data

Create Cost Estimate

Flow step	Authorizn	Parameters	Execute	Log	Status	Successful	Errors	Still open
Selection		▶▷	⊕	🖥	🟩	1616	0	0
Determine Sequence		▶▷	⊕	🖥	🟩	1616	0	0
Single-Level Pr. Determination	🔒	▶▷	⊕	🖥	🟩	1616	0	0
Multilevel Pr. Determination	🔒	▶▷	⊕	🖥	🟩	1616	0	0
Revaluation of Consumption		▶▷	⊕	🖥	🟩	1616	0	0
WIP Revaluation		▶▷	⊕	🖥	🟩	1616	0	0
Post Closing	🔒	▶▷	⊕	🖥	🟩	1616	0	0
Mark Material Prices		▶▷	⊕	🖥	🟩	1616	0	0

The same type of processes can be used to atomize the different costing process (like CK40N) without any complex development. This will result saving lot of time.