

SAP Web Application Server

Release 6.10

Release Notes



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1 CA Cross-Application Components

1.1 CA-BP SAP Business Partner

1.1.1 Data cleansing of redundant business partners

Use

Release 5.0A provides you with a tool for data cleansing, with which you can compare and merge redundant business partner master records.

In the area Business Address Services (BAS), there is already an interface for the inclusion of special external software to allow duplicates to be recognized and avoided.

At the end of the data cleansing process, you can remove redundant business partners from the system.

The following steps are carried out:

1. Recognizing duplicates
You can use search machines to do this, that can be connected to the SAP System in the Business Address Services area for the address search. Generally, the providers of such search machines also offer programs for the complete analysis of all data records.
User-defined programs or services of data providers offer additional possibilities.
In individual cases, you can also find possible duplicates in the hitlist of the business partner search.
2. Registering duplicates as data cleansing cases
You have two possibilities
 - Creation per BAPI (BOR object BUS2132)
 - Creation from the hitlist of the business partner dialog
3. Carrying out data cleansing
The transaction for data cleansing (BUPA_CLEAR) has an area for searching for data cleansing cases, and a work area in which possible duplicates can be displayed and compared with their dependent objects. You can
 - Compare individual attributes of the business partner (e.g. name, language etc.)
 - Reassign dependent objects using Drag & Drop (e.g. addresses, business transactions)
 - Flag business partners that are no longer needed for archiving

Note:

Within the application basis, the list of referencing objects that are taken into account by the data cleansing, are inevitably limited to business partner subobjects.

This list can be extended in other applications or also by customers, without modifications being made.

4. Archiving
Following data cleansing, the BP duplicates flagged for archiving can be removed from the system by an archiving run.

Effects on Existing Data

During BP data cleansing, objects from various applications can be changed if necessary.

If you reassign an opportunity from a business partner A to a business partner B by Drag & Drop in the context of the data cleansing process, the business partner A is replaced by B in the opportunity.

Effects on Data Transfer

Data cleansing takes place locally. Data cleansing cases are not exchanged with other systems. Changes to data that are carried out in the context of data cleansing in other application areas, are also exchanged with other systems if necessary.

Effects on Customizing

Make the following settings for data cleansing in the implementation guide for SAP Business Partner:

- o *Business Partner -> Data Cleansing -> Maintain Number Ranges*
- o *Business Partner -> Data Cleansing -> Define Priorities*
- o *Business Partner -> Data Cleansing -> Activate Data Cleansing*

Other necessary Customizing settings are delivered preset by SAP, but can be adjusted by the customer. Thus it is possible to integrate user-specific objects into data cleansing.

1.1.2 Changes in the IMG structure for Release 5.0A

Use

The following changes have been made in the IMG structure of the SAP Business Partner for Release 5.0A:

Data cleansing is contained for the first time in the IMG of the SAP Business Partner and includes the activities *Maintain NumberRange*, *Establish Priorities* and *Activate DataCleansing*. For more information on this subject, see the release information *Data Cleansing of Redundant Business Partners*.

The basic settings have been extended to include the status management with the activity *Define Status Profile for User Status*. For more information on this subject, see the release information *Display and Maintenance of the Status Management*.

The settings for the payment cards have been taken completely from the IMG of the SAP Business Partner, and now form a structure of their own under cross-application components. The field groupings with the activities *Field Grouping per Activity*, *Field Grouping per Payment Card Category* and *Field Grouping Client-Wide* are included in the IMG structure for the payment cards. For more information on this subject, see the release information *New features for Payment Cards*.

In the basic settings, authorization administration was extended to include the activity *Maintain Authorization Groups*. For more information on this subject see the release information *Changing the Authorization Group*.

The settings for the field groupings have been extended to include the activity *Configure Field Activity per Client*.

For more information on this subject see the release information *Changes to Field Groupings and Authorization Checks*.

The node 'Address Type' has been renamed as 'Address Determination', and has been extended to include the activities *Define Transactions* and *Assign Transaction to Address Type*. The activity *Standard Address Type for BP Role* has been removed from the IMG.

For more information on this subject, see the release information *Making Changes to the Address Usage*.

The node 'Legitimation' with the activity *Maintain Legitimation Types* has been removed from the basic settings.

The basic settings have been extended to include the identification numbers with the activities *Identification Categories* and *Identification Types*.

For more information on this subject see the release information *Maintaining Several Identification Numbers*.

At the organizations, the activity *Maintain Industries* has been replaced by the activity *Maintain Industry Systems and Industries*.

For more information on this subject see the release information *Making Industry Assignments*.

1.1.3 New interface layout in SAP Business Partner

Use

Locator

The locator has been included in the new interface of Business Partner.

The locator can be found on the left hand side next to the work area and is available in parallel to business partner maintenance. It consists of a tab with the tab pages *Worklist* und *Search*.

- o Tab page *Worklist*
The tab page *Worklist* contains a list with selected objects
You can display the following objects in a hitlist:
 - *Last-Maintained Objects*
 - *My Objects*, i.e. selected business partners that you have added to the list of your personal objects.

You can add one or more business partners to, or remove them from your personal objects directly from the hitlist. When you leave business partner maintenance, the last ten search requests are saved.

- o Tab page *Search*

Via the tab page **Search**, you can search with various search criteria for business partners and business partner categories. The selected business partners are displayed in a hitlist.
Select a business partner in order to branch directly to the display or change mode of business partner maintenance from the hitlist.

General Business Partner Maintenance

You can save changes to business partner data, without having to leave the maintenance of the business partner in question. By entering the business partner number, you can change directly to the maintenance of a different business partner. You can create a new business partner at any time via the appropriate pushbutton. Even when you change the business partner category, you do not come to an additional dialog window as long as data has not been entered.

You can navigate, using a pushbutton, between the individual business partners that you have maintained. After leaving business partner maintenance, the maintenance interface that was last active is selected when you next enter business partner maintenance.

Business partner number, business partner category and role, as well as the mode that you are in are always displayed during maintenance.

General data for Business Partner

You can change directly to other roles, without leaving the maintenance.

General data and relationships for a business partner are displayed, maintained and saved in separate tabs. This improves performance.

Tabs

You can maintain the data for the Internet user on the tab page **Internet User**.

You now find the data for taxes in an own tab page **Taxes**.

You can now process the address overview and the address usages on the tab page **Address Overview**.

Change history

You can display a change history according to the following criteria:

- o Partner
- o Field
- o Period
- o Status

Settings

You can choose a standard initial screen in business partner maintenance (display, change, last selected setting) and can display your authorizations for the different maintenance activities per business partner role, category and relationship category.

See also

For more information on business partner relationships, see Graphical Display of Business Partner Relationships.

1.1.4 CA-BP-BP Business Partners

1.1.4.1 Changes in Industry Assignments

Use

For each business partner you can now make any number of assignments to industries. In addition, assignments to industries for several industry systems can now run in parallel.

You maintain assignments to industries online using a table control contained in the *Central data* tab index in the SAP standard delivery.

In Customizing you can define any number of industry systems, for which you can maintain any number of industry numbers. As an alternative to manually maintaining industry numbers for a system, you can now import these into the system with the help of the remote function module *BUP_INDUSTRYSECTOR_IMPORT*.

You can find details on the methods involved in the Business Object Repository. The object for SAP Business Partner is BUS1006.

Example:

You have two industry systems: A and B.

In industry system A, the "crafts" industry has industry number 01, whereas the "service provider" industry has industry number 02. In industry system B, however, the "crafts" industry has industry number 08, and the "service provider" industry does not exist in system B.

<u>Industry system</u>	<u>Industry</u>	<u>Industry number</u>
A	Crafts	01
A	Service provider	02
B	Crafts	08

Effects on Customizing

Maintain industry key systems in the Implementation Guide for SAP Business Partner: *Business Partner -> Organizations -> Maintain Industry Key Systems*.

Maintain industry keys in the Implementation Guide for SAP Business Partner: *Business Partner -> Organizations -> Maintain Industry Key*.

See also

Changes in Data Distribution in Business Partner

1.1.4.2 Changing the Authorization Group

Use

Until now you could release the data for authorization groups on the tab page *Central Data* in the dialog for business partner maintenance. This data is not checked.

Now there is an input help for maintaining the authorization group, with which you can select the data. In addition, the entries you have made are checked against the values defined in the Customizing. The system notifies you if you have made an entry that is not provided for in the Customizing.

Effects on Existing Data

The entries used for the field *Authorization Group* either have to be maintained manually in the Customizing, or have to be created using the report *BUPXPRA11*.

Effects on Customizing

Define the authorization group for the business partner in the SAP Business Partner Implementation Guide *Business Partner -> Basic Settings -> Authorization Management -> Maintain Authorization Groups*.

1.1.4.3 Changes to field groupings and authorization checks

Use

With Release 5.0A, an authorization check is carried out in the BAPIs for the central data of SAP Business Partner. The check is carried out for the authorization to create, change and display the central data of SAP Business Partner.

It is also possible, as of Release 5.0A, to carry out the client- dependent maintenance of the field statuses per field group in the Customizing on the level of the application object.

These field statuses are taken into account in the BAPIs that create and change BP data. In addition, the field statuses are taken into account in the dialog, and are linked with the other field statuses of the already available field modification criteria.

You should bear in mind here that a field status check is possible only at the application object level in the BAPI environment.

Effects on System Administration

Check the authorizations of the users who maintain business partner data via SAP Business Partner BAPIs. If necessary, you must add the SAP Business Partner authorizations to the profile.

Effects on Customizing

Maintain the field status for the application object in the SAP Business Partner Implementation Guide: *Business Partner -> Basic Settings -> Field Groupings -> Configure Field Attributes per Client*.

1.1.4.4 Maintain and transfer address-independent communication data

Use

You can define address-independent communication data in the dialog for business partner maintenance on the tab page *Address*.

Until now, communication data could only be maintained in connection with an address. Now you can define the telephone number, fax number, Email address, etc. for a business partner, without having to create an address.

If you have created an address for the business partner, you can transfer the address-independent communication data via the pushbutton *Independent -> Dependent* into the address-dependent communication data. If you have defined several addresses for a business partner, then you select the address for which you want to add the required communication data.

In the same way, you can transfer address-dependent communication data via the pushbutton *Dependent -> Independent* into the address-independent communication data.

The corresponding pushbuttons are active during the creation and changing of a business partner, if you have maintained source data and have defined at least one target address during the transfer of address-independent into address-dependent communication data.

You can predefine a country key so that you don't need to enter the country key for the address-independent communication data for each new entry. To do this, select *System -> User Parameters -> Own Data -> in the menu and define the parameter LND and a valid country key as a value on the tab page Parameter*.

1.1.4.5 Duplicate check in BAPIs

Use

From Release 5.0A, in so far as the duplicate check is activated in the relevant system, an error-tolerant duplicate check is carried out in the following BAPIs during the maintenance of business partner addresses:

- o BAPI_BUPA_ADDRESS_ADD
- o BAPI_BUPA_ADDRESS_CHANGE

If a record is recognized as being a duplicate, the system issues a message.

Via the interface parameter `DUPLICATE_MESSAGE_TYPE` you can influence the type of message. If a record is recognized as a duplicate, you can determine whether processing should be continued or terminated.

In addition, the numbers of the address records, which according to the duplicate check are the same as the record currently being maintained, are returned in the table parameter `ADDRESSDUPLICATES`.

1.1.4.6 Changes to field groupings within the BDT

Use

Until now no more than 1750 BDT field modifications could be maintained for an application object. With the program changes available as of Release 5.0A, it is possible to maintain up to 3500 BDT field modifications for an application object.

The interface for maintaining the field status has not been changed. As before, you can set the various statuses, *Mandatory*, *Optional*, *Display* and *Hide*, for each field group. In addition, you can exclude certain statuses from the field group maintenance as required.

Effects on Existing Data

The program changes for the field group enhancement are upwards compatible. For this reason it is not necessary to convert the current settings.

If necessary, you must check your own subprograms, function modules, etc. to see if the larger number of field status definitions, and thus the number of field groups, can be processed. However this is necessary only if you have already worked with the field status definitions (e.g. in read modules, modules for the field modification criteria) in these subprograms. You have to add the new field status definitions to the currently available field status definitions here. If you have other calling points of the read modules for field grouping, you should check these and adapt them if necessary.

1.1.4.7 Geocoding of business partners

Use

For each address of a business partner, geocoordinates, i.e. degree of longitude and latitude, are derived as additional attributes for the address or business partner data. This data is stored centrally, and is updated each time the addresses are changed.

The accuracy or level of detail of the coordinates depends essentially on the installation of a coding tool. The SAP standard coder is supplied, which determines the coordinates at the level of federal states or regions. You have the possibility to use external tools from third-party providers alongside this.

Effects on Existing Data

Existing address data is not changed, since the geocoordinates are included and stored via references for address and business partner data as independent attributes.

Using the report **BUPGEOENADDR** you can determine address data already in the system that has not been geocoded, and you can geocode it later.

Effects on Customizing

Maintain settings for installed coding tools in the SAP Reference IMG: *SAP Implementation Guide -> General Settings -> Set Geocoding -> Register Geocoding Program in the System.*

Maintain settings for country tables in the SAP Reference IMG: *SAP Implementation Guide -> Basic Settings -> Set Geocoding -> Maintain Geographical Data of Countries.*

See also

For more information on the use of geocoding, see the release note for BW 2.1C under the heading 'Enhancements of the BW Integration in Business Partner.'

1.1.4.8 Maintaining several identification numbers

Use

You can define several identification numbers for a business partner. The identification numbers also allow you to identify a business partner in the system.

In the dialog for business partner maintenance, you can define any number of identification numbers per business partner on the tab page *Central Data*.

Using the search help, you can determine business partners via the identification number and/or identification type.

You can define the identification types in the Customizing, and select them in the dialog via the input help. Also, you can assign an identification category to an identification type. In this way application programs can determine the relevant identification type via the identification category. The corresponding identification number can be read from the business partner via the identification type.

SAP delivers the following identification categories that you cannot change:

- o Dun & Bradstreet Number
- o Commercial Register Number
- o Register of Associations Number
- o Public Register of Cooperatives Number

If you need own, individually defined identification categories in user-specific programs, then you are able to define other identification categories within the customer name areas.

Effects on Existing Data

The following fields of the SAP Business Partner are thus obsolete as of Release 5.0A:

- o Legitimation type and relevant number (fields BUT001-LGTYP and LGNUM)
- o Entry in Commercial Register (field BUT001-COMRG)
- o Entry in Register of Associations (field BUT001-CLBRG)
- o Entry in Public Register of Cooperatives (Field BUT001-COPRG)

In future these fields will be maintained in the context of the identification numbers. You can transfer the content of the current fields into the new tables of the identification numbers using the data conversion program *BUPXPRA13*.

Therefore you should schedule the conversion program once only in your system in the batch, since it is not possible to schedule this program automatically during a release upgrade.

Effects on System Administration

Schedule the data conversion program *BUPXPRA13* in the background in your system.

Effects on Customizing

Maintain the following Customizing settings in the SAP Business Partner implementation guide:

- o *Business Partner -> Basic Settings -> Identification Numbers -> Identification Categories.*



- o *Business Partner -> Basic Settings -> Identification Numbers -> Identification Types.*

1.1.4.9 Making industry assignments

Use

You can assign a business partner to any number of industries, which then serve as a criterion in the target group selection.

In the dialog for business partner maintenance, you make the assignments to industries on the tab page *Organizational Data*.

The industries are summarized in industry systems.

In the Customizing you can define several industry systems, for which any number of industries can be maintained. Accordingly, you can make the assignment of a business partner to industries in parallel for several industry systems.

Instead of assigning the industries manually to an industry system, you can import them into the system using the remote-enabled function module *BUP_INDUSTRYSECTOR_IMPORT*. If required, you can find details on the methods in the Business Object Repository. The object for SAP Business Partner is BUS1006.

You can give the indicator *Standard* to the industry system with which you work the most. The standard industry system will then appear automatically on the initial screen in the dialog. Using the button *All Industry Systems/Standard Industry System* you can change to the appropriate view.

Example:

You have set up two industry systems: A and B.

In the industry system A, 01 stands for the industry tradesmen and 02 stands for the industry service providers. However, in industry system B, 08 stands for the industry tradesmen, and the industry service providers does not occur in industry system B

<u>Industry system</u>	<u>Industry</u>	
A	Tradesmen	01
A	Service providers	02
B	Tradesmen	08

Effects on Customizing

Maintain the industry systems and the industries in the implementation guide of SAP Business Partner: *Business Partner -> Organizations -> Maintain industry Systems and Industries*.

1.1.4.10 Business Partner Role 'Internet User'

Use

In Release 5.0A, you can create a business partner of the type 'person' in the role 'Internet user'.

Via the role 'Internet user', you can maintain data such as Internet user, (internal) user name, password, block and user group on the tab page *Internet user*.

In addition you can define user roles and fixed values such as logon language and date format for an Internet user.

The user data is relevant when an Internet user logs on to the system. When an Internet user logs on via the Internet, he chooses an alias for this purpose, that is different from his user name. You can define this alias name in the system, in order to identify a business partner as an Internet user.

1.1.4.11 Making changes to the address usage

Use

You can define several addresses for a business partner and determine the appropriate address usage through the assignment of an address to a particular address type.

For example, if a business partner has an address in London and in Paris, you can establish via the address usage, that the London address is the correspondence address, and the Paris address is the delivery address.

Until now, the address determination determined an address via the assignment of a role to an address type. Now you assign an address type to a transaction. This has the advantage that you can define your own transactions, alongside the address determination transactions supplied by SAP that you cannot change.

The automatic address determination recognizes, using the address usage that you have determined, for which business transaction an address is used.

You have assigned the transaction *Ship Goods* to the address type *Delivery Address*. Using this assignment, the correct address can be determined.

Effects on Customizing

In order to make address determination possible, make the following Customizing settings in the SAP Business Partner Implementation Guide:

- o *Business Partner -> Basic Settings -> Address Determination -> Define Transactions.*
- o *Business Partner -> Basic Settings -> Address Determination -> Define Address Types.*
- o *Business Partner -> Basic Settings -> Address Determination -> Assign Transaction to Address Type.*

1.1.4.12 New Features for Payment Cards

Use

The dialog for the payment cards has been implemented as in Business Partner, via the Business Data Toolset (BDT). Thus many functions, like field control, are also available for the payment cards.

In addition, an independent dialog has been developed for the payment cards, via which payment cards can be maintained independently of a business partner.

In addition, you can use the functions for the payment cards in the business partner maintenance, as is currently the case.

1.1.4.13 Display and maintenance of status management

Use

The integration of the status management into the dialog of SAP Business Partner allows you to display and manage the different statuses of a business partner. The status changes made, are kept in change documents.

In the status management, a distinction is made between a **system status** defined by SAP and a **user status** defined by the customer.

o **System status**

System status means the current status of a business partner in the system. The various system statuses are set and displayed in a list by the system when business transactions are carried out.

The system statuses are only displayed and cannot be changed. The system status *Do Not Release* is an exception that can be displayed, as well as created or deleted.

o **User status**

Customers can define and assign user statuses.

In the Customizing you define one or more status profiles, to which you can assign several user statuses in each case. The creation of several status profiles allows you to categorize the user statuses.

According to the Customizing settings, certain user statuses of all status profiles are displayed in the dialog for business partner maintenance for you to select.

By assigning status numbers, you ensure that only one of the user statuses that have been given status numbers can be assigned. In addition you determine in this way, which subsequent statuses are allowed. If you assign an status number with a relevant status number interval to a user status, initially only the status that is defined as the initial status and its possible subsequent statuses, as well as all user statuses without a status number are available for selection in the dialog.

After you have assigned the initial status, the statuses that adhere to the rules defined in the Customizing are available for you to make other assignments.

If you do not assign a status number to a user status, you can always set this status.

To assign a business partner to a different status profile, you first have to delete the previously assigned user status. All user statuses that are possible initially are available to you for the new assignment.

Note

Generally, you can only assign those user statuses during status management for which you have the appropriate authorizations, depending on your role.

Effects on Customizing

Maintain the status profile for user statuses in the implementation of SAP Business Partner: *Business Partner -> Basic Settings -> Status Management -> Define Status Profile for User Status*

1.1.4.14 New Features for the Tax Numbers

Use

With Release 5.0A it is now possible to maintain tax numbers for a business partner. The check for these tax numbers depends on whether the business partner is a natural person.

For this purpose, an additional indicator was included for the tax numbers in the dialog for business partner maintenance, which marks the business partner as a natural person.

The following new tax number categories will be supported in the future:

- o BR2, Brasil: CPF
- o CO1A, Colombia, RUT
- o CO1B, Colombia, CUIP
- o IT1, Italy: Codice Fiscale
- o MX1, Mexico: RFC
- o PE1, Peru: RUC

1.1.4.15 Changes to the Visual Configuration Tool

Use

The configuration of the screen sequences using the Visual Configuration Tool (VCT) is now no longer confined to the main screen sequence category. You can now configure screen sequences of all screen sequence categories.

The interface has been adapted to the new GUI design, but no great changes have been made within the VCT.

Adding views that are not used is now user friendlier and clearer: in the right-hand screen section, you can see the standard screen sequence and the screen sequence you have configured, each displayed hierarchically on tab pages. Views that are not used, are marked in red in the standard hierarchy. Thus it is always possible to compare the configured screen sequence with the standard screen sequence.

All the views that are used by the standard are displayed on the tab page *Views*. Here too, views that are not used, are marked in red in the configured screen sequence.

Using Drag & Drop, you can reinsert views that are not used into the screen sequence.

Effects on Existing Data

This does not affect the dataset, since data conversion takes place internally.

1.1.5 CA-BP-RS Business Partner Relationship

1.1.5.1 Graphical display of business partner relationships

Use

You can now graphically display and maintain business partner relationships of a relationship category, originating from the business partner to be maintained, in a hierarchy or network plan. These forms of display help you to gain an overview of a business partner relationship hierarchy or a dependency net of a one-way relationship category.

- o **Hierarchical display**

The business partners are displayed in a hierarchy. You can display the BP relationships of a selected relationship category for a selected key date and a certain display level, and maintain them starting with the lower-level business partners.

If the relationship set is a network and not a hierarchy, business partners can have several incoming or outgoing cyclical relationships to higher-level business partners. These relationships are shown clearly by an icon at the appropriate business partner.

It is also possible to display business partner relationships in the form of a hierarchy in the WebGui.
- o **Network display**

Business partners are displayed as nodes and the BP relationships as lines between the nodes in the network display. You can graphically display both the incoming and the outgoing BP relationships of a selected relationship category for a particular key date and a particular display level.

From this view you can maintain both the business partners and the BP relationships.

The network display is not available in the WebGUI.

1.2 CA-PCA Payment Cards

1.2.1 Changes in the IMG structure for Release 5.0A

Use

The following changes have been made in the IMG structure of the SAP Business Partner for Release 5.0A:

Data cleansing is contained for the first time in the IMG of the SAP Business Partner and includes the activities *Maintain NumberRange*, *Establish Priorities* and *Activate DataCleansing*. For more information on this subject, see the release information *Data Cleansing of Redundant Business Partners*.

The basic settings have been extended to include the status management with the activity *Define Status Profile for User Status*. For more information on this subject, see the release information *Display and Maintenance of the Status Management*.

The settings for the payment cards have been taken completely from the IMG of the SAP Business Partner, and now form a structure of their own under cross-application components. The field groupings with the activities *Field Grouping per Activity*, *Field Grouping per Payment Card Category* and *Field Grouping Client-Wide*. are included in the IMG structure for the payment cards.
For more information on this subject, see the release information *New features for Payment Cards*.

In the basic settings, authorization administration was extended to include the activity *Maintain Authorization Groups*.
For more information on this subject see the release information *Changing the Authorization Group*.

The settings for the field groupings have been extended to include the activity *Configure Field Activity per Client*.
For more information on this subject see the release information *Changes to Field Groupings and Authorization Checks*.

The node 'Address Type' has been renamed as 'Address Determination', and has been extended to include the activities *Define Transactions* and *Assign Transaction to Address Type*. The activity *Standard Address Type for BP Role* has been removed from the IMG.
For more information on this subject, see the release information *Making Changes to the Address Usage*.

The node 'Legitimation' with the activity *Maintain Legitimation Types* has been removed from the basic settings.

The basic settings have been extended to include the identification numbers with the activities *Identification Categories* and *Identification Types*.
For more information on this subject see the release information *Maintaining Several Identification Numbers*.

At the organizations, the activity *Maintain Industries* has been replaced by the activity *Maintain Industry Systems and Industries*.
For more information on this subject see the release information *Making Industry Assignments*.

1.2.2 New Features for Payment Cards

Use

The dialog for the payment cards has been implemented as in Business Partner, via the Business Data Toolset (BDT). Thus many functions, like field control, are also available for the payment cards.

In addition, an independent dialog has been developed for the payment cards, via which payment cards can be maintained independently of a business partner.

In addition, you can use the functions for the payment cards in the business partner maintenance, as is currently the case.



2 BC Basis Components

2.1 BC-CST Client/Server Technology

2.1.1 BC-CST-IC Internet Communication Manager

2.1.1.1 Internet Communication Manager (ICM) (New)

Use

SAP Web Application Server is a further development of the SAP Application Server technology. Based on a highly-scalable infrastructure, new technologies have been implemented to allow HTTP requests (or requests using other protocols) coming from the Internet (that is, from a browser) to be directly processed, and to allow HTTP client requests to be sent to the Internet.

To make all this possible, the SAP kernel has been extended to include a process called the Internet Communication Manager (ICM). The ICM uses threads to communicate on the Internet (as a server or as a client). If the incoming HTTP request is to be processed in the SAP System by a work process, the data is exchanged using what are known as memory pipes. Memory pipes are located in shared memory.

See also

For further information, see the SAP Library under *SAP Web Application Server - Web Applications - SAP Web Application Server*, section *SAP Web Application Server Architecture*.

2.2 BC-CUS Customizing

2.2.1 BC-CUS-TOL Customizing Tools (Techniques)

2.2.1.1 BC-CUS-TOL-ALO Table History

2.2.1.1.1 Table History/IMG Logging (Changed)

Use

From Release 6.10 Table History is referred to as IMG Logging.

The user interface has also been redesigned: You call IMG Logging in Execute Project or Project Management with *Tools -> IMG Logging*. You can call the IMG Logging functions in the IMG Logging menu:

- o Analyze Log
- o Archive Log

- o Delete Log
- o Number of Logs
- o List of logged tables

The function to compare current table contents with a previous version is no longer available.

Until Release 4.6D you could reload change logs archived in Archive Management (transaction: *sara*) if required. This is no longer possible.

If your system is configured for Unicode, you can not read change logs created in non-Unicode systems.

Effects on System Administration

If you want to read the change logs created in non-Unicode systems, you must configure your system as non-Unicode.

2.2.1.2 BC-CUS-TOL-CST Cross-System Tools

2.2.1.2.1 Customizing Scout (new)

Use

From Release 6.10 you can use the Customizing Scout, a tool with which you can compare customizing objects in two components in a mySAP.com system landscape, for example an R/3 core against a CRM. The Customizing Scout only compares the customizing objects which must be synchronized in a mySAP.com system landscape. The set of such customizing objects is predefined in the system.

The Customizing Scout gives you a quick overview of all customizing settings which must be synchronized in your system landscape. This is useful for example during the implementation of a system or the modification of a system landscape.

The Customizing Scout:

- o gives an overview of all components in your mySAP.com system landscape which belong to the customizing project
- o shows data from the last comparison of a component
- o makes a new comparison
- o selects one or more customizing objects and makes and analyzes a detailed comparison of the field entries

You can access the Customizing Scout by choosing *Tools -> AcceleratedSAP -> Customizing -> Customizing Scout* in the SAP menu or calling the transaction *SCOUT*.

Effects on System Administration

You must maintain your system landscape before you can use the Customizing Scout.

See also

For further information about the Customizing Scout and the maintenance of your system landscape, see

Cross-System Tools in the component *Customizing* (BC-CUS) in the SAP Library.

2.2.1.3 BC-CUS-TOL-PAD Customizing Project Management (IMG)

2.2.1.3.1 Project Management and Execute Project (enhanced)

Use

From Release 6.10, Project Management and Execute Project contain the following enhanced functions:

Split screen mode

You can toggle between subscreen and full screen in split screen mode. The system remembers your screen partition and returns to it from full screen. Go to full screen with the *Full screen on/off* pushbutton to the left of the toolbar.

You can display complex IMG structures and long IMG texts completely in full screen, without having to change the screen partition. You can go to the subscreen to edit status information and IMG activity documents.

Toggling between subscreen and full screen only works in split screen mode (*Settings -> User-specific... Split screen*). In the other two modes (structure display in list and control as full screen) you cannot go to split screen.

A preliminary version of this functionality was already provided in support packages in Releases 46C (support package 07) and 46D (support package 03) (note 326210).

Activity data inheritance interface changes

The team member and keyword delete flags have been moved to the end of their rows in the activity data inheritance selection screen to avoid unintentional selection.

2.2.1.3.2 Customizing project authorization changes

Use

The following authorizations for working with customizing projects have been changed:

- o **Create projects**
Project creation used to be checked via activity **02** of authorization object **S_PROJECT**. It is now checked via activity **01** of object **S_PROJECTS**.
- o **Delete projects**
Project creation used to be checked via activity **02** of authorization object **S_PROJECT**. It is now checked via activity **06**.
- o **Project analysis**
Project analysis used to be checked via activity **23** of authorization object **S_PROJECT**. It is now checked via activity **71**.
- o **Working in a project**

Changing status information and editing project documents used to be checked via activity **23** of authorization object **S_PROJECT**. This activity is no longer used in customizing projects. Instead, the activity **A3** is checked for changing status information, and the activity **76** for editing documents. To work in a project, you must thus have at least one of these two authorizations, or authorization for the associated customizing activity.

2.3 BC-SRV Basis Services / Communication Interfaces

2.3.1 BC-SRV-ADR Address Management

2.3.1.1 Quarterly Adjustment for the SAP Regional Structure

Use

As of Basis Release 6.10, Business Address Services include a procedure that, firstly, updates the SAP Regional Structure with new reference data and, subsequently, changes addresses in the SAP System according to the new reference data.

This procedure is known as a Quarterly Adjustment. Address data and reference data are updated in the SAP System when the provider of the data delivers updates - typically, once a quarter.

This procedure will also be delivered in Support Packages for Basis Releases 4.6B, 4.6C und 4.6D.

See also

SAP Notes 98050, 132948 and 333946.

To find further documentation on the Quarterly Adjustment procedure, proceed as follows:

In the SAP Library, choose Basis Components -> Basis Services -> Address Management (BC-SRV-ADR), then choose

- > Address Checks
- > SAP Regional Structure
- > Quarterly Adjustment

2.3.2 BC-SRV-ARL SAP ArchiveLink

2.3.2.1 Document Viewer (new)

Use

The Document Viewer is used for displaying documents in the SAPGUI for Windows and SAPGUI for HTML. It replaces the SAP ArchiveLink Viewer, which has not been supplied since Release 4.5B. The display variants ECL and HTML control, which were supplied with Release 4.6C, are now available in the Document Viewer. You can specify in Customizing which display method you want to use in the Document Viewer.

The Document Viewer enables you to use the ECL Viewer (supplied by SAP) for solely SAPGUI for Windows environments, with functions such as, for example, navigation and redlining. Using HTML control, you can call all plug-in-for-mimetypes-compatible programs in the SAPGUI for Windows and the SAPGUI for HTML.

In addition to the functions of the display program or display variant currently in use, the Document Viewer provides central, SAP-related functions for the document displayed. These central functions include:

- Integration of the Generic Object Services
- Scrolling between documents and pages
- Selection of different options for navigation
- Notes for the document
- Reassigning the document to other business objects
- Using the business object to start workflows
- Starting a search from the Document Finder to display additional documents

Effects on Existing Data

As of Release 4.6C, outgoing (SAP Smart Forms, SAPscript) documents that were originally in OTF format are converted online into PDF format and can be displayed, for example, using an Acrobat plug-in.

Print lists are displayed in the SAPGUI.

Effects on System Administration

Use of the Document Viewer is the standard setting. Any external programs you have implemented previously will need to be explicitly activated.

Effects on Customizing

Customizing for the Document Viewer is in the transaction 'oag4'.

2.3.2.2 Document Finder (new)

Use

The Document Finder is a new ArchiveLink application for searching for documents. The Document Finder provides a centralized point of access for searching across more than one system, regardless of whether documents are related to SAP components (by the SAP DMS or ArchiveLink), or whether they are administrated solely in external systems.

A Document Finder interface enables integration of external storage systems, and therefore enables you to search for documents based on (index) attributes that are not administrated in SAP (ArchiveLink), hit list display, or in the document itself. The SAP DMS is also integrated, enabling you to search for documents using key words or document info records, and display them with reference to an application.

It is now also possible to search for ArchiveLink documents using either technical or customer-specific attributes. When you display the document, you can also display the business object, which means the link to the application is available as before.

You can therefore also search for documents from mySAP.com components using the link to the application, which means using the business object.

A search within one of the document areas results in a hierarchical hit list, which is structured by document

type. From the hit list, you can display the individual hits (documents) with reference to the application, if necessary. Using the Viewer to display the documents is equally dependent on the application.

The Document Finder framework offers diverse interfaces for use by customers or partners. This enables integration of any search clients, different search methods for storage systems or the DMS, and hit list displays.

Effects on Data Transfer

On request, the Document Finder can be implemented in an SAP System below Release 4.6B on a project basis.

Effects on System Administration

Depending on the services (or search methods) available in the integrated storage system, you can utilize the search methods of the external system, for example index search or full text search. In contrast to the attributes of ArchiveLink documents, the index of the external storage system is not stored in an SAP System.

Effects on Customizing

For administration of attributes for individual customers, you can use the data model of the SAP Knowledge Provider, or create your own data structures in the SAP DB.

2.3.2.3 Server-based incoming documents (new as of 4.6c)

Use

A new function module enhances the range of solutions for the ArchiveLink scenario "Storing for subsequent entry", which until now was only based on client communication, OLE automation 2.0.

The function module ARCHIVE_PROCESS_RFCINPUT enables you to start work items, using RFC communication between the storage server and the SAP server, for documents that have already been stored. Additional data (attributes, index data), which has already been determined for the document when storing in the external storage system, is transferred to the workflow container. The data also classifies the documents, and the processes to be started by them.

Using this function module enables implementation of decentralized (for example web-based) incoming document scenarios with simultaneous central document processing in SAP.

Effects on Data Transfer

To start the process and subsequently create the link entry, the following data needs to be transferred from the external system:

- Content repository Id
- Document ID of the external storage system
- Document type for selecting the process to be started, or the
- Bar code ID

Effects on Customizing

A User Exit enables functional and individual enhancement of the functions described here.

2.3.2.4 ArchiveLink Monitor (enhanced)

Use

In the Archivelink Monitor, you can now log the asynchronous storage process for ABAP reports or print lists.

It is now easier to administrate monitoring of the whole storage process.

Under the new group heading "Settings for storing print lists", you can specify that the storage process (storage requests and confirmations) be executed in single steps, for example, for test purposes.

In the "Storing print lists" group, the whole storage process has been clarified, and can be tested step-by-step. The monitoring process has been enhanced by the addition of a storage history and a confirmation, which have both been included for asynchronous storage requests.

2.3.2.5 Incoming Documents Using Drag&Drop Technology (new)

Use

Instead of entering each file name and corresponding directory, the user can now enter documents from their own file system using the Drag&Drop method.

You can theoretically use this method for all ArchiveLink incoming document scenarios in the SAPGUI for Windows.

It is now possible, for example, to select more than one document from a directory (or select the directory itself), and store the documents using the Generic Object Services. Similarly, you can use the documents to automatically start work items for processing, using the ArchiveLink storage scenarios.

Effects on Customizing

In ArchiveLink customizing, transaction 'oag1', you can define how many selected documents may be entered using Drag&Drop.

2.3.2.6 ICC communication for front end (deleted)

Use

As of Release 4.5B, the SAP ArchiveLink Viewer is no longer supplied, and the Document Viewer is supplied in its place as of Release 6.10. The log (communication type) for the ArchiveLink Viewer is no longer required.

Effects on Existing Data

As of release 4.6C, outgoing (SAPscript) documents that were originally

in OTF format are converted to PDF format online and can be displayed, for example, using a plug-in from

Acrobat.

Print lists are displayed in the SAPGUI.

2.3.2.7 RPC communication to optical archive (deleted)

2.3.2.8 Version 0030 of ArchiveLink interface (deleted)

2.3.2.9 Front End Settings (changed)

Use

The front end settings and customizing steps for storing documents and activating viewers have been greatly simplified.

Customizing for communication between the front end components of the SAPGUI and the front end of the external storage system or viewer is only necessary in exceptional cases.

2.3.3 BC-SRV-COM E-mail, Fax, and Telephony Interfaces

2.3.3.1 Business Communication Services - SMTP Plug-in - XPRA for node data

Use

As of SAP Web Application Server - Release 6.10, a new send interface is available: Business Communication Services are the successor of the Business Communication Interface. The send interface controls the send process and communication between SAP applications and SAPconnect for external sending.

In contrast to their predecessor, Business Communication Services are more flexible and open for further developments as they were developed on an object-oriented basis. The new inbound distribution is supported and messages received can be selected according to different criteria and further processed.

When Internet mails, faxes and SMS's are sent externally, external communication systems no longer have to be connected to the SAPconnect RFC interface. As of SAP Web Application Server - Release 6.10, the ESMTP protocol for communication between e-mail servers is integrated as a plug-in in the core of the mySAP.com components. Functions for MIME conversion are also available.

BCS and the SMTP plug-in provide the following advantages:

mySAP.com components can communicate directly with a mail server. The extra RFC interface is no longer required, nor is the SAP Internet Mail Gateway, for example. The administration of the external interface and the SAPconnect node was simplified. Multiple mySAP.com components can now communicate externally using the same mail server.

BCS also provide the benefit of a simplified connection of the mySAP.com components to the send functions.

The simplified administration of the SAPconnect node includes a revision of the format conversions. The XPRA Report RSCONNX2 is started so that conversion data maintained for the nodes in earlier releases (as of 3.1X) can be transferred. For more information, see the documentation for this report.

See also

For more information, choose SAP Web Application Server -> Basis Services -> Business Workplace and Services -> Generic Business Tools for Application Developers -> Business Communication Services, in the SAP Library.

2.3.3.2 SAPcomm and SAPfax are no longer supported

Use

The SAP-R/3 interfaces SAPcomm and SAPfax for the connection of fax and X400 products to the SAP System are no longer supported as of the SAP Web Application Server - Release 6.10. As of Release 6.10, fax and X400 products can no longer communicate with the SAP System using these interfaces. This also affects the local fax solution with the product Winfax that is based on SAPfax.

Communication using SAPcomm between R/3 Systems as of Release 6.10 with R/2 Systems or with R/3 Systems with a release that is older than 3.1G is no longer supported.

Furthermore, SAPcomm and SAPfax are only supported for R/3 Releases that are older than 6.10 and are still being maintained.

As an alternative to SAPcomm and SAPfax, the SAPconnect interface can be used, which can be connected to the SAP System using fax and X400 products. The SAPconnect interface is contained in the SAP Web Application Server - License and is therefore not associated with any extra costs. With regard to fax products, SAPconnect is an interface that is included in the SAP certification program.

See also

For up-to-date information, see the SAP Homepage under the keyword Software Partner and see also SAPNet note 0306509.

2.3.4 BC-SRV-GBT Generic Business Tools

2.3.4.1 Business Communication Services - SMTP Plug-in - XPRA for node data

Use

As of SAP Web Application Server - Release 6.10, a new send interface is available: Business Communication Services are the successor of the Business Communication Interface. The send interface controls the send process and communication between SAP applications and SAPconnect for external sending.

In contrast to their predecessor, Business Communication Services are more flexible and open for further developments as they were developed on an object-oriented basis. The new inbound distribution is supported and messages received can be selected according to different criteria and further processed.

When Internet mails, faxes and SMS's are sent externally, external communication systems no longer have to be connected to the SAPconnect RFC interface. As of SAP Web Application Server - Release 6.10, the ESMTP protocol for communication between e-mail servers is integrated as a plug-in in the core of the mySAP.com components. Functions for MIME conversion are also available.

BCS and the SMTP plug-in provide the following advantages:

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The simplified administration of the SAPconnect node includes a revision of the format conversions. The XPRA Report RSCONNX2 is started so that conversion data maintained for the nodes in earlier releases (as of 3.1X) can be transferred. For more information, see the documentation for this report.

See also

For more information, choose SAP Web Application Server -> Basis Services -> Business Workplace and Services -> Generic Business Tools for Application Developers -> Business Communication Services, in the SAP Library.

2.3.4.2 BC-SRV-GBT-CAL Appointment Calendar

2.3.4.2.1 Appointment management - New Internet functions and user interface

Use

The interface for maintaining appointments has been completely revised for SAP Web Application Server - Release 6.10. The functions for defining appointment attributes and participants as well as the search for free times are now available on tab pages.

Furthermore, users can maintain their assignment to a time zone directly in the calendar settings and thereby control the default setting in appointment maintenance. Status has been added to the appointment attributes. The following statuses can be maintained: Planned, Confirmed, and Canceled. It can be defined for each participant in a group appointment whether a notification of the appointment is to be sent.

A workflow has been developed for handling appointment requests. To be able to use this workflow in your system, you have to make some settings in the Implementation Guide. You can also configure how incoming

appointment-related messages received from an external source are to be handled.

See also

You make the Customizing settings for the appointment calendar in the Implementation Guide under SAP Web Application Server -> Basis Services -> Generic Business Tools -> Appointment Calendar.

For more information, choose SAP Web Application Server -> Basis Services -> Business Workplace and Services -> Appointment Calendar, in the SAP Library.

2.3.4.3 BC-SRV-GBT-OBL General Object Relations

2.3.4.3.1 New object relationship service New object relationship browser

Use

From SAP-Web-Application-Server-Release 6.10, there is a new object relationship service that triggers the service used in older releases completely. For this reason, all application developers who use the object relationship service, must migrate their data to the new relationship service. There is a migration tool available for this. Maintenance of the model data can be carried out in the transaction SOBL_MODEL. In change mode, you can go to the migration program by selecting the *Transfer of old Model Data* (Strg + F12) symbol.

Relationships that were created with the old relationship service can still be found and displayed. In specific situations, high demand is placed on performance if the relationships in the customer system are to be migrated to the tables of the new relationship service. The SOBL_TUNE report is therefore provided.

Application developers can additionally create application-specific attributes for the relationships using a BADI.

There is also an interface, with which the object relationships can be displayed.

See also

Information on the functions of these interfaces can be found in the SAP Library under SAP Web Application Server -> Basis Services -> Business Workplace und Services -> Generic Business Tools for Application Developers -> Object Relationship Service.

2.3.4.4 BC-SRV-GBT-PPF Post Processing Framework

2.3.4.4.1 New functions in the Post Processing Framework

Use

The Post Processing Framework (PPF) displays a technical infrastructure that allows mySAP.com applications to start application objects when specific conditions of subsequent processings (actions) occur. The PPF is the object-oriented successor of Message Control and offers the advantage of greater flexibility and more functions. The actions possible are printing and sending using SmartForms, starting a workflow or

executing a method.

From SAP-Web-Application-Server-Release 6.10, the PPF provides new functions for the condition-dependent processing of actions. Conditions can now be formulated for both the scheduling and starting of actions. The condition configuration has been fundamentally revised and a transport connection has been implemented.

See also

For more information, see the SAP Library, SAP Web Application Server -> Basis Services -> Business Workplace and Services -> Generic Business Tools for Application Developers -> Post Processing Framework.

2.3.5 BC-SRV-KPR SAP Knowledge Provider

2.3.5.1 ADK connection for Knowledge Provider (new)

Use

The Knowledge Provider ADK connection provides an archiving function for document content and administration data.

The following archiving classes are available:

- o LOIO
- o PHIO
- o REIO
- o PHCO

The archiving object BC_LOIO is included in the delivery as a model for applications. This archiving object allows you to archive, delete, and reload a logical document with all its physical documents and relationships.

This archiving object is based on the SAP HTTP Content Server Interface.

Note

Protected attributes are not reloaded.

See also

For further information on Knowledge Provider and the SAP HTTP Content Server Interface, see the SAP Library under *SAP Web Application Server - Basis Services - SAP Knowledge Provider*.

2.3.5.2 Cache preload (new)

Use

Content that SAP delivers in the form of I-files can be imported into an SAP Content Server Cache as well as into an SAP Content Server.

Effects on Customizing

Take the Customizing steps detailed in the Knowledge Provider Implementation Guide (IMG): Define Cache Preload.

See also

For further information on caching, content servers und cache servers, see the SAP Library under *SAP Web Application Server - Basis Services - SAP Knowledge Provider - Content Management Service*.

2.3.5.3 HTTP Access to Database Repositories (New)

Use

If the Internet Communication Manager (ICM) is active, the HTTP plug-in is by default used for HTTP access from the application server.

It is possible to access database repositories via HTTP. To do this, a user for anonymous access must be created in transaction **SICF**. The system offers full support for the administration of certificates (transaction **CSADMIN**).

See also

For further information on the Content Management Service of Knowledge Provider (KPro), see the SAP Library: *SAP Web Application Server - Basis Services - SAP Knowledge Provider - Content Management Service*.

For further information on the ICM and transaction SICF, see the documentation on SAP Web Application Server in the SAP Library: *SAP Web Application Server - SAP Web Application Server*.

2.3.5.4 Determining the File Name Extension for a MIME Type (New)

Use

In the context of Knowledge Provider, a MIME type can be determined for a file name extension, and vice versa. For example, you may want to send a file to a repository, but only know the file name extension and not the corresponding MIME type. The system then determines the appropriate MIME type, based on the assignment in the table.

Effects on Customizing

Carry out the required Customizing steps in the activities Define MIME Type for File Name Extension and

Define File Name Extension for MIME Type.

See also

For further information see the SAP Library under *SAP Web Application Server - Basis Services - SAP Knowledge Provider*.

2.3.5.5 URL Repository (New)**Use**

In Knowledge Provider, you can administrate documents that are accessed via external URLs. External URLs, as well as document contents, can be stored in a content server.

When accessing documents, an application can use this functionality and call the URL directly. In the case of read access, Knowledge Provider returns the same results as when the content itself is stored in the repository. At runtime, Knowledge Provider gets the relevant current content from the URL.

The URL is analyzed only at runtime, that is, at check-in the URL is only saved and not interpreted in any way. If the URL links to dynamic pages, Knowledge Provider displays the content that is available at the time that the display request is made.

Note

Note that when read accessing content, Knowledge Provider gets the content via the URL. When this happens, the Web server may return an error, for example, if the page contains faulty links, the Web server returns a message stating that it cannot find the page. Knowledge Provider interprets these error messages as document content and displays them accordingly.

See also

For further information on Knowledge Provider, see the SAP Library under *SAP Web Application Server - Basis Services - SAP Knowledge Provider*.

2.3.5.6 BC-SRV-KPR-DMS Document Management Services (R/3)**2.3.5.6.1 URL Repository (New)****Use**

In Knowledge Provider, you can administrate documents that are accessed via external URLs. External URLs, as well as document contents, can be stored in a content server.

When accessing documents, an application can use this functionality and call the URL directly. In the case of read access, Knowledge Provider returns the same results as when the content itself is stored in the repository. At runtime, Knowledge Provider gets the relevant current content from the URL.

The URL is analyzed only at runtime, that is, at check-in the URL is only saved and not interpreted in any way. If the URL links to dynamic pages, Knowledge Provider displays the content that is available at the

time that the display request is made.

Note

Note that when read accessing content, Knowledge Provider gets the content via the URL. When this happens, the Web server may return an error, for example, if the page contains faulty links, the Web server returns a message stating that it cannot find the page. Knowledge Provider interprets these error messages as document content and displays them accordingly.

See also

For further information on Knowledge Provider, see the SAP Library under *SAP Web Application Server - Basis Services - SAP Knowledge Provider*.

2.3.5.7 BC-SRV-KPR-CMS Content Management Service

2.3.5.7.1 ADK connection for Knowledge Provider (new)

Use

The Knowledge Provider ADK connection provides an archiving function for document content and administration data.

The following archiving classes are available:

- o LOIO
- o PHIO
- o REIO
- o PHCO

The archiving object BC_LOIO is included in the delivery as a model for applications. This archiving object allows you to archive, delete, and reload a logical document with all its physical documents and relationships.

This archiving object is based on the SAP HTTP Content Server Interface.

Note

Protected attributes are not reloaded.

See also

For further information on Knowledge Provider and the SAP HTTP Content Server Interface, see the SAP Library under *SAP Web Application Server - Basis Services - SAP Knowledge Provider*.

2.3.5.7.2 Cache preload (new)

Use

Content that SAP delivers in the form of I-files can be imported into an SAP Content Server Cache as well as into an SAP Content Server.

Effects on Customizing

Take the Customizing steps detailed in the Knowledge Provider Implementation Guide (IMG): Define Cache Preload.

See also

For further information on caching, content servers und cache servers, see the SAP Library under *SAP Web Application Server - Basis Services - SAP Knowledge Provider - Content Management Service*.

2.3.5.7.3 HTTP Access to Database Repositories (New)

Use

If the Internet Communication Manager (ICM) is active, the HTTP plug-in is by default used for HTTP access from the application server.

It is possible to access database repositories via HTTP. To do this, a user for anonymous access must be created in transaction **SICF**. The system offers full support for the administration of certificates (transaction **CSADMIN**).

See also

For further information on the Content Management Service of Knowledge Provider (KPro), see the SAP Library: *SAP Web Application Server - Basis Services - SAP Knowledge Provider - Content Management Service*.

For further information on the ICM and transaction SICF, see the documentation on SAP Web Application Server in the SAP Library: *SAP Web Application Server - SAP Web Application Server*.

2.3.5.7.4 URL Repository (New)

Use

In Knowledge Provider, you can administrate documents that are accessed via external URLs. External URLs, as well as document contents, can be stored in a content server.

When accessing documents, an application can use this functionality and call the URL directly. In the case of read access, Knowledge Provider returns the same results as when the content itself is stored in the repository. At runtime, Knowledge Provider gets the relevant current content from the URL.

The URL is analyzed only at runtime, that is, at check-in the URL is only saved and not interpreted in any way. If the URL links to dynamic pages, Knowledge Provider displays the content that is available at the time that the display request is made.

Note

Note that when read accessing content, Knowledge Provider gets the content via the URL. When this

happens, the Web server may return an error, for example, if the page contains faulty links, the Web server returns a message stating that it cannot find the page. Knowledge Provider interprets these error messages as document content and displays them accordingly.

See also

For further information on Knowledge Provider, see the SAP Library under *SAP Web Application Server - Basis Services - SAP Knowledge Provider*.

2.3.6 BC-SRV-QUE SAP Query

2.3.6.1 InfoSet Query / SAP Query / Quick Viewer

Use

For Release 6.10 a number of enhancements have been made to the maintenance functions for InfoSets and queries. These enhancements complement and complete the range of functions provided by the existing tools (InfoSet Query / SAP Query / Quick Viewer).

A program interface (API) has also been designed for the program-controlled generation of InfoSets and queries, and the processing queries. This API allows applications to use queries to complete their tasks.

- o Enhancements to InfoSet maintenance
 - Initial screen
 - Function *Display <-> Change*
 - Changes in table joins
 - Standard selections for programs that read data
 - New events for coding
 - Calculation of the sequence for coding sections
- o Enhancements to the maintenance of queries in the InfoSet Query
 - Standard selection screen switched off
 - Handling of list types has changed
 - Handling of the definition of ranked lists has changed
- o Enhancements to the maintenance of queries in transaction SQ01
 - Initial screen
 - New selection options
 - Parameter IDs for selections
 - Special attributes
- o Enhancements to query runtimes
 - New structure for query reports (new)

Release Notes

- Row count in the SAP List Viewer (new)
- Changes to file storage
- o Administration
 - Release of queries for the Web (new)
 - Global settings
 - Special copy functions (new)
- o Programming interface (new)

Enhancements to InfoSet maintenance

Initial screen

The initial screen for transaction SQ02 has been converted into an ALV grid. This means you can use the standard functions of the ALV grid (sort, find, filter, layout variants) in the InfoSet overview. You select an InfoSet by setting the focus on the corresponding entry in the overview. Double-clicking on the entry triggers the *Display* function for the relevant InfoSet.

An overview providing you with additional information (status, author, changed on) about each InfoSet is provided as standard. In some cases, it can take the system a considerable amount of time to retrieve this additional information. As an alternative, therefore, you can choose the function *Settings -> Settings...* to get a less extensive overview (checkbox *Catalog: Reduced Output*) but one that is generated more effectively.

Function Display <-> Change

In the maintenance screen for InfoSets, you use the *Display <-> Change* function to switch between the display mode and the change mode.

Changes to table joins

Until now it has not been possible to change InfoSets that have been defined using tables (read directly from a table or table join). It was not possible to remove or reposition the first table in the join. It was also not possible to switch between types of InfoSet, to transform an InfoSet with only one table into an InfoSet using a table join, and vice versa.

These restrictions have now been removed. The first table in a table join can be removed, just as all the other tables in the join can be removed, provided that the fields in this table are not in use. The first table can also be moved to a different position in the table join, so that a different table becomes the first table in the join. You are able in fact to remove all but one of the tables from a table join, or create a join by adding an extra table to an InfoSet that uses only one table. The function *Goto -> Join* is now always available for you to use with InfoSets using tables.

There is consequently no longer any difference between InfoSets using a single table and InfoSets using a table join. For reasons of compatibility, however, the distinction is still made.

Standard selections for programs that read data

When you are working with InfoSets using logical databases, the selections for the logical database are displayed in the selections overview (function *Goto -> Selections*). This means that in the maintenance screen for customer selections, you can see whether or not the logical database already has a corresponding selection.

The situation is similar with InfoSets using a program that reads data: The program that reads data can contain selections that have not yet been displayed in the overview. The data-reading program is searched (internally or externally) for selections, and these selections are transferred into the overview as standard selections. With internal data-reading programs this search takes place each time the program is changed. With external data-reading programs the search takes place when the transaction SQ02 is called for the InfoSet (functions *Change* and *Display*).

New events for coding

You can now write coding for the ABAP events `INITIALIZATION` and `<NPSELECTION-SCREEN OUTPUT`. This means there are new options allowing you to alter the contents of the selection screen. These coding segments are maintained in the same way as all other coding segments.

Calculating the sequence of coding segments

When you define additional information for a node, you have to specify a sequence number for each piece of additional information (additional table, additional field, additional structure, coding). This number determines the sequence in which the additional information assigned to a node is handled during the runtime. The importance of this number is that it identifies any relationships between different pieces of additional information. If two pieces of additional information can be calculated independently of one another, it is possible for them to have the same sequence number. If additional piece of information A requires additional piece of information B before it can be calculated, A must have a higher sequence number than B.

Until now the system checked only that the sequence numbers were assigned correctly, and that an error was returned if the assignment failed. Now, the *Calculate sequences* function in the *Extras* tabstrip ensures that the sequence of information assigned to nodes is correct. In the calculation, the system always refers to the current node you have selected. If the InfoSet has been created using a logical database, and additional information has been assigned to several nodes, the calculation must be carried out for each node individually.

Enhancements to the maintenance of queries in the InfoSet Query

Standard selection screen switched off

In the InfoSet Query, you were able to make selections in the upper-right section of the screen using either a selection control (input-enabled ALV grid) or a selection screen. For technical reasons, the selection screen option is no longer supported. The corresponding function for switching between the two types of display mode has been removed from the *Extras* menu.

You are still able to use a selection screen to make selections, provided that you have used the *Start Display* function to execute a query, and have determined in the *Edit -> Settings* function that you want to use a selection screen.

Handling of list types has changed

When you use the InfoSet Query to create a list, you choose from the list types *basic list*, *statistics* and *ranked list*. The *basic list* type is used by default when you create a query.

Until now, the only way to determine the list type was to use the *Edit -> Settings* function. There is now an additional dropdown box *List Type* in the toolbar of the preview (ALV grid in the lower section of the screen) that you use to select the type of list that you want to create.

Note that a counter field is included by default if you choose either of the list types *statistics* and *ranked list*. This field is used to display the number of selected fields, and contains the value 1 for each data record that has been read, providing you with a simple way of also displaying the number of read data records when you display the list. If you do not want this field to be included in the list, you can switch off the function in the tabstrip *Statistics/Ranked List* under *Edit -> Settings*.

Handling the definition of ranked lists has changed

The definition of ranked list has changed. You can choose the list type *Ranked List* - as described in the previous section - if you want to create a ranked list. The fields that you require are transferred to the display area (lower section of the screen). Note that a counter field is included in the ranked list by default (see above). To override the default setting go to *Edit -> Settings* in the *Statistics/Ranked List* tabstrip.

In every ranked list, there must be exactly one numerical field that is designated as a ranked list criterion. Since, whenever a ranked list criterion is determined, a sort process is always involved, the following

procedure applies:

You must select a numerical field in the display area when you determine the ranked list criterion. This is the field according to which the sort takes place, and is why it must be designated as a ranked list criterion. If you have sorted according to other fields already, the result from these previous sorts is undone.

If, in the display area, you sort according to several fields or a non-numerical field, the systems reports an error in the ranked list definition when you try to execute the query (functions *Start Output* or *Update Data*).

If no sort is carried out in the display area, but there is a counter field available (see above) this counter field is used automatically as the ranked list criterion. If there is no counter field available, the system reports an error when you try to execute the query.

Enhancements to the maintenance of queries in transaction SQ01

Initial screen

The initial screen in transaction SQ01 has been converted into an ALV grid. You can use the standard functions of this ALV grid (sort, search, filter, layout variants) in the overview of queries in a user group. To select a query, you set the focus on the corresponding entry in the overview. Double-clicking on an entry triggers the *Display* function for that particular query entry.

New selection options

For Release 4.6C a *Single Values* input option for maintaining queries has been included in the *Selections* screen for transaction SQ01. If you set this option for a selection field, the system handles the selection as if it were a parameter.

The single values option has been divided into two new options. The *Value Input* option determines that only single values can be specified, and not intervals. The *Row Input* option, determines that only a single value or an interval can be specified.

If both options are set, this corresponds exactly to the single value option described above. The benefit of separating this option into two separate options is that it allows more flexibility.

Parameter IDs for Selections

With note 315709 and from Release 4.6B parameter IDs (memory IDs, SET/GET parameters) have been introduced to the query selection screens. This means that selections that have an assigned parameter ID of this kind are provided with values transferred from the previous steps, whenever you start a query from the selection screen.

The process is as follows:

- o The assigned field is checked for every selection in the query definition. If the field is a dictionary field with an assigned data element, the parameter ID of this data element (if available) is inherited by the corresponding selection in the selection screen. This means that, when you call a query, the selection is supplied with the parameter ID value from the SAP memory.
- o The above is valid only for fields that refer directly to the dictionary (the table name is listed directly in the dictionary) or that belong to a node in the tree of a logical database. The result is that selections that refer to fields in alias tables, additional fields, or fields in extract structures, are never assigned to a parameter ID.
- o This is *not* true of selections that have been defined in logical databases or InfoSets.

From Release 6.10 the above is standard. There are two ways of switching off the parameter ID function.

- o On the **Selections** screen in transaction SQ01 for maintaining queries, there is a checkbox (*no parameter IDs for pre-assigning selections*). If you put a checkmark in this box, no parameter IDs are prepared for the selection criteria that are defined in this screen. This means that the preassignment of user-defined selection criteria is disabled for the current query.
- o Using **Settings -> Global Settings** in the initial screen of transaction SQ02 for maintaining InfoSets, you can disable this function of the parameter IDs throughout the system, meaning for all queries in the system. If you do change this global setting, you have to regenerate the affected query report.

Special attributes

In transaction SQ01 for maintaining queries, in the screen **Title, Format** under **Extras -> Additional Special Attributes** you can set the following special attributes for particular exceptional cases:

- o **use old report structure**
As described below, from Release 6.10 a large number of reports for queries are generated using a new report structure. The generator of the query itself decides whether the report that is generated for the query is generated with a new structure or an existing structure. In certain cases, you may want or need to generate a report with an old structure for a query, even though you could generate a report with a new structure if you wanted to.
- o **no access optimization**
This option is not a new option, but it previously belonged to the **Special Attributes** section.
- o **do not refer to hierarchies**
This option is required in certain very special cases with queries that use logical databases. Use F1 Help for more information.

Enhancements to query runtimes

New structure for query reports

As mentioned already, from Release 6.10 the report generator decides whether a query report is generated with the usual structure, or a new report structure.

The new report structure has been designed for flat datasets. It provides better data extraction for these datasets, is more compact than the old report structure, and offers a range of new call up functions in the **CALL API** (see below, programming interface). In contrast to the old structure, not only is a report generated for each query, but also a structure definition in the data dictionary, and a functional group with several function modules.

Query reports with a new structure can use only the SAP List Viewer (ALV) as a display medium.

Using a special attribute (see above) you can determine that the new report structure is always used for a query. You can also use **Settings -> Global Settings** in the initial screen of transaction SQ02 to determine that the old report structure is always used throughout the system.

Query reports are created with the old structure, if

- o the query works using a logical database,
- o the query contains several sublists,
- o the query contains a statistic or a ranked list.

Row count in the SAP List Viewer

From Release 6.10 the SAP List Viewer (ALV) gives you the option of counting displayed records. This option is similar to the summation function. If the *Count* function is switched on in the SAP List Viewer, a new column appears that does not contain a value in the data rows, but does contain the number of data rows (sum total or number of rows in the relevant sort level) in the sum total rows or the subtotal rows.

The SAP List Viewer requires a special kind of column (an integer type) to perform this counting function, especially in datasets. The column must be reserved exclusively for this function and may not contain any data. It is therefore necessary to add internally a column to a dataset that has been generated by a query. This column is also passed on to all the functions that subsequently process this dataset (EXCEL, file storage, and so on). There is usually no problem with this, although you must note the role of the column in the data storage function.

If you want to generate a dataset that does not contain this additional counter column, you have to go to the list options in the query painter or the *Basic List Line Structure* screen in transaction SQ01 for maintaining queries, and determine whether or not you want the row counting function in the SAP List Viewer to be available or not. With existing queries, the option is reversed (counter not allowed) and you have to activate it manually if you want to use it. With new queries the option is active by default (counter allowed) but you are able to deactivate it if you want to.

Changes to the file storage

In Release 6.10 the function module DOWNLOAD that is used in file storage has been changed to the extent that it is no longer compatible for use in the *file storage* function.

- o Only the data formats BIN, ASC and DAT</ are supported.
- o If, when using the DAT format, you want to also transfer the column headers into the local file, a row-end character is displayed after every column header. In earlier Releases the individual column headers are separated by a tab.

Administration

Release of queries for the Web

Using a special release program, you can release queries for the Internet. This program includes the allocation of authorization groups to InfoSets as a prerequisite for the release of queries, the release of the queries themselves, and the generation of URLs for the various display media (MiniALV, MidiALV with or without selection screen). You can use these URLs to start the browser, for example.

There are several ways of calling the release program.

- o From the initial screen in transaction SQ02 for maintaining InfoSets:
Goto -> Additional Functions -> Web Administration for Queries
This is where you find the functions for allocating authorization groups and releasing queries. These functions can be used with groups of InfoSets or queries. The function for generating a URL can be used with only one query at a time.
- o Transaction SQ11:
You call this transaction in the same way you call transaction SQ02 (see above).
- o In the initial screen in transaction SQ01 for maintaining queries:
 - *Query -> Additional Functions -> Internet -> Release Query,*
 - *Query -> Additional Functions -> Internet -> Cancel Release*
 - *Query -> Additional Functions -> Internet -> Generate URL*

You use these functions to process the query you have selected.

- o In the InfoSet Query:
 - *Goto -> Internet -> Release template for Web*
 - *Goto -> Internet -> Cancel Release*
 - *Goto -> Internet -> Generate URL for template*

You use these functions to edit the query that you have chosen to use as a template.

A log is kept on all the activities of the release program. The program has its own documentation that you can display on various selection screens when you choose *Program Documentation*. Refer to this documentation for a more detailed description of the release program.

Global settings

Under *Settings -> Global Settings* in the initial screen of transaction SQ02 for maintaining InfoSets, you can make settings that are applied to the entire system. These include:

- o *do not use live data in the InfoSet Query and in the query painter*
In the InfoSet Query and in the query painter, a preview is displayed showing how the report that you have just constructed will look. If the InfoSet has been created using database tables, and the user is authorized to read these database tables, a few example records are read from the database and used in the preview.
Using the option mentioned above, you are able to deactivate this process. If you do deactivate the process, example data generated by the InfoSet Query or the query painter is used in the preview.
- o *always use the old report structure*
This option is described above (New Structure for Query Reports).
- o *do not use parameter IDs in selection screens*
This option is described above (Parameter IDs for Selections).

Special copy functions

Under *Goto -> Additional Functions -> Copy Functions* in the initial screen in transaction SQ02 for maintaining InfoSets, you can call a program with special copy functions for queries, InfoSets, and user groups. This program allows you to do the following:

- o Copy a complete user group including the InfoSets that are used in the user group (*Copy User Group with InfoSets and Queries*).
All the InfoSets that are used in queries in the user group that you want to copy, are copied under new names and assigned to the new user group. The names of the new InfoSets are determined by a prefix. All the queries are copied, and each of the copied queries refers to the copy of the InfoSet it belongs to. If an InfoSet that has been named according to these naming conventions exists already, this InfoSet is not included in the copying process.
You can use this function to create a user group completely autonomously, that is, without referencing existing objects. This means that is easy to copy objects delivered by SAP in such a way that they no longer reference the original delivered objects.
- o Copy an InfoSet including all the queries assigned to it (*Copy InfoSet with Queries*)
This function copies an InfoSet. All the queries that use this InfoSet are also copied. The copied queries refer to the copied InfoSet. The copied queries are stored under new names in the same user group as the original queries. The names of the copied queries are determined using a prefix. If a query that has been named according to these naming conventions exists already, this query is not included in the copying process.

You can restrict the number of user groups, in which you want queries to be handled in this way.

- o Copy a query, but change the InfoSet (***Copy Query with Changed InfoSet***). This function allows you to copy an single query, and have the copy refer to a different InfoSet than the original query refers to. Prerequisite for this function is that both InfoSets must work with the same database, and have the same fields as there are in the copied query.

All operations involved in the copying process are displayed in a list. The program has its own documentation that you can display on various selection screens when you choose ***Program Documentation***. Refer to this documentation for a more detailed description of the copying program.

Programming interface

From Release 6.10 a programming interface (API) is available which you can use to create, maintain, and manage InfoSets and queries. This API is particularly useful for generating InfoSets and queries from internal or external tools or programs. You are also able to use the API to call several queries, each in a different session. The majority of the API function modules are remote-enabled.

The API operates only with InfoSets and queries. It no longer recognizes user groups. New names containing thirty characters are therefore generated to be used by the API for InfoSets and queries. Using certain conventions, the names of the InfoSets and queries that have not been generated by the API can be mapped uniquely into the new namespace.

Internally, the InfoSets and queries that have been generated using the API can be mapped onto objects, just as they can be generated using the maintenance tools for InfoSets and queries. Names for each of these internal objects are taken from the locked namespaces.

Since the API has been designed only as a tool for generating InfoSets and queries and to be used in conjunction with other tools, there is a range of functions you would usually find in a maintenance tool, but that are not supported in this case. For example, there is no locking mechanism, no authorization check, and no connection to the Workbench Organizer. All generated InfoSets and queries are temporary objects. If a tool uses the API, this tool must provide the lock function, authorizations checks, and the corresponding transport objects. The API makes sure that a corresponding InfoSet or query is available in every system.

The API is structured into the following functional groups:

- o IQAPI CATALOG catalog functions
- o IQAPI INFOSET InfoSet maintenance
- o IQAPI QUERY Query maintenance
- o IQAPI QUERY CALL Query calls

There is a whole range of function modules belonging to each function group. These function modules are described in the corresponding documentation for the function module. There are also a number of programs (IQAPI_DEMO_ . . .) demonstrating how the API is used.

The API provides a number of new ways to call queries. Some of these can be used only with queries for which a report with a new structure can be generated. You can use the API to call any query, regardless of whether it has been created using the API or the available tools.

Every report can be divided into the following steps; *determining selections*, *extracting data*, and *displaying data*. The API allows you to carry out each of these steps separately and at different times. The data extraction step, for example, can be carried out on its own, so that the query becomes a generic data retrieval tool. The data extraction can also be triggered remotely.

The most important API options for calling queries are:

- o Separate steps for determining selections, extracting data, and displaying data, as well as any meaningful combinations of any of the steps
- o Sending the selection screen (determining selections) as a full screen or a dialog box
- o Extracting data in packet mode
- o Different formats for transferring read data
- o Displaying data as a full screen or a dialog box or ALV grid, where the API user has to provide the handle.
This last option allows you to display a query result embedded in a different environment.

2.3.7 BC-SRV-SSF SAP Smart Forms

2.3.7.1 Enhancements for Classical Form Printing and Web Forms

Use

Apart from the functional enhancements described below, the runtime behavior of the generated function module that calls a form has been optimized.

Enhancements for Classical Form Printing

Usability Improvements

- o Up to now the cell contents in tables was assigned using input fields on the *Output Options* tab. For a better overview of the output in a table, a new table node is now introduced that replaces the old one (you can still edit table nodes of the old table type, but not create them). The new tables have the following advantages:
 - The new table node always has the three inferior nodes Header, Main Area and Footer, whose tabs you can use to determine the output event.
 - Under the new table node, you can insert inferior line nodes. After assigning a line type to the line node, SAP Smart Forms automatically inserts the correct number of cell nodes as inferior nodes of the line node. Thus, you can directly see in the navigation tree, which contents is displayed where.
 - You can specify boxes and shading for any lines of the table.
 - The *Calculations* tab simplifies the operations Total, Average Value, and Number, which up to now were available only in the program lines node.
- o Enhancements of the Table Painter:
 - Keyboard support for: Select All, F1 Help
 - Navigation by double-click from a cell in the Table Painter to the first node you use to fill contents into the cell
 - You can set boxes and shading individually for each line type in the Table Painter. Boxes and shadings are directly visible in the Table Painter. You can set the boxes separately for each cell

border. Other functions are outer and inner frame.

- Up to now the presentation of the table patterns in the Table Painter did not correspond to the presentation in the output, if the line types had different sequences in the Table Painter and in the output. Since boxes and shadings are now connected to the line type, a line type that, for example, is displayed in the Table Painter with a bottom border line, will have this line in the output as well. The table patterns still serve as templates; that is, if you select a pattern, SAP Smart Forms assigns the corresponding box attributes to each line type.
- o Keyboard Use in the Form Painter:
 - Arrow keys for exact positioning of output areas
 - Delete, Cut, Copy, Paste
 - F1 Help
- o The settings for boxes and shading have been enhanced not only for the table node but also for any other nodes that contain output. In the Output Options, you can now specify the box individually for each page of the output node. You can preview the spacing and the line width.
- o You can now test forms that have not yet been activated.

New Window Types

- o You use the copies window to define an output area for print output, whose contents you want to appear either only on the copy or only on the original. This allows you to identify copies as copies by printing the corresponding output in the form.
- o You use the final window to query or display values on any page that are determined only after form processing (for example, the grand total of an invoice). You can also use a support package in Release 4.6C or 4.6D to deploy final windows (see Notes 359009 and 390313 in SAPnet), however, you cannot use them directly on the user interface.

New System Fields

- o SFSY-XSF: Allows you to query whether to output the form in XSF format
- o SFSY-COPYCOUNT/SFSY-COPYCOUNT0: Allow you to query whether the original is printed or which number this copy has
- o SFSY-SUBRC: Allows you to query whether an include text or a text module has been included successfully
- o SFSY-USERNAME: Logon name of the user who prints the form

Other Enhancements in the Form Builder

- o You can undo the previous actions in the navigation tree, provided you did not save the form in the meantime. And you can redo the undone action(s).
- o You can download the entire form or subtrees of it to your PC as an XML file and upload it again at a later time (even into other forms).
- o You can insert text modules in different languages into one form.

Enhancements of the XSF Interface and Interactive Web Forms

Enhancements of the XSF Interface

The XSF interface has been enhanced by output formats for formatting (see below). The most important enhancements are:

- o iXML is now used to construct XML. At the interface XML returns a pointer to a DOM representation of the XSF output
- o In addition to XSF output you can now create HTML, which allows you to display a form in the web browser (see below)
- o Up to now, XSF output used the table XSFDATA of the SSFCRESCL structure. Now, all output related to the XSF interface is encapsulated in the new SSFXMLOUT structure.

In addition, you can control within the form description of nodes, whether or not to include it with output in XSF format.

Interactive Web Forms

Up to now the XSF output consisted of an XML output as an interface (BC-XSF) to make form contents without any layout information available for external tools.

As of Release 6.10 you can create HTML output in addition to XSF output and display it in the browser. With the output in HTML format come the following output formats you can access:

- o XSF output
- o A CSS stylesheet (CSS: Cascading StyleSheets)

Smart Forms uses an XSLT program to transform XSF output to HTML. For the display you only need the HTML output into which the CSS stylesheet is automatically embedded. Smart Forms passes these output formats at the form interface as tables. This enables you to:

- o Develop web forms whose layout and formatting correspond to their printed versions. You will usually base a web form on a form you use for printing. To use the same form for printing as well as in the web, you can use a system field in the condition section of a node (see above).
- o Flag fields within the form description as input fields to allow the user of the web form to change and enhance data. As input types of such fields, a subset of the input fields of HTML forms is available.
- o Query the data the user entered on the web form and process it further.
- o Integrate the web forms created with Smart Forms into Internet applications. For example, you can integrate web forms into BSP applications.

XML Data for Forms

As a new output format XDF (XML Data for Forms) is available. When you use this format, no form processing is triggered, but the data passed at the form interface is converted to XML and included into a spool request. The parameters are filled with the ABAP Dictionary type and with a time stamp of the last activation.

2.4 BC-CCM Computing Center Management System

2.4.1 BC-CCM-ADK Archive Development Kit

2.4.1.1 New Developments and Changes in Data Archiving Technology (Enhanced)

Use

From SAP Web Application Server (SAP Web AS) 6.10, the Archive Development Kit (ADK) offers the following new developments and enhancements.

Functional Enhancements and Optimization of the ADK

Unicode-enabled ADK-API and the ADK runtime environment ensure long-term data access for all application-specific data archiving solutions. If you are working in a Unicode environment, archive files do not have to be converted.

The ADK was also modified to accommodate enhancements to the ABAP Dictionary. Consequently, for example, you can now archive tables that contain data types STRING or XSTRING. Improvements in performance have led, in particular, to faster multiple access to single documents - a typical scenario in the SAP Archiving Information System (SAP AS).

Development support of archiving solutions has been enhanced. Structures and tables that are not known until runtime can be dynamically registered using function module ARCHIVE_REGISTER_STRUCTURES. When reading archived data, the function module ARCHIVE_GET_STRUCTURES determines the structures registered by the archiving object. Function modules ARCHIVE_PUT_INIT_DATA, ARCHIVE_GET_INIT_STRUCTURES and ARCHIVE_GET_INIT_DATA enable the initialization data to be transferred and retrieved later. RSARCH_CREATE_TESTOBJECT demonstrates the simplified generation of archiving objects.

New Statistics Analyses

During the write and delete phases, space, number, and time information is automatically collected and persistently stored in the database. This statistical information can be comprehensively analyzed and processed using the *Statistics* function in Archive Administration. The statistical data helps the administrator to track the benefits of data archiving, plan future archiving projects and to identify resource bottlenecks well in advance.

Archiving object BC_ARCHIVE was enhanced so that statistical information is archived with archiving sessions.

Interruption and Continuation of the Write Phase

You can now develop or adapt archiving objects so that archiving sessions can be interrupted temporarily if they exceed a specified length of time, or if they exceed a specified space limit.

You can now interrupt an archiving session before it has completed (for example, because there is only limited time available for maintenance), and continue it at a more appropriate time.

You can call these functions from the initial screen of the Archive Administration. Choose **Goto -> Interrupt** or **Continue**.

Further Automation of the Delete Phase

In addition to the scheduling program for delete jobs, RSARCHD, SAP Web AS 6.10 offers a further option for running delete jobs outside Archive Administration. You can schedule each delete program to run periodically, so that it automatically and continuously processes the oldest file with the status *Write Completed* for the relevant archiving object.

Remote-Enabled Administration Functions

The new RFC-enabled function module XDA_SCHEDULE_JOB enables you to schedule all data archiving job types.

Function module XDA_INTERRUPT_JOB enables you to interrupt jobs explicitly and XDA_CONTINUE_JOB enables you to continue interrupted jobs.

Incompatibility

Function module ARCHIVE_ADMIN_CHECK_FILE does not recognize any archive files that were created in or after SAP Web AS 6.10. For this reason, this function module has been marked as obsolete. It has been replaced by ARCHIVE_ADMIN_GET_FILE_INFO.

Conversion programs that use ARCHIVE_OPEN_FOR_CONVERSION can only process one archiving session at a time.

Restricting archive selection to one specific archive file when reloading archived data back into the database was a function that was only for ADK internal use and is now obsolete. Using the parameter ARCHIVE_NAME in the function module ARCHIVE_OPEN_FOR_MOVE triggers an error message.

Unless deactivated by the user, ADK function modules ARCHIVE_GET_FIRST_RECORD, ARCHIVE_GET_NEXT_RECORD, ARCHIVE_GET_NEXT_STRUCT_SPECIF, ARCHIVE_GET_TABLE, and ARCHIVE_GET_WITH_CURSOR modify the archived data that they read to reflect the latest formats regarding code page, number format, and structure. If, from SAP Web AS 6.10, the user does not want the function modules to convert the data to the most recent format, archived data is returned in a variable of type XSTRING. This data can then be further processed using ABAP statement IMPORT FROM DATA BUFFER. Each of the function modules listed above has the parameter AUTOMATIC_CONVERSION for controlling the way in which the data is modified.

Write and delete programs can no longer be generated with the function modules ARCHIVE_DEFINE_PROGRAM_EVENTS and ARCHIVE_GENERATE_PROGRAM.

Effects on Customizing

Server selection in archive object-specific Customizing is no longer supported and any old settings are ignored. Instead, in SAP Web AS 6.10, the new concept of background servers can be used in cross-archiving object Customizing.

In cross-archiving object specific Customizing,

in addition to entering a server group, you can also make settings for implicit interruptions.

From SAP Web AS 6.10, ADK always creates verifiable files. The former checkbox for activating and deactivating this function has been removed.

2.5 BC-UPG Upgrade - General

2.5.1 System Switch Upgrade

Use

The new System Switch Upgrade installs an instance of the target release, the shadow system, in parallel with the current source release system in the same database. This parallel system contains all the software of the target release and is used to integrate Support Packages that are included in the upgrade, add-ons, and customer modifications into the target release.

In the production database, the tables of the target release that contain both the descriptions of the ABAP Dictionary (DDIC) and the ABAP programs are imported as shadow tables under an alternative name. The shadow system enables you to access these tables. Depending on the upgrade strategy you choose, you can perform upgrade actions before downtime starts, that previously had to be performed during downtime. During the EU_SWITCH phase in downtime, the switch is made to the new system, and any remaining data is imported. Any parts of the source release system that are no longer needed are deleted.

You can choose between two upgrade strategies in the System Switch Upgrade. The downtime-minimized strategy enables you to run the production system and shadow system in parallel. This requires extra system resources, but reduces downtime. The resource-minimized strategy only enables you to run either the production system or the shadow system. This strategy requires no extra system resources, however the downtime is longer, since you can only run the shadow instance during downtime.

Advantages

The new System Switch Upgrade offers you several advantages. Depending on the upgrade strategy you choose, you can now perform some activities during production operation, that were previously only possible during downtime, such as adjusting modifications to DDIC objects, and activating and distributing these objects. The duration of the entire upgrade process may increase somewhat, however, downtime is reduced considerably. Both upgrade strategies remove some of the restrictions of the old procedure, and are more stable. The System Switch Upgrade procedure enables the following:

- o If you choose the downtime-minimized strategy
 - you can perform the modification adjustment of the DDIC objects during production operation
All version management functions are available in the shadow system, which enables the modification adjustment of the DDIC objects. You can create your own final version of the objects, or return to the standard SAP version.
 - you can activate and distribute DDIC objects during production operation
You need to activate all DDIC objects (including their dependent objects) that Support Packages modify in the delivered release, as well as objects that are modified or created by the customer. Where a large number of included Support Packages or add-ons are concerned, or where systems have been modified greatly, this procedure may take several hours. After the activation, the distribution program calculates how to achieve the transition from the source release structure of a database object to the target release structure.
Since both procedures can be executed during production operation, downtime during the upgrade is largely independent of the number of Support Packages and add-ons included in the upgrade.
 - you can use ICNV specifically

You can also increase the number of candidates for incremental table conversion (ICNV), since the amount and target structure can be calculated at the customer site. The ICNV can therefore be used for tables modified by customer, add-ons, and Support Packages. The number of tables, together with their structure, is limited at present to a fixed, delivered release.

This improvement is particularly noticeable in the shorter downtime for upgrades that include one or more add-ons.

- Less influence of the included Support Packages on downtime
Importing Support Package data and activating objects during production operation makes some of the upgrade phases in downtime considerably shorter. Some phases do not run at all. This mainly affects the phases DDIC_REL, ACT_REL, PCON_UPG and TABIM_UPG.
- o In either of the upgrade strategies
 - you can use target release tools for the upgrade
To upgrade from the source release structure to the target release, structure, activation and distribution actions need to be specified and executed. This is now done by tools in the target release. This removes restrictions caused by using source release tools.
 - You can use an extended shadow import
The shadow system is used to calculate the target release state of a table before downtime starts. Because the shadow tables are created in their final structure during production operation, the amount of tables into which data can be imported in advance can be increased. Until now, this was only possible for new tables and substituted tables.

Changes to the Procedure

In the System Switch Upgrade, the PREPARE and R3up programs perform some new actions. There are also some changes to the manual actions required when preparing the upgrade and upgrading the system.

- o Planning the upgrade with the downtime-minimized upgrade strategy
Some actions are now performed during production operation of the system with the source release. This means that you need to prepare for and start the upgrade earlier than before. The duration of these actions depends on the system, and the number of included Support Packages, and no fixed times can be given here. This applies to actions such as
 - the modification adjustment, whose duration depends on the number of modifications
 - the activation, which operates with a lower number of processes during production operation, and whose duration depends on the number of modifications, as well as the included Support Packages and add-ons
 - the shadow import, whose duration also depends on the number of included Support Packages
- o Increased space and resource requirements
Operating two instances in parallel places increased demands on free space in the file system, in the database, and, according to the upgrade strategy, on the system resources. If necessary, some parameters in the production system might need to be adjusted to enable you to operate the production and the shadow systems in parallel.
- o New free space check
The PREPARE program also checks the free space needed for tables created in the shadow system.
- o Creating the shadow system
The PREPARE program has a new *Installation module*, which is used to prepare for the shadow instance. PREPARE first creates profiles, directories, programs and files needed by the shadow

instance, as well as an extra database user. All tables of the SAP Web Application Server are needed as shadow tables to operate the shadow system. As well as all substitution tables that have already been imported, and the newly created tables, the R3up program also creates all remaining SAP Web Application Server tables and fills them.

Once all the required tables are in the shadow system, aliases, synonyms or views are created for them. DDIC source code is then copied to the shadow system, and the source code of the requests included in the upgrade are imported. Additional table contents are copied into the shadow system to enable adjustment, activation and distribution functions in the shadow system.

- o **Table conversion**
All tables of the SAP Web Application Server whose contents need to be copied from the shadow system, can be copied to the target release structure during production operation in the shadow system. Even the tables into which control data is imported in the shadow system exist and only need to be renamed. The tables that need to be converted are those for which the original versions of the SAP Web Application Server will continue to be used. These tables can be converted during production operation by being copied to the shadow system, or converted externally.
External conversion no longer needs the ABAP conversion program of the source release, which means that the activation and conversion of the SAP Web Application Server only uses target release tools. This removes the restrictions of the current procedure, such as no modifications to the SAP Web Application Server in Support Packages and add-ons.
As before, the application tables are converted during downtime in the PCON_UPG phase. They can only be distributed during production operation.
- o **Operating the shadow system**
You can now use the shadow system to perform the modification adjustment, and to activate and distribute the requests included in the upgrade. After you have operated the shadow system, you have a consistent inactive nametab with the descriptions of the table structures of the target release, including Support Packages and add-ons.
While it is running, the shadow system writes to a number of tables whose contents are required for the remainder of the upgrade, and for operating the system afterwards. These tables are renamed with their original names in the EU_SWITCH phase.
- o **After operating the shadow system**
Any tables that also receive entries are created as copies with new formats in the shadow system. The upgrade then performs the shadow import. Modifications to the contents of the original tables are indicated by triggers. These tables must be copied and imported again during downtime. After R3up has converted the data and made all preparations, the EU_SWITCH phase completes the switch to the new system during downtime. All tables prepared in the shadow system are copied to the target release. Finally, all views for the SAP Web Application Server are created.

Constraints

You cannot do the following in the shadow system:

- o Activate or convert tables online
- o Import transports that modify DDIC objects
- o Execute transactions not included in the SAP
- o Access the contents of tables not included in the SAP Web Application Server

See also

For more information on the System Switch Upgrade, see the upgrade documentation.

2.5.2 BC-UPG-NA SAP Note Assistant

2.5.2.1 Note Assistant (New)

Use

As of Release 6.10, the Note Assistant is part of the standard SAP System.

The Note Assistant provides the following functions:

- o Error correction
You can automatically implement source code corrections (correction instructions) that are contained in SAP Notes.
- o Reporting
You see an overview of the SAP Notes that are available, including their processing status, and an overview of all the source code corrections that have been implemented.
- o Integration
When you import Support Packages, the system recognizes which SAP Notes have already been implemented with a Support Package or an upgrade, and which correction instructions have to be implemented again.
- o Modification support
If you make your own modifications to source code, you can adjust the correction instructions to your modifications.

Effects on Existing Data

Note: You only need to take note of the following instructions if you have not already installed the Note Assistant as an add-on to a release lower than 6.10.

- o If you want to use an RFC to download SAP Notes, you have to create an RFC connection.
- o You have to announce the software components and their release data to the system. To do this, call the Note Assistant (transaction SNOTE) and choose "Extras -> Get Release Data".
- o If you have already implemented corrections from SAP Notes in your SAP System before you installed the Note Assistant, you have to announce this to the Note Assistant. To register the manually implemented SAP Notes, execute the SCWN_REGISTER_NOTES report in the ABAP editor (transaction SE38).

See also in the Note Assistant (transaction SNOTE): Help -> Application Help.

Effects on System Administration

For information about authorization for implementing SAP Notes, see the Application Help in the Note Assistant.

2.5.3 BC-UPG-OCS Online Correction Support (Support Packages)

2.5.3.1 Support Package Manager (Enhanced)

Use

As of Release 6.10 the Support Package Manager contains an improved import procedure: the inactive import of report sources and texts. The inactive import of objects and data can reduce downtime considerably when you import Support Packages. This procedure is particularly suitable for production systems.

In certain situations (for example, if you import objects into development, test, or QA systems), it may be better to use the original import procedure. For more information, see the documentation in the Support Package Manager (transaction SPAM): Help -> Application Help.

2.6 BC-CTS Change & Transport System

2.6.1 BC-CTS-LAN Language Transport

2.6.1.1 Language Transport with Change and Transport System Tools

Use

The language transport function was changed completely in Basis Release 4.6C. Languages are now transported with the SAP transport program `R3trans`. `R3trans` works with the transport control program `tp` to export objects from a source system in a transport request, and then to import this request into one or more target systems. The switch to using the tools of the Change and Transport System means that you can record translations in transport requests, and also use transport requests to transport a complete language. One major new feature is the link between the translation environment (transaction SE63) and the Change and Transport System. This means that translation work can be saved in transport requests in the same way as development work, and then distributed in the system landscape.

The language transport switch reduces the downtime when importing languages during the upgrade significantly.

See also

For more information on language transports, see the SAP Library under *Basis Components* -> *Change and Transport System (BC-CTS)* -> *Language Transport (BC-CTS-LAN)*. For more information on transport programs, see *Transport Tools (BC-CTS-TLS)*.

2.7 BC-DWB ABAP Workbench

2.7.1 SAP Flight: Application Integration Demo Scenario (Extended)

Use

Flight Data Model

The flight data model was previously used in SAP training courses to explain SAP technology in simple, easy to understand applications.

DDIC objects (tables with flight data, booking data, customer data, related data elements), and a range of business objects, were used to develop simple demo applications that reflect processes in a flight booking environment.

New Features in Release 6.10

Release 6.10 includes a demo scenario, in which a web application for booking flight trips can be linked to a booking system (which contains travel agency and airline functions). The scenario is implemented on the travel agency/airline booking system side. The web application is not a part of the delivery and can be implemented from the other side. The scenario is documented as a template.

The demo scenario can be used to explain the most important technology offered by SAP in the Application Integration environment. The following enhancements and new developments were made:

- o The flight data model was extended with additional DDIC objects (tables, table fields, data elements).
- o New business objects and BAPI methods were created, and existing objects and methods revised. The BAPIs in Release 6.10 now meet current standards.

Using the Demo Scenarios

You can use the demo scenarios to implement simple example applications that can be used for training and rollout in the Application Integration area.

The Release 6.10 demo scenario is suitable for explaining the following technologies and concepts:

- o SAP concepts and standards for developing interfaces (BAPI concept)
 - Concept of business objects as fundamental entities for representing business processes
 - Context: BAPI function module in the Function Builder, BAPI method in the BOR
 - BAPI structures, on which BAPI parameters are based
 - Naming conventions for BAPI parameters and fields in BAPI structures
 - Value helps (search helps/check tables) for fields in BAPI structures
 - Handling ISO codes
 - Documentation guidelines for BAPI function modules, parameters and business objects
 - Authorization concept for BAPI function modules
 - BAPI Explorer as a central development and navigation tool for BAPIs
- o ALE concept

- Asynchronous communication
- Generating ALE interfaces
- o Development and documentation of integration scenarios
 - Documentation (according to the template for documenting integration scenarios)
- o SAP Interface Repository
 - Interface Repository as central storage point for all BAPI interfaces in XML format

The demo scenario also allows you to realize other applications using the following SAP technologies and concepts:

- o Linking to the SAP Business Connector
- o Internet applications
- o Linking to the SAP DCOM Connector and SAP Java Connector

Delivered Development Objects

The following business objects and BAPIs are delivered in Release 6.10:

- o Business object *Flight*
 - Method *Flight.GetList* - Get list of flights
 - Method *Flight.GetDetail* - Get details of a flight
 - Method *Flight.CheckAvailability* - Check availability of a flight
 - Method *Flight.SaveReplica* - Save replicated flight data
- o Business object *FlightConnection*
 - Method *FlightConnection.GetList* - Get list of flight connections
 - Method *FlightConnection.GetDetail* - Get details of a flight connection
- o Business object *FlightBooking*
 - Method *FlightBooking.GetList* - Get list of flight bookings
 - Method *FlightBooking.CreateFromData* - Create flight booking
 - Method *FlightBooking.Cancel* - Cancel flight booking
 - Method *FlightBooking.Confirm* - Confirm flight booking
- o Business object *FlightTrip*
 - Method *FlightTrip.GetList* - Get list of flight trips
 - Method *FlightTrip.Create* - Create flight trip
- o Business object *FlightCustomer*
 - Method *FlightCustomer.CreateFromData* - Create new customer
 - Method *FlightCustomer.EnableWebUse* - Create Internet user for a customer
 - Method *FlightCustomer.CheckPassword* - Check Internet password

- Method *FlightCustomer.ChangePassword* - Change Internet password

2.7.2 BC-DWB-DIC ABAP Dictionary

2.7.2.1 Matchcodes in Non-Unicode Systems

Use

Search helps replaced matchcodes in Release 4.0. Until now, matchcodes could still be used in non-Unicode systems, but this is no longer possible from Release 6.10 onwards.

2.7.2.2 Reference Types in the ABAP Dictionary

Use

A reference type is used to assign a type to a reference variable. You can use reference types either in local ABAP definitions or in global type definitions in the ABAP Dictionary. From Release 4.6A onwards, you can define a reference type in the ABAP Dictionary by specifying an existing class, an interface, or using a generic reference to objects (REF TO OBJECT) or data (REF TO DATA).

From Release 6.10, the definition of reference types in the ABAP Dictionary has been enhanced - you now have the following additional options:

- o Reference to a type defined in the Dictionary
- o Reference to a predefined Dictionary type, specifying the length, along with the number of decimal places where appropriate
- o Reference to the completely generic type ANY. References of this type can point either to objects or to data.

In the ABAP Dictionary, you can define reference types in data elements, components of structures, and as the line type of a table type. You cannot use reference types in database tables.

Maintenance:

Data elements and table types: On the *Data Element Maintenance* or *Table Type Maintenance* screen, choose the *Reference Type* radio button. If you choose *Reference To*, enter (as the Referenced Type) a reference to a class or interface; a generic reference to ANY or DATA; or a reference to a type defined in the Dictionary. If the reference type is a predefined Dictionary type, choose *Reference to Predefined Type*. Enter the number of characters, and if necessary the number of decimal places.

Components of a structure: In the *Component Type* field, enter the appropriate reference type. To create a generic reference, enter ANY or DATA in this field.

2.7.2.3 New Data Type: SSTRING

Use

A new data type, SSTRING, has been introduced to the ABAP Dictionary. The data type string corresponds to a short string of variable length. You can specify the number of characters (1-255) for this type in the Dictionary. You can use STRING fields in indexes and in the WHERE condition of SELECT statements, but not in table keys. In ABAP, the Dictionary type SSTRING is mapped to the ABAP type STRING, which is implemented as a reference to a memory area of variable size.

2.7.3 BC-DWB-CEX Customer Enhancements

2.7.3.1 Migrating Customer Exits

Use

Until now, enhancements to the SAP Standard System were made using customer exits, in the transactions SMOD and CMOD. Since Release 4.6A, SAP has offered a new enhancement technique, Business Add-Ins. One advantage of this enhancement technique is that it caters for a multi-level system infrastructure (SAP, country versions, IBSs, partners, customers, and so on) - rather than the two-level infrastructure offered by customer exits. Definitions and implementations of Business Add-Ins can be created at every level in the system infrastructure.

To unify enhancements to the SAP standard, you can migrate previously created customer exits to Business Add-Ins. If you migrate customer exits using the SAP transaction SMOD, the customer enhancement projects associated with the customer exits must be migrated to Business Add-In implementations, to guarantee that the enhancement continues to function. The customer can make this adjustment after upgrade by choosing a button in the transaction SPAU.

Previously, you could create program and menu enhancements for Business Add-Ins. You can now also create screen enhancements.

2.8 BC-DOC Documentation and Translation Tools

2.8.1 Release Notes Display (Enhanced)

Use

From Release 6.10 the Release Notes display does not distinguish between R/3 and New Dimensions. You display Release Notes in the *Help Release Notes* menu. When you generate a new Release Notes list you only need to specify the my SAP.com components under *mySAP Components* in the dialog screen. The distinction between R/3 and New Dimensions is no longer necessary so the dialog screen is simpler.

2.9 BC-BMT Business Management

2.9.1 BC-BMT-WFM SAP Business Workflow

2.9.1.1 WebFlow (extended)

Use

You can use WebFlow rules in a web activity to independently establish the following parts of the execution:

- o Determining the URL
- o Formatting the XML document
- o Authentication of outbound XML document
- o Authentication of outbound XML reply document
- o Definition of an independent send process

You define WebFlow rules with the same functions with which you also define the rules for agent determination.

You can also define a user through which the logon to an inbound XML reply document must take place.

The WebFlow supports the SAP Web Application Server.

2.9.1.2 Conditions for starting and ending a work item execution (new)

Use

You can define conditions for the following step types to influence the execution and exit of the work item:

- o Activity
- o Web activity
- o Form
- o User decision
- o Document from template

You can enter both a condition, with which you define the start of the execution, and also a condition, with which you can cancel the execution of the work item. The conditions are checked by a periodical background job, which can be scheduled in automatic Customizing.

2.9.1.3 Reaction of a workflow to events (new)

Use

You can define events in the basic data of a workflow in the Workflow Builder, to which the workflow should react during its entire runtime. The *Events* tab page is also available in the version-dependent basic data.

You can define the following actions as a reaction to the occurrence of an event.

- o The execution of the workflow is canceled
- o The execution of the workflow is canceled and the workflow is restarted with the current data of the import element of the workflow container
- o The conditions for the work items are checked immediately
- o The recipients of all work items of the workflow are determined again, and if necessary the rules involved are evaluated again

2.9.1.4 Review Workflow (new)

Use

You can define a review workflow to be used to create attachments to the workflow to be monitored. The method EXECUTE of the business object type REVIEW is available for this purpose.

The review workflow is an independent workflow that is assigned to another workflow in its basic data as a review workflow. When the workflow to be monitored is executed, the review workflow can be started in its graphical workflow log. The user who is to perform the review can then create attachments in the workflow to be monitored.

2.9.1.5 Automatic Customizing Revised

Use

Automatic Customizing has been revised. It covers all the activities required to use SAP Business Workflow. Only when all activities are marked as successfully processed, is it possible to work with SAP Business Workflow without errors.

Effects on System Administration

Users that execute automatic Customizing must have authorization to create users and to schedule background jobs.

2.9.1.6 Ad hoc workflow (enhanced)

Use

The new step type *workflow anchor* is available.

During the definition of a step of this type, enter one or several workflows which can be accepted in the

workflow in place of this step.

At runtime, an authorized user can replace the step of type *workflow anchor* in the graphical workflow log with one of the added workflows. The runtime version of the workflow is automatically supplemented and the enhanced workflow is executed in the further execution.

2.9.1.7 Workflow Wizard Explorer (deleted)

Use

Execution of the Workflow Wizard Explorer as an independent function has been deleted.

Execution of the individual Workflow Wizards is possible in the Workflow Builder. Here there is the *Workflow Wizards* area, which contains all Workflow Wizards of the Workflow Wizard Explorer and all Workflow Wizards accessed by choosing *Wizards* in Workflow Builder.

2.9.1.8 Workflow start transactions (deleted)

Use

It is no longer possible to create workflow start transactions in the Workflow Builder. In future, you should use workflow start forms.

Effects on Existing Data

Existing workflow start transactions must be post processed. For more information, see SAPNet Note 0394510.

2.9.1.9 Workflow Wizard: Include "Execute SAPforms Form" (deleted)

Use

The Workflow Wizard has been deleted.

Workflows created with this Workflow Wizard are not affected by this.

2.9.1.10 "Test Method" transaction (deleted)

Use

The *Test Method* (SWUH) transaction has been deleted. The function made available in this transaction is available in the *Business Object Builder* (SWO1).

2.9.1.11 Workflow Builder (changed)

Use

The following functions of the Workflow Builder were changed or enhanced:

- o The alphanumeric Workflow Editor is integrated in the Workflow Builder as a modeling view. This modeling view is automatically used if the workflow is called with a SAP GUI in which the graphical modeling view cannot be displayed.
- o Entry and change data is recorded for the relevant step definition for all steps of a workflow.
- o In the object area, there are new individual areas available that can be added for *Workflow Wizards*, *Teamworking* and *workflows of this definition*.
- o There is an information area available in the top left part of the Workflow Builder that displays the *Workflow ID*, *version number* and the *status* of the workflow that is currently displayed. To edit a different version of the workflow or another workflow, you can select this directly in the information area.
- o The display of the basic data has been revised and enhanced. The work item text and description of the workflow can be directly edited.
- o The work item text of an activity is displayed on the *work item display* of the step definition. You can directly create an initial value when defining a container element of the workflow container from the *workflow container* area.
- o If you want to navigate from the step definition to the definition of an added task, the task container is displayed on a separate tab page.
- o All running and completed workflows for this definition are displayed in this area. All the functions of the workflow outbox are available.
- o The Workflow Builder and the tasks support ABAP classes.
- o You can set which step types are offered in the step type area for the modeling.
- o In the basic data, you can define ABAP classes that are executed at the start and end of the workflow execution.
- o You can assign a grouping name for all steps of a workflow. In the *Teamworking* area, you can search for the steps of a workflow that have specific grouping names and/or specific change dates and entry dates.

2.9.1.12 Locking properties in workflow execution (changed)

Use

You can define the locking properties in the basic data of a workflow in the Workflow Builder. The properties up until now are guaranteed by the *workflow is locked and unlocked for the work item execution* setting.

The *Workflow is locked when started and unlocked at end* setting offers better performance. You should not

use this setting if the workflow contains a parallel section.

All set locks can be determined using the display and delete lock function (transaction SM12).

2.9.1.13 Use of containers (changed)

Use

The container data is saved in XML tables. This new container can also process nested structures, non-character structures and ABAP object references. When you create new workflows, they work with this new container as standard.

The new container offers better performance when executing the workflow.

Use the revised container editor in all functions where you edit or define container elements. Standard elements are available for the definition of container elements. Use the revised container instance editor to edit a container instance. The display of container definitions and container instances is standardized.

Effects on Existing Data

The compatibility mode applies for all existing workflows as standard. The data is saved here in the usual container tables. You have to change this setting in the basic data of a workflow to *XML Persistence* to benefit from the advantages of the new container.

You should only retain the structure persistence (compatibility mode) if you have developed your own programs that build on the existing tables (reporting). You have to convert your application to the new interfaces provided.

2.9.1.14 Test workflow (enhanced)

Use

Input data and date data can now be entered on a separate tab page for a workflow or task execution. Use the revised container editor to specify the input data. You can save the data entered for further tests.

If the workflow needs an ad hoc agent assignment, a separate tab page is available for its entry.

All workflows or tasks of this definition started by you in a freely definable time period are displayed on the *Outbox* tab page. All of the workflow outbox entries are available for these entries.

You can call the workflow definition or task definition directly from the toolbar.

When starting, you can also activate the workflow trace directly, or set a debug indicator so that the background steps can be debugged.

See also

For more information, see the release information *Use of containers (changed)*.

2.9.1.15 Background job of workflow runtime (extended)

Use

The background job for clearing work in the workflow system deletes all job logs that are subsequently listed in background jobs in the workflow system. These background jobs can now also all be executed once:

- o Work item - deadline monitoring
- o Work item - error monitoring
- o Work item - rule monitoring
- o Workflow - clearing work

If execution takes place once, the scheduling of the background job is not changed.

Effects on Existing Data

The data of the background job for work item error monitoring was reset to the following standard values when the release was changed:

Interval until next repeat:	20 min
Repeat counter for work items containing errors:	3

2.9.1.16 Start of work item execution (changed)

Use

To execute several work items together, you have to select them in the workflow inbox and choose *Execute*. The *execute together* function is no longer available.

For work items to be executed together, the fundamental methods must meet specific prerequisites. The result of the first execution is only transferred to the remaining work items for work items that meet these prerequisites. All remaining work items are executed individually one after the other.

The enhancement of object methods for execution together that was possible up to Release 4.6D is no longer supported.

See also

For more information, see the SAP Library *Basis -> Business Management -> SAP Business Workflow -> Reference Documentation -> SAP Business Workflow - Navigation -> Business Workplace: Workflow Functions -> Workflow Inbox -> Execute Together*.

2.9.1.17 Other workflow functions (changed)

Use

The output of function *simulate event* (SWU0) has been revised.

Report `RSWW_FILL_DEFGUID` is available to improve performance when working with work items that were generated in SAP System Release < 4.6. The work item header is extended using this report. If work items of this type exist in your system, SAP recommends that you schedule this report in the background with low priority. The report can be executed parallel to the operation running.

The result of a rule resolution for agent determination can be transferred to the workflow container using a binding. The container element `_RULE_RESULT` is available in the rule container.

2.10 BC-MAS mySAP.com Application Server

2.10.1 Internet Communication Manager (ICM) (New)

Use

SAP Web Application Server is a further development of the SAP Application Server technology. Based on a highly-scalable infrastructure, new technologies have been implemented to allow HTTP requests (or requests using other protocols) coming from the Internet (that is, from a browser) to be directly processed, and to allow HTTP client requests to be sent to the Internet.

To make all this possible, the SAP kernel has been extended to include a process called the Internet Communication Manager (ICM). The ICM uses threads to communicate on the Internet (as a server or as a client). If the incoming HTTP request is to be processed in the SAP System by a work process, the data is exchanged using what are known as memory pipes. Memory pipes are located in shared memory.

See also

For further information, see the SAP Library under *SAP Web Application Server - Web Applications - SAP Web Application Server*, section *SAP Web Application Server Architecture*.

2.10.2 SAP Web Application Server Architecture (New)

Use

The SAP System itself is a central component of SAP Web Application Server. The HTTP capability of the application server means that the mySAP Technology system becomes an application server, serving both as a client and as a server.

You can use as many servers and databases as you like. With HTTP, communication takes place via the browser client. SAP Web Application Server can be used in conjunction with other SAP Systems and with third-party systems. If you are using it with other SAP Systems, communication can be carried out via HTTP, XML, and BAPIs. If you are using SAP Web Application Server with third-party systems, communication can be carried out via HTTP and XML.

You can also set up firewalls between SAP Web Application Server and the other components, to ensure greater security and to control access. The public key / private key authentication procedure is used for this.

The lowest layer of SAP Web Application Server consists of the SAP application server, which contains a

HTTP framework developed in C. The runtime environment, which is available both for ABAP and for JavaScript, runs on top of this. Because it is incorporated into the ABAP Development Workbench, this is an extremely flexible infrastructure for developing new Web applications.

See also

For further information on SAP Web Application Server, such as reference documentation and tutorials, see the SAP Library under *SAP Web Application Server - Web Applications*. For information on the technical infrastructure of SAP Web Application Server, see the Network Integration Guides on the SAP Service Marketplace under the alias **network**.

2.10.3 SAP Web Application Server and Development Environments (New)

Use

SAP Web Application Server is completely integrated into SAP's Development Workbench as the Web Application Builder. The Web Application Builder is a central and familiar entry point for developing Web applications. A high degree of development support already exists for ABAP runtime, for example, integration in the Change & Transport System. Graphical processing and preparation of Business Server Pages are also available. All this means that the Web Application Builder can be implemented and used as an independent development tool.

It is also possible to export Business Server Pages from the SAP System and to integrate them seamlessly into existing Web application environments. Design tools such as MS Frontpage, Adobe GoLive and Macromedia Dreamweaver can also be used.

Thanks to the development and integration functions it provides, SAP Web Application Server is the optimal tool for dealing with the wide range of demands made by the Web and e-business.

See also

For further information on SAP Web Application Server, such as reference documentation and tutorials, see the SAP Library under *SAP Web Application Server - Web Applications*. For information on the technical infrastructure of SAP Web Application Server, see the Network Integration Guides on the SAP Service Marketplace under the alias **network**.

2.10.4 SAP Web Application Server and HTTP Framework (New)

Use

SAP provides the HTTP framework to deal with special requirements.

The HTTP Framework serves as a basis for SAP Web Application Server. The main characteristic of the framework is its openness with regard to integration with other communication protocols that use HTTP, such as SMTP. The HTTP Framework has a plug-in interface for this purpose.

The HTTP Framework guarantees the HTTP capability of the application server. Communication is possible in both directions, which means that the application server can function either as a server or as a client.

HTTP Client

When SAP Web Application Server is communicating with other HTTP servers, requests can be sent directly to the desired server, and the application can process incoming data. This makes it possible for a Web application to integrate other applications. SAP Web Application Server can also be integrated into and used as part of a whole environment, for example, in conjunction with MS Windows DNA and IBM WebSphere.

Benefits of the HTTP Framework

- o Because SAP Web Application Server is based on the HTTP Framework, it does not need any additional Web servers to run its own Web applications, for example, to store static objects such as pictures. Of course, other Web servers can be used in conjunction with SAP Web Application Server, if required.
- o The HTTP Framework is provided in the form of an object-oriented shell. This means that you can create extensions in ABAP in the form of HTTP request handlers.
- o You can use the HTTP Framework to create applications that, similarly to Java servlets, consist of classes that can directly process HTTP requests. This is useful for message-based applications such as XML, or any non-HTML format where a tool other than the browser is used as a client.

See also

For further information on SAP Web Application Server, such as reference documentation and tutorials, see the SAP Library under *SAP Web Application Server - Web Applications*. For information on the technical infrastructure of SAP Web Application Server, see the Network Integration Guides on the SAP Service Marketplace under the alias **network**.

2.10.5 SAP Web Application Server and Server-Side Scripting (New)

Use

SAP Web Application Server is based on established Internet technologies. It supports XML and Java Server Pages to allow you to create dynamic Internet applications. HTML and XML pages with embedded source code are central concepts of SAP Web Application Server. This source code is then evaluated on the application server. The SAP Web Application Server model also supports embedded source code in different programming languages. Currently, ABAP and JavaScript are supported. All ABAP data objects, such as tables and structures, are available by means of server-side scripting. The HTML and XML pages (Business Server Pages) are then dynamically generated and processed. The HTTP Framework allows you to write programs that generate HTML or XML so that script can be created and processed directly in the SAP System.

An application consists of Business Server Pages and the structure logic. Because of the position of SAP Web Application Server directly inside the SAP System, Business Server Pages have direct access to all mySAP.com functions. For example, both the database and BAPIs can be accessed. Business Server Pages on SAP Web Application Server consist of a series of HTML code and HTTP commands or actions. The HTML code is static, while the SAP Web Application Server code is dynamic.

See also

For further information on SAP Web Application Server, such as reference documentation and tutorials, see the SAP Library under *SAP Web Application Server - Web Applications*. For information on the technical

infrastructure of SAP Web Application Server, see the Network Integration Guides on the SAP Service Marketplace under the alias **network**.

2.10.6 SAP Web Application Server (New)

Use

SAP Web Application Server is a platform-independent, script-based runtime, development, and distribution environment for mySAP.com.

You can use this infrastructure to create dynamic Web applications using tools by different providers. Similarly to established ASP and JSP technology, SAP Web Application Server provides a script-based programming model. Both B2B and B2C scenarios are supported. Because SAP Web Application Server is itself an SAP System, you can access SAP components and functions directly; for example, you have direct access to the entire mySAP Technology functionality. However, you can also access non-SAP applications without having to alter the system landscape.

Technologies such as HTTP, HTTPS, XML and JavaScript can be used freely within the new SAP Web Application Server infrastructure.

See also

For further information on SAP Web Application Server, such as reference documentation and tutorials, see the SAP Library under *SAP Web Application Server - Web Applications*. For information on the technical infrastructure of SAP Web Application Server, see the Network Integration Guides on the SAP Service Marketplace under the alias **network**.

2.10.7 SAP Web Application Server User Interface (New)

Use

Page-based presentation is a central part of SAP Web Application Server. HTML pages can be directly created, which is particularly attractive for e-commerce companies. You can also use the Tag Library to **drag and drop** HTML tags into your code.

See also

For further information on SAP Web Application Server, such as reference documentation and tutorials, see the SAP Library under *SAP Web Application Server - Web Applications*. For information on the technical infrastructure of SAP Web Application Server, see the Network Integration Guides on the SAP Service Marketplace under the alias **network**.

2.11 BC-MID Middleware

2.11.1 BC-MID-ALE ALE Integration Technology

2.11.1.1 ALE Distribution (enhanced)

Conversion of logical system names (BDLS):

The conversion of logical systems have the following enhancements:

- Option for converting client-dependent objects
 - Selection options for tables to be converted
 - Deactivation of communication settings (no communication)
 - Performance improvement resulting from a new default value for the number of table entries to be converted and also from the flow logic (depending on the database type).
 - Conversion modified for copying clients
- For more information see the ALE Implementation Guide.

Performance Improvement in the SMD Tool

The determination and distribution of changes using the SMD tool (ALE Shared Master Data) can be speeded up by implementing the following enhancements:

- **Scope of the change pointers to be created can be restricted**
By using a Business Add-In the scope of the change pointers to be written can be reduced to changes relevant for the distribution.
For further information refer to the Implementation Guide.
- **New Storage for change pointers**
To improve system performance, a new change pointer storage has been implemented for specific message types.
To use the new storage, you have to perform a migration.
For more details see the Implementation Guide.

System-wide Customizing Data Synchronization:

Option *ALE distribution group*

This option views the objects to which specific maintenance, ownership and distribution characteristics have been assigned via a specific ALE distribution group.
Synchronization runs are used for controlling purposes in the running operation and for analysing purposes in the initial data synchronization (Menu *Services -> Customizing Data -> Customizing Cross-System Viewer*)

Post-processing of non-posted IDocs using Parallel Processing

Program RBDMANI2 for post-processing IDocs that have not been posted has been enhanced with optional parallel processing.

2.11.1.2 BC-MID-ALE-UTI Utilities

2.11.1.2.1 Data Transfer Workbench

Data transfer using BAPIs has been improved. Depending on the BAPI, it is now possible to navigate from the data transfer log to the input file. Data transfer using BAPIs can be performed with several files in parallel.

Description of New Functions

System performance of data transfer with BAPIs has been increased through the capability of processing several input files in parallel.

Error handling of BAPIs has been improved. You can now navigate from the run log into the input file in the editor. Here you can branch directly to the relevant IDoc, structure or field.

The Data Transfer Workbench now supports data transfer with registered ALE inbound function modules as well as data transfer with BAPIs.

As with BAPIs the data has to be in an IDoc format file. The classic data transfer methods (batch input, call transaction and direct input) will continue to be supported.

Input files can be split into several files.

Input files can be merged together.

A search and replace function is provided in the file editor.

It is now easier to schedule data transfer in the background.

2.12 BC-CAT CATT Computer Aided Test Tool

2.12.1 BC-CAT-PLN Test Workbench

2.12.1.1 Test Workbench (Enhanced)

Use

From Release 6.10 you can use the following enhanced functions in the Test Workbench:

CATT test cases with global import parameters

You can now run CATT test cases with user-defined global import parameter values. When you start a CATT test case, a list of its global import parameters is displayed. You can accept the default values in this list or enter your own parameter values. If a parameter is used several times in different CATT test cases, the default value of the first CATT test case is displayed. This new function supports, for example, the creation of mass user data.

CATT import parameters which are to be displayed when you call a test case from the Test Organizer must be defined in the table CATP_GLOB. You define the parameters with the transaction SCAT (CATT maintenance) in the menu path *Utilities -> Global Parameters*, or in the table maintenance with transaction

SM30.

Generate test packages by filtering the test case status

You can now put only those test cases with a particular test case status in a test package. This is for example useful for creating prio. 1 tests.

Graphical display of status analysis and connection to Office applications

You can display the results of the status analysis of a test plan graphically. You can also pass the status analysis results to an Office application for further processing. Choose the *Graphic* pushbutton in the *Goto* -> *Text Processing* or *Spreadsheet* menus.

Link to a problem message system

You can now also create a problem message when you set the status of a test case, if there is a link to an SAP problem message system. You can then

- o Create, display and change problem messages
- o display an overview of all problem messages