

## CHAPTER

## 2

# Changes and Enhancements in the SAS/ACCESS Interface to SAP BW

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## SAP Business Information Warehouse (BW) Release 3.0A Support

The SAS/ACCESS Interface to SAP BW now supports all SAP BW releases from SAP BW, Release 2.0B, through SAP BW, Release 3.0A. Therefore, the SAS/ACCESS Interface to SAP BW is compatible with SAP BW systems that contain transactional operational data store (ODS) tables and transactional InfoCubes that were introduced in SAP BW, Release 3.0A.

*Note:* The SAP BW transactional InfoCubes and transactional ODS tables do not support changed data capture (CDC) processing. △

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## Optional CPI-C Logon Parameters

In the SAS/ACCESS Interface to SAP BW, Version 9, CPI-C (Common Programming Interface — Communications) parameters are no longer required when creating a logon profile. CPI-C is an application-level interface for direct program-to-program communication.

CPI-C parameters are advanced parameters that you can define when you create a logon profile. The CPI-C parameters include the CPI-C client, user ID, password, and language.

In previous versions of the SAS/ACCESS Interface to SAP BW, CPI-C parameters were required when your CPI-C logon profile was different from your RFC logon profile. However, in this release, the RFC server does not need these parameters in order to connect to your SAP BW system.

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## Improved Performance in the Load Metadata Wizard

The Load Metadata wizard has improved performance when extracting metadata for an InfoCube or ODS object in your SAP BW system. Now, the SAS/ACCESS Interface to SAP BW uses an ABAP function that issues a single call to your BW system rather than issuing multiple calls. This reduces the amount of time required to extract large amounts of metadata from the InfoCubes and ODS objects in your SAP BW system.

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## New Changed Data Capture Processing

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### Overview of Changed Data Capture Processing

SAS/ACCESS Interface to SAP BW, Version 9, provides a new method of extracting data from the InfoCubes and ODS tables in your SAP BW system. When extracting data from InfoCubes and ODS tables, you can either use full update processing, which extracts all of the data in the selected InfoCube or ODS table, or you can use changed data capture (CDC) processing. CDC processing enables you to extract only the data that has changed since your last extraction. For more information about using CDC processing to extract InfoCube or ODS table data, see “Extracting InfoCube Data from SAP BW” on page 5 and “Extracting ODS Data from SAP BW” on page 15.

If you have previously extracted SAP BW metadata using SAS/ACCESS Interface to SAP BW, Release 8.2, you must first update any previously extracted metadata before you can use CDC processing. This metadata update is required because the metadata structure has been modified to enable CDC processing. However, no updates to pre-extracted InfoCube or ODS table data are required. For more information about updating metadata, see “Updating Your Metadata and Previously Extracted Data” on page 4.

*Note:* Because SAP BW does not maintain change logs or timestamps for transactional InfoCubes and transactional ODS tables, you cannot use CDC processing with these transactional data sources.  $\Delta$

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### Updating Your Metadata and Previously Extracted Data

The metadata structure in SAS/ACCESS Interface to SAP BW has changed in order to differentiate between pre-extracted data that has changed and pre-extracted data that has not changed. As a result of these changes in the metadata structure, you must update your SAP BW metadata. Previously extracted metadata is no longer valid, because it is not compatible with the new metadata structure.

Use the Load Metadata wizard in SAS/ACCESS Interface to SAP BW to update your previously extracted SAP BW metadata. You will need to

- specify the **Metadata Destination Library** in the Metadata Destination window. This is the SAS library in which your SAP BW metadata is stored. You

must use the Metadata Destination Library that you specified in the **SAS Library** field in the Data Dictionary tab of the Application Setup window.

- select the **Merge into Existing Metadata** option in the Metadata Destination window. This option adds the newly extracted metadata to the same library that contains the previously extracted metadata.
- select only the **BW Meta Tables** option in the Metadata Type Selection window. This option enables you to extract metadata from the SAP BW metadata repository and save it to your Metadata Destination library.

*Note:* You only need to update your extracted SAP BW metadata one time regardless of how many InfoCubes and ODS tables there are in your SAP BW system. △

Regardless of whether you are extracting a new InfoCube or ODS table or updating previously extracted InfoCube or ODS table data, CDC processing enables you to extract only the changed data. After you have updated your previously extracted SAP BW metadata, updates to InfoCube or ODS table data that you have extracted are *not* required. You can continue to use previously extracted InfoCube or ODS data. However, for improved performance, it is recommended that you use the full update method when extracting InfoCubes and ODS objects that were previously extracted using Release 8.2 of SAS/ACCESS Interface to SAP BW.

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## Extracting InfoCube Data from SAP BW

### Overview of Extracting InfoCube Data

When you use the InfoCube Extraction wizard in SAS/ACCESS Interface to SAP BW to extract InfoCube data from your SAP BW system, the wizard reads the InfoCube tables, which are stored in a snowflake schema in SAP BW, and then stores the table data in SAS data sets or views. These data sets or views correlate to the fact table, dimension tables, SID tables, text tables, and master tables that make up the InfoCube. The wizard then merges the SID and master tables with the dimension tables to create a SAS data set or SAS view that reflects the star schema. When the InfoCube is updated or modified, you might want the data that you extracted from that InfoCube to be updated as well. You can use CDC processing to extract only the data that has changed the InfoCube in order to update your SAS data sets or views with the changed data.

The InfoCube Extraction wizard now enables you to extract InfoCube data in the following ways:

- Use the full update option to extract all of the tables in the InfoCube. This option enables you to extract all of the data in the fact, dimension, SID, master, and text tables that are associated with the snowflake schema for the InfoCube.
- Use the CDC processing option to extract only the data that has changed in the fact and dimension tables in the InfoCube. The CDC processing applies only to these tables because SAP BW systems do not support CDC processing on master and text tables.

CDC processing enables the InfoCube Extraction wizard to access the change logs and timestamps that are associated with the fact table and dimension tables in your SAP BW system. The change logs and timestamps enable the wizard to identify and extract data that has changed since your last extraction. However, because SAP BW does not maintain timestamps or change logs on SID tables, text tables or master tables, the InfoCube Extraction wizard cannot identify changed data in those tables. Therefore, regardless of whether you use CDC processing or the full update method, the

InfoCube Extraction wizard uses the full update method to update the data extracted from text tables, SID tables, and master tables.

You should select the full update option when extracting a new InfoCube or when the InfoCube data was extracted with an earlier version of SAS/ACCESS Interface to SAP BW. Using the full update option on tables that were extracted with an earlier version of the interface improves performance in the new version of the interface. Other factors you should consider when deciding whether to do a full update or use CDC processing include

- network bandwidth
- the amount of data that needs to be updated
- data consistency and data quality
- processing time in the SAS system.

*Note:* You must use the full update option when an InfoCube has been deleted or rebuilt in your SAP BW system.  $\Delta$

For more information about extracting InfoCube Data, see “Maintaining Data Integrity when Extracting InfoCubes” on page 6 and “Extracting InfoCubes” on page 7.

## Maintaining Data Integrity when Extracting InfoCubes

There are several important issues to consider in order to ensure data integrity when you are extracting InfoCubes. Specifically, you should be aware of

- the recommended process for extracting compressed InfoCubes
- what happens when fact table data is extracted using CDC processing.

For more information about maintaining and ensuring data integrity when you are extracting InfoCube data, see “Extracting Compressed InfoCubes” on page 6 and “Understanding CDC Processing for InfoCubes” on page 7.

## Extracting Compressed InfoCubes

SAS/ACCESS Interface to SAP BW enables you to extract data from compressed InfoCubes as well as uncompressed InfoCubes. You can extract compressed InfoCube data using either the full update method or CDC processing. However, if you want to use CDC processing on the fact table in an InfoCube, you must update the InfoCube before it is compressed in your SAP BW system.

If you load data into an InfoCube in SAP BW and then compress it before updating the InfoCube in SAS/ACCESS Interface to SAP BW, the interface will not be able to find the modified data. Therefore, it will automatically use the full update method on the fact table. This results in extracting both the compressed and the uncompressed table from SAP BW.

In order to use CDC processing when extracting data from compressed InfoCubes, the following sequence of update steps is recommended:

- 1 Load the data into the InfoCube in SAP BW.
- 2 Extract the InfoCube data using CDC processing.
- 3 Compress the InfoCube in your SAP BW system.

This sequence ensures that you will not lose data or extract corrupted data into SAS. You should always extract InfoCube data before compressing the InfoCube in SAP BW.

If you extract data from an InfoCube that has already been compressed in SAP BW, the InfoCube Extraction wizard uses the full update method to update the fact table rather than using CDC processing.

## Understanding CDC Processing for InfoCubes

SAP BW bundles transaction data and uses requests to load that data into the uncompressed fact table and the dimension tables of InfoCubes. The package dimension logs which records of the fact table have been loaded through which request. When you compress an InfoCube in SAP BW, a request moves data from an uncompressed fact table to a compressed fact table, and the request information is removed.

SAS/ACCESS Interface to SAP BW uses the package dimension table to track which requests have been loaded into an InfoCube since the last update of the data in the SAS system. Each time you extract data from an InfoCube in SAP BW and write that data to SAS data sets, all of the requests that are associated with loading data into that InfoCube are stored in a SAS data set named `_req<InfoCube-name>`. The data set that contains the request logs is saved in the Star Schema Destination library, which specifies the location in which the star schema that is created from the SAP BW InfoCube is saved. For example, if you extract data from the `OSD_C01` InfoCube, all of the requests that are associated with that InfoCube are saved in a SAS data set named `_req0sd_c01`.

*Note:* You should never modify or remove the data sets that contain the request logs. Modifying or deleting these data sets results in data corruption such as failure to update the InfoCube data or multiple updates.  $\Delta$

SAS/ACCESS Interface to SAP BW handles requests for typical scenarios as follows:

- Data has been loaded into the fact table in SAP BW and requests have been compressed before the extracted InfoCube data has been updated in SAS.* In this scenario, SAS/ACCESS Interface to SAP BW refreshes both the compressed fact table and the uncompressed fact table because the compression in SAP BW has eliminated the link between the records in the fact table and the request/load date.
- Requests have been deleted from the InfoCube.* In this scenario, SAS/ACCESS Interface to SAP BW updates the fact table by deleting the appropriate records.
- Requests have been loaded into an InfoCube and have not yet been compressed.* In this scenario, SAS/ACCESS Interface to SAP BW leaves the compressed fact table untouched and transfers the newly loaded data from the uncompressed fact table in SAP BW to SAS. The newly loaded data is appended to the fact table in SAS.
- Requests that had already been updated in SAS have been compressed in SAP BW.* In this scenario, SAS/ACCESS Interface to SAP BW marks the data in the SAS fact table as compressed.

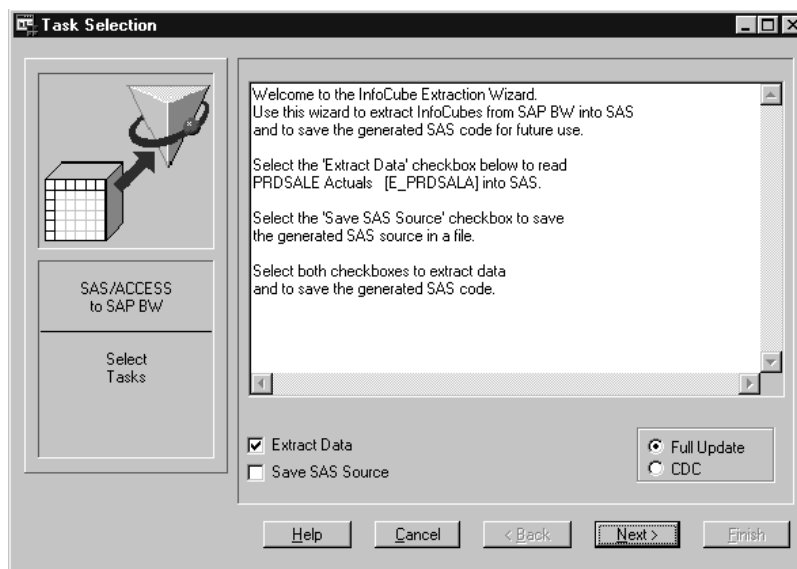
*Note:* SAS/ACCESS Interface to SAP BW provides error handling for fact tables when you use CDC processing. In the event that an error occurs while the fact table is being updated, the fact table data that is extracted to SAS data sets is not overwritten. Instead, the fact table will be updated the next time you run the InfoCube Extraction wizard in order to extract data from the selected InfoCube.  $\Delta$

## Extracting InfoCubes

To extract InfoCube data from your SAP BW system:

- 1 If the BW Explorer is not already open, open it by double-clicking the SAP BW Explorer icon in the SAS/ACCESS Interface to SAP BW desktop. The left panel of the BW Explorer displays a tree view of all the InfoAreas, basic InfoCubes, and active ODS objects that are stored in your SAP BW system.
- 2 Click the desired InfoCube in the left panel of the BW Explorer window.
- 3 With the InfoCube selected, click the right mouse button to display the extract/export pop-up menu.
- 4 Select **Extract InfoCube** from the pop-up menu to start the InfoCube Extraction wizard, which enables you to extract the SAP BW data from the selected InfoCube. The Task Selection window displays.

**Display 2.1** Task Selection Window



- 5 Enter the task selection parameters as follows:

**Full Update** enables you to extract all of the SAP BW data from the selected InfoCube. Select this option when

- you have previously extracted the InfoCube using SAS/ACCESS Interface to SAP BW.
- you are extracting data from a new InfoCube.
- you want to overwrite an existing extraction of the InfoCube.

This option extracts the complete fact, SID, and dimension tables from SAP BW. This check box is selected by default.

**CDC** enables you to use CDC processing to extract only the InfoCube data that has changed since you last extracted the InfoCube. This option extracts changed data from the SAP BW tables that support CDC processing, which are the fact and dimension tables. This option extracts all of the data in the master, SID, and text tables because they do not support CDC processing.

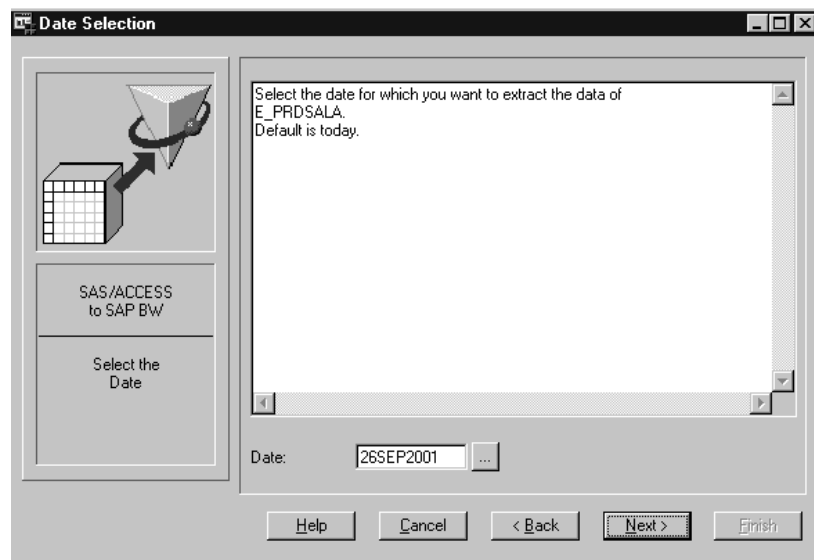
*Note:* All data that has changed in the fact and dimension tables is extracted, regardless of whether you selected **Full Update** or **CDC** when you last extracted the InfoCube data. △

- Extract Data** enables you to extract SAP BW data from the selected InfoCube. Deselect this check box if you do not want to extract data now, but you do want to create a SAS program that you can run later to extract the data.
- Save SAS Source** enables you to save the SAS source code that is generated by the application and is used to extract the SAP BW data from the InfoCube. Select this check box if you want to create a SAS program that you can run to extract the data. Saving the SAS source code enables you to run the extraction process at a later date and perform batch extractions of SAP BW data. Saving the SAS source code can also reduce processing time when updating your extracted SAP BW data.

The display field in the center of the Task Selection window displays the technical name and the descriptive name of the InfoCube and provides additional instructions for using the window.

- 6 Click **Next** to display the Date Selection window.

#### Display 2.2 Date Selection Window

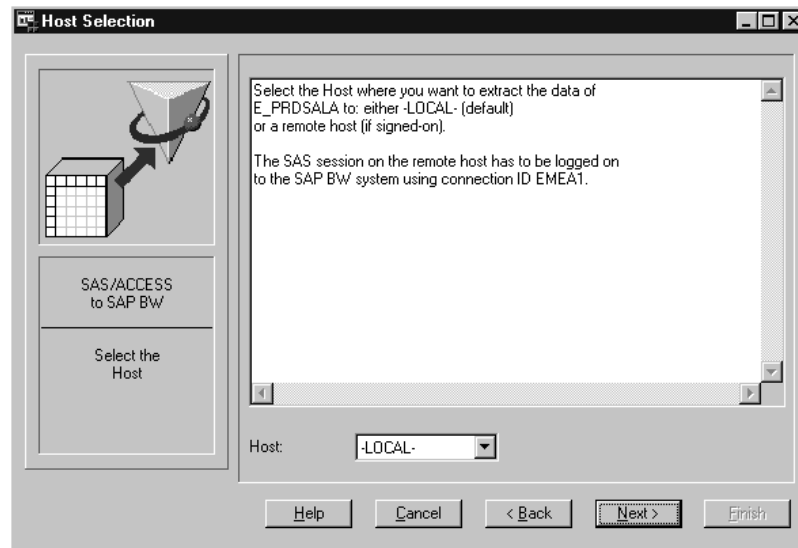


Enter the **Date** that is associated with the master tables and text tables that you want to extract from the InfoCube. The default date is today's date. You can either enter a different date using the DDMYYYY format or you can click the button to the right of the field to select a date from a calendar.

In SAP BW, some master tables and text tables are time-dependent. The date that you specify is the date that is associated with the master table and text tables that are extracted from the SAP BW system.

- 7 Click **Next** to display the Host Selection window, which enables you to specify where you want to store the extracted SAP BW data.

Display 2.3 Host Selection Window

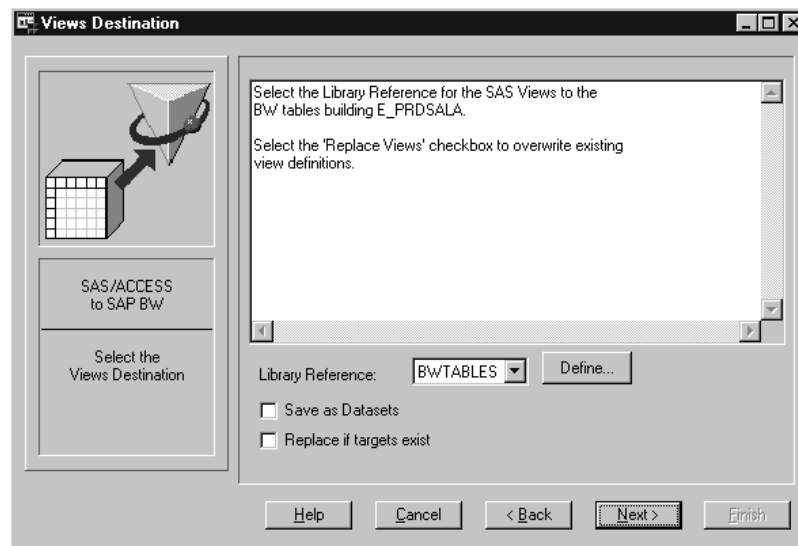


Select the **Host** machine name to which you want to extract the SAP BW data from the drop-down list. You can select either **-LOCAL-** or the name of the remote host (if defined with SAS/CONNECT). The default value is **-LOCAL-**.

*Note:* If you select a remote host, you must be connected to that host with the connection ID that is currently in use.  $\Delta$

- 8 Click **Next** to display the Views Destination window, which enables you to specify where the extracted InfoCube data is stored.

Display 2.4 Views Destination Window



Specify the view parameters as follows:

**Library Reference** specifies the library into which you want to store the data that is extracted from the InfoCube in your SAP BW system. The default value is the Views Destination library you specified on

the Defaults tab of the Application Setup window. Either select the previously created Views Destination library from the drop-down list or click **Define** to create a new library. For more information about using the Application Setup window, see “Defining the Local Application Defaults” in the *SAS/ACCESS Interface to SAP BW: User’s Guide*. For more information about the Views Destination Library, see “Setting Up the Required SAS Libraries” in the *SAS/ACCESS Interface to SAP BW: User’s Guide*.

**Save as Datasets**

enables you to save the extracted InfoCube data in SAS data sets rather than in SAS views. The default file type in which the data is saved can be views or data sets. The default file type is specified in the **Type** field in the Defaults tab of the Application Setup window. Select this check box to save the extracted data in SAS data sets. Deselect this check box to save the extracted data in SAS views. For more information about using the Application Setup window, see “Defining the Local Application Defaults” in the *SAS/ACCESS Interface to SAP BW: User’s Guide*.

*Note:* The **Save as Datasets** check box always applies to the SID, master, and text tables in the InfoCube. However, if you selected the CDC option in the Task Selection window, then the fact and dimension tables are stored as permanent SAS data sets regardless of whether you select the **Save as Datasets** check box. If you selected the full update option in the Task Selection window, then all of the tables in the InfoCube are saved as permanent SAS data sets regardless of whether you select the **Save as Datasets** check box. △

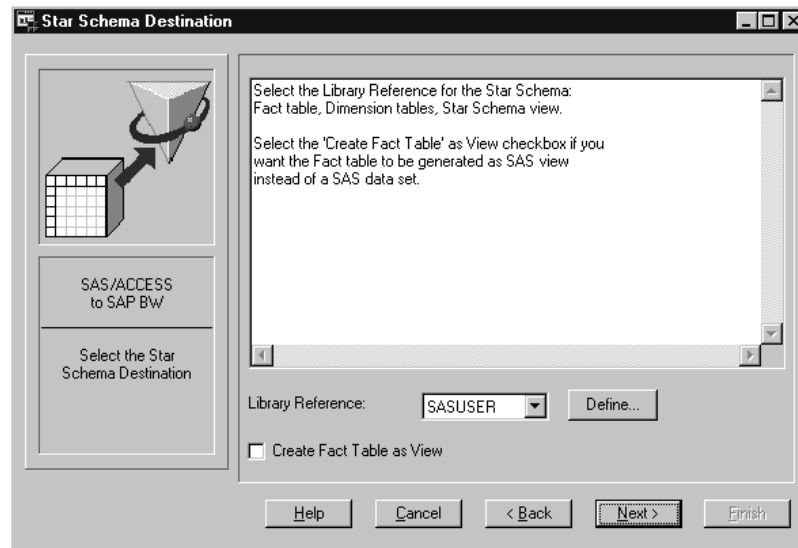
**Replace if targets exist**

select this check box to overwrite previously saved views or data sets. The default for this check box is specified in the **Replace** field in the Defaults tab of the Application Setup window. Select this check box to overwrite views or data sets that were previously saved. Deselect this check box if you want to create new views or data sets. For more information about using the Application Setup window, see “Defining the Local Application Defaults” in the *SAS/ACCESS Interface to SAP BW: User’s Guide*.

*Note:* The **Replace if targets exist** check box always applies to the master and text tables in the InfoCube. However, if you selected the full update option in the Task Selection window, then the wizard overwrites any data sets that were previously saved, regardless of whether you select the **Replace if targets exist** check box. △

- 9 Click **Next** to display the Star Schema Destination window, which enables you to specify the location in which the data sets that contain the converted SAP BW data are stored.

Display 2.5 Star Schema Destination Window



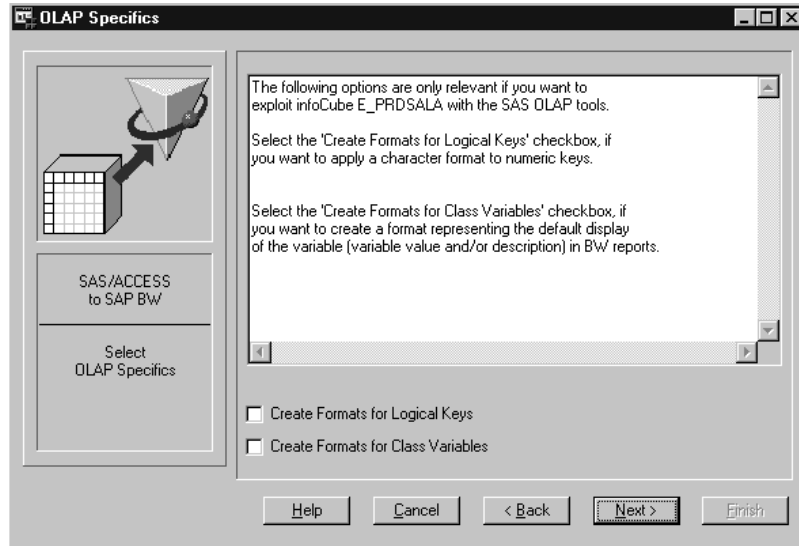
Specify the star schema parameters as follows:

**Library Reference** specify the library into which you want to store the SAS data sets that contain the SAP BW data that has been converted from a snowflake schema to a star schema. When the conversion process is complete, a fact table, dimension tables, and a star schema table are saved in the data sets in this library. Either select the previously created Star Schema Destination library from the drop-down list or click **Define** to create a new library. For more information about the Star Schema Destination library, see “Setting Up the Required SAS Libraries” in the *SAS/ACCESS Interface to SAP BW: User’s Guide*.

**Create Fact Table as View** select this check box if you want to create a SAS view of the fact table when converting the SAP BW data to a star schema format. Do not select this check box if you want to create a SAS data set from the fact table when converting the SAP BW data to a star schema format.

*Note:* If you select this check box, the fact table and the star schema will be accessible only if you are connected to the SAP BW system using the same connection ID that you used when extracting the InfoCube.  $\triangle$

- 10 Click **Next** to display the OLAP Specifics window, which enables you to specify options for exporting the OLAP data from your InfoCube to the SAS OLAP tools.

**Display 2.6** OLAP Specifics Window

Specify the OLAP specifics options as follows:

**Create  
Formats for  
Logical Keys**

specifies whether you want to use default SAS character formats for the logical keys that are stored in the fact table of the star schema. These formats create character values from the numeric logical key values. The formats are assigned to the related fields in the fact and dimension tables and are required if you want to export the extracted InfoCube data to SAS/EIS or any other SAS OLAP tool.

Select this check box to create SAS character formats that convert the values of the logical keys defined for the specified InfoCube.

**Create  
Formats for  
Class  
Variables**

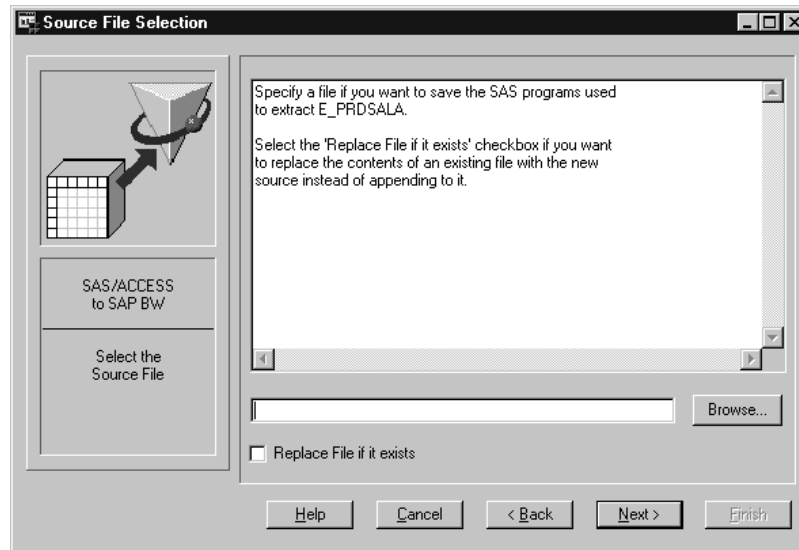
specifies whether you want to use default SAS character formats for the class variables that are stored in the dimension tables of the star schema. The short descriptions from the text tables related to the class variables are used to create formats for the class variables or characteristics. The format is stored in the Star Schema Destination library. The format catalog name is **F** followed by the InfoCube name. The format name is taken from the technical name of the class variable. These formats are not automatically assigned to any data set variables. The formats are required if you want to export the extracted InfoCube data to SAS/EIS or any other SAS OLAP tool.

Select the check box to create SAS character formats for the class variables or characteristics that are defined for the specified InfoCube.

- 11 Click **Next** to display the Source File Selection window, which enables you to specify where you want to save the SAS source code that is automatically generated by the InfoCube Extraction wizard.

*Note:* The Source File Selection window displays only if you selected to save the SAS source code that is generated by the InfoCube Extraction wizard. If you did not select to save the SAS source code, the Review Extraction Settings window displays. Proceed to the next step for instructions on using that window. △

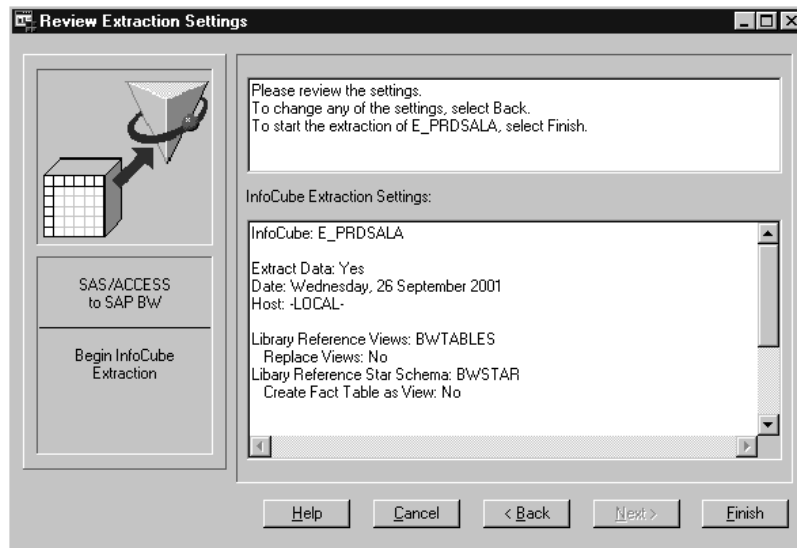
Display 2.7 Source File Selection Window



Enter the source file selection parameters as follows:

- |   |  |
|---|--|
| <b>source filename text-entry field</b> | specifies the name of the SAS program in which you want to save the SAS source code used to extract the SAP BW data. Enter the complete directory path and filename in the source filename text-entry field or click <b>Browse</b> to select a previously created file.                |
| <b>Replace File if it Exists</b>        | specifies whether to overwrite the file identified in the source filename text-entry field. Select this check box to overwrite a previously created file with the SAS source code generated for the current extraction. Do not select this check box if you want to create a new file. |

- 12 Click **Next** to display the Review Extraction Settings window, which enables you to view all of the options and parameters that are defined for the InfoCube extraction process.

**Display 2.8** Review Extraction Settings Window

Review the options and parameters that you have defined for the InfoCube extraction process.

**13** Click one of the following buttons:

- |               |  |
|---------------|--|
| <b>Help</b>   | enables you to display SAS Help for the window.  |
| <b>Cancel</b> | cancels the InfoCube extraction process and exits the InfoCube Extraction wizard.  |
| <b>Back</b>   | enables you to return to the previous window. You can continue to modify the extraction parameters by continuing to click <b>Back</b> in order to return to each of the windows in the InfoCube Extraction wizard. |
| <b>Next</b>   | displays the next window in the InfoCube Extraction wizard. This button is disabled because the Review Extraction Settings window is the last window available in the wizard.                                      |
| <b>Finish</b> | begins the InfoCube extraction process.  |

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## Extracting ODS Data from SAP BW

### Overview of Extracting ODS Data

Because ODS objects contain only one active data table, the ODS Extraction wizard does not convert ODS tables to a star schema. Instead, the wizard generates a single SAS table that contains data that is extracted from the ODS table. Therefore, when you use the wizard to extract data from an ODS table, the wizard reads the ODS table and then creates a single SAS data set or view that contains the active data from the ODS table. When the ODS object is updated or modified, you might want the data you extracted from that ODS object to be updated as well. You can use CDC processing to extract only the data that has changed in the ODS object.

The ODS Extraction wizard now enables you to extract ODS table data in the following ways:

- Use the full update option to extract all of the data in the ODS table. This option enables you to extract all of the active data in the ODS table.
- Use the CDC processing option to extract only the data that has changed in the ODS table. This option enables you to extract only the data that has changed in the ODS object since your last extraction.

CDC processing enables the ODS Extraction wizard to access the change logs and timestamps that are associated with the ODS table in your SAP BW system. The change logs and timestamps enable the wizard to identify and extract data that has changed since your last extraction.

When you use the full update method to extract data from an ODS object, each active record in the ODS table is extracted to SAS. This means that one record is extracted for each active record in the ODS object.

SAP BW bundles transaction data and uses requests to load that data into the ODS object. Change logs and timestamps identify the requests that have been issued since the last ODS extraction. When you use CDC processing to extract data from an ODS object, the ODS Extraction wizard reads the change logs and timestamps and merges all of the requests that have been issued since the last ODS extraction into the previously extracted ODS data in SAS. The wizard transfers the following information from the change logs in SAP BW:

- 1 record for each record that has been added since the last ODS extraction
- 2 records for each record that has been modified since the last ODS extraction
- 1 record for each record that has been deleted since the last ODS extraction

Therefore, in some cases, CDC processing actually transfers more data and might take longer than using the full update method. The following guidelines will help you determine when it is more efficient to use the full update method rather than using CDC processing:

**Table 2.1** Using the Full Update Method Versus Using CDC Processing

When	Use	Explanation
Extracting data from a new ODS object	Full Update method	When initially extracting data from an ODS object, the full update method is faster.
The ODS object was previously extracted using SAS/ACCESS Interface to SAP BW, Release 8.2	Full Update method	Using the full update method for ODS objects that were extracted with an older version of the interface improves performance in the new version of the interface.

When	Use	Explanation
Approximately half of the records in the active ODS object have been modified or deleted since the last ODS extraction	Full Update method	The full update method transfers less data and is faster than using CDC processing.
The majority of the records in the active ODS object have been added since the last ODS extraction and less than half of the records have been modified or deleted since the last data extraction	CDC processing	Using CDC processing transfers less data and is faster than using the full update method.

For more information about extracting ODS data, see “Maintaining Data Integrity When Extracting ODS Objects” on page 17 and “Extracting ODS Objects” on page 17.

## Maintaining Data Integrity When Extracting ODS Objects

SAP BW bundles transaction data and issues requests to load that data into the ODS objects. SAS/ACCESS Interface to SAP BW uses the change logs and timestamps associated with the ODS objects to track all of the requests associated with the ODS objects since the last update of the data in the SAS system. Each time you extract data from an ODS object in SAP BW and write that data to SAS data sets, all of the requests that are associated with that ODS object are stored in a SAS data set named **\_req<ODS-object-name>**. The data set that contains the request logs is saved in the Views Destination library, which specifies the location into which the ODS data is extracted. For example, if you extract data from the **OFIAR\_003** ODS object, all of the requests that are associated with that ODS object are saved in a SAS data set named **\_reqOFIAR\_003**.

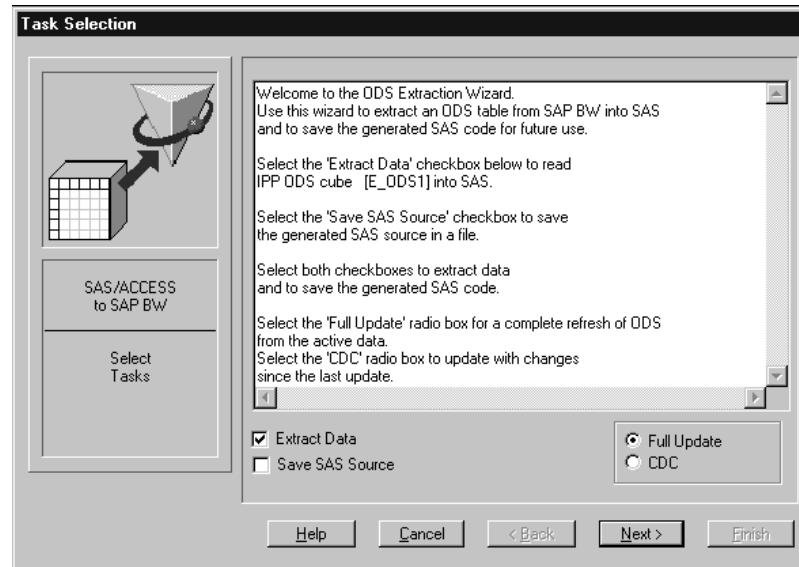
*Note:* You should never modify or remove the data sets that contain the request logs. Modifying or deleting these data sets results in data corruption such as failure to update the ODS table data or multiple updates.  $\Delta$

## Extracting ODS Objects

To extract ODS table data from your SAP BW system:

- 1 If the BW Explorer is not already open, open it by double-clicking the SAP BW Explorer icon in the SAS/ACCESS Interface to SAP BW desktop. The left panel of the BW Explorer displays a tree view of all the InfoAreas, basic InfoCubes, and active ODS objects that are stored in your SAP BW system.
- 2 Click the desired ODS table in the left panel of the BW Explorer window.
- 3 With the ODS table selected, click the right mouse button to display the extract pop-up menu.
- 4 Select **Extract ODS Table** from the pop-up menu to start the ODS Extraction wizard, which enables you to extract the SAP BW data from the selected ODS object. The Task Selection window displays.

Display 2.9 Task Selection Window

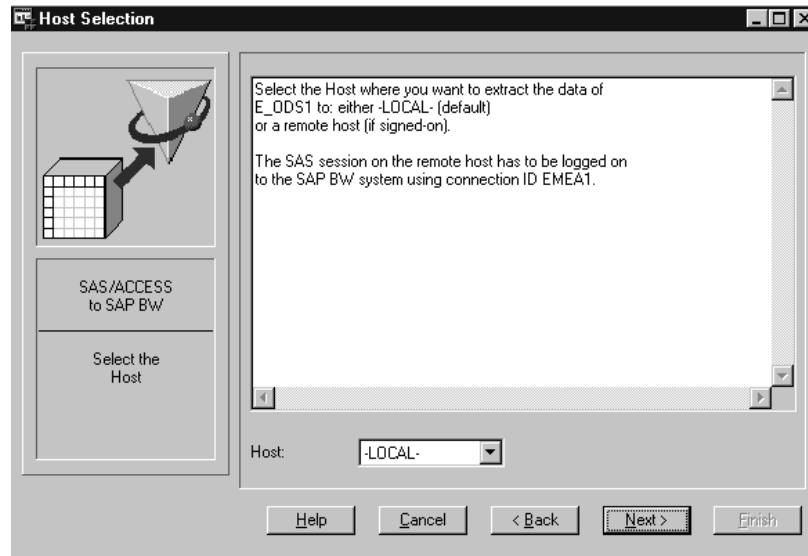


5 Enter the task selection parameters as follows:

- Full Update** enables you to extract all of the SAP BW data from the selected ODS object. Select this check box to extract all of the records in the active ODS table in your SAP BW system. The extracted data is saved in the Views Destination library. This check box is selected by default.
- CDC** enables you to use CDC processing to extract only the ODS table data that has changed since you last extracted the ODS object. Select this check box to extract changed data from the ODS table in your SAP BW system. The extracted data is saved in the Views Destination library.
- Extract Data** enables you to extract SAP BW data from the selected ODS table. Deselect this check box if you want to create a SAS program that you can run later to extract the data rather than extracting the data now.
- Save SAS Source** enables you to save the SAS source code that is generated by the application and is used to extract the SAP BW data from the selected data source. Select this check box if you want to create a SAS program that you can run to extract the data. Saving the SAS source code enables you to run the extraction process at a later date and perform batch extractions of SAP BW data. Saving the SAS source code can also save you time when updating your extracted SAP BW data.

The display field in the center of the Task Selection window displays the technical name and descriptive name of the ODS table and provides additional instructions for using the window.

6 Click **Next** to display the Host Selection window, which enables you to specify where you want to store the extracted SAP BW data.

**Display 2.10** Host Selection Window

Select the **Host** machine name to which you want to extract the SAP BW data from the drop-down list. You can select either **-LOCAL-** or the name of the remote host (if defined with SAS/CONNECT). The default value is **-LOCAL-**.

*Note:* If you select a remote host, you must be connected to that host with the connection ID that is currently in use. △

- 7 Click **Next** to display the ODS Table Destination window, which enables you to specify where extracted ODS table data is stored.

**Display 2.11** ODS Table Destination Window

Specify the ODS table destination parameters as follows:

**Library Reference** specifies the library into which you want to store the data that is extracted from the ODS table in your SAP BW system. The default value is the Views Destination library you specified on

the Defaults tab of the Application Setup window. Either select the previously created Views Destination library from the drop-down list or click **Define** to create a new ODS Table Destination library. For more information about using the Application Setup window, see “Defining the Local Application Defaults” in the *SAS/ACCESS Interface to SAP BW: User’s Guide*. For more information about the Views Destination Library, see “Setting Up the Required SAS Libraries” in the *SAS/ACCESS Interface to SAP BW: User’s Guide*.

**Create ODS  
Table as View**

enables you to save the extracted ODS table data in a SAS view rather than a SAS data set. By default, the data extracted from an ODS table is saved in a SAS data set.

*Note:* This check box applies only if you use the full update method. If you use CDC processing, the data is always saved in a SAS data set.  $\Delta$

**Replace  
target if it  
exists**

specifies whether to overwrite a previously saved SAS data set or view. The default for this check box is specified in the **Replace** field in the Defaults tab of the Application Setup window. Select this check box to overwrite views or data sets that were previously saved. For more information about using the Application Setup window, see “Defining the Local Application Defaults” in the *SAS/ACCESS Interface to SAP BW: User’s Guide*. Do not select this check box if you want to create a new data set or view.

*Note:* This check box applies only if you use the full update method. If you use CDC processing, the data is always overwritten.  $\Delta$

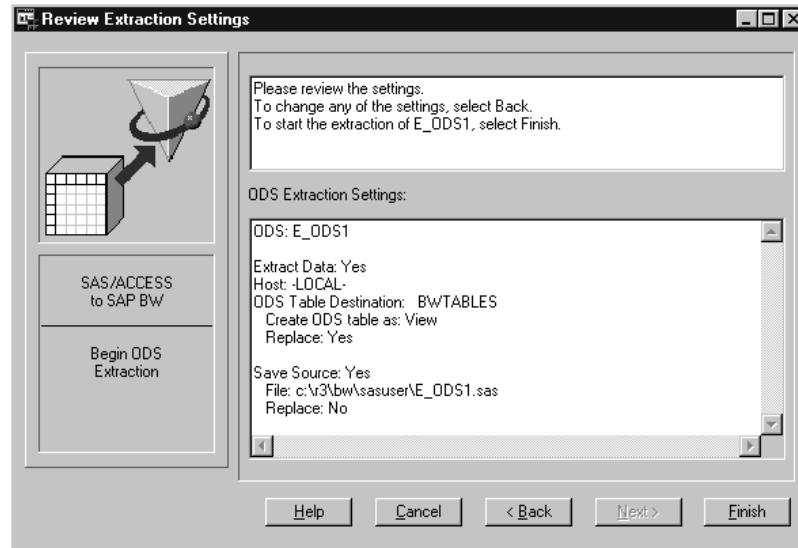
- 8 Click **Next** to display the Source File Selection window, which enables you to specify where you want to save the SAS source code that is automatically generated by the ODS Extraction wizard.

*Note:* The Source File Selection window displays only if you selected to save the SAS source code that is generated by the ODS Extraction wizard. If you did not select to save the SAS source code, the Review Extraction Settings window displays. Proceed to the next step for instructions on using that window.  $\Delta$

**Display 2.12** Source File Selection Window

Enter the source file selection parameters as follows:

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|---|--|
| <b>source filename text-entry field</b> | specifies the name of the SAS program in which you want to save the SAS source code used to extract the SAP BW data. Enter the complete directory path and filename in the source filename text-entry field or click <b>Browse</b> to select a previously created file.                |
| <b>Replace File if it Exists</b>        | specifies whether to overwrite the file identified in the source filename text-entry field. Select this check box to overwrite a previously created file with the SAS source code generated for the current extraction. Do not select this check box if you want to create a new file. |
- 9 Click **Next** to display the Review Extraction Settings window, which enables you to view all of the options and parameters that are defined for the ODS extraction process.

**Display 2.13** Review Extraction Settings Window

Review the options and parameters that you have defined for the ODS extraction process.

**10** Click one of the following buttons:

- |               |   |
|---------------|---|
| <b>Help</b>   | enables you to display SAS Help for the window.   |
| <b>Cancel</b> | cancels the ODS extraction process and exits the ODS Extraction wizard.   |
| <b>Back</b>   | enables you to return to the previous window. You can continue to modify the extraction parameters by continuing to click <b>Back</b> in order to return to each of the windows in the ODS Extraction wizard. |
| <b>Next</b>   | displays the next window in the ODS Extraction wizard. This button is disabled because the Review Extraction Settings window is the last window available in the wizard.                                      |
| <b>Finish</b> | begins the ODS object extraction process.   |