

**Data Wave
User Guide
8.7**

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Introduction

In Gold Client 8.7.1, Data Wave has been redesigned for better management and execution of Client Construct and Data Echo data copies for client refresh. Data Wave uses existing Gold Client functionality, organized in a new way, to build new and refresh existing clients with little manual intervention.

A Data Wave Export ID may contain all or a selection of master data and a transactional data slice. It may be scheduled on a periodic basis or as a one-time task.

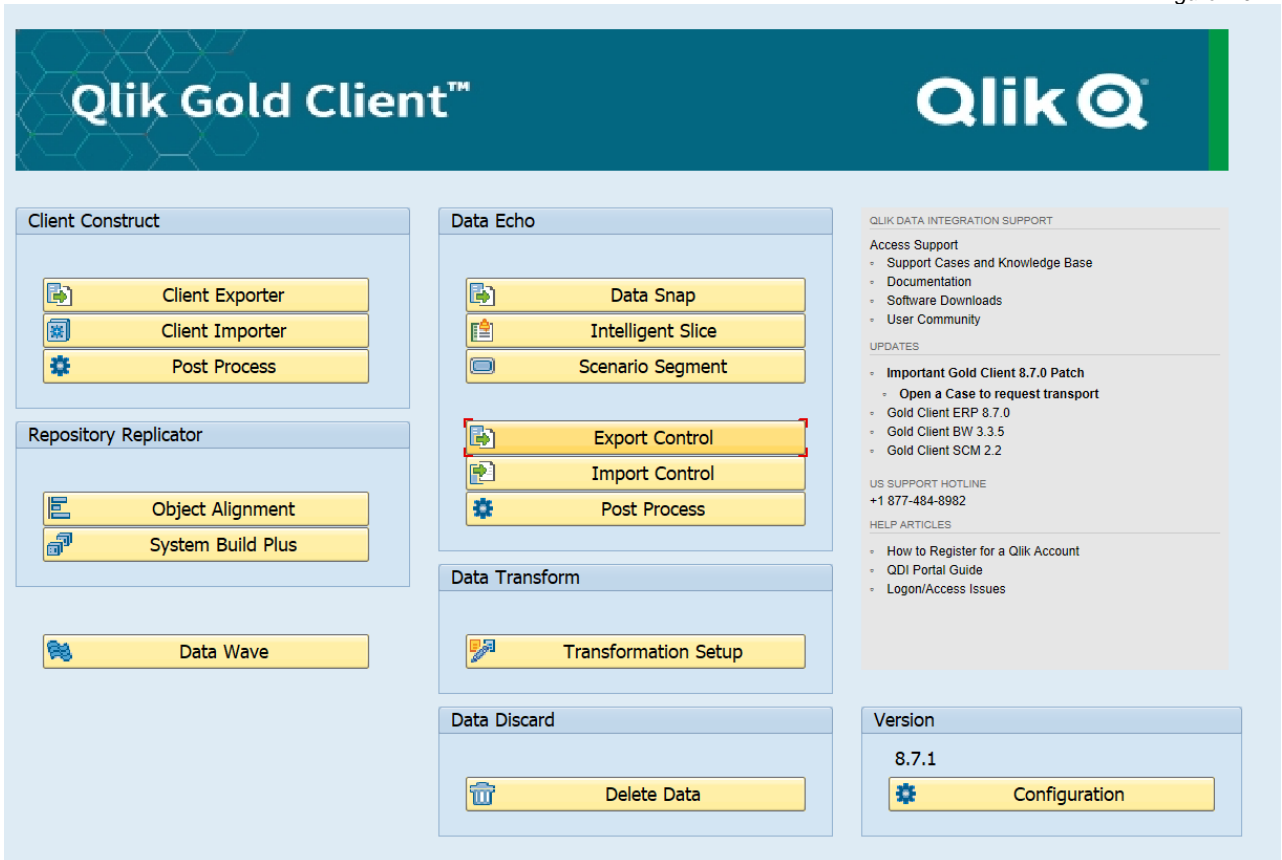
There is no extra configuration required for Data Wave. It leverages the data types already configured in the Data Framework so no further customization is needed.

Other Gold Client functionality such as Data Transformation and Subset Sync are also available as part of the Data Wave process. Import Options can be used to automatically execute data imports in the target system upon export completion so no manual intervention is needed. In addition, Post Processing utilities can be configured as the final step in the import process to fully automate it.

Data Wave Screens

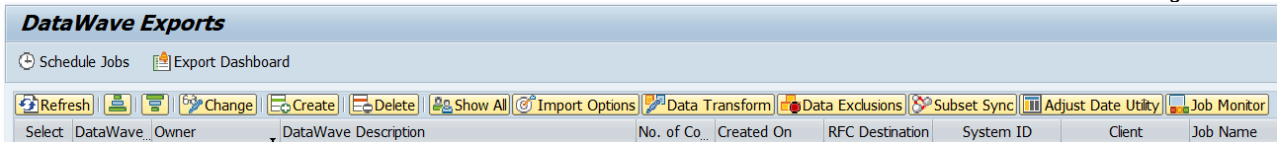
Data Wave can be executed using the Data Wave button on the main Gold Client screen (Fig 1.0).

Figure 1.0



The main Data Wave screen (Fig. 1.1) contains the following functions.

Figure 1.1



- **Schedule Jobs** - This button allows you to schedule the Data Wave process.
- **Export Dashboard** - The Export Dashboard provides information about Gold Client exports including ones exported using Data Wave. It displays helpful information for monitoring like Job Name, Status, Start Date and Time, and Duration.
- **Refresh** - Updates the status of Data Wave Exports.
- **Sort Ascending** - Sorts the Data Wave Export ID in ascending order for the columns selected.
- **Sort Descending** - Sorts the Data Wave Export ID in descending order for the columns selected.
- **Change** - Places the screen in Change mode to edit Owner and Data Wave Description fields.
- **Create** - Creates a new Data Wave Export ID. Enter a description and click Continue to create and save the new Data Wave Export ID. Clicking on the Data Wave ID will show the Data Wave detail screen including data types, containers, and scenarios that are part of that chosen Export ID.
- **Delete** - Deletes selected Data Wave Export ID.
- **Show All/Show My** - Show All displays all Data Wave Export IDs regardless of owner. Show My displays only the Data Wave Export IDs owned by the current user.
- **Import Options** - Set data import options for selected Data Wave Export IDs.
- **Data Transform** - Review and select Transformation Rules for each data type included in the Data Wave Export ID.
- **Data Exclusions** - Allows specific areas of data to be excluded from the export at runtime. This can help with large data volumes.
- **Subset Sync** - Review and select Subset Sync configuration for connected data types that are included in the Data Wave Export ID.
- **Adjust Date Utility** - This utility modifies the date range in the scenario's date field selection criteria for the selected Export ID. It can be executed manually prior to the job scheduling using this button. It can be executed as part of the job scheduling.
- **Job Monitor** - Launches a new SAP window with transaction SM37, filtering on Gold Client jobs for the past 7 days.

Data Wave Details

To see what is contained in a Data Wave Export ID, click on the Export ID number (Fig. 1.2).

Figure 1.2

Select	DataWave ID	Owner	DataWave Description	No. of Co	Created On	RFC Destination	System ID	Client	Job Name
<input type="checkbox"/>	9901	EBYRNE	8.7.1 Testing	10	04.05.2021	GCRLNT200			9901_DW_CC_WITH_TRIGGER

The top of the screen will display information about the Data Wave Export ID, and the Data Wave toolbar is found below it (Fig. 1.3).

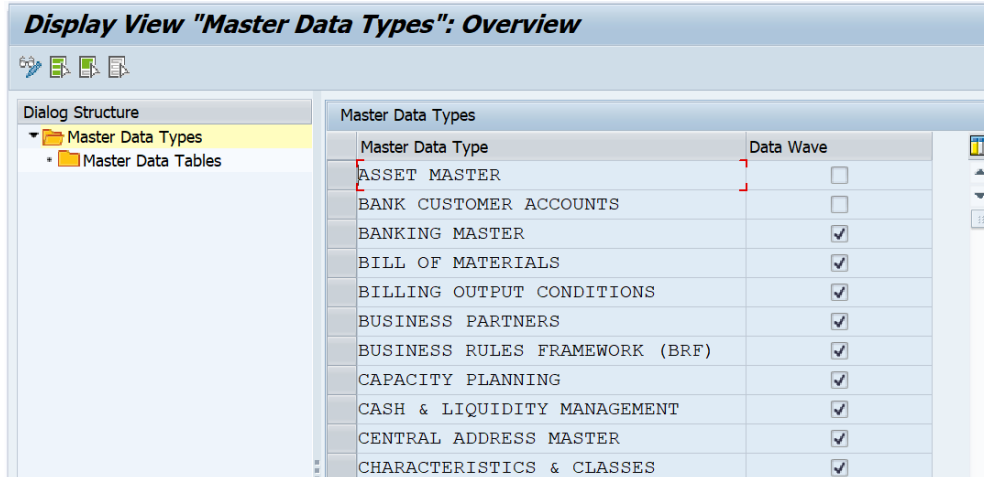
Figure 1.3

Export ID	9901	8.7.1 Testing
	04.05.2021	EBYRNE

The Data Wave toolbar includes some standard Gold Client functionality as well as existing functionality repurposed for Data Wave use.

- **Refresh** – The Refresh button updates the status of the screen.
- **Add Data Type** – Scenarios can be added to the Data Wave ID with three different methods:
 - **Client Construct** – It is a selection of Client Construct master data types as configured in the Client Construct framework. This is found under ZGOLD – Configuration – Data Framework – Client Construct. Master data types allowed for Data Wave selection are set to active (Fig. 1.4). This is customizable in the Client Construct framework to allow or disallow data types for this process.

Figure 1.4



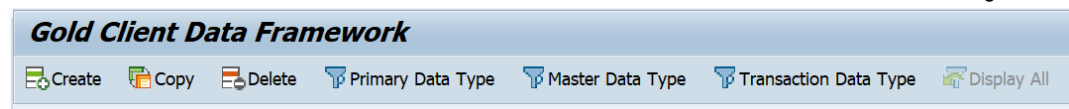
- **Intelligent Slice** – It is a group of Data Echo data types as configured in the Data Echo framework for use with Intelligent Slice. This is found under ZGOLD – Configuration – Data Framework – Data Echo. Data types available for Intelligent Slice selection are designated as Primary (Fig. 1.5). This is configurable allow or disallow data types for use with Intelligent Slice.

Figure 1.5

DT Kind	File ID	Primary	Primary Date Field	Data Wave	No Data File
Master Data	CAASET	<input checked="" type="checkbox"/>	ERDAT	<input type="checkbox"/>	<input type="checkbox"/>

By default, when displaying the Data Echo framework, it is filtered by Primary Data Type. It is also available as a filter on the main toolbar (Fig. 1.6).

Figure 1.6

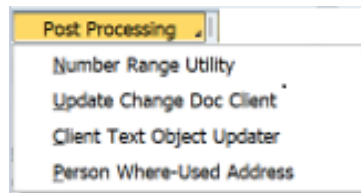


Creating scenarios with this method is the same as using the Intelligent Slice button from the main Gold Client screen except it is used as part of the Data Wave Export ID instead of the standard Export Control Export ID.

- **Data Snap** – Select any data type from the Data Echo Framework for inclusion in the Data Wave Export ID. This is executed in the same way as Data Snap. After selection criteria is entered for a given data type, use Save as Scenario to save the Data Snap selection criteria to a scenario. It will also add the new scenario to the Data Wave Export ID. If the Data Snap criteria needs to be updated, select the data type and click the Data Type Manager button and edit as with standard Gold Client configuration. **Please Note:** Any Data Snap configuration changes made within this context will update the configuration globally.

- **Post Processing** – Post processing activities (Fig. 1.7) can be executed automatically in the target system after the data import is completed. These are activities typically executed manually after data import. For Data Wave, the intent is to reduce the manual effort for a refresh. The ability to include the Post Processing as part of the Data Wave data export scheduling allows the client rebuild/refresh process to be efficient with little manual intervention. The Post Processing options are all available as part of standard Gold Client.

Figure 1.7



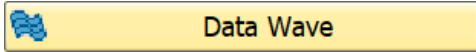
Please Note: The functionality of the buttons below may differ slightly by SAP GUI theme. For some, you may see a checkbox to select and others an icon that looks like a sheet of paper that must be clicked on to highlight the whole row.

- **Delete** – Using Delete removes the selected container from the Data Wave Export ID. It does not remove the scenario from Gold Client but only the container from the given Data Wave Export ID. It will still be available as a scenario for the data type, and if the same scenario is used in multiple Export IDs, the others will not be affected.
- **Data Type Manager** – Data Type Manager is used to display the Gold Client configuration for the selected Data Echo data type. It works in the same way as it does on the standard Data Snap screen. The advantage to having it available in Data Wave is that if the user wants to add a Data Snap scenario to the selected Export ID, the data type's configuration can be easily updated within the Data Wave screen if desired.
- **Data Type Hierarchy** – The Data Type Hierarchy report is a standard Gold Client report. It shows recipient data types for the selected data type. It can be executed for all recipient data types or only for those that are active. It shows only the top-level recipient data types and can be expanded to drill down further into each data type.

Data Wave Process

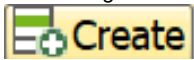
Execute transaction ZGOLD and click on the Data Wave button (Fig. 2.0).

Figure 2.0



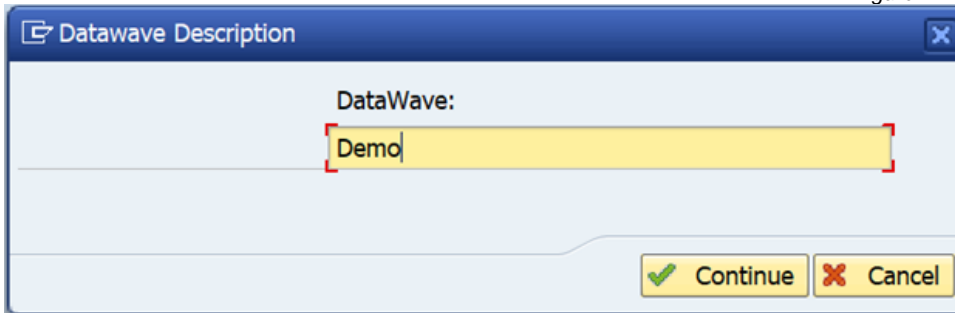
Click the Create button (Fig. 2.1).

Figure 2.1



Enter Data Wave Description for the new Export ID and click the Continue button (Fig. 2.2).

Figure 2.2



Click on the Data Wave ID number for the new Export ID (Fig. 2.3).

Figure 2.3

DataWave Exports										
Select	DataWave ID	Owner	DataWave Description	No. of Co.	Created On	RFC Destination	System ID	Client	Job Name	
<input type="checkbox"/>	9902	EBYRNE	Demo		05.05.2021					

This shows the contents of the Data Wave Export ID which is empty at this point (Fig. 2.4).

Figure 2.4

DataWave Exports										
Export ID		9902				Demo				
		05.05.2021				EBYRNE				
DataWave Steps	Export ID	Container	Sc.Num	Type	Status	Rec Ct	Date	Job Name	Tform	Subset Sync

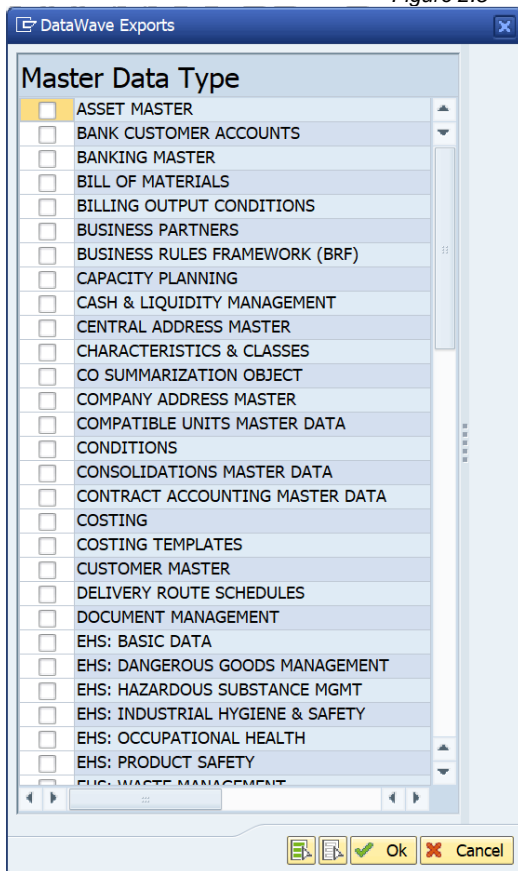
Add Data Type

To create scenarios and add containers for Client Construct, Intelligent Slice, or Data Snap, click Add Data Type.

Add Data Type – Client Construct

To export all master data with full table copies, select Client Construct. A selection of Client Construct master data types will display (Fig. 2.5). This list is customizable in the Client Construct Framework, as referenced on page 7. Select the needed master data types using either the Select All button or by selecting them one at a time. When finished, click the OK button.

Figure 2.5



The Client Construct data types will be returned to the Export ID screen (Fig. 2.6).

Figure 2.6

The screenshot shows the 'DataWave Exports' window. At the top, there are fields for 'Export ID' (9902), a date (05.05.2021), and a user name (Demo). Below this is a toolbar with buttons for 'Refresh', 'Add Data Type', 'Post Processing', 'Delete', 'Data Type Manager', and 'Data Type Hierarchy'. The main area is a table with the following columns: DataWave Steps, Export ID, Container, Sc.Num, Type, Status, Rec Ct, Date, and Job Name. The table lists various data types under the 'Client Construct' category, such as ASSET MASTER, BANK CUSTOMER ACCOUNTS, BANKING MASTER, etc., all with an 'Export ID' of 9902 and a 'Date' of 00.00.0000.

DataWave Steps	Export ID	Container	Sc.Num	Type	Status	Rec Ct	Date	Job Name
Client Construct	0000	0000	000			0	00.00.0000	
ASSET MASTER	9902	0001	000	Client Construct		0	00.00.0000	
BANK CUSTOMER ACCOUNTS	9902	0002	000	Client Construct		0	00.00.0000	
BANKING MASTER	9902	0003	000	Client Construct		0	00.00.0000	
BILL OF MATERIALS	9902	0004	000	Client Construct		0	00.00.0000	
BILLING OUTPUT CONDITIONS	9902	0005	000	Client Construct		0	00.00.0000	
BUSINESS PARTNERS	9902	0006	000	Client Construct		0	00.00.0000	
BUSINESS RULES FRAMEWORK (BRF)	9902	0007	000	Client Construct		0	00.00.0000	
CAPACITY PLANNING	9902	0008	000	Client Construct		0	00.00.0000	
CASH & LIQUIDITY MANAGEMENT	9902	0009	000	Client Construct		0	00.00.0000	
CENTRAL ADDRESS MASTER	9902	0010	000	Client Construct		0	00.00.0000	
CHARACTERISTICS & CLASSES	9902	0011	000	Client Construct		0	00.00.0000	
CO SUMMARIZATION OBJECT	9902	0012	000	Client Construct		0	00.00.0000	
COMPANY ADDRESS MASTER	9902	0013	000	Client Construct		0	00.00.0000	
COMPATIBLE UNITS MASTER DATA	9902	0014	000	Client Construct		0	00.00.0000	
CONDITIONS	9902	0015	000	Client Construct		0	00.00.0000	
CONSOLIDATIONS MASTER DATA	9902	0016	000	Client Construct		0	00.00.0000	
CONTRACT ACCOUNTING MASTER DATA	9902	0017	000	Client Construct		0	00.00.0000	
COSTING	9902	0018	000	Client Construct		0	00.00.0000	
COSTING TEMPLATES	9902	0019	000	Client Construct		0	00.00.0000	
CUSTOMER MASTER	9902	0020	000	Client Construct		0	00.00.0000	
DELIVERY ROUTE SCHEDULES	9902	0021	000	Client Construct		0	00.00.0000	
DOCUMENT MANAGEMENT	9902	0022	000	Client Construct		0	00.00.0000	
EHS: BASIC DATA	9902	0023	000	Client Construct		0	00.00.0000	

Add Data Type – Intelligent Slice

To export a slice of master or transactional data, under Add Data Type, select Intelligent Slice. It will display a selection screen (Fig. 2.7) where export criteria can be entered. The selection criteria entered on this screen will be used across all data types. Most often, the first field, Date Range, is used to export a time slice of data.

Figure 2.7

The screenshot shows the 'Intelligent Slice' selection screen. At the top, there is an 'Execute' button. Below it is a section titled 'Data Selection Criteria' with a table of fields for selection. Each field has a 'to' field and a search icon.

Field	Value	to	Value	Icon
Date Range	[Yellow box]	to	[Empty box]	[Search icon]
Company Code	[Empty box]	to	[Empty box]	[Search icon]
Fiscal Year	[Empty box]	to	[Empty box]	[Search icon]
Material	[Empty box]	to	[Empty box]	[Search icon]
Sales Organization	[Empty box]	to	[Empty box]	[Search icon]
Plant	[Empty box]	to	[Empty box]	[Search icon]
Document Type	[Empty box]	to	[Empty box]	[Search icon]
Order Type (Purchasing)	[Empty box]	to	[Empty box]	[Search icon]
Purch. Organization	[Empty box]	to	[Empty box]	[Search icon]
Time Stamp	[Empty box]	to	[Empty box]	[Search icon]
Account Doc Number	[Empty box]	to	[Empty box]	[Search icon]
Sales Document	[Empty box]	to	[Empty box]	[Search icon]

Once the selection criteria is entered, click Execute. The example below is exporting a time slice from July 1, 2013 – December 31, 2013 (Fig. 2.8).

Figure 2.8

The screenshot shows the 'Intelligent Slice' dialog box with the following data selection criteria:

Field	Start Value	End Value	Action
Date Range	01.07.2013	31.12.2013	Apply
Company Code			Apply
Fiscal Year			Apply
Material			Apply
Sales Organization			Apply
Plant			Apply
Document Type			Apply
Order Type (Purchasing)			Apply
Purch. Organization			Apply
Time Stamp			Apply
Account Doc Number			Apply
Sales Document			Apply

A list of data types designated for Intelligent Slice use will display (Fig. 2.9). This list is customizable in the Data Echo Framework, as referenced on page 8.

Figure 2.9

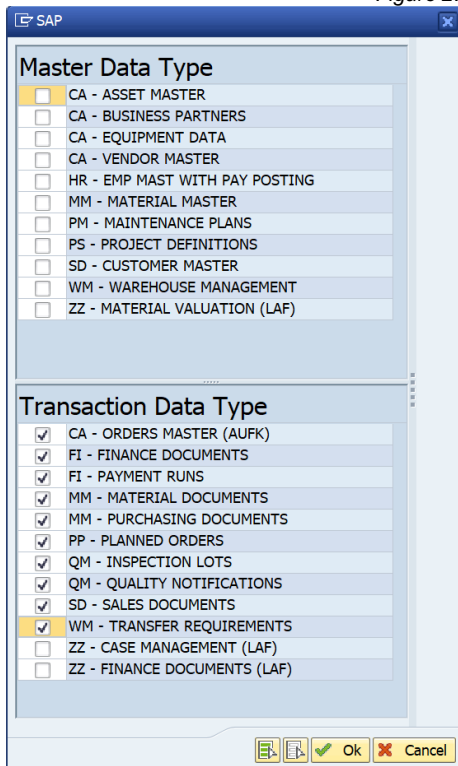
The screenshot shows a dialog box titled 'SAP' with two sections for selecting data types:

- Master Data Type**
 - CA - ASSET MASTER
 - CA - BUSINESS PARTNERS
 - CA - EQUIPMENT DATA
 - CA - VENDOR MASTER
 - HR - EMP MAST WITH PAY POSTING
 - MM - MATERIAL MASTER
 - PM - MAINTENANCE PLANS
 - PS - PROJECT DEFINITIONS
 - SD - CUSTOMER MASTER
 - WM - WAREHOUSE MANAGEMENT
 - ZZ - MATERIAL VALUATION (LAF)
- Transaction Data Type**
 - CA - ORDERS MASTER (AUFK)
 - FI - FINANCE DOCUMENTS
 - FI - PAYMENT RUNS
 - MM - MATERIAL DOCUMENTS
 - MM - PURCHASING DOCUMENTS
 - PP - PLANNED ORDERS
 - QM - INSPECTION LOTS
 - QM - QUALITY NOTIFICATIONS
 - SD - SALES DOCUMENTS
 - WM - TRANSFER REQUIREMENTS
 - ZZ - CASE MANAGEMENT (LAF)
 - ZZ - FINANCE DOCUMENTS (LAF)

Buttons at the bottom:

Select the desired data types using either the Select All button or by selecting them one at a time (Fig. 2.10). When finished, click the OK button. **Please Note:** If moving all master data with Client Construct, it is not necessary to select any master data types for Intelligent Slice.

Figure 2.10



Two informational messages appear. The first gives a job name that can be monitored in transaction SM37 (Fig. 2.11). This job does a calculation on the number of records found for each scenario created. The second (Fig. 2.12) gives the Export ID number and number of containers created.

Figure 2.11

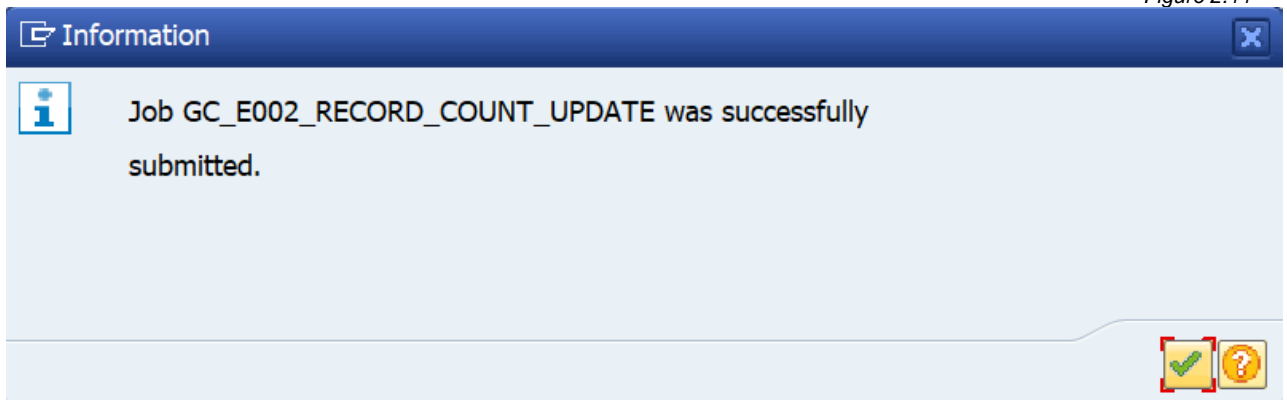


Figure 2.12



Example job log showing the record calculation for each scenario (Fig. 2.13).

Figure 2.13

Job Log Entries for GC_E002_RECORD_COUNT_UPDATE / 16255000

Job log overview for job: GC_E002_RECORD_COUNT_UPDATE / 16255000

Date	Time	Message text	Message class	Message no.	Message t
12.05.2021	16:25:56	Job started	00	516	S
12.05.2021	16:25:56	Step 001 started (program /HTG/GLC_UTL_R_34, variant &00000000000018, user ID EBYRNE)	00	550	S
12.05.2021	16:26:08	<< 308 >> records found for header table [AUFK]	/HTG/GCS	046	S
12.05.2021	16:26:16	<< 36047 >> records found for header table [BKPF]	/HTG/GCS	046	S
12.05.2021	16:26:18	<< 74 >> records found for header table [REGUV]	/HTG/GCS	046	S
12.05.2021	16:26:23	<< 115 >> records found for header table [MKPF]	/HTG/GCS	046	S
12.05.2021	16:26:27	<< 145 >> records found for header table [EKKO]	/HTG/GCS	046	S
12.05.2021	16:26:33	<< 66 >> records found for header table [PLAF]	/HTG/GCS	046	S
12.05.2021	16:26:38	<< 10 >> records found for header table [QALS]	/HTG/GCS	046	S
12.05.2021	16:26:43	<< 192 >> records found for header table [QMEL]	/HTG/GCS	046	S
12.05.2021	16:26:47	<< 197 >> records found for header table [VBAK]	/HTG/GCS	046	S
12.05.2021	16:26:50	<< 1 >> records found for header table [LTBK]	/HTG/GCS	046	S
12.05.2021	16:26:50	Job finished	00	517	S

Clicking Enter through both informational messages will come back to the Data Wave Export ID where the new Data Echo containers have been added after the Client Construct ones (Fig. 2.14). When the scenario count job is finished, if records are found for the selection criteria entered, the Status column will show a green light and the Record Count column will give the number of records. If no records are found, the Status column will show a yellow light and the Record Count column will show 0. **Please Note:** This count is for the header table only for the given data type.

Figure 2.14

DataWave Exports

Export ID	9902	Demo
	05.05.2021	EBYRNE

Refresh Add Data Type Post Processing Delete Data Type Manager Data Type Hierarchy

DataWave Steps	Export ID	Container	Sc.Num	Type	Status	Rec Ct	Date	Job Name	Tform	Subset Sync
[-] SPECIAL PURPOSE LEDGER MASTER	9902	0070	000	Client Construct		0	00.00.0000			
[-] TRAINING AND EVENT MANAGEMENT	9902	0071	000	Client Construct		0	00.00.0000			
[-] TREASURY & RISK MGMT MASTER DATA	9902	0072	000	Client Construct		0	00.00.0000			
[-] USER / PERSONAL SETTINGS	9902	0073	000	Client Construct		0	00.00.0000			
[-] VARIANT CONFIGURATOR	9902	0074	000	Client Construct		0	00.00.0000			
[-] VENDOR MASTER	9902	0075	000	Client Construct		0	00.00.0000			
[-] WAREHOUSE MANAGEMENT	9902	0076	000	Client Construct		0	00.00.0000			
[-] WORK CENTER HIERARCHY	9902	0077	000	Client Construct		0	00.00.0000			
[-] WORKFLOW MASTER DATA	9902	0078	000	Client Construct		0	00.00.0000			
[-] ZTABLES MASTER DATA	9902	0079	000	Client Construct		0	00.00.0000			
[-] ZTABLES MASTER DATA 1	9902	0080	000	Client Construct		0	00.00.0000			
[-] ZTABLES MASTER DATA 2	9902	0081	000	Client Construct		0	00.00.0000			
[-] ZTABLES MASTER DATA 3	9902	0082	000	Client Construct		0	00.00.0000			
[-] ZTABLES MASTER DATA 4	9902	0083	000	Client Construct		0	00.00.0000			
[+] Data Echo	0000	0000	000			0	00.00.0000			
[-] CA - ORDERS MASTER (AUFK)	0025	0001	017	Intelligent Slice		308	00.00.0000			
[-] FI - FINANCE DOCUMENTS	0025	0002	014	Intelligent Slice		36,047	00.00.0000			
[-] FI - PAYMENT RUNS	0025	0003	012	Intelligent Slice		74	00.00.0000			
[-] MM - MATERIAL DOCUMENTS	0025	0004	016	Intelligent Slice		115	00.00.0000			
[-] MM - PURCHASING DOCUMENTS	0025	0005	021	Intelligent Slice		145	00.00.0000			
[-] PP - PLANNED ORDERS	0025	0006	017	Intelligent Slice		66	00.00.0000			
[-] QM - INSPECTION LOTS	0025	0007	021	Intelligent Slice		10	00.00.0000			
[-] QM - QUALITY NOTIFICATIONS	0025	0008	020	Intelligent Slice		192	00.00.0000			
[-] SD - SALES DOCUMENTS	0025	0009	021	Intelligent Slice		197	00.00.0000			
[-] WM - TRANSFER REQUIREMENTS	0025	0010	015	Intelligent Slice		1	00.00.0000			

Add Data Type – Data Snap

To export additional data, under Add Data Type, select Data Snap. This can be used for other scenarios that fall outside of the Intelligent Slice data export criteria. It is good for single Data Echo selections. Use the Data Type Search features to find the Data Echo data type needed to create the additional Data Snap scenario (Fig. 2.15).

Figure 2.15

Restrict Value Range (1)

Data Type Search Data Type by Table Data Type by Ta...

Data Type

DT Kind

Primary Flag

Maximum No. of Hits

An example of this is for text data. If the text for all materials is desired, a Data Snap scenario could be added since this would not be included as an Intelligent Slice data type or scenario. The data type can be searched for using any of those three search tab options (Fig. 2.16). It will give a response to the search (Fig. 2.17). Double-click to accept the proposed data type or highlight it and click Enter.

Figure 2.16

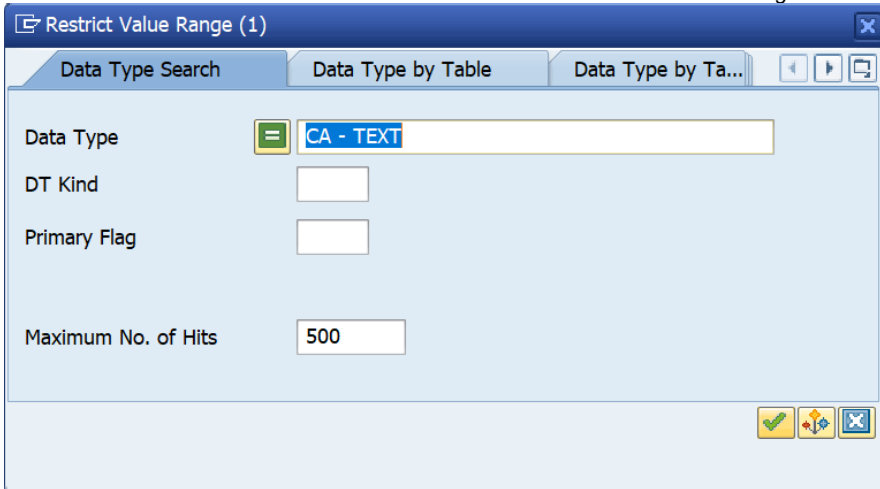
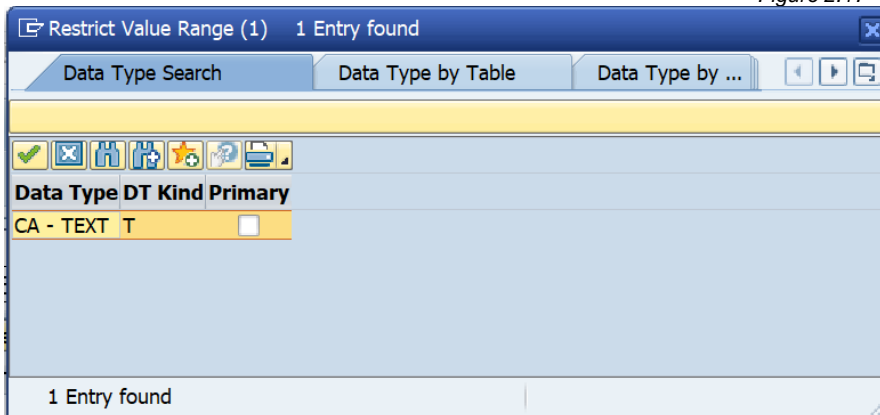
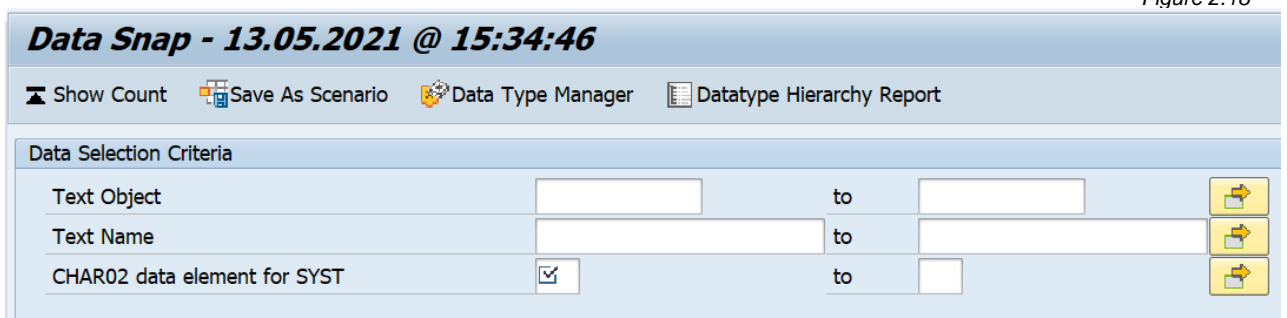


Figure 2.17



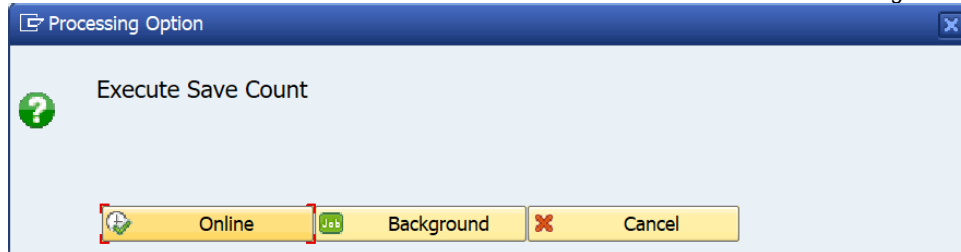
The Data Snap selection screen will display (Fig. 2.18). By default, it shows the Data Snap fields currently configured for the data type.

Figure 2.18



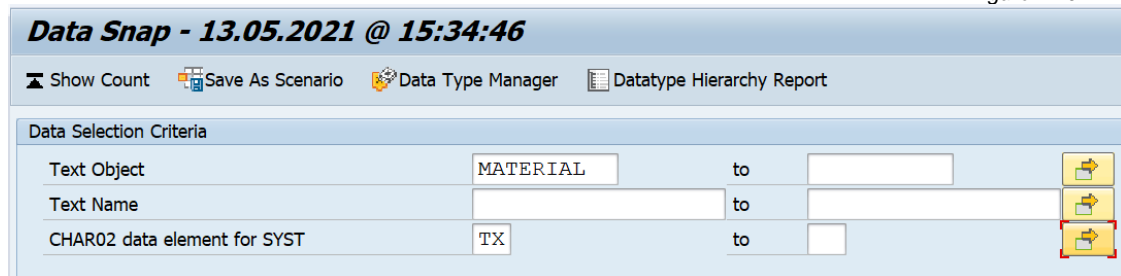
- **Show Count** - Once data selection criteria is entered, use Show Count to calculate the number of header records that will be retrieved by the scenario when exported (Fig. 2.19). Click Online to run the record count in the foreground or click Background to launch a background job to complete the record count. In most cases, using Online is acceptable.

Figure 2.19



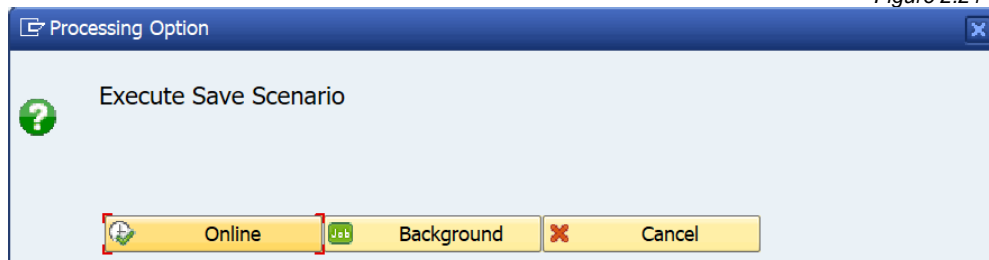
- **Save as Scenario** - Enter the selection criteria for the new Data Snap scenario and click Save as Scenario (Fig. 2.20).

Figure 2.20



It will prompt to save the scenario (Fig. 2.21). Click Online to run the record count and save in the foreground or click Background to launch a background job to complete the record count. In most cases, using Online is acceptable.

Figure 2.21



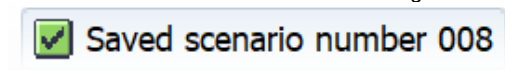
In addition to saving the scenario, it returns a count for the number of header records in the data type. In this example, it is for header table STXL (Fig. 2.22). It also returns a maximum record count, but it is not relevant for Data Wave processing because it will export all records for the scenario. Click Enter.

Figure 2.22



It will confirm the scenario is saved and give a scenario number (Fig. 2.23). **Please Note:** When a scenario is created, it can be shared across Gold Client processes. This scenario can be used in Export Control for standard Gold Client use.

Figure 2.23



The new scenario will be added to the bottom of the container list (Fig. 2.24). It will show a 0 record count until it is refreshed (Fig. 2.25).

Figure 2.24

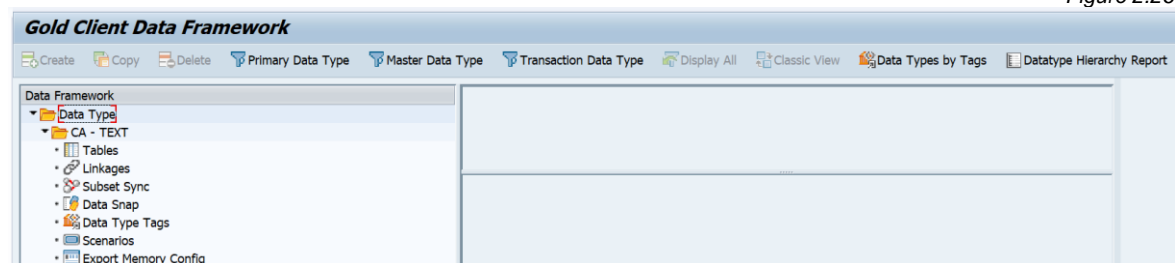
CA - TEXT	0025	0011	008	Data Snap	0	00.00.0000
-----------	------	------	-----	-----------	---	------------

Figure 2.25

CA - TEXT	0025	0011	008	Data Snap	3.652	00.00.0000
-----------	------	------	-----	-----------	-------	------------

- Data Type Manager** - If additional fields are needed or if the required field selection must be changed, click Data Type Manager. The Data Snap configuration can be updated in the same way as standard Gold Client. Open the data type, double-click on Data Snap, and adjust the configuration as needed (Fig. 2.26).

Figure 2.26



- Data Type Hierarchy Report** - Another option from the Data Snap scenario screen is the Data Type Hierarchy Report. The Data Type Hierarchy report is a standard Gold Client report. It shows recipient data types for the selected data type if any exist. For this example, there are no recipient data types for CA - TEXT.

After the containers are added, some columns will update. Using Refresh will give a record count for the header table for any Data Echo containers. The Status column is yellow until the Data Wave Export ID is executed for the first time. The lightbulb will turn yellow in the Transformation and Subset Sync columns if they are applicable to the data type.

Once the Data Wave Export ID contains the desired data types and scenarios, the user may choose to back out to the main Data Wave screen to initiate the export process. However, there is an optional set of post processing utilities that can be configured to execute after the data import completes in the target system. This further enhances the export/import automation, and the post processing utilities do not need to be manually executed in the target system. **Please Note:** There are four utilities offered but not all may be required in your target system.

Post Processing

The Post Processing options detailed below are all available as part of standard Gold Client. For Data Wave, they can be configured for each Export ID to execute as part of the import process. This should be executed in conjunction with the Import Options functionality where the import process is automated. The goal of this is to execute any needed import post processing utilities without manual intervention.

- Number Range Utility (Fig. 2.27) - This utility artificially inflates the number range statuses (current numbers) in the target system. The table updated with this utility is NRIV. It creates a buffer between the new data natively created in the target system and the data imported from a source system using Gold Client. This avoids a duplicate record error when additional data is imported from the source system and allows for more flexibility to copy more data after the initial refresh.

Enter the percentage by which to inflate the number range status (current number) for number ranges in the target system. The number range statuses, found on table NRIV, are updated by the percentage increase requested in the utility. By default, all number ranges are updated, but under Selection Criteria, this can be customized.

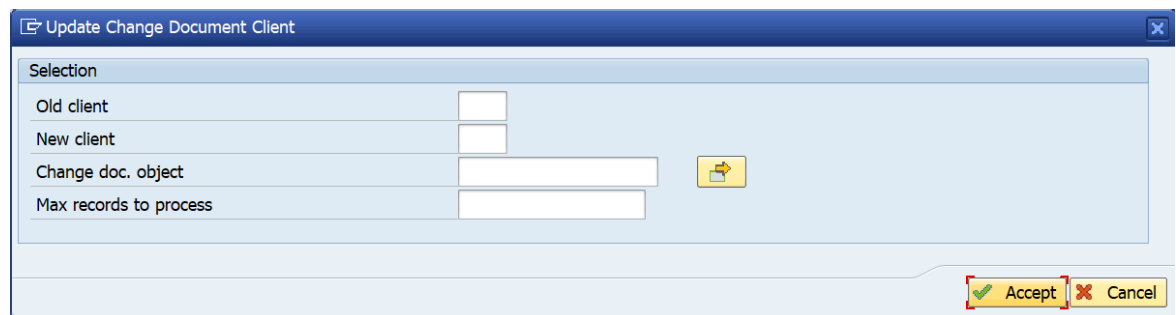
Figure 2.27

The screenshot shows the 'Number Range Utility' dialog box. It features a title bar with the text 'Number Range Utility' and a close button. The dialog is organized into two primary sections: 'Selection' and 'Selection Criteria'.
 The 'Selection' section includes a label 'Action to Number Range(s)' and a text input field labeled 'Increase by %'.
 The 'Selection Criteria' section contains a table with four rows, each representing a selection criterion. The rows are: 'Object name', 'Subobject value', 'Number range number', and 'To year'. Each row consists of a text input field, a 'to' label, another text input field, and a yellow button with a lightbulb icon.
 At the bottom right of the dialog, there are two buttons: 'Accept' (with a green checkmark icon) and 'Cancel' (with a red X icon).

- Update Change Document Client (Fig. 2.28) - If a change document object ID contains the MANDT (client) value in the record, a conversion from the source client number to target client number should be executed. This is needed so it is viewable in the target client. Tables updated with this utility are CDHDR and CDPOS. **Please Note:** This is required only for certain change document objects (Ex: object class BELEG). If the source system and target system have the same client number, this is not required.

This utility will update field Object Value (CDHDR-OBJECTID) so the data can be viewed in the target system. Enter the "old" client value of the source system used for the data export and the "new" client value of the target system where the data will be imported. The Change Document Object Class (CDHDR-OBJECTCLAS) should also be entered. For Max Records to Process, enter a value greater than what is expected to need converting. Only particular types of change documents need to be converted so it is not necessary to run this for all change document types.

Figure 2.28



- Client Text Object Updater (Fig. 2.29) - If a text name contains the MANDT (client) value in the record, a conversion from the source client number to target client number should be executed. This is needed so it is viewable in the target client. Tables updated with this utility are STXH, STXL, and STXB. **Please Note:** This is required only for certain text objects (Ex: text object AUFK). If the source system and target system have the same client number, this is not required.

This utility will update field Text Name (STXL-TDNAME) so the data can be viewed in the target system. Enter the "old" client value of the source system used for the data export and the "new" client value of the target system where the data will be imported. The Text Object (STXL-TDOBJECT) should also be entered. Text ID (STXL-TDID) can be entered if desired. For Max Records to Process, enter a value greater than what is expected to need converting. Only particular text objects need to be converted so it is not necessary to run this for all text data.

Figure 2.29

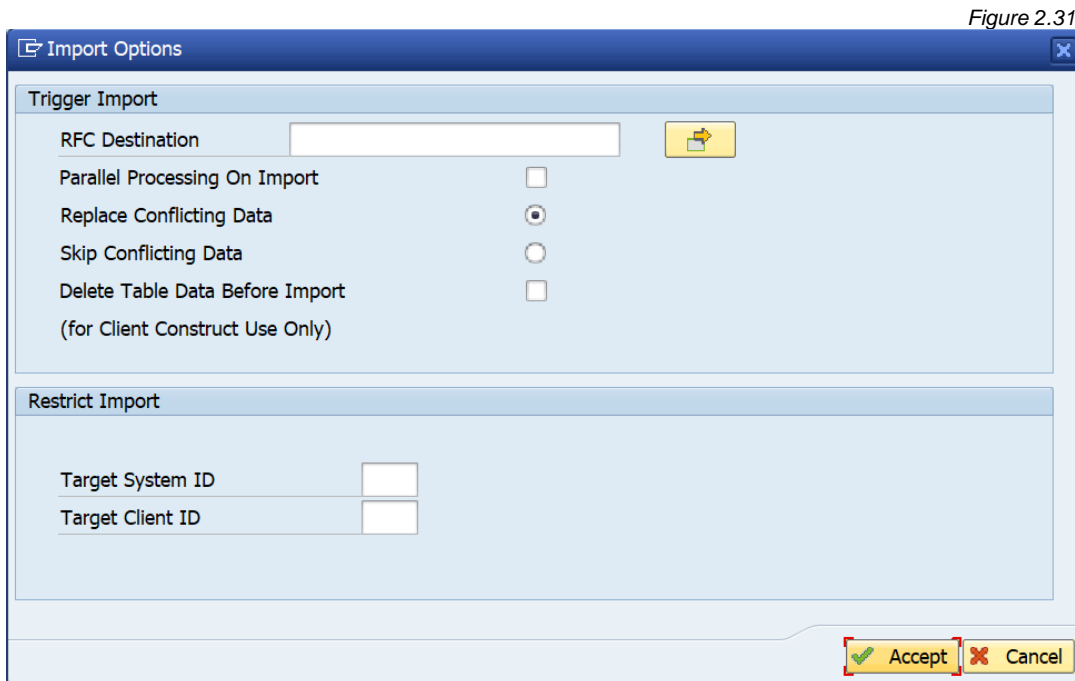
- Person Where-Used Address (Fig. 2.30) - If an address application key contains the MANDT (client) value in the record, a conversion from the source client number to target client number should be executed. This is needed so it is viewable in the target client. The table updated with this utility is ADRVP. **Please Note:** This is required only for certain objects (Ex: SOUD). If the source system and target system have the same client number, this is not required.

This utility will update field application table key (ADRVP-APPL_KEY) so the data can be viewed in the target system. Enter the "old" client value of the source system used for the data export and the "new" client value of the target system where the data will be imported. Application table name (ADRVP-APPL_TABLE) should also be entered. Application table field name (ADRVP-APPL_FIELD) can be entered if desired. For Max Records to Process, enter a value greater than what is expected to need converting.

Figure 2.30

Once the scenarios are ready and any desired parameters are set inside the Data Wave Export ID, return to main Data Wave screen. To begin the job scheduling process, select at least one checkbox on the Data Wave Export ID row. Before scheduling the job, there are other optional settings that can be used as part of the export/import process.

Import Options - There are automated data import options that can be set for the selected Data Wave Export IDs (Fig. 2.31). This is the same process as in standard Gold Client. To fully automate the process for the export and import of data, the Import Options must be utilized.



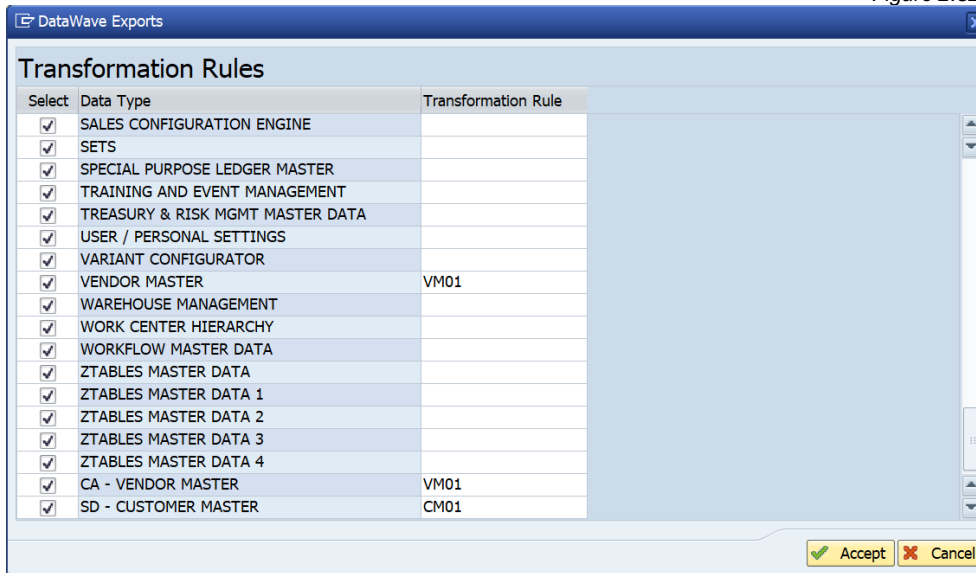
- **RFC Destination** – Select target system(s) for automatic import. **Please Note:** The allowed values are configured under ZGOLD – Configuration - Administration - Configure Auto Import RFC.
- **Parallel Processing on Import** – When active, uses multiple background processes during import. **Please Note:** The target system’s allowed application servers and number of jobs are configured under ZGOLD – Configuration - Administration - Parallel Processing.
- **Replace Conflicting Data** – Overwrites existing records during import.
- **Skip Conflicting Data** – Imports only new records into the target system and skips those which already exist in the database.
- **Delete Table Data Before Import** – Relevant for Client Construct imports only, this setting removes all records from the exported master data tables before importing. When no existing data should be retained, this setting allows a clean master data import.
- **Target System ID** and **Target Client ID** - Restricts data import at the target system and client level. If values are specified, data cannot be imported into other systems/clients.

Data Transform - Review and select transformation rules for each data type included in the Data Wave Export ID (Fig. 2.32). Client Construct and Data Echo data types can be configured to execute by default with a particular transformation rule selected. To keep this configuration in place, no action is needed because the data types will automatically export with that rule

applied. At runtime, if the transformation is not needed, the rule can be deselected to allow the data to export with no data transformation.

See ZGOLD – Transformation Rules for more information on rule setup and default data types for each.

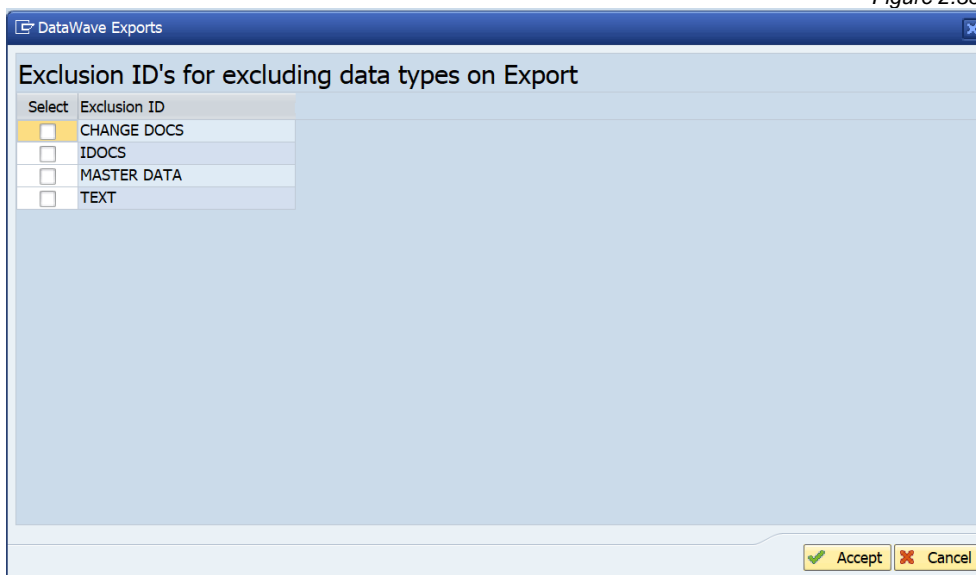
Figure 2.32



Data Exclusions - Allows specific areas of data to be excluded from the export at runtime. This can help with large data volumes. The data exclusions are not activated by default and must be selected at runtime. To run the export with selected data excluded, select any of the data areas listed (Fig. 2.33).

See ZGOLD - Configuration - Data Framework - Additional Tools - Maintain Data Exclusions for the configuration of data types and data areas permitted for exclusion.

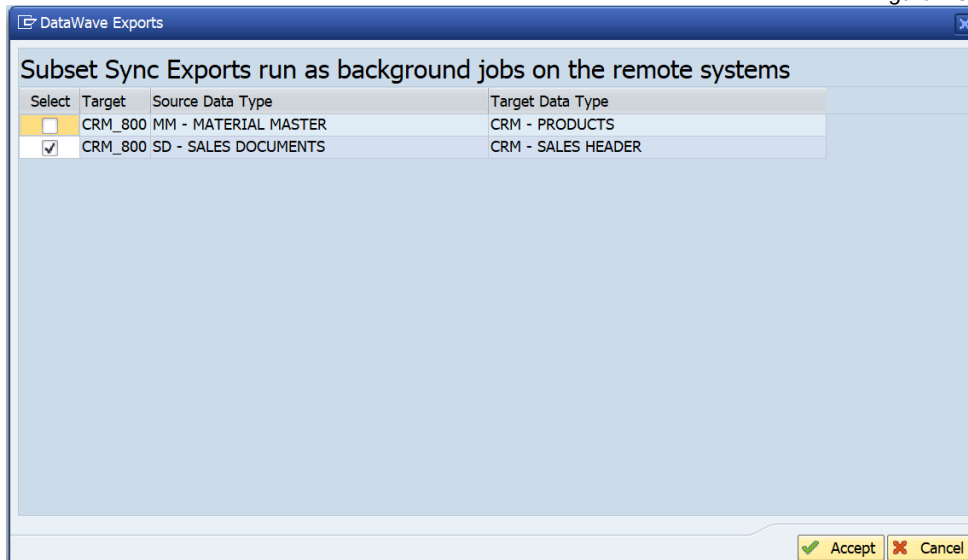
Figure 2.33



Subset Sync - Review and select Subset Sync configuration for connected data types that are included in the Data Wave Export ID (Fig. 2.34). Data types can be configured to execute by default with Subset Sync configured. To keep this configuration in place, no action is needed because the data types will automatically export with that Subset Sync logic applied.

See ZGOLD - Configuration - Data Framework - Data Echo for the configuration of Subset Sync for data types.

Figure 2.34



At runtime, if the Subset Sync job is not needed in the companion system, the checkbox can be deselected to allow the data to export with no Subset Sync execution. Conversely, if Subset Sync is configured but not active by default, it can be selected if it should execute with the Data Wave job stream.

Subset Sync is configured as part of the Data Echo configuration. See ZGOLD – Configuration – Data Framework – Data Echo for a data type’s specific configuration details.

Adjust Date Utility - This utility (Fig. 2.35) modifies the date range in the Data Echo scenario’s date field selection criteria for the selected Export ID. If a scenario does not have a date field populated, no action is taken.

It can be executed manually prior to the job scheduling using this button. It can also be executed as part of the job scheduling to automate the export process further.

Figure 2.35

- **Processing Options** - Summary Report is selected by default. It can be executed this way as a test to see what the results would be. Update Database will update the dates in the scenarios using the selected criteria when executed.
- **Selection Criteria** - The Export ID is populated with any Data Echo Export IDs selected on the main Data Wave screen at runtime. It can be updated with additional Export IDs if needed.
- **Action to Date Range** - This area dictates how the scenario dates will be updated. Start Date will automatically populate with the current system date, but it can be modified. The options for updating the scenario's date range are Last 7 Days, Last 30 Days, Last 90 Days, and Last nn days (where nn can be set to 999 or less).
- **Calculated Date Range** - This shows how the date range will be updated with the given parameters. Figure 2.35 above shows the calculated date range to be April 29, 2021 – May 6, 2021, when choosing to update for the last 7 days with a starting date of May 6, 2021.

Job Monitor – Launches a new SAP window with transaction SM37, filtering on Gold Client jobs for the past 7 days for the current user.

Once the scenarios are ready and any optional settings are selected, the job can be scheduled. Be certain at least one checkbox on the Data Wave Export ID row is chosen and select Schedule Jobs.

Schedule Jobs - This button (Fig. 2.36) allows you to schedule the Data Wave process.

Figure 2.36

- **Job Name** – Enter the name for the new Data Wave job. This is the only required field on this screen.
- **Start Options**
 - Select when the Data Wave job will execute. It can be run immediately, run once for a particular date/time in the future, or scheduled for a particular frequency. For any option other than Immediate, consider both the date and time fields, especially for jobs that will run as part of a repeatable process for a given time interval.
 - Parallel Processing – Enabled by default, this setting uses multiple background processes during export. **Please Note:** The allowed application servers and number of jobs in the source system are configured under ZGOLD – Configuration - Administration - Parallel Processing.
 - Start Date and Start Time - Define the start date and start time for the job. For jobs that will be executed daily, weekly, or monthly, the date will increment in the job schedule accordingly, and the selected time for execution will remain. If this needs to be updated for future runs, the job can be modified with transaction SM37.

- **Date Utility** - This date utility is optional and is executed with the below parameters. It modifies the date range in the scenario's date field selection criteria for the selected Export ID. This can be used for automated jobs that will execute as part of a repeatable process. If selected to run, it will execute as the first step of the job stream.
 - Run Date Utility - Set to active to execute the Adjust Date Range utility for this scheduled job.
 - Start Date - This is the date from which the utility will begin its update. If left blank, the current system date is used at runtime.
 - Last Days - Select the number of days for the scenario date calculation. It will use the Start Date field as its starting point. The options for updating the scenario's date range are Last 7 Days, Last 30 Days, Last 90 Days, and Last nn days (where nn can be set to 999 or less).

Export Dashboard

Once the Data Wave jobs are executing, the Export Dashboard (Fig. 2.37) provides information about Gold Client exports including ones exported using Data Wave. Its content can be filtered by Start Date, User Name, and Job Name. The dashboard displays helpful information for monitoring like Job Name, Status, Start Date and Time, and Duration.

It also includes other useful details like whether the export included data transformation and/or Subset Sync functionality. The Export Progress report can be launched from the dashboard also. If there are any failed export jobs, they can be rescheduled from this screen.

Figure 2.37

The screenshot shows the 'Export Dashboard' interface. At the top, there is a 'Refresh' button. Below it are three filter fields: 'Start Date' (set to 07.04.2021), 'User Name' (set to EBYRNE), and 'Job Name'. A toolbar contains icons for navigation and actions, including 'Advanced Details', 'Job Variant Details', 'Export Progress', and 'Restart Failed Jobs'. The main area is a table with the following columns: JobName, Status, Start Date, Start Time, Duration, Job Log, Tform, and Subset.

JobName	Status	Start Date	Start Time	Duration	Job Log	Tform	Subset
0000009095		29.04.2021	14:16:29	00:00:49	Job Log		
0000010121		19.04.2021	09:15:17	00:01:11	Job Log		
0000010121		29.04.2021	13:54:55	00:03:04	Job Log		
0000015610		29.04.2021	14:12:31	00:00:30	Job Log		
871 TESTING		28.04.2021	16:11:09	00:04:24	Job Log		
871 TESTING_IS		16.04.2021	10:41:36	00:05:31	Job Log		
871 TESTING_IS_EXCLUSIONS		16.04.2021	11:03:38	00:04:02	Job Log		
871 TESTING_IS_EXCLUSIONS2		16.04.2021	11:09:03	00:03:50	Job Log		
871 TESTING_IS_EXCLUSIONS3		16.04.2021	11:16:35	00:03:44	Job Log		
871 TESTING_SD		16.04.2021	11:21:22	00:00:47	Job Log		
871 TESTING_SD		16.04.2021	11:22:21	00:01:30	Job Log		
9000_CLEANUP_BEFORE_IMPORT		26.04.2021	10:43:35	00:00:03	Job Log		
9000_DELETE_BEFORE_IMPORT		26.04.2021	10:45:42	00:00:01	Job Log		
9901_DW_CC		04.05.2021	15:12:07	00:00:14	Job Log		
9901_DW_CC_IS		04.05.2021	15:21:33	00:07:50	Job Log		
9901_DW_CC_IS		04.05.2021	15:21:33	00:07:50	Job Log		
9901_DW_CC_WITH_DATE_UPDATE		04.05.2021	16:40:07	00:02:40	Job Log		
9901_DW_CC_WITH_DATE_UPDATE		04.05.2021	16:40:07	00:02:40	Job Log		
9901_DW_CC_WITH_EXCLUSIONS		04.05.2021	16:56:37	00:02:22	Job Log		

Once the export is complete, the Data Wave screen will update. The main screen shows the Job Name is populated with the last run job name (Fig. 2.38).

Figure 2.38

Select	DataWave	Owner	DataWave Description	No. of Co	Created On	RFC Destination	System ID	Client	Job Name
<input type="checkbox"/>	9901	EBYRNE	8.7.1 Testing	23	04.05.2021				9901_DW_JIRA_TEST
<input checked="" type="checkbox"/>	9902	EBYRNE	Demo	94	05.05.2021				DW_9902

Inside the Data Wave Export ID, fields Date and Job Name are updated with the last run information (Fig. 2.39). The record counts for Client Construct data types are also populated.

Figure 2.39

Export ID	9902	Demo
Date	05.05.2021	EBYRNE
Client Construct	GCRCLNT200	sapcrm-ides_GCR_06

DataWave Steps	Export ID	Container	Sc.Num	Type	Status	Rec Ct	Date	Job Name	Tform	Subset Sync
TRAINING AND EVENT MANAGEMENT	9902	0071	000	Client Construct	OK	461	03.06.2021	WORKER_990220210603112936_007		
TREASURY & RISK MGMT MASTER DATA	9902	0072	000	Client Construct	OK	236,056	03.06.2021	WORKER_990220210603112936_007		
USER / PERSONAL SETTINGS	9902	0073	000	Client Construct	OK	46,795	03.06.2021	WORKER_990220210603112936_003		
VARIANT CONFIGURATOR	9902	0074	000	Client Construct	OK	131,273	03.06.2021	WORKER_990220210603112936_003		
VENDOR MASTER	9902	0075	000	Client Construct	OK	12,487	03.06.2021	WORKER_990220210603112936_006		
WAREHOUSE MANAGEMENT	9902	0076	000	Client Construct	OK	3,306	03.06.2021	WORKER_990220210603112936_004		
WORK CENTER HIERARCHY	9902	0077	000	Client Construct	OK	69,994	03.06.2021	WORKER_990220210603112936_004		
WORKFLOW MASTER DATA	9902	0078	000	Client Construct	OK	1,976	03.06.2021	WORKER_990220210603112936_003		
ZTABLES MASTER DATA	9902	0079	000	Client Construct	OK	1,648	03.06.2021	WORKER_990220210603112936_003		
ZTABLES MASTER DATA 1	9902	0080	000	Client Construct	OK	5,079	03.06.2021	WORKER_990220210603112936_004		
ZTABLES MASTER DATA 2	9902	0081	000	Client Construct	OK	20,420	03.06.2021	WORKER_990220210603112936_003		
ZTABLES MASTER DATA 3	9902	0082	000	Client Construct	OK	283,456	03.06.2021	WORKER_990220210603112936_003		
ZTABLES MASTER DATA 4	9902	0083	000	Client Construct	OK	706,515	03.06.2021	WORKER_990220210603112936_007		
Data Echo	0000	0000	000			0	00.00.0000			
CA - ORDERS MASTER (AUFK)	0025	0001	017	Intelligent Slice	OK	308	03.06.2021	DW_9902		
FI - FINANCE DOCUMENTS	0025	0002	014	Intelligent Slice	OK	36,047	03.06.2021	DW_9902		
FI - PAYMENT RUNS	0025	0003	012	Intelligent Slice	OK	74	03.06.2021	DW_9902		
MM - MATERIAL DOCUMENTS	0025	0004	016	Intelligent Slice	OK	115	03.06.2021	DW_9902		
MM - PURCHASING DOCUMENTS	0025	0005	021	Intelligent Slice	OK	145	03.06.2021	DW_9902		
PP - PLANNED ORDERS	0025	0006	017	Intelligent Slice	OK	66	03.06.2021	DW_9902		
QM - INSPECTION LOTS	0025	0007	021	Intelligent Slice	OK	10	03.06.2021	DW_9902		
QM - QUALITY NOTIFICATIONS	0025	0008	020	Intelligent Slice	OK	192	03.06.2021	DW_9902		
SD - SALES DOCUMENTS	0025	0009	021	Intelligent Slice	OK	197	03.06.2021	DW_9902		
WM - TRANSFER REQUIREMENTS	0025	0010	015	Intelligent Slice	OK	1	03.06.2021	DW_9902		

Please Note: The standard SAP Change Layout button can be used to customize the columns seen in the Data Wave Export ID.

Target System

On the import side, if you used the Import Options to automate the process, you can use SM37 to monitor the import jobs in the target system. The export job that finishes last will give the import job name at the end of the job log. **Please Note:** The import job initiated by Import Options uses the configured RFC. This means the import jobs will be owned by the RFC user and not the user's own ID.

If the Import Options was not used or if you want more information about the export, go to the Client Importer and Import Control. They can be used in the same manner as standard Gold Client to import the data or run reports on it for the respective Client Construct and Data Echo exports.

Support Information

Qlik Analytics (ISR) Ltd. can be contacted either by telephone or via email. Any support related issue regarding problems with or use of the Gold Client software and process can be reported for resolution.

If our offices are closed, or staff is unable to directly respond to a support request, we will respond within 24 hours of the initial call. Problems related to the export or import processing may require code enhancements. If a code enhancement or fix is required, resolution time may vary.

As per the maintenance agreement, any repairs or enhancements to the Gold Client software will immediately be deployed to all customers up-to-date with their maintenance contract. It is the choice of the customer as to if and when such enhancements are implemented. In addition, customers may request a planning session with Qlik to review changes in the software and how the changes might impact their environment.

We can also be contacted to discuss application or feasibility of using the Gold Client process to resolve a current challenge the project team faces. When this is required, a planning session can be scheduled in advance to ensure proper participation by both Qlik and the client.

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