Manual

Importing Configurations using the Configuration Inspector Module

03.51.30

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Contents

This document is intended for bank or processing center employees who are responsible for Way4 setup. The document contains information about operations for copying configurations (for example, of Products and separate Product components) from one data schema to another using the Configuration Inspector module. This document describes data import. Functionality for exporting data using the Configuration Inspector module is provided according to an additional agreement with OpenWay.

While working with this document, it is recommended that users refer to the following resources from the Way4 documentation series:

- "Products and Contract Subtypes"
- "Way4 Account Schemes"
- "Way4 Service Packages"
- "Way4 Global Parameters"

The following notation is used in the document:

- Field labels in screen forms are shown in *italics*.
- Screen form button labels are shown in square brackets; for example [Approve].
- Sequences for selecting user menu items are shown using arrows as follows: "Configuration Setup → Contract Types".

Warnings and information messages are indicated as follows:

> ⚠ Warnings about potentially hazardous situations or actions.

> ⓘ Information about important features, additional options, or the best use of certain system functions.

1 General information

The Configuration Inspector module is used to copy a configuration from one data schema to another (test or production one).

A configuration includes: business settings, system settings including financial institution hierarchy, Product settings, card production settings, global parameter settings, solution topology settings, etc.

This document contains a description of operations for copying system object configurations, for example:

- Products – when Product configurations are copied, the system performs comprehensive copying (configurations of all objects linked with the copied Products are copied).
- Objects linked with Products:

- Account Schemes
- Service Packages
- Contract subtypes
- Report types
- Report templates
- Risk schemes
- Tariffs
- Applet subtypes

When copying Products, Event types, and contract subtypes, their "Configuration Groups" classifier mapping is preserved.

2 Preparing to copy

Before copying configurations, back up the data schema that is being updated in case unsolvable problems arise when importing information into it.

When copying settings, it is recommended that the versions of Way4 in the updated schema and the source schema match. Otherwise, some data might be not copied or copied incorrectly.

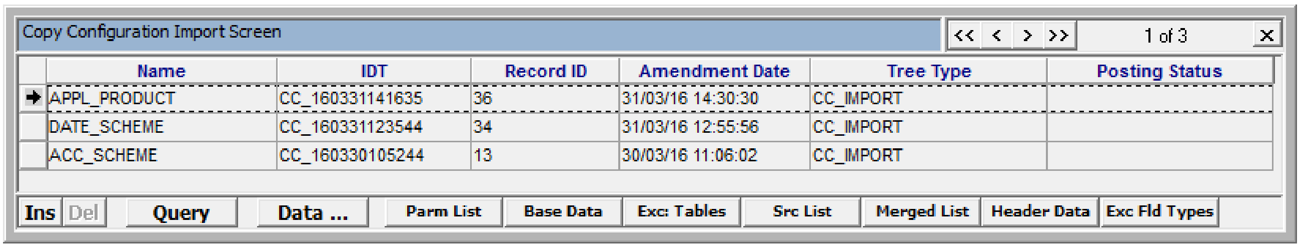
3 Data import

To prepare for import of configurations, copy the configuration file intended for import to the directory "<OWS_WORK>/Data" of the data schema being updated.

> Configuration files for import are provided by OpenWay.

In the data schema to be updated, start the data import pipe (Copy Configuration → Copy Configuration (Simple) → Import).

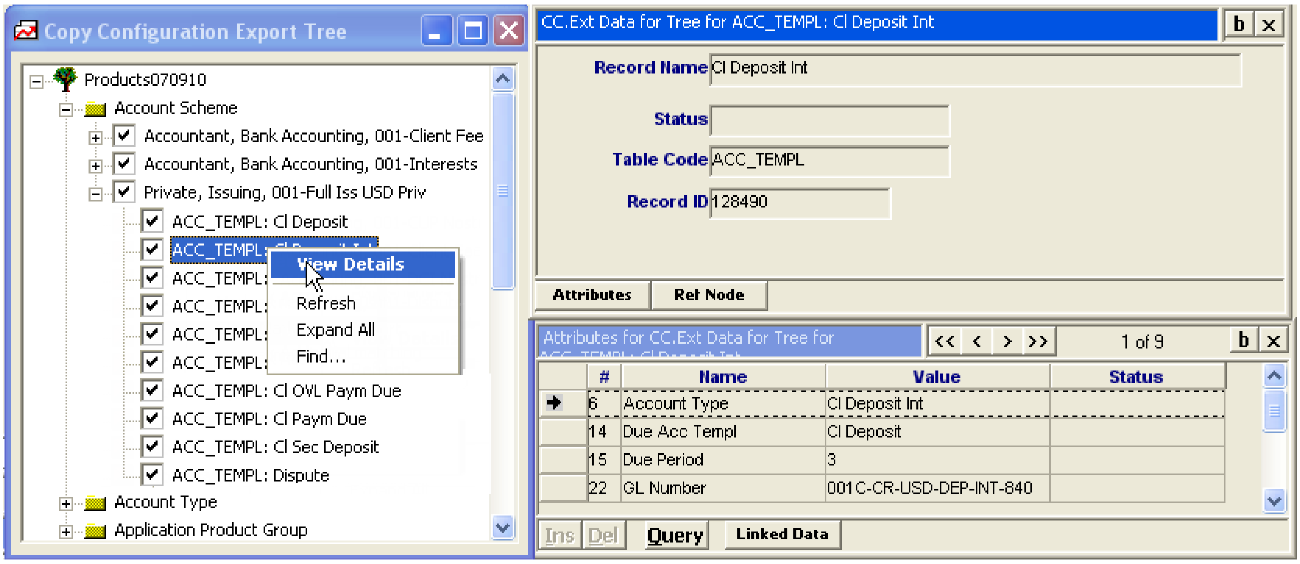
After import is completed, set up data import parameters and perform import in the "Copy Configuration Import Screen" form of the data schema to be updated (Copy Configuration → Copy Configuration (Simple) → Copy Configuration Import Screen).



"Copy Configuration Import Screen" form

> The [Merged List] and [Header Data] buttons are used to access technical information and are only used by OpenWay employees.

To view a configuration file, select the necessary record in the "Copy Configuration Import Screen" form, click the [Data...] button and select "View Standard" from the context menu.



Viewing a configuration file

The window for viewing a configuration file shows a tree of exported records. Executing the "View Details" context menu command shows detailed information for each record (similar to viewing detailed information in the "Copy Configuration Merge Tree" window).

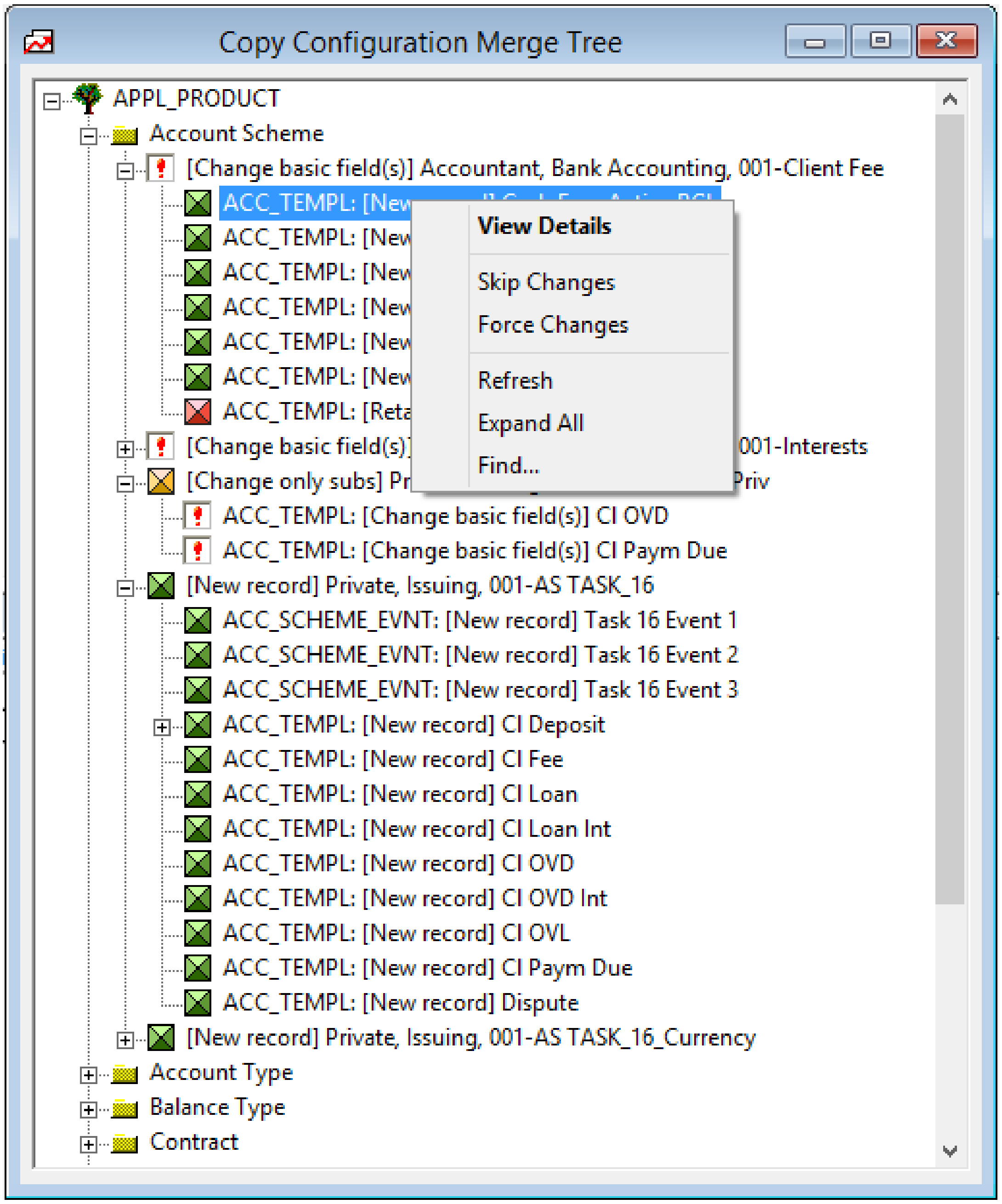
Next, merge the imported configurations with the target schema configurations by clicking the [Data...] button and selecting "Merge with Standard" from the context menu.

> The merge process can be quite lengthy

To view merge results, click the [Data...] button and select "View Merge Result" from the context menu.

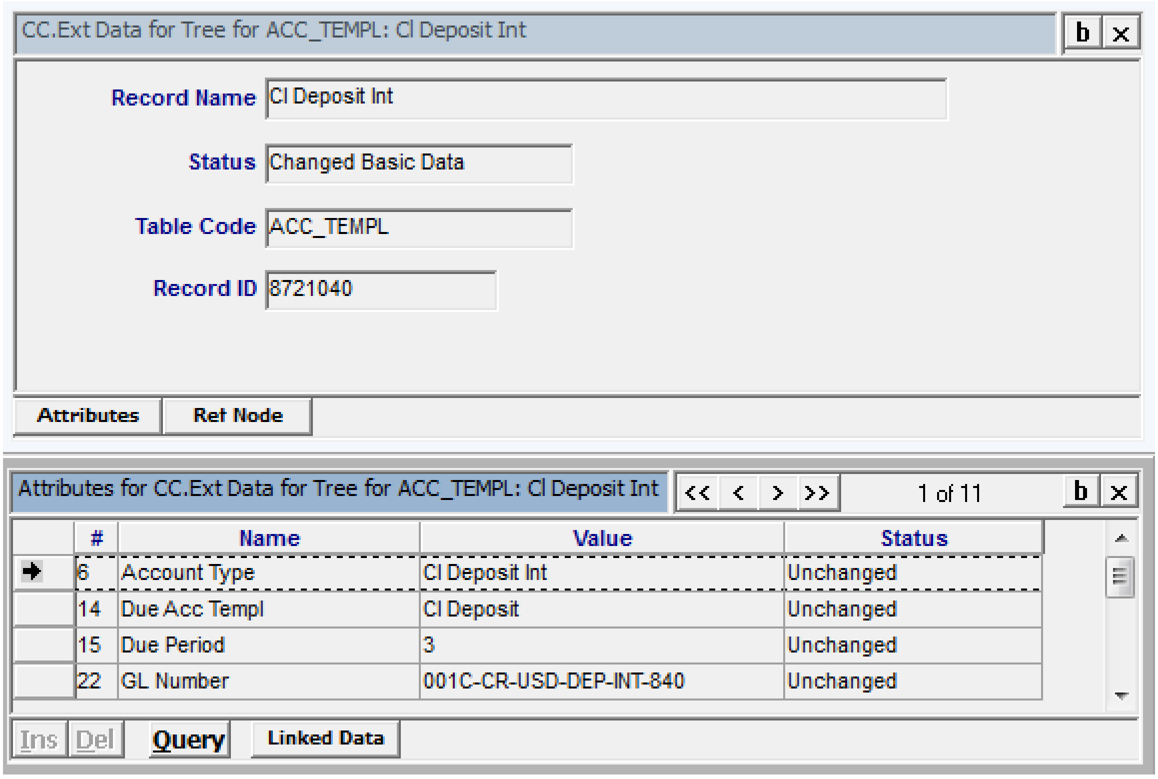
In the window that opens,carefully analyze the results using symbols and additional information in square brackets (corresponds to the status that is assigned to the parameter at the stage of data merging):

-  – the record is intended for deletion from the target schema:
  - "Retain record" – extra record (the record will be saved in the target schema).
  - "Remove record" – extra record (the record will be deleted in the target schema).
-  – the record contains updated data for irrelevant parameters or the record's child records contain updated data:
  - "Change only subs" – child records contain updated data.
  - "Skip change auto" – the record in the target schema will not be changed.
  - "Skip change manually" – the record in the target schema will not be changed (because "Skip Changes" is executed for this record).
-  – the record is intended for addition to the target schema:
  - "New record" – new record.
-  – the record contains updated data; the corresponding record in the target schema will be updated:
  - "Change name field" – a field with the "Name" attribute was changed for this record.
  - "Change basic field(s)" – fields with the "Basic" attribute were changed for this record.
  - "Change parm field(s)" – fields with the "Parm" attribute were changed for this record.



Viewing merge results, "Copy Configuration Merge Tree" window

Detailed information for each record in the window for viewing merge results is accessed by using the "View Details" context menu command. This opens the "CC.Ext Data for Tree for <table name>:<record name>" form.



Viewing detailed Information for each record

The "CC.Ext Data for Tree for <table name>:<record name>" form shows basic information about a record:

- *RecordName* – name of the record in the table.
- *Status* – status assigned to the parameter when merging data.
  - "New record" – new record.
  - "Unchanged" – the record does not change.
  - "Skip Changes" – the record in the target schema will not be changed (as the "Skip Changes" command will be automatically or manually executed for this record).
  - "To remove (Extra Record)" – extra record (the record will be deleted in the target schema).
  - "Extra Record" – extra record (the record will be saved in the target schema).
  - "Sub Changed" – records of parameters for this record contain updated data.
  - "Changed" – the record contains updated data.
  - "Changed Basic Data" – fields with the "Basic" attribute have been changed for this record.
  - "Changed Names" – fields with the "Name" attribute have been changed for this record.
  - "Changed Parms" – fields with the "Parm" attribute have been changed for this record.

> In this module, fields of records in database tables can have the following attributes: "Code" – identification field attribute; "Name" – name field; "Parm" – numeric parameter; "Basic" – all other fields (fields with links to other tables, fields with drop-down lists, date fields, comment fields).

- *TableCode* – name of the database table with this record.
- *ID* – record ID.

> The [Ref Node] button can only be used by OpenWay employees.

The "Attributes..." child form opened by clicking the [Attributes] button shows data table with a list of record parameters (fields):

- # – parameter identifier.
- *Name* – parameter name.
- *Value* – parameter value.
- *Status* – status assigned to the parameter at the data merging stage:
    - "Unchanged" – the parameter record does not change.
    - "Current" and "Imported" – these statuses are used as a pair if a parameter record changes. In this case, the form displays two records for the parameter with one ID (the # field): the imported and current record in the target schema. The imported parameter record is assigned the "Imported" value, and the current parameter record in the target schema is assigned the "Current" value.

The [Linked Data] button of the "Attributes..." form is used to open a form containing linked data from other tables. For example, the parameter *Name*="Account Type", *Value*="Cl Deposit Int" is linked with the record "Cl Deposit Int" in the ACCOUNT_TYPES table. To view the parameters of a linked record, click the [Attributes] button.

The "Skip Changes" context menu command leaves the corresponding record in the target schema unchanged when data is imported.

The "Force Changes" command makes it possible to forcibly change the corresponding record in the target schema when data is imported.

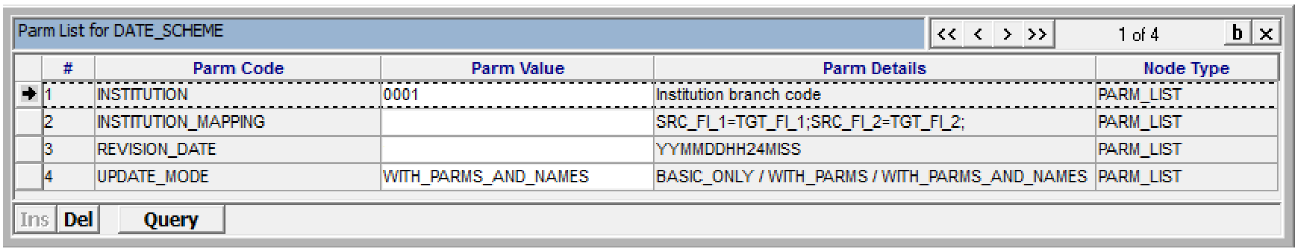
> If the "Skip Changes" and "Force Changes" commands are used carelessly, the imported configurations might not work.

For data analysis, the module allows the results of merging imported configurations with target schema configurations to be exported. Results of merging can be exported by clicking the [Data...] button in the "Copy Configuration Import Screen" form and selecting "Export Merge Results" from the context menu. A file with merge results has the "MERGE" postfix and is exported to the "<OWS_WORK>/Data" directory (default directory).

> Import of merge results using the "Import Merged Data" menu item is an activity applying changes in the target system and is executed at the end of the import procedure. When this menu item is executed, data in working configuration tables in the target schema will be updated.

> It is not possible to reverse the consequences of applying merge results and return the target schema to the original state.

Import parameters are set up in the "Parm List for <configuration file name>" form that is opened by clicking the [Parm List] button in the "Copy Configuration Import Screen" form.


Parm List for DATE_SCHEME

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#	Parm Code	Parm Value	Parm Details	Node Type
1	INSTITUTION	0001	Institution branch code	PARM_LIST
2	INSTITUTION_MAPPING		SRC_FI_1=TGT_FI_1;SRC_FI_2=TGT_FI_2;	PARM_LIST
3	REVISION_DATE		YYMMDDHH24MISS	PARM_LIST
4	UPDATE_MODE	WITH_PARMS_AND_NAMES	BASIC_ONLY / WITH_PARMS / WITH_PARMS_AND_NAMES	PARM_LIST

Ins Del Query

"Parm List for <configuration file name>" form

At the import step, it is necessary to do the following in this form:

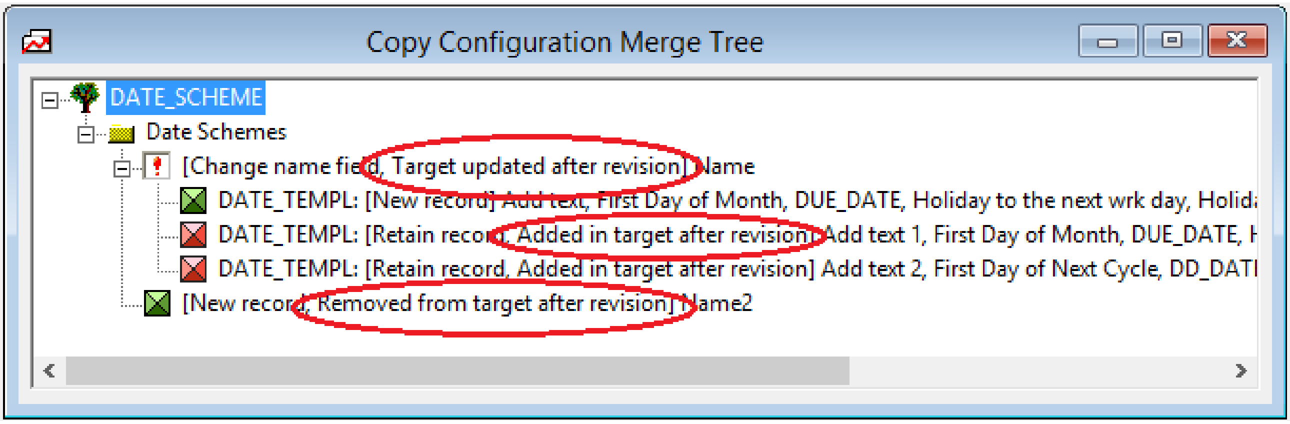
- Configure copy mode. To do so, set the appropriate value for the UPDATE_MODE parameter. This parameter makes it possible to configure the mode for copying table fields with various attributes ("Parm", "Name", etc.). Possible values:
  - "WITH_PARMS_AND_NAMES" – this value assumes update of all table fields.
  - "BASIC_ONLY" – only fields with the "Basic Data" type are updated during import (fields with links to other tables, fields with drop-down lists, date fields, comment fields). This value is reserved for internal use.
  - "WITH_PARMS" – only numeric parameters are updated during import. This value is reserved for internal use.
- INSTITUTION parameter – identifier (*Branch Code* field value) of the target financial institution to which data are being imported. By default, the value of this parameter corresponds to the value of the INSTITUTION parameter set when exporting data. I.e. by default (when the value of the INSTITUTION_MAPPING parameter is empty) data is copied to the financial institution with the same Branch Code as that of the financial institution from which the data is being copied.

The target institution can be redefined using the INSTITUTION_MAPPING parameter, in this case, the value of the INSTITUTION parameter should also be redefined (see the description of the INSTITUTION_MAPPING parameter below).

- The INSTITUTION_MAPPING parameter is used to configure the corresponding between the financial institution that is the source of data and the financial institution that is the target of data if financial institution identifiers (Branch Code) do not match. This parameter makes it possible to import data to another financial institution. The parameter's value is specified in the format <source financial institution's Branch Code>=<target financial institution's Branch Code>.

> To correctly change the prefixes of settings being imported, in the INSTITUTION field specify the target institution redefined using the INSTITUTION_MAPPING parameter. For example, when importing data from a financial institution with Branch Code=0001 to a financial institution with Branch Code=0002, specify the value "0002" in the INSTITUTION field. The name of the Account Scheme will be changed from 0001-Issuing to 0002-Issuing.

- The REVISION_DATE parameter is used to specify a revision date. The parameter value is specified in the format "YYMMDDHH24MISS"; e.g. "160331121500" is specified for 12:15:00 31.03.2016. If the parameter is set, when merging imported configurations with target schema configurations, the parameter value is compared with the date the record being imported was created or changed. The result of this comparison is added to the record's status in square brackets:
    - "Target updated after revision" – shown for "Change parm field(s)", "Change name field" and "Change only subs" records if the date of creating or changing the record being imported is greater than the date specified in the REVISION_DATE parameter.
    - "Removed from target after revision" – shown for "Remove record" and "Retain record" subordinate records if the date of creating or changing the record being imported is greater than the date specified in the REVISION_DATE parameter.
    - "Added in target after revision" – shown for "New record" records if the date of creating or changing the record being imported is less than the date specified in the REVISION_DATE parameter.



Merge results when the REVISION_DATE parameter is set

Clicking the [Base Data] button opens the "Base Data" form showing data filtering conditions that were specified during export.

Clicking the [Exc: Tables] button opens the "Exc: Tables for <configuration file name>" form showing conditions for filtering data for linked tables. These conditions were specified during export. The table name is specified in the *Table Code* field. The rule applied to this table is specified in the *Rule (Empty = Skip)* field.

To view imported records as a list, in the "Copy Configuration Import Screen" form, click the [Src List] button to open the "Src List for <name of configuration file>" form:

- Clicking the [Data] button in the "Src List for <name of configuration file>" form opens a form with a list of subordinate records. For lower-level records, clicking the [Data] button opens a form with the record's main parameters (this form is identical to the "Attributes for..." form).
- Clicking the [Field List] button in the "Src List for <name of configuration file>" form opens a form with technical information about record fields.

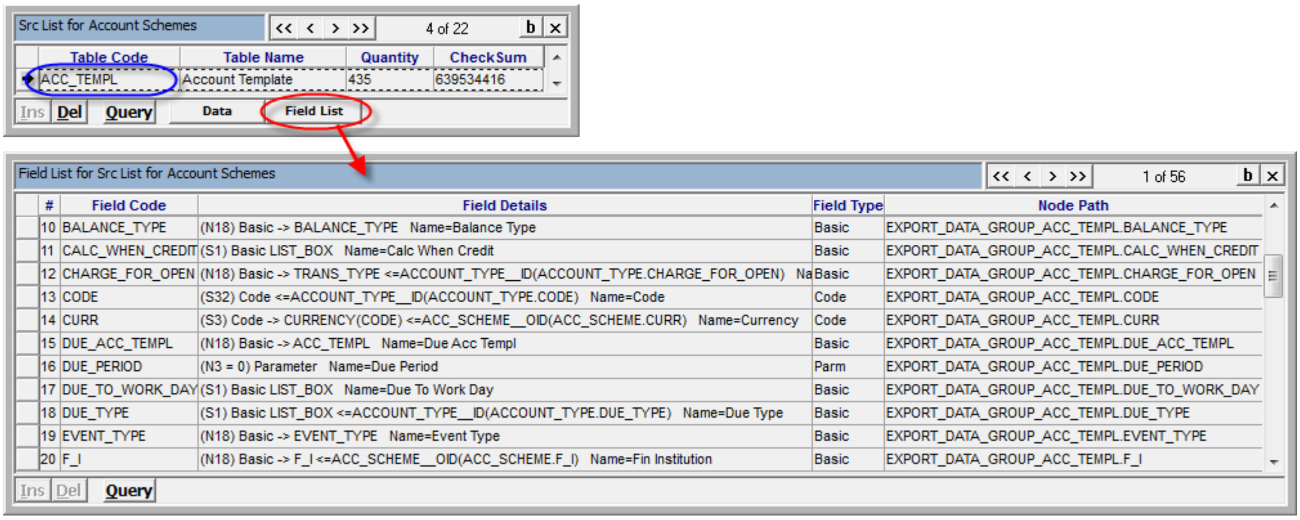

Src List for Account Schemes 4 of 22

Table Code	Table Name	Quantity	CheckSum
ACC_TEMPL	Account Template	435	639534416

Ins Del Query Data Field List

Field List for Src List for Account Schemes 1 of 56

#	Field Code	Field Details	Field Type	Node Path
10	BALANCE_TYPE	(N18) Basic -> BALANCE_TYPE Name=Balance Type	Basic	EXPORT_DATA_GROUP_ACC_TEMPL.BALANCE_TYPE
11	CALC_WHEN_CREDIT	(S1) Basic LIST_BOX Name=Calc When Credit	Basic	EXPORT_DATA_GROUP_ACC_TEMPL.CALC_WHEN_CREDIT
12	CHARGE_FOR_OPEN	(N18) Basic -> TRANS_TYPE <=ACCOUNT_TYPE__ID(ACCOUNT_TYPE.CHARGE_FOR_OPEN) Na	Basic	EXPORT_DATA_GROUP_ACC_TEMPL.CHARGE_FOR_OPEN
13	CODE	(S32) Code <=ACCOUNT_TYPE__ID(ACCOUNT_TYPE.CODE) Name=Code	Code	EXPORT_DATA_GROUP_ACC_TEMPL.CODE
14	CURR	(S3) Code -> CURRENCY(CODE) <=ACC_SCHEME__OID(ACC_SCHEME.CURR) Name=Currency	Code	EXPORT_DATA_GROUP_ACC_TEMPL.CURR
15	DUE_ACC_TEMPL	(N18) Basic -> ACC_TEMPL Name=Due Acc Templ	Basic	EXPORT_DATA_GROUP_ACC_TEMPL.DUE_ACC_TEMPL
16	DUE_PERIOD	(N3 = 0) Parameter Name=Due Period	Parm	EXPORT_DATA_GROUP_ACC_TEMPL.DUE_PERIOD
17	DUE_TO_WORK_DAY	(S1) Basic LIST_BOX Name=Due To Work Day	Basic	EXPORT_DATA_GROUP_ACC_TEMPL.DUE_TO_WORK_DAY
18	DUE_TYPE	(S1) Basic LIST_BOX <=ACCOUNT_TYPE__ID(ACCOUNT_TYPE.DUE_TYPE) Name=Due Type	Basic	EXPORT_DATA_GROUP_ACC_TEMPL.DUE_TYPE
19	EVENT_TYPE	(N18) Basic -> EVENT_TYPE Name=Event Type	Basic	EXPORT_DATA_GROUP_ACC_TEMPL.EVENT_TYPE
20	F_I	(N18) Basic -> F_I <=ACC_SCHEME__OID(ACC_SCHEME.F_I) Name=Fin Institution	Basic	EXPORT_DATA_GROUP_ACC_TEMPL.F_I

Ins Del Query

"Field list for Src List for <name of configuration file>" form

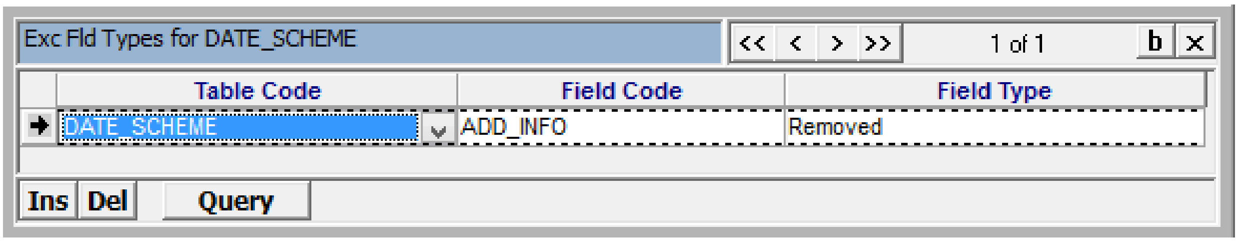
The "Field list for..." form contains the *Field Type* field – field type (Basic, Code, Name, Parameter, Other). During import, a record is searched for in the source schema's table and merged with the record being imported according to record field types:

- The search is made by fields with the "Code", "Name", and "Basic" types. Fields with the "Parameter" and "Other" types are not used for merging.
  - "Code" – indicates an identification field.
  - "Name" – name field.
  - "Basic" – all other fields (fields with links to other tables, fields with drop-down lists, date fields, comment fields).
  - "Parm" – numeric parameter.
  - "Other" – field values will only be imported if records are missing in the target system. If these records are already present, field values will not be updated.
- The search is performed cyclically. First an attempt is made to "fully merge" records (the values in a "Code" type field are checked for matching; then in fields with the "Name" and "Basic" types; if the check is successful, the record is considered to have been found). Each consecutive cycle contains less rigorous merging conditions, which increases the risk that duplicate records will appear.

> The field for the internal unique identifier of a record in tables (Record ID) is not exported. In all configuration tables, "Code" type fields act as the default identification field(s). Note that if a record identifier ("Code" type field) is unique, the record will be searched for and matched unambiguously. If the identifier is not unique, the risk of duplicate records appearing increases

Types of fields for a specific table are hardcoded. A record may have several fields of the same type. All fields of the same type are analyzed in a search.

Table fields that should or should not be imported can be specified in the "Exc Fld Types for <configuration file name>" form opened by clicking the [Exc Fld Types] button.



"Exc Fld Types for <configuration file name>" form

The table name is specified in the *Table Code* field. The field name is specified in the *Field Code* field. In the *Field Type* field, select the rule applied to this field:

- "Skip" – do not import this field.
- "Removed" – delete the field.
- "Name", "Code", "Parameter", "Basic", "Other" – these values specified for fields being imported are used to set the type of field with the field will be imported.

> For example, if some fields in a table are missing in an updated schema (were deleted when the data schema was updated), to be able to import configuration data, these fields must be added to the "Exc Fld Types for <configuration file name>" form with a *Field Type* value of "Removed".

After data is merged and import parameters are set up, the import procedure is performed. To start import, click the [Data...] button and select "Import Merged Data" from the context menu.

> The import process may take a rather long time.

> After executing the [Data...] → "Import Merged Data" command, new configuration data is imported into the target schema. It is not possible to return to original configuration data after this stage of import is completed.

After the import procedure is completed, it is necessary to view process log records (Copy Configuration → Copy Configuration (Simple) → Process Log) corresponding to the configuration import. To access messages generated by the system during the process (including error messages), click the [Messages] button in the "Process Log" form.

If it is necessary to delete a configuration file record, click the [Data...] button and select "Remove Data (!!!! NO RESTORE)" from the context menu. In the prompt window that opens, click [OK] to confirm deletion.

Deleted configuration file records cannot be restored.

4 Preparing copied data for work

After configurations are imported, it is necessary to activate all copied components:

1. After import, imported records that contain the *Is Ready* field are inactive ("Not Ready" is specified in the *Is Ready* field). The *Is Ready* field shows whether a new record or changes made to a record have been approved.
2. For the procedure to approve records, see the sections "Approving Products and Applying Product Changes to Contracts", "Account Scheme Approval", "Approving Service Packages", "Way4 Service Packages", "Tariff numeric values" in the corresponding documents "Products and Contract Subtypes", "Way4 Account Schemes", "Way4 Service Packages", "Way4 Advanced Tariff Management":
   - During approval of changes, record parameters are automatically checked. If errors are detected during the parameter check, the corresponding message is displayed on the screen. For information about errors, see the process log.
   - After a record is successfully approved, a message informing users that changes have been registered in the database is displayed on the screen, and the *Is Ready* field is set to the "Ready" value.

> The tariff management module is not included in the basic system configuration and is provided according to an additional agreement with OpenWay.
>
> If multiple problems occur during approval of copied records, restore the data schema from the backup copy created earlier.