A MITEL
PRODUCT
GUIDE

HiPath DS-Win V4

DS-Win V4, Administration

Administration Guide
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Mitel

Notices

Trademarks

Contents

1 DS-Win V4

DS-Win V4 is an electronic telephone directory for the attendant console and office workstations. It consists of DS View for the application as well as GUI Designer and DS-Admin for customization and modifications. It has been designed on the basis of the latest technical know-how and is extremely user-friendly. The wide range of features provided by DS-Admin allows you to configure your telephone directory to suit your special requirements and thus optimize it for your work.

1.1 Features of DS-Win V4

Application Areas

The DS-Win V4 electronic telephone directory can be integrated seamlessly in the PC attendant console AC-Win IP V2 or BLF-Win V4 to form a complete system that fully satisfies demands related to functionality, flexibility, and ease-of-use. No matter whether you are looking for the phone number of a subscriber, a particular key word, a specialist field or a sphere of responsibility, all you have to do is press a key and the DS-Win V4 system does the rest. DS-Win V4 can, however, also be used at an office workstation. The integrated dialling aid allows a call to be set up automatically from the connected telephone after the desired call partner has been found.

DS-Win Characteristics

The DS-Win V4 electronic telephone directory is a directory service that can be customized for use on a PC and in a client/server configuration. The following functions are available:

- Telephone information system for attendant console and/or workstation with DS View functions
- Configuration of the database and the user interface to one's own requirements with **DS-Win Designer**
- Administration of all subscriber data including display of notes
- Distributed database, client/server technology
- Synchronization with host databases via LAN

DS-Win V4 is a 32-bit program, running with the Windows Vista® Enterprise (32-bit), Windows Vista® Business (32-bit), Windows 7 Enterprise (32-bit) and Windows 7 Ultimate (32-bit) operating systems.

Individually Configurable Database

The DS-Win V4 database provides you with tables in which you can record data such as employee names, room numbers, departments, eMail addresses, product catalogues, keyword lists, and much more. Apart from permanently set tables in which you can adapt the fields to suit your requirements you also have the option of adding new fields and even of creating new tables. This is particularly useful if you want to have access to information that is linked indirectly to the telephone directory, such as hotel or restaurant addresses, notes, procedures, and so on.

In addition, when using a corresponding ODBC driver, you can also implement other databases such as Informix or MS SQL Server 2005, MS Access and MYSQL. Thus, existing databases, e. g., containing your personal data, can be used.

Individually Configurable User Interface

You can determine how your data will be displayed on the screen. For this purpose, DS-Win V4 includes a design tool (see the DS-Win V4 Designer manual) that provides you with all resources you need to design the output of information on the screen in line with the requirements of your work.

Finding and Modifying Data

There are two basic search modes available: speed search and query.

- For a speed search, enter individual characters in a search field and move progressively closer to the subscriber or term you are looking for until the "correct" one is finally found.
- In query mode, enter several search criteria, where necessary, and let the system search for all data records that correspond to these criteria.

You can move (navigate) in the dataset, rearrange the search result according to different criteria, edit or delete records or add new ones.

Dial Functions

DS-Win does not only support the automatic telephone dialing equipment of the AC-Win PC attendant console, but also the optiPoint telephones through the USB interface. Thus, it can be used at an attendant console as well as at an ordinary workstation.

Printing Data

You can select different layouts for printing your data records or search results with the option of printing the entire dataset or individual records. DS-Win iReport von JasperSoft uses the software which can be used to create test pages.

Import/Export

Large volumes of data can be imported and exported via a flexible interface. The DS-Win database can be synchronized with host databases, e. g., with the central OpenScape 4000 Manager database, either manually or automatically, according to a predefined timetable.

1.2 Administration Guide Concept

This manual describes examples of the above-mentioned functions from the administrator's perspective. The guide shall:

- illustrate the relationship between individual functions,
- serve as a reference for administrators familiar with the product.

1.3 Product Names

The new product names are used in this administration guide, e. g., OpenScape 4000 Assistant (formerly: HiPath 4000 Assistant), OpenScape 4000 Manager (formerly: HiPath 4000 Manager), OpenScape 4000 (formerly: HiPath 4000). If possible, these new product names are used. If the referred software user interfaces and books use the old names, the old product names are used.

2 Starting Administration

Ways of Starting

There are two ways of starting the DS-Win Administration application with the standard dialog:

- Double-click the relevant dialog file.
- Start the "DS-Win Administration" window via the Windows Start menu.

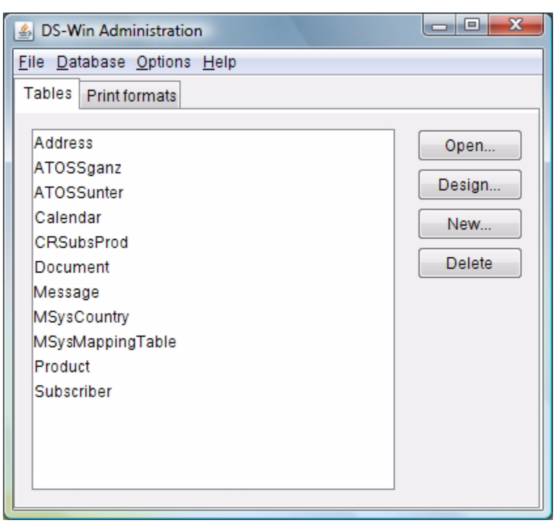
Starting via the Windows Start menu

Proceed as follows:

Step	Action
1	Select **Start** -> **Programs** -> **DS-Win V4** -> **DS-Win Admin**. The "DS-Win password" logon window opens.
2	Enter the user name and the password into the logon window. Then click **OK**. The "DS-Win Administration" window opens.

The only user ID available by default for using the DS-Win Administration window is the "Administrator" user ID. This works initially without a password. We strongly recommend that you set a password for this user ID as soon as you log in for the first time. Once this is set, a login dialog pops up each time you open the DS-Win data view window. It is a good idea to set up additional user IDs with fewer privileges.

"DS-Win Administration" window



The "DS-Win Administration" window is used for administering a DS-Win database. It offers the following functions:

- edit data
- import or export data
- create new databases
- edit table structures
- create new tables
- create layouts
- perform synchronizations with host databases
- administer users
- set countries
- change passwords

You can save changed database or language settings using **File** -> **Save file**. The administration window is started with these new values the next time it is opened.

The „Tables“ tab offers mapping tables. The „Print formats“ tab offers print formats.

3 Data and Tables

Contents

You find the following topics in this chapter:

3.1 Table Structures and Indexes

Contents

You find the following topics in this section:

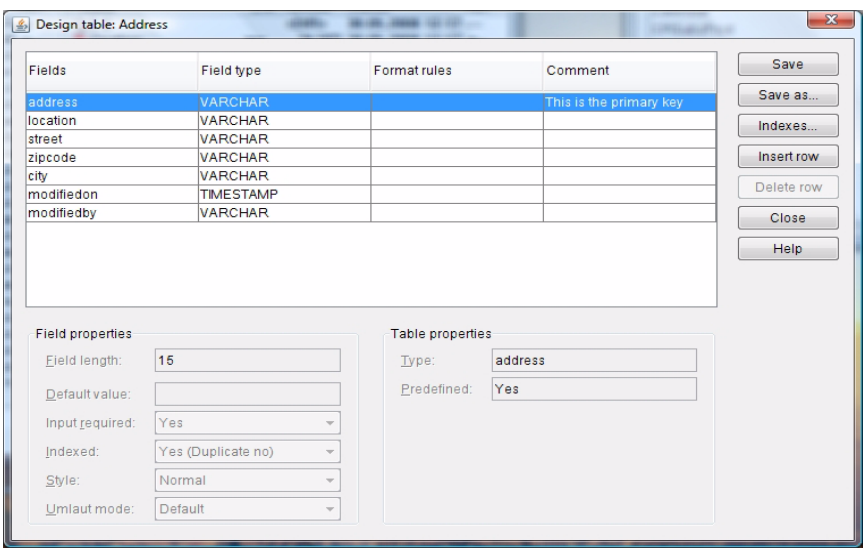
3.1.1 Designing Table Structures

If you have the appropriate access permissions, you can change the structure of the displayed table.

Prerequisite

The DS-Win administration was started. Refer to Chapter 2, "Starting Administration".

Example for the "Design table" Window



Procedure

Proceed as follows:

Step	Action
1	In the "DS-Win Administration" window, select a table in the "Tables" tab.
2	Click **Design**. The "Design table" window opens.

Step	Action
3	You can enter or change the properties supported by the database. If existing tables are copied, all predefined mandatory fields complete with their properties are copied without relationships to other table fields. All other user tables are designed without these presettings. You insert columns and fields in tables and define the attributes "Name", "Type" and, where applicable, "Format rules" and "Comment" for each column.

Field properties	Description
Fields	Name of the database field
Field type	Specifies the field type (counter, text, etc.)
Format rules	Specifies the fields that the field comprises. Syntax: Field1 + ' ' + Field2 ... LastName + ' ' + FirstName
Comment	Information about the field

The following properties are available depending on the "Column type" and "Format rules" fields:

Properties	Description
Field length	In the case of text fields
Default value	Default value assigned to the field in the case of a new data record.
Input required	Defines whether or not data is required in this field.
Indexed	Use this property to allocate a simple index for a field.
Style	Specifies the style of the field (only possible if field rules were specified for this field): Lowercase: the field is toggled to lowercase. Uppercase: the field is toggled to uppercase. Normal: no field conversion is performed.
Umlaut mode (muted vowel)	Uppercase is possible in the case "Style": Default: muted vowels are not converted. German: muted vowels are converted: Ä -> AE
Type	Specifies the table type
Vordefiniert	Shows whether the table is predefined or customer-specific.

Inserting an index in a field significantly increases the search speed for finding values in this field.
Composite indexes are defined via the Index Editor.

The Following Rules Must be Observed

If properties of fields and tables are changed, certain changes will depend on the type of table, as described in the following rules:

- Fields can only be inserted, edited, or deleted in empty tables.
- Fields added by the user can be deleted in empty tables.
- Predefined fields can be deleted provided they are not used internally (e.g., "IntExtension" cannot be deleted).
- Fields can be inserted in any table.
- Names of fields inserted by the user can be changed.
- The length of predefined fields can be increased or reset to the default value. In all other text fields, it is possible to specify any length.
- Every table should have at least one primary key.

Warning
The indexes "subscriber_@masterid", "subscriber_@subscriberid" in the subscriber table and "product_@subscriberid", "product_@product" in the crsubsprod table should not be deleted or modified!

Creating a New Field

Proceed as follows to create a new field in an existing table:

Step	Action
1	Select the row in which you want to insert the field. Result: The line is partially highlighted.
2	Click the **Insert row** button. Result: A blank row appears for your entries.
3	Assign the required field name and field type.
4	Define further attributes under "Field properties".

Please note that the following types and field lengths are specific to the PostgreSql database. These can be different for MySql and MSSql servers!

Field type	Field length	Default value	Input required	Indexed
BOOLEAN	–	possible	possible	possible
BYTEA	–	–	possible	–
BIGINT	–	possible	possible	possible
BIGSERIAL	–	–	–	possible
SMALLINT	–	possible	possible	possible
INTEGER	–	possible	possible	possible
SERIAL	–	–	–	possible
TEXT	–	possible	possible	possible
REAL	–	possible	possible	possible
DOUBLE PRECISION	–	possible	possible	possible
MONEY	–	possible	possible	possible
CHAR	–	possible	possible	possible
VARCHAR	1 - 10485760	possible	possible	possible
DATE	–	possible	possible	possible
TIME	–	possible	possible	possible
TIMESTAMP	–	possible	possible	possible
TIMESTAMP WITH TIME ZONE	–	possible	possible	possible
TIME WITH TIME ZONE	–	possible	possible	possible
BIT	1 - 83886080	possible	possible	possible
BIT VARYING	1 - 83886080	possible	possible	possible
NUMERIC	1 - 1000*	possible	possible	possible

* For numeric types the field length must be specified in the format E,S where E is the exactness and S the scaling. For example for the length 5.2, the values 10; 3.12; 24.4 or 678.24 can be saved in this field. The specified value 1-1000 applies to the precision.

3.1.2 Creating New Tables

You can also create new tables in your database. This is always advisable if a table structure that does not yet exist is needed. Examples of this are simple value lists or private telephone directories containing fewer columns than the "Subscriber" table. You can also delete tables that you have created yourself.

Proceed as follows to open a new table:

Step	Action
1	In the „DS-Win Administration” window, select the „Tables“ tab.
2	Click **New**. The „Design table“ window with a new empty table opens.

An existing table can be saved under a different name so that the new table adopts the structure of the original. However, data records will not be copied at the same time.

If you also want to transfer contents, export the data from the source table and re-import it into the destination table.

3.1.3 Editing Indexes, Creating New Indexes and Deleting Unnecessary Indexes

Indexes increase the search speed. Too many indexes reduce the data processing speed and increase the size of the database. It is therefore recommended that you create only as many indexes as you actually need.

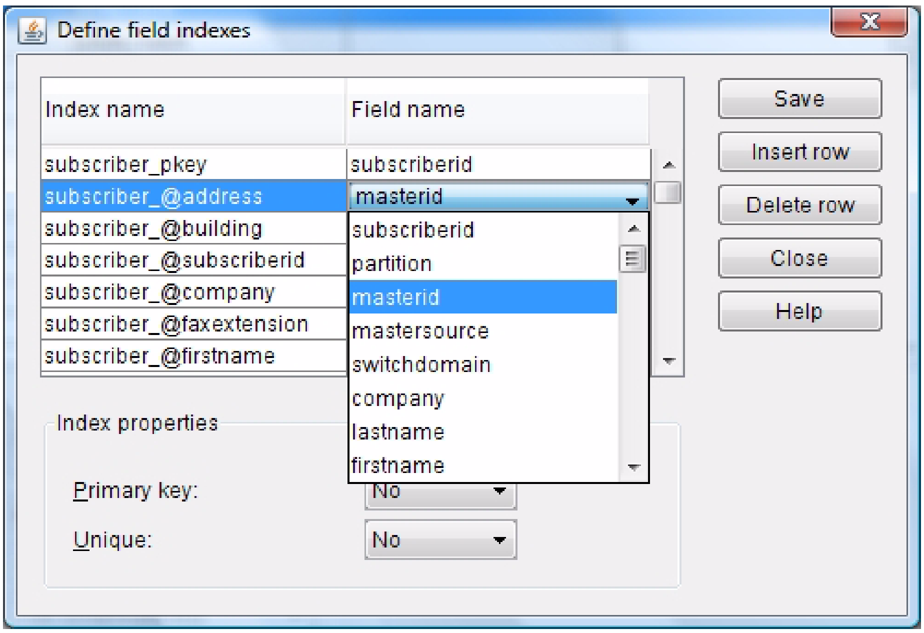
Creating Indexes

Proceed as follows to create indexes:

Step	Action
1	In the "Design table" window, open the "Define field indexes" dialog by clicking the **Indexes** button.
2	Create a primary key in the first field of the table (It doesn’t necessarily have to be the first field but this is the standard procedure).
3	Insert a new row in the desired position with the **Insert row** button.
4	Enter a name for the new index under "Index name" (In the DS-Win V4 database, the index is named in the format <table name>_@<any name>). You do not have to name the Primary key as it receives a default name. If you change to the "Field name" column, the input field changes into a drop-down menu from which you can select the desired field name.

You can create combined indexes by inserting several rows with field names for which you specify the same index name. A combined index is necessary in order to define a particular sorting sequence over several fields.

Example:
If an index contains the "LastName", "FirstName" and "Organization" fields in this order, the index is sorted first by last names, then first names, and finally by departments. A different sorting procedure results when the "Organization" field is set to the beginning of the sequence.



The combination boxes in the "Index properties" section can be used to specify whether the key is a "Primary key" and/or whether the field values have to be "Unique".

⚠	**Warning** The "subscriber_@masterid", "subscriber_@subscriberid" indexes in the subscriber table and "product_@subscriberid", "product_@product" in the crsubsprod table must not be deleted or modified!

3.2 Data

Contents

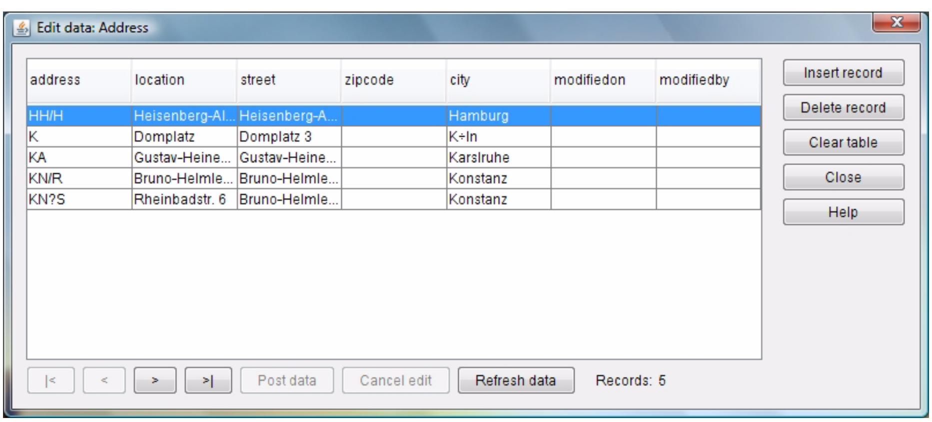
You find the following topics in this section:

3.2.1 Editing Data

Prerequisite

The DS-Win administration was started. Refer to Chapter 2, "Starting Administration".

Example for the "Edit data" Window



Procedure

Proceed as follows to edit data in a table:

Step	Action
1	In the "DS-Win Administration" window, select a table in the "Tables" tab.
2	Click **Open**. The "Edit data“ window opens.

This window provides a simple means of changing, adding and deleting data records:

If you	**then**
Mark text parts	You can overwrite them.
Click "Delete record"	You remove the marked data records.
Click "Insert record"	You open a row for a new data record at the marked data record.
Click "Clear table"	You can remove all data records, e.g., in order to edit the table structure.

The "Modified By" and "Modified On" fields are filled automatically in all predefined tables; the "Sortname", "InvertedNumber", "SubscriberID", and "TieInvertedNumber" fields are additionally filled in the case of "Subscriber" tables”.
If data records are deleted from the "Subscriber" and "Product" tables, the system also adjusts the "CRSubsProd" table (if a corresponding entry is present it will be deleted).

3.2.2 Importing and Exporting Data

Overview

You can import data from or export data to a text file of your choice. Before you can import or export data, you must create a data format specification.

When importing, you can choose between the following options:

- Updating an existing table
- Refilling a table (the old contents is deleted first)

Updating an existing table will only give a meaningful result if you have previously generated the table in question with data from the same source and have filled in the "SubscriberID" field. The fields over which the primary index (Primary key) is positioned will be taken as the key for the update. In the subscriber table this is the "SubscriberID" field.

The necessary file format settings are stored in a so-called "specification". This contains information indicating which data sections of an import file are transferred to which fields of a table, or the order in which the contents of the table fields is written in the export file.

Prerequisite

The DS-Win administration was started. Refer to Chapter 2, "Starting Administration".

Procedure

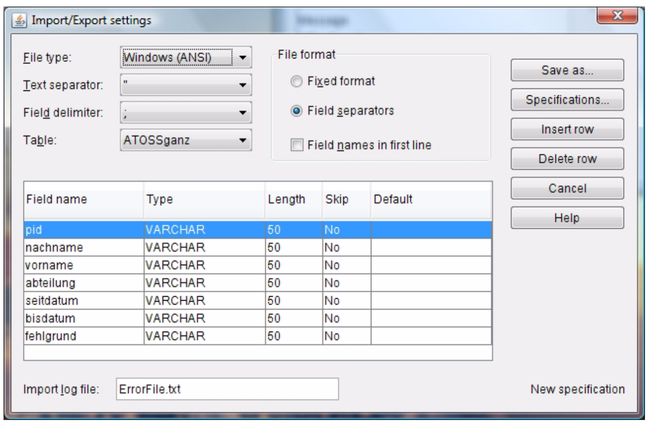
Proceed as follows to import or export data:

Step	Action
1	In the "DS-Win Administration" window, select **Database** -> **Import data** or **Export data**. The "Import data" or "Export data" window opens.
2	● Enter in the "Import data" window: – File name: Enter path and name of the file that has to be imported. Alternatively, select a file via **Browse**. – Specification: Select an applicable specification. If not yet defined: Refer to the paragraph "Create a Data Format Specification". – Update mode: Select either **Update data records** or **Fill table with new records**. ● Enter in the "Export data" window: – File name: Enter path and name of the file which has to be exported. Alternatively, select a file via **Browse**. – Specification: Select an applicable specification. If not yet defined: Refer to the paragraph "Create a Data Format Specification".
4	Click **Execute**. The data will be imported or exported. A progress bar is displayed.

Create a Data Format Specification

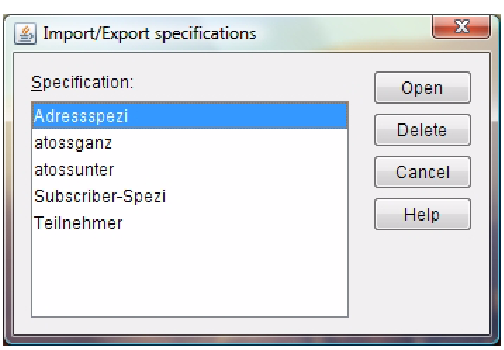
Proceed as follows to create a data format specification:

Step	Action
1	Select the "Database" menu.
2	Select the entry "Import data" **or** "Export data".
3	Click **Define**. The "Import/Export settings" window opens.



⚠ The fields ModifiedOn and ModifiedBy must not be imported; otherwise, the import fails.

Step	Action
4	Specify the relevant settings in the "Import/Export settings" window.
5	Click **Specifications...** to use an existing specification.



The following basic rules apply:

- Data is imported or exported via conventional text files that can be edited with any standard editor (e. g. NOTEPAD.EXE or WORDPAD.EXE) and saved in ASCII format.

- The standard character set for Windows (ANSI) or the PC-8 character set is used.
- When data is imported, a record is created for each row; when data is exported, each record is written in a new row. If there are any memo fields, these must have a text separator (e.g.: ").
- The individual fields are separated by field separators. During data import, the file can also be structured to be compatible with the columns, i.e. in each row, a field begins at a specific character position (fixed format).
- File format "Fixed format"
  Field lengths are predefined for "Fixed format". Thus, field delimiters are not required. Note that the field length and the order in the field name table must correspond with the field length and the order in the import file.
- File format "Text separators"
  It is not necessary for the import file to fill all database fields. The field name table offers the option of omitting those fields that you do not want to import. For this purpose, delete the corresponding line in the table.
  In this table, you can also specify whether a particular field is to be skipped when importing data although it contains data in the source file.
- Field names in the first row
  This property is only supported for the option "Text separators".
  Activate this check box if the import file in the first row contains the field names including the field delimiters. The order of the field names must correspond to the order of the fields. The field name table is not considered.
  If you do not activate the check box "Field names in the first row", the system expects data that correspond the field order as listed in the field name table.
- Text can also be separated from numerical values by defining an appropriate text separator character.
- Fields of the type "Counter", "OLE", "Binary" are neither imported nor exported.
- An export action always exports **all fields** with the exception of the ones listed above.
- Dummy fields can be specified for importing; these enable the import specification to be matched to the ASCII file to be imported.
- When importing data you can specify default values instead of importing the field value.
- Only the field "SubscriberID" should be imported in the case of subscriber tables,
  - if there are cross-references from this entry to other tables
    (e. g. to CRSubsProd) or
  - if you click the option "Update data records" in the "Update mode" area of the "Import data" window.

Accordingly, the following entries are required in the "Import/Export settings" window:

File type	Set "Windows (ANSI)" (standard character set) or "OS/2 (PC-8)" (different character allocation).
Text separator	Select the character for separating text from numbers (optional).
Field delimiter	Select the character for separating the individual contents of fields in a data record.
Table	Select the table into which data is to be imported or from which it is to be exported.
File format	Set "Fixed format" and then change the table with the field names, data types and lengths according to your file structure. With "Skip" you can also specify whether the field is to be imported or exported.
Import log file	Enter the path name of a file in which any errors occurring during import can be logged. If the procedure is unsuccessful, you can subsequently view the file with a standard editor (NOTEPAD.EXE or WORDPAD.EXE) and correct the invalid lines in your import file accordingly.

Save your settings as format specification, preferably with a meaningful name.

Now, you can carry out an import or export procedure with the options selected here at any time by specifying this name in the "**Specification**" field in the "**Import data**" or "**Export data**" dialog.

Examples of Data Formats

Example 1: Text separator " (quotation marks), field delimiter is ";" (semi -colon), file format set to "Text separators", "Subscriber" table, only the fields „FirstName", "LastName", "Organization", "IntExtension", "FaxExtension" and "Text1" are taken into account in the "Field Name Table"; all other fields are deleted. No field names in the first line:

```
"Miller";"Martin";"PW NE 244";2230;2156;"Department Manager"
"Kelly";"Ida";"RI AC";4216;4230;"Secretary"
"Lynch";"Ralph";"KR FS 1 R";3255;3105;"Developer"
```

Example 2: Text separator "none", field delimiter is ; (semi-colon), file format set to "text separator", "field names in the first line",

```
FirstName;LastName;IntExtension;FaxExtension;Organization;Text1
Martin;Miller;2230;2156;PW NE 244;Department Manager
Ida;Kelly;4216;4230;RI AC;Secretary
Ralph;Lynch;3255;3105;KR FS 1 R;Developer
```

Example 3: Text separator "none", file format set to "Fixed format", "Subscriber" table, only the fields "FirstName" with length 10, "LastName" with length 20, "Organization" with length 10, "IntExtension" with length 5, "FaxExtension" with length 5 and "Text1" with length 20 are taken into account in the "Field name table"; all other fields are deleted:

```
Martin      Miller    PW NE 244   2230   2156   Department
                                                Manager
Ida         Kelly     RI AC       4216   4230   Secretary
Ralph       Lynch     KR FS 1 R   3255   3105   Developer
```

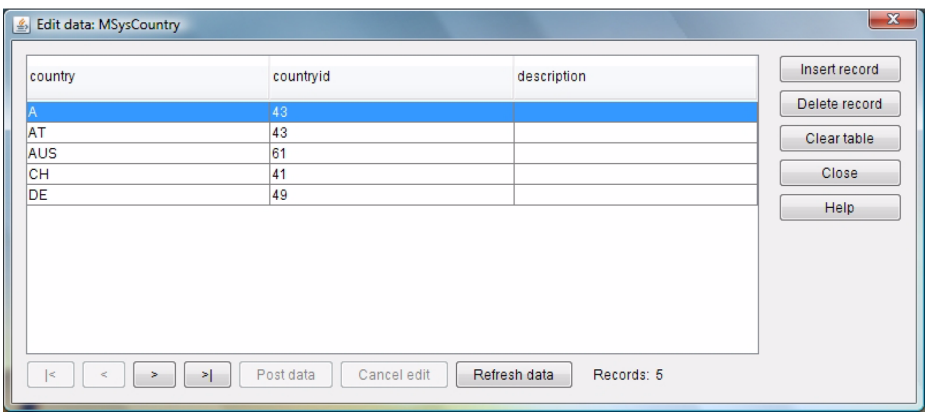
3.2.3 »MSysCountry« System Table

Utilization

The "MSysCountry" system table is required for transferring data from the electronic telephone directory (ETD) or the predecessor version, DS-Win V2. In these products, a country code is used instead of the country ID. The "MSysCountry" table contains the rules for translation from country code to country IDs that are applied when transferring data from these products.

Changing Entries

When you open "MSysCountry" in the "Tables" tab for the first time, it already contains a number of frequently used entries. You have the option of adding additional country codes under "country" and additional country IDs under "countryid" or of deleting entries that are no longer needed. Use the appropriate buttons for this. You can also delete the table except for the default entries and replace them by new entries if required.



3.2.4 »MSysMappingTable« Allocation Table

This table is not longer used.

3.2.5 »eMail« Data Field

The supplied DS-Win V4 test data contain a predefined field for the e-mail addresses.

Table: Subscriber

Field: eMail

You can make the entry in the same way as in the data editing options described above. The e-mail addresses are not validated.

3.2.6 »LUserName« Data Field

DS-Win V4 allows Lotus Notes to be used for presence management. To do this, you need to add a new field to the database:

Table: Subscriber

Field: LUserName

For information about adding a data field, see Section 3.1.1, “Designing Table Structures”.

3.3 Databases

Contents

You find the following topics in this section:

Section 3.3.1, “Creating a Database”

Section 3.3.2, “Opening a Database”

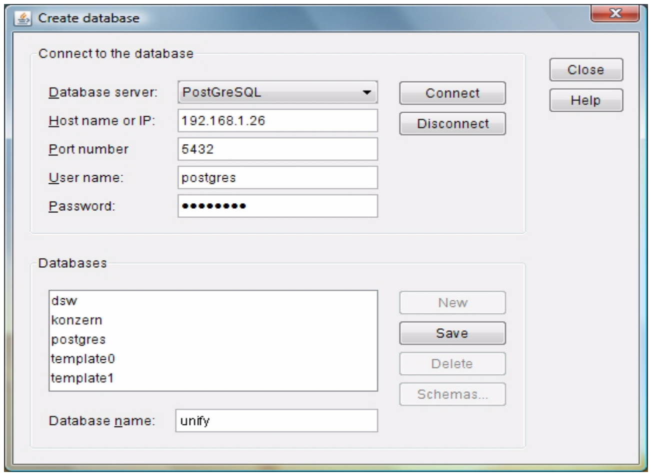
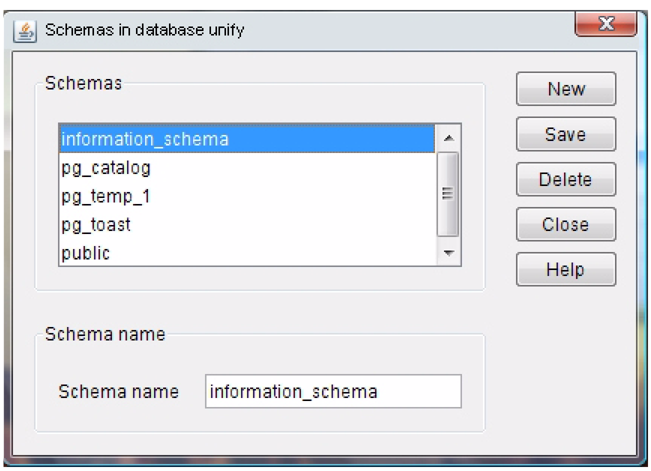
3.3.1 Creating a Database

You have two options:

- You create a new database which you save as physical unit.
- You create a link to other databases.

Proceed as follows to create a new database:

Step	Action
1	In the "Database" menu of the DS-Win Administration window, select the entry "Create database...".
2	Select a database from the "Database server" drop-down list.
3	Enter the name or IP address of the computer where the database server is running. Enter the port number.
4	Enter the user name and the associated password. Existing databases are displayed. The predefined port number for a PostgreSql server is 5432. Each database server uses a different port umber. The port numbers can be specified as you wish during the installation of the database server.
5	Click the **Connect** button. Existing databases are displayed.

Step	Action
6	
7	In the "Create database" dialog, click **New**. In the "Database name" field, enter a corresponding name without special characters and click **Save**. The new database is created and appears in the list.
8	Select the new database from the list and click "Schemas...“. A dialog for schemas appears.
	
9	Click **New** and assign a name, e.g. "company_schema", in the "Schema name" field. Then click **Save**. The new schema is created and is added to the list. Close the dialog.
10	Close the "Create database" dialog.

3.3.2 Opening a Database

> ***Important:*** To open an existing database, you must first close the automatically opened database via "Database" -> "Close database". The "Close database" menu item then changes to "Open database".

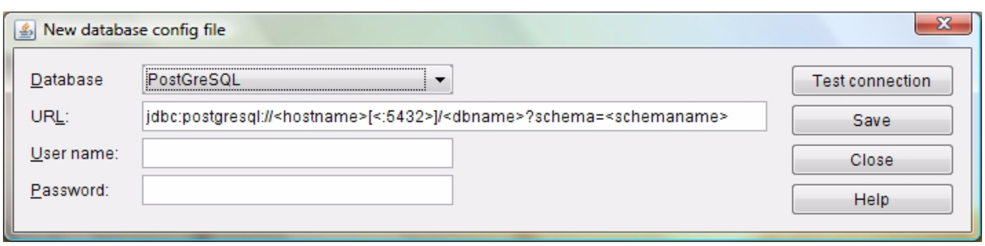
To open an existing database, select "Open database..." in the "Database" menu of the DS-Win Administration window. The "Open new DB schema" dialog appears.

The following database configuration files are implemented:

- hibernate.MySql.cfg.xml
- hibernate.PostgreSql.cfg.xml
- hibernate_Informix.xml
- hibernate_Oracle.xml
- hibernate_SqlServer.xml

3.3.2.1 Adding a New Database

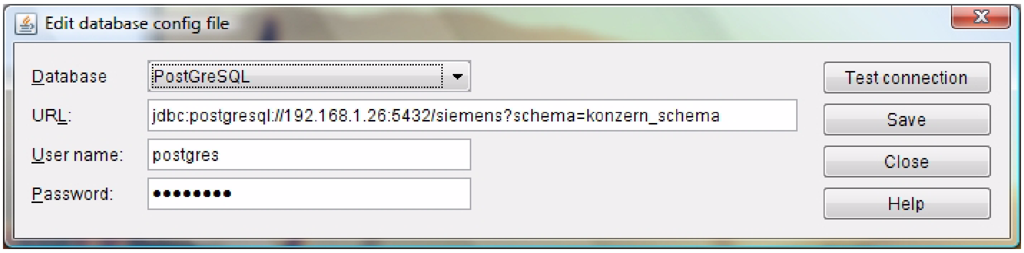
If your database schema is not listed yet, a further configuration file must be created. To do this, click **New**. The following dialog opens:



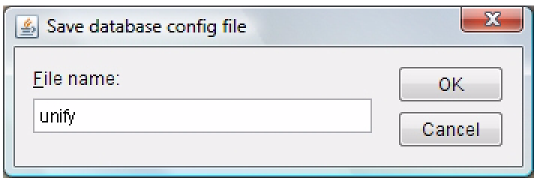
In the "Database" list, select, e.g., PostGreSQL or swap the following wildcards:

Wildcard	**Example**
<hostname>	IP address 192.168.1.26 or db server
<dbname>	unify
<schemaname>	concern_schema

Enter a user name, e.g., "postgres", and the corresponding password. Use the **Test connection** button to check whether the database is available. The confirmation "The connection is ok" should appear. The dialog should look like this:



Click **Save**. Enter a name for the configuration file in the following dialog:



You get a confirmation that the configuration file was created.

3.3.2.2 Opening a Database

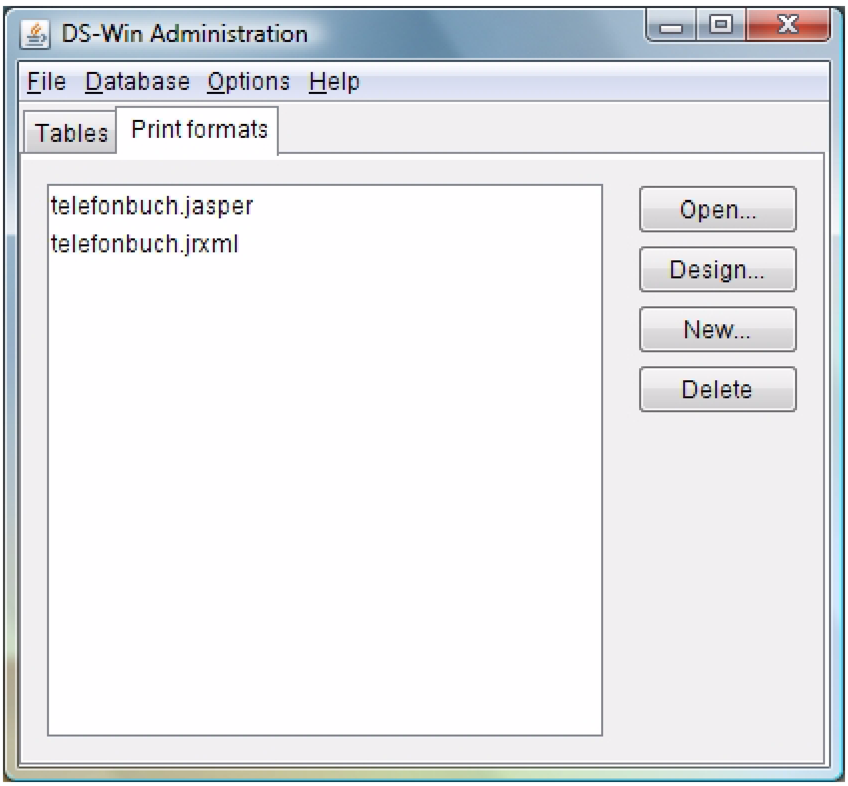
If a configuration file has already been created for a database, mark the required database configuration in the list, e.g., "Unify.xml", and click "**Open**" and enter the user and the assigned password.

The desired database is displayed.
You can change and delete entries in the database and subsequently save or discard these changes.

3.4 Creating Layouts

> Before you create a layout, make sure that a standard printer is installed at your PC. Otherwise, you will not be able to display a preview or print.

Click **New** in the "Print formats" tab of the "DS-Win Administration" window".



The supplied "iReport" application of JasperSoft Corp. opens. Information on installing the application, notes on connecting to databases, and layout preparation can be found in the documentation of the "iReport" application (with the CD supplied).

4 Synchronization with OpenScape 4000 Assistant/ Manager

Overview

If you already use the OpenScape 4000 Manager for administering your OpenScape/HiPath 4000 network, you can import the subscriber data stored there, or parts thereof, into DS-Win and synchronize them later.

A user login with XIE access must be defined in the OpenScape 4000 Manager. The definition of this user login is described in A31003-G6640-S100-3-**20 DS-Win V4 service manual, section 4.2 "Defining a user login for the Import/Export API (XIE) in the OpenScape 4000 Assistant/ Manager".

DS-Win V4 uses the "Export Table Client" application for the synchronization of data between DS-Win and the OpenScape 4000 Assistant/Manager.

Synchronization via LAN with ISDN Connection

DS-Win V4 enables synchronization with databases, via ISDN lines too. Remote DS-Win equipment can therefore also be synchronized without LAN link. An ISDN PC card is required for this function. After configuration of the card using the software supplied, you can run the synchronization process as in the LAN.

Contents

You find the following topics in this chapter:

4.1 General Description of the Data Exchange

The data exchange between the two databases is generally performed in the following steps:

1. Export the data records from the OpenScape 4000 Manager database to response files.
2. Convert the response files into import files.
3. Import the data contained in the import files into the DS-Win database.

Initial Synchronization

The initial synchronization fills the data into the "Subscriber" table to generate the basic database. The data record key of the OpenScape 4000 Manager database is included in the subscriber table.

Update Synchronization

In the case of subsequent, updating synchronization processes ("delta synchronization"), the system creates two import files from the response file:

- **First file:**
  This file contains the new and altered records that have been added or edited since the last synchronization process or the initial generation. DS-Win imports this data, identifying each of these records from the data record key sent with it and updating it accordingly.
- **Second file:**
  This file contains the data record keys of the records deleted from the OpenScape 4000 Manager database in the same period. DS-Win reads the data record keys and deletes the associated records from the local database so that synchronism is re-established between the two databases on the server and locally on the DS-Win PC after both procedures.

Synchronization Spezifications

The DS-Win settings for synchronization are saved in specifications in the same way as the import/export procedures.

4.2 Creating a Synchronization Specification

Contents

You find the following topics in this section:

Section 4.2.1, “Synchronization Settings”

Section 4.2.2, “Field Mapping”

4.2.1 Synchronization Settings

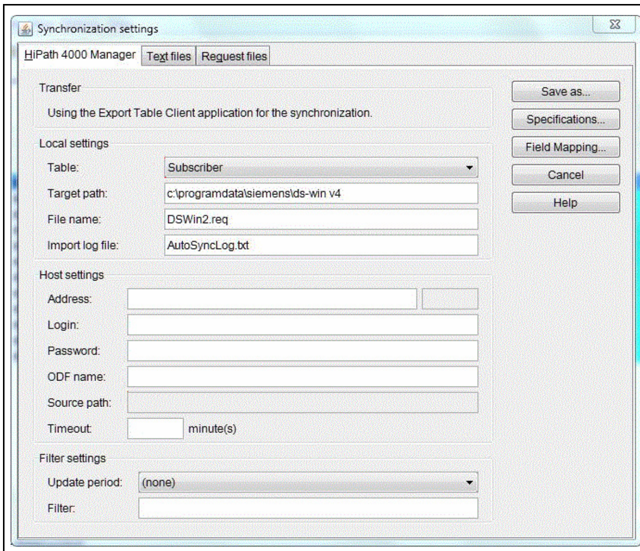
4.2.1.1 «Synchronization settings» Window

Overview

This section describes the tabs in the "Synchronization settings" window.

OpenScape/HiPath 4000 Manager

Example of the "HiPath 4000 Manager" tab



Text files

The "Text files" tab is used to synchronize ASCII files. An import specification must be set up for this. You can select the existing import specification in the "Import specifications" drop-down box. You can thus reload the entire database from time to time or transfer modifications.

Deleted data records cannot be synchronized in this way.

Request files

The "Request files" tab is used when synchronizing data to host computers.

4.2.1.2 Enter Synchronization Settings

Prerequisite

The DS-Win administration was started. Refer to Chapter 2, "Starting Administration".

Procedure

Proceed as follows:

Step	Action
1	Select in the "DS-Win Administration" window: **Database** -> **Synchronization**. The "Synchronization" window opens.
2	Click **Define** in the "Synchronization" window. The "Synchronization settings" window opens and the "HiPath 4000 Manager" tab is displayed.
3	**"HiPath 4000 Manager" tab** -> **"Local settings" area:** Enter the following settings in this area: 1. Table: Select the table name. The `Subscriber` table is used for subscriber synchronization. 2. Target path: Enter a destination directory for the exchange file. 3. File name: Enter the file name for the exchange file. The `DSWin2.req` name is normally used. The file name must terminate with `.req`. You can select a file name of your choice when synchronizing. 4. Import log file: Enter the name for the import log file. Any import errors are logged in this file.

<table>
<tr><th>Step</th><th>Action</th></tr>
<tr><td>4</td><td>"HiPath 4000 Manager" tab -> "Host settings" area: Enter the following settings in this area:
1. Address: Enter the IP address of the OpenScape 4000 Manager server in the IPv4 format.
2. Login: Enter the user login for the OpenScape 4000 Manager server.
3. Password: Enter the password for the OpenScape 4000 Manager server.
4. ODF name: Enter the name of the object description file for the XIE-API interface (ODF: Object Description File).

Object description file approved for DS-Win (refer to A31003-G6640-S100-3-**20 DS-Win V4, Service manual, section 4.2 "Creating DS-Win subscribers in the OpenScape 4000 Assistant/Manager"):
– PERSDAT: to synchronize subscriber data
– PERS: to synchronize subscriber data. Created from PERSDAT.
– DISPLAY_NAME: for the subscriber’s display name

Description of the object description files: refer to A31003-H3460-S100-*-**20 "HiPath 4000 Manager V6, Import/Export- and API Interface".
5. Source path: Change the default setting of the source path if another name than <code>iefiles</code> was entered for the Request and Response files.
6. Timeout: Time at which DS-Win checks if the Response file is available. Increase the default value of 5 minutes in the case of large volumes of data.</td></tr>
<tr><td>5</td><td>"HiPath 4000 Manager" tab -> "Filter settings" area: Enter the following settings in this area:
1. Update period:
– For the initial synchronization: Select <code>none</code>.
– For the update synchronization: Select a time span. Only data records that were created, modified, or deleted within this period of time are synchronized.
2. Filter: Limit the data record volume if required: The command is specified in SQL syntax.
Example: <code>company matches "XY*" and org1 = "PN"</code>.
Only data records that start with the "XY" value in the <code>company</code> field and contain the "PN" value in the <code>org1</code> field are returned. The "Filter" field is limited to 128 characters.</td></tr>
</table>

Step	Action
6	**Save specification:** 1. Click **Save as** on the "HiPath 4000 Manager" tab. The "Save specification" window opens. 2. Enter a specification name, e.g. DS-Win-Sync, and click **OK**. The window is closed and the specification is saved. **Note:** Spaces cannot be used in the specification's name because the "Task Scheduler" windows application would take them for an attribute.

Further Processing

Refer to Section 4.2.2, "Field Mapping".

4.2.2 Field Mapping

Overview

The fields of DS-Win View musst fit to the OpenScape 4000 Assistant/Managers output fields. However, the field names differ.

4.2.2.1 «Field Mapping» Window

Overview

This section describes the options of field mapping in the "Field Mapping" window.

Comments to the Table

For subscriber synchronization, the `MSysMappingTable` is offered by default (refer to "DS-Win Administration" window -> "Tables" tab.

The names of the fields in the "Host name" column are provided by the OpenScape 4000 Manager. These fields are the source fields. The field names in the "DSWin name" column are for the DS-Win database. These fields are the destination fields.

The default assignment of OpenScape 4000 Manager to the subscriber table of DS-Win is as follows:

Host name	**DSWin name**	**Remarks**
building	building	
christianname	firstname	
name	lastname	
salutation	salutation	
company	company	
country	intcountry	The field is converted first with the aid of the **`MSysCountry`** table.
ext_areacode	intareacode	
ext_netcode	intnetcode	
extension	intextension	
faxnumber	faxextension	
unique_key	masterid	The value of this field is used to identify the data record when the update synchronization is performed.
location	address	
longname	room	
text1	text1	
text2	text2	
text3	text3	
title	title	
org1	organization	After the assignment, the "organization" field contains the contents of <org1> <org2> <org3> divided by space characters.
org2	organization	
org3	organization	

- If multiple consecutive fields are mapped to the same field, the contents of the source fields is written to the target field, separated by spaces.
  Example: If org1 contains the value `KR`, org2 the value `EC` and org3 the value `326`, the "organization" field is filled with the value `KR EC 326`.
- You can also map a source field to multiple target fields.
  Default values are set in quotation marks. In this case, nothing is transferred from the OpenScape 4000 Manager. A default value can be specified for any database field.

- If there are customer-specific fields created in the database of the OpenScape 4000 Manager and corresponding fields also exist in the DS-Win database: Enlarge the table by adding these pairs of fields so that synchronization can also be carried out between these fields.
- In the event of synchronization from multiple host computers (e. g. different sites), tie dialing may occur within the sites but not between the sites. The domain and tienum fields must be specified in the "Field Mapping" window to ensure correct dialing.

Add Fields/Rows

If you want to add fields from OpenScape 4000 Manager to the table of the "Field Mapping" window, you must know the position of these fields in OpenScape 4000 Manager and at which position and with which information they shall be displayed.

1. Select the row in the "Field Mapping" window which is on the position of the planned new row and click **Insert row**. A new row is added.
2. Click the table cell to be named by the field name. A drop-down list with field names opens.
3. Select the required field name. The field name is added to the table cell.

Delete Fields/Rows

1. Select the row to delete in the "Field Mapping" window.
2. Click **Delete row**. The row is deleted.

Change the Assignment of the Fields

1. Select the row of which you want to change the field name in the "Field Mapping" window. A drop-down list with field names opens.
2. Select the required field name. The field name is added to the table cell.

4.2.2.2 Adapting Field Mappings

Prerequisite

The "HiPath 4000 Manager" tab is open.

Procedure

Proceed as follows:

Step	Action
1	Click **Field Mapping** on the "HiPath 4000 Manager" tab. The "Field Mapping" window opens.
2	In the "Field Mapping" window: 1. Check the assignment of the fields between the "Host-Name" and "DSWin-Name" columns. 2. If customer-specific fields must be additionally synchronized to the default mapping: Change the assignment of the fields, add new rows or delete rows. Further information can be found in „Section 4.2.2.1, “«Field Mapping» Window”“.

Further Processing

Refer to Section 4.3, “Positioning of the Fields in the OpenScape 4000 Manager”.

4.3 Positioning of the Fields in the OpenScape 4000 Manager

If you search for additional information regarding the positioning of fields in OpenScape 4000 Manager, or if you want to perform settings:

- A31003-H3460-M103-*-76A9, HiPath 4000 Manager V6, Configuration Management: 6.1.1 Subscriber und 11 Editing the Configuration Management User Interface
- A31003-H3460-M102-*-76A9, HiPath 4000 Assistant V6, Configuration Management: 7.1.1 Subscriber

Further Processing

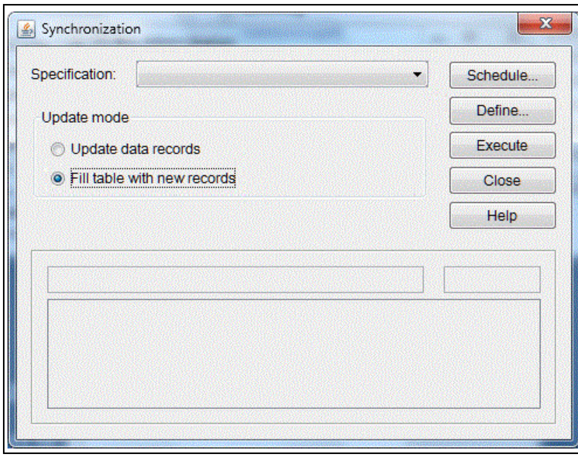
Refer to Section 4.4, “Performing Synchronization”.

4.4 Performing Synchronization

Prerequisite

The synchronization settings are performed; refer to Section 4.2, “Creating a Synchronization Specification”.

Example of the "Synchronization" Window



Procedure

Proceed as follows:

Step	Action
1	Go back to the "Synchronization" window. If this window is already closed: 1. Start DS-Win Administration. 2. Select **Database** -> **Synchronization**. The "Synchronization" window opens.
2	Set in the "Synchronization" window: ● "Specification": Select the created specification. ● "Update mode": Select the required option. – "Update data records": This option is required for an update synchronization. – "Fill table with new records": This option is required for an initial synchronization.
3	Click **Execute**. The synchronization is performed. Status messages are displayed in the lower section of the "Synchronization" window. In addition, a status bar is displayed.

4.5 Creating Time Schedule for Synchronization

Overview

The synchronization with host computers can be performed time-scheduled in Microsoft Windows Vista and Windows 7. For this purpose, you define time schedules to set synchronization intervals.

A time schedule defines dates of future synchronization processes. In contrast, a past period with changes of the data to be considered is defined in the "Synchronization" window.

> The "Task Scheduler" which is described here is a Windows application. In this section, only those settings are described which are absolutely required for the time schedule. If you need more or different settings, you will find more information in the online help of the application.

Starting DS-Win Administration

Refer to Chapter 2, "Starting Administration".

Procedure

Proceed as follows:

Step	Action
1	In the "DS-Win Administration" window: Select **Database** -> **Synchronization**. The "Synchronization" window opens.
2	Select the already defined specification in the "Synchronization" window under **Specification** (refer to Section 4.2, “Creating a Synchronization Specification”).
3	Click **Schedule** in the "Synchronization" window. The "Task Scheduler" window opens. **Note:** You can also open the "Task Scheduler" window in Windows via Start -> Control Panel -> Administrative Tools -> Task Scheduler.
4	Click **Create Task** in the "Task Scheduler" window. The "Create Task" window opens. The "General" tab is displayed.
5	**"General" tab:** 1. In the "General" tab -> "Name" input field, enter a name for the new task resp. specification. Use the name of a previously defined specification; refer to Section 4.2, “Creating a Synchronization Specification”. **Note:** The name of the specification must not include space characters because the Task Scheduler would read it like an attribute. 2. Select the **Run whether user is logged on or not** option. 3. Mark the **Run with highest privileges** check box.

Step	Action
6	**"Triggers" tab:** 1. Click the **Triggers** tab. "Triggers" tab opens. 2. Click **New**. The "New Trigger" window opens. 3. In the "New Trigger" window: a) Define the conditons and settings which must be used for the new task. b) Confirm with **OK**. The definitions are stored and are displayed in the "Triggers" tab.
7	**"Actions" tab:** 1. Click the **Actions** tab. The "Actions" tab opens. 2. Click **New**. The "New Action" window opens. 3. Define in the "New Action" window: a) "Action": `Start a program`. b) "Program/script": `javaw.exe` (Via **Browse**, e.g., `"C:\Program Files (x86)\Java\jre7\bin\javaw.exe"`) c) "Add arguments (optional)": `-jar dswautosync.jar` *<specification_name> <0 or 1>* *<specification_name>*: Name of the task resp. specification which shall be used to synchronize the data (displayed in the "Synchronization" window under "Specification") *<0 or 1>*: 0 – "Update data records", 1 – "Fill table with new records" (displayed in the "Synchronization" window under "Update mode") d) "Start in (optional)": Folder to which DS-Win was installed, e.g., `c:\dswin` e) Confirm with **OK**. The settings are saved and displayed in the "Actions" tab.
8	Click **OK** in the "Create Task" window. The new task is stored and added to the Task Scheduler Library.

4.6 «Export Table Client» Application

Overview

DS-Win V4 uses the "Export Table Client" application for the synchronization of data between DS-Win and the OpenScape 4000 Assistant/Manager.

The "Export Table Client" application can be directly started in Windows.

Procedure

Proceed as follows to start the "Export Table Client" application:

Step	Action
1	Start the "Export Table Client" application via **Start** -> **All Programs** -> ... The "XIE Authentication dialog" window opens.
2	In the "XIE Authentication dialog" window: 1. Enter the server and user data: – "Server": Enter the IP address for the OpenScape 4000 Manager Server in the IPv4 format. – "Username": Enter a login name that includes XIE access permissions for OpenScape 4000 Manager Server. – "Password": Enter the password for the login name. Refer to A31003-G6640-S100-3-**20 DS-Win V4 Service Manual. 2. Confirm with **OK**. The "API Import/Export Client" window opens.

Further Information

Further information to „Import/Export API (XIE)“ can be found in: A31003-H3460-S100-*-**20, HiPath 4000 Manager V6, Import/Export Interface (XIE) API.

5 Synchronization with HiPath User Management

Overview

The DS-Win Integration consists of the following features:

- Import of user data from an existing DS-Win.
- Import of address data from an existing DS-Win.
- Download of user and address data from HiPath User Management into an existing DS-Win database.
- Download of user and address data from HiPath User Management into a new DS-Win database.

This chapter describes the required configurations in DS-Win and DirXmetahub for the synchronization with HiPath User Management.

Contents

You find the following topics in this chapter:

5.1 Synchronization Scenarios with DS-Win

Contents

The supported scenarios are described in the following sections:

5.1.1 Initializing of HiPath User Management with Data of DS-Win

Overview

HiPath User Management is initialized with data of DS-Win in this scenario.

Procedure

Proceed as follows:

Step	Action
1	Exporting of the DS-Win database as csv file by DS-Win: 1. Start the "DS-Win Administration". 2. Export the user table. 3. Export the address table. Refer to Section 5.2.5, “Exporting DS-Win Data as CSV Files”.
2	Importing the csv files into HiPath User Management by DirXmetahub: 1. Start the "DirXmetahub" service. 2. Start the "Import-from-DSWin-Subscriber" metahub workflow. 3. Start the "Import-from-DSWin-Addresses" metahub workflow. **Note:** To configure Metahub workflows: refer to Section 5.3.3, “Configuring the Workflow for Importing DS-Win Subscriber Data” and Section 5.3.4, “Configuring the Workflow for Importing DS-Win Address Data”.

Step	Action
3	Integrating the imported users (and addresses) by HiPath User Management: 1. Start HiPath User Management. 2. Select **Tools** -> **Imported Users** -> **Match&Merge Imported Users**. The "Match&Merge Imported Users" dialog opens. 3. Use **Search** to display the imported subscribers in the upper list. The imported users have the "Not Matched" status after the import. 4. Merge the imported users via **Merge All Users** -> **Create new UM Users for all Users with status ’Unidentified’ and ’Not Matched’ status as new users**. All imported users are created as new users in HiPath User Management. A configuration request is generated for each of the imported users’ telephone numbers (see Resource icon in "Configuration Requests" column). This is marked as "primary" if there is a primary telephone number in the DS-Win data. In this case, a resource resulting from this is also marked as "primary". 5. Use **Search** to display the imported subscribers in the upper list. The imported users now have the "Matched" status. 6. Resolve the created configuration requests via **Tools** -> **Resolve Configuration Requests**. If the resource can be found that fits to the telephone or fax number, this resource is assigned to the user, and the configuration request is deleted. If no resource could be found for a telephone or fax number, the configuration request cannot be resolved.

Further Processing

Synchronize the DS-Win data with the HiPath User Management data (refer to Section 5.1.3, “Synchronizing the DS-Win Data With HiPath User Management Data”).

5.1.2 Expanding the HiPath User Management Database to Include DS-Win Data

Overview

In contrast to the case described in Abschnitt 5.1.1, HiPath User Management already has users in this scenario. In this case, you must perform the same steps as you did when initializing HiPath User Management with data from DS-Win. There is only a difference when incorporating the imported users into HiPath User Management.

A new user cannot be created in every case in HiPath User Management. Normally, in this scenario the imported users are already assigned to existing users.

Procedure

Proceed as follows:

Step	Action
1	Exporting of the DS-Win database as csv file by DS-Win: 1. Start the "DS-Win Administration". 2. Export the user table. 3. Export the address table. Refer to Section 5.2.5, “Exporting DS-Win Data as CSV Files”.
2	Importing the csv files into HiPath User Management by DirXmetahub: 1. Start the "DirXmetahub" service. 2. Start the "Import-from-DSWin-Subscriber" metahub workflow. 3. Start the "Import-from-DSWin-Addresses" metahub workflow. **Note:** To configure Metahub workflows: refer to Section 5.3.3, “Configuring the Workflow for Importing DS-Win Subscriber Data” and Section 5.3.4, “Configuring the Workflow for Importing DS-Win Address Data”.

<table>
<tr><th>Step</th><th>Action</th></tr>
<tr><td>3</td><td>Assigning the imported users to the already existing users in the HiPath User Management:
1. Start HiPath User Management.
2. Select Tools -> Imported Users -> Configure Match&Merge Rules, and set the assignment with first name and last name.
A script can also be implemented if there are additional parameters that support unique assignment.
3. Automatically assigning all imported users to the existing users based on the set rules:
a) Select Tools -> Imported Users -> Match&Merge Imported Users.
b) Select Merge All Users and Match and Merge all Users predefined Rules options.
4. Refresh the imported users list by a new search. The users may have the following states:
– <code>Unidentified</code>
This status indicates that the imported user could not be assigned. These users can either be created as new users or assigned manually to an existing user with "Match Users". In the case of manual assignment to an existing user, the user would adopt the status <code>Conflicting</code> if there are imported attributes that are defined for the respective user but that do not match.
– <code>No Conflicting</code>
Users with this status could be assigned. There are no conflict attributes.
– <code>Conflicting</code>
Users with this status could also be assigned, but there are conflict attributes that are marked with a red frame. The "Resolve Conflict" dialog will be used to decide whether the imported attributes should be accepted or the existing attributes should be retained.
5. Manually assign the users based on their status.</td></tr>
<tr><td>4</td><td>To merge all imported users, click Merge All Users. You can also specify which users shall be merged in which status and which form of conflict handling. For instance, it is possible to transfer imported attributes for all users with conflicts.</td></tr>
</table>

Further Processing

Synchronize the DS-Win data with the HiPath User Management data (refer to Section 5.1.3, “Synchronizing the DS-Win Data With HiPath User Management Data”).

5.1.3 Synchronizing the DS-Win Data With HiPath User Management Data

Overview

In this scenario, data is incorporated into DS-Win from User Management. If the DS-Win database is empty at this point in time, all users and addresses are created as new in DS-Win.

> The attribute names in the first column must not contain the name of the table. Thus, the name of the table has to be removed. As an example, "City" instead of "Subscriber.City" can be used.

If users exist that were already incorporated from DS-Win and if these were changed in the meantime, this change will be adopted in DS-Win using this synchronization procedure. Any users or addresses that are not yet known will be created as new users or addresses in DS-Win in the process.

Procedure

Proceed as follows:

Step	Action
1	Start the "Download_To_DSWin" metahub workflow. **Note:** To configure the Metahub workflow: refer to Section 5.3.5, “Configuring the Workflow for Download to DS-Win”.

5.2 Configuring DS-Win

Contents

You find the following topics in this section:

- Section 5.2.1, “Expanding the DS-Win Database”
- Section 5.2.2, “Creating the Export Specification for the «Subscriber» Table”
- Section 5.2.3, “Creating the Export Specification for the «Address» Table”
- Section 5.2.4, “Filling-In Customer-Specific Fields in DS-Win”
- Section 5.2.5, “Exporting DS-Win Data as CSV Files”
- Section 5.2.6, “Configuring the ODBC Data Source”

5.2.1 Expanding the DS-Win Database

Overview

This section describes the expansions in the DS-Win database that are required for integration with HiPath User Management.

You can only make changes to the table definition in DS-Win for empty tables. Therefore, you will first need to export the data, empty the table, change the definition and then reimport the data.

> If you are using an empty DS-Win database as a basis, it will not be necessary to export and import the user data. Remember to back up the database first.

Procedure

Proceed as follows:

Step	Action
1	Start the "DS-Win Administration" application. The main view of the application opens.
2	Create a database specification called `ExportSubscriber4DBUpdate` (refer to Section 5.2.2, “Creating the Export Specification for the «Subscriber» Table”).
3	Exporting the "Subscriber" table: 1. Click **Database** -> **Export Data**. 2. Select the specification called `ExportSubscriber4DBUpdate`. 3. Select a file name. 4. Click **Run**. 5. Verify that the exported file contains the correct data.
4	Empty the "Subscriber" table: 1. Select the "Subscriber" table and click **Open**. 2. Open the **Edit Data: Subscriber** dialog. 3. Click **Empty Table** and confirm the advisory messages. 4. Leave the dialog by **Close**.
5	In the main view of the "DS-Win Administration" application, make sure that the "Subscriber" table is still selected and click **Draft**.

Step	Action
6	In the **Edit Table Structure: Subscriber** dialog: 1. Scroll down through the fields in table view until you reach the **IntNetcode** field and change the "Field Length" property from `16` to `30`. 2. Scroll down through the fields in table view until you reach the **AltNetcode** field and change the "Field Length" property from `16` to `30`. 3. Scroll down through the fields in table view until you reach the **MobNetcode** field and change the "Field Length" property from `16` to `30`. 4. Scroll down through the fields in table view until you reach the **FaxNetcode** field and change the "Field Length" property from `16` to `30`. 5. At the end of the table, add a new field **umuid** with the "Field Type" `Text` and the "Field Length" `50`. 6. Click **Save** and close the dialog.
7	Reimporting the exported data again: 1. Select the **Database** -> **Import Data** menu item. 2. Select the specification named `ExportSubscriber4DBUpdate`. 3. Select the file name of the exported file. 4. Click **Run**.

Further Processing

Refer to Section 5.2.2, “Creating the Export Specification for the «Subscriber» Table”.

5.2.2 Creating the Export Specification for the «Subscriber» Table

Overview

The export specification is used to import the "Subscriber" table.

Procedure

Proceed as follows:

Step	Action
1	Start the "DS-Win Administration" application. The main view of the application opens.
2	Select the **Database** -> **Export Data** menu item. The „Export Data“ dialog opens.
3	Click **Define**. The "Import/Export settings“ dialog opens.
4	Defining the settings for the export specification: 1. Select the `Subscriber` item in the "Table" drop-down list. 2. Enter a file name into the "Import Log File" input field (e.g. `ExportSubscriberError.txt`), which will be used in the event of an error to write an error file. 3. Click **Save As** and enter the specification name in the following dialog. Confirm with **OK**.
5	Click **Close** twice to return to the main view of the application.

Further Processing

Refer to Section 5.2.3, “Creating the Export Specification for the «Address» Table”.

5.2.3 Creating the Export Specification for the «Address» Table

Overview

To import data from the address table, you will need to create an appropriate export specification as you did for the subscriber table.

Procedure

Proceed as follows:

Step	Action
1	Start the "DS-Win Administration" application. The main view of the application opens.
2	Select the **Database** -> **Export Data** menu item. The "Export Data" dialog opens.
3	Click **Define**. The "Import/Export settings" dialog opens.
4	Defining the settings for the export specification: 1. Select the `Address` item in the "Table" drop-down list. 2. Enter a file name into the "Import Log File" input field (e.g. `ExportAddress-Error.txt`), which will be used in the event of an error to write an error file. 3. Click **Save As** and enter the specification name in the following dialog. Confirm with **OK**.
5	Click **Close** twice to return to the main view of the application.

> If other fields that deviate from the default configuration occur in the "Address" table, you will also need to delete the relevant lines when creating the export specification.

Further Processing

Refer to Section 5.2.4, “Filling-In Customer-Specific Fields in DS-Win”.

5.2.4 Filling-In Customer-Specific Fields in DS-Win

Additional fields in the DS-Win database that deviate from the standard DS-Win configuration (so-called customer-specific fields) are not filled with the import files provided by default by HiPath User Management (also refer to the advisory notes in Section 5.2.2 and Section 5.2.3).

If the fields still need to be filled in, this can only be done by making the appropriate changes to the DirX-Metahub workflow available on the HiPath User Management data server.

5.2.5 Exporting DS-Win Data as CSV Files

Overview

The data must be available in CSV format (with the separator « ; ») for import into HiPath User Management.

The subscriber and address tables have to be exported separately from DS-Win. If you are using an empty DS-Win database as a basis, you can skip this step.

Exporting the Subscriber Table

Proceed as follows:

Step	Action
1	Open the "DS-Win Administration" application.
2	Create a database specification named "ExportSubscriber4HPMUM" (refer to Section 5.2.2, “Creating the Export Specification for the «Subscriber» Table”).
3	Exporting the subscriber table: 1. Select **Database** -> **Export Data**. 2. Select the `ExportSubscriber4HPMUM` specification. 3. Enter a file name. 4. Click **Run**.

Exporting the Address Table

Proceed as follows:

Step	Action
1	If necessary, open the "DS-Win Administration" application.
2	Create a database specification named "ExportSubscriber4HPMUM". (refer to Section 5.2.2, “Creating the Export Specification for the «Subscriber» Table”).
3	Exporting the address table: 1. Select **Database** -> **Export Data**. 2. Select the `ExportAddress4HPMUM` specification. 3. Enter a file name. 4. Click **Run**.

Further Processing

Refer to Section 5.2.6, “Configuring the ODBC Data Source”.

5.2.6 Configuring the ODBC Data Source

Overview

For synchronization, DirXmetahub requires access to the DS-Win V4 data source. This access is achieved by ODBC via the database used in DS-Win V4. This section describes the administration of the ODBC entry.

Procedure

Proceed as follows:

Step	Action
1	Click **Settings** -> **Control Panel** -> **Administration Tools** in the Windows Start menu and start the ODBC Data Source Administrator. The "ODBC Data Source Administrator" opens.
2	Select the **System DSN** tab and click **Add**.
3	Select the database from the list (e.g., PostgreSQL Unicode) and click **Configure**. The "PostgreSQL Unicode ODBC Driver (psqlODBC) Setup" dialog opens.

Step	Action
4	Performing the following database settings in the "PostgreSQL Unicode ODBC Driver (psqlODBC) Setup" dialog: 1. Enter the `DSWin` data source into the "Data Source" input field; and enter the settings defined in the database configuration for the "Database", "Server", "User Name" and "Password" input fields. 2. Click **Test** to check if the database settings are correct. 3. Select the **`disable`** setting in the "SSL Mode" field, and enter the database portnumber into the "Port" field. 4. Click **Save** to save the settings.
5	Set the advanced options to configure the data source in the "PostgreSQL Unicode ODBC Driver (psqlODBC) Setup" dialog: 1. Click **Datasource** to open the advanced options for database configuration. The "Advanced Options (DSWin) 1/2" dialog opens. 2. Click **Page 2**. The second page of the "Advanced Options (DSWin) 2/2" dialog opens. • Mark the **LF <-> CR/LF conversion** and **Updatable Cursors** check boxes. • Select the **`default`** option in the "Int8 As" area, and the **`7.4+`** option in the "Protocol" area. • Enter the database name into the "Connect Settings" input field.
6	Click **OK** to close the "Advanced Options (DSWin) 1/2" dialog.
7	Click **Save** to close the "PostgreSQL Unicode ODBC Driver (psqlODBC) Setup" dialog.
8	Click **OK** to close the "ODBC Data Source Administrator" dialog. The ODBC configuration is completed.

5.3 Configuring DirXmetahub for the DS-Win Integration

Overview

This section describes the configurations of DirXmetahub that are required for setting up a synchronization with DS-Win.

> ⚠ Backup the existing configuration before you start the configuration.

> ⚠ To prevent customizations from being lost when the software is updated, you must make a copy of all objects before performing the customizations. Customizations must be performed on the copy.

Contents

You find the following topics in this section:

Section 5.3.1, “Creating a New Scenario”

Section 5.3.2, “Configuring the Connected Directories”

Section 5.3.3, “Configuring the Workflow for Importing DS-Win Subscriber Data”

Section 5.3.4, “Configuring the Workflow for Importing DS-Win Address Data”

Section 5.3.5, “Configuring the Workflow for Download to DS-Win”

5.3.1 Creating a New Scenario

Create a new scenario in the "Global View" (unless you have already done so for another synchronization) and assign an appropriate name to it.

5.3.2 Configuring the Connected Directories

Overview

You will need to create the relevant "connected directories" for access from the various data sources.

Procedure

Proceed as follows to configure the connected directories:

Step	Action
1	Switch to the scenario which you created.
2	Creating a new connected directory: 1. Right-click in the scenario. The context menu opens. 2. Select **New Connected Directory** in the context menu, and create a new connected directory based on the relevant template: – Connected Directories for Accessing Subscriber and Address Files: `S-Win-Subscriber` resp. `DS-Win-Addresses` – Connected Directory for Accessing the HiPath User Management Directory: `Hipath UM` – Connected Directory for ODBC access to the DS-Win database: `DS-Win`
3	Configuring a new connected directory: 1. Right-click the new connected directory. The context menu opens. 2. Select **Configure** in the context menu. The configuration dialog opens.
4	Configure the relevant connected directory as described in the following paragraphs: ● Connected Directories for Accessing Subscriber and Address Files ● Connected Directory for Accessing the HiPath User Management Directory ● Connected Directory for ODBC access to the DS-Win database

Connected Directories for Accessing Subscriber and Address Files

These connected directories are used to access the subscriber and address data which were exported from DS-Win. Perform the following settings:

- **General Information**:
  - **Name** and **Description**
- **Attribute Configuration**: Here you can enter additional attributes. This is required if you have extended your DS-Win database to include additional fields. Make sure that a "`;`" is normally entered as a suffix and that "`\012`" must be entered in the last field of the csv file.
- **File Parameter**: Name of the file

Connected Directory for Accessing the HiPath User Management Directory

This connected directory is used to access the HiPath User Management directory. Perform the following settings:

- **General Information**:
  - **Name** and **Description**

All other settings are retained.

Connected Directory for ODBC access to the DS-Win database

This directory is used to access the DS-Win database. Perform the following settings:

- **General Information**:
  - **Name** and **Description**
  - **DSN !Where is**: DSN: Data Source Name. Enter the name of the ODBC data source (refer also to Section 5.2.6, “Configuring the ODBC Data Source”).
- **Attribute Configuration**: Here you can configure additional attributes if you expanded the DS-Win database definition. You must always use the following structure in the **Name** column: `<table name>.<field name>`.
- **Bind Profile**: Enter a user with the associated password. This user must have the relevant write permissions for the DS-Win database.

5.3.3 Configuring the Workflow for Importing DS-Win Subscriber Data

Overview

This metahub workflow is used to import subscriber data from a CSV file exported by DS-Win. The workflow will be configured based on the "Import-from-DSWin-Subscriber" template.

If the imported file is not located on the local computer, you will need to run the workflow under an account, which has the appropriate network authorizations. To do this, follow the configuration instructions for accessing the DirXmetahub Service on network resources; refer to Service Manual HiPath User Management V3, P31003-H2730-S100-*-**20).

Procedure

Proceed as follows to configure the workflow:

Step	Action
1	Open the "Import-from-DSWin-Subscriber" template. A configuration steps list opens (description of the configuration steps, refer to «"Import-from-DSWin-Subscriber" Template» section).
2	Configure the template.

"Import-from-DSWin-Subscriber" Template

You find here a description of the settings which are included in the "Import-from-DSWin-Subscriber" template, and notes to set it:

- **General Information:**
  You can select a suitable name and a corresponding description for the workflow.
- **Source Selected Attributes:**
  You can add or delete attributes that are to be read out of the csv file. The `SubscriberID` attribute must not be deleted under any circumstances as it is used as a key attribute for synchronization.

  It is important that the sequence of attributes exactly matches the sequence in the CSV file (and thus matches the sequence in the export definition of DS-Win; refer to Section 5.2.5, “Exporting DS-Win Data as CSV Files”).
- **Target Selected Attributes:**
  You can add or delete attributes that are to be written to the HiPath User Management directory. The selected attributes are shown in the column on the right. The `ApplLocalityId` attribute is mandatory for synchronization; therefore it must not be deleted under any circumstances.

- **Attribute Mapping for Subscriber Data:**
  You can adjust the assignment of the fields from the CSV file to the relevant fields in the HiPath User Management directory to your requirements. The assignment of the `SubscriberID` to the `ApplUserId` must never be changed or deleted as these are the key attributes for synchronization. Nor shall the assignment of `Address` to `ApplLocalityID` shall be changed.

  By assigning a telephone number in the `PrimeryPhoneNumber` field, HiPath User Management is instructed to set the associated resource as the primary resource.

- **Import Properties:**
  No modifications shall be made here.

- **Import Tracing:**
  You can specify the settings for tracing the import of locality data to the DS-Win database here.

5.3.4 Configuring the Workflow for Importing DS-Win Address Data

Overview

This metahub workflow is used to import address data from a csv file exported by DS-Win into HiPath User Management. The workflow adds the attributes stored in the address table to the previously imported subscribers.

The workflow is configured based on the "Import-from-DSWin-Addresses" template.

Procedure

Proceed as follows to configure the workflow:

Step	Action
1	Open the "Import-from-DSWin-Addresses" template. A configuration steps list opens (description of the configuration steps, refer to «Template „Import-from-DSWin-Addresses“» section).
2	Configure the template.

Template „Import-from-DSWin-Addresses“

In this section, you find a description of the settings which are included in the "Import-from-DSWin-Addresses" template, and notes to configure it:

- **General Information:**
  You can select a suitable name and an appropriate description for the workflow.

- **Source Selected Attributes:**
  You can add or delete attributes that are to be read out of the csv file. The `Address` attribute must not be deleted under any circumstances as it is used as a key attribute for synchronization and is also required when searching for a user associated with an address.

  It is important that the sequence of the selected attributes exactly matches the sequence in the CSV file (and thus matches the sequence in the export definition of DS-Win; refer to Section 5.2.5, “Exporting DS-Win Data as CSV Files”).

- **Target Selected Attributes:**
  You can add or delete attributes that are to be written to the HiPath User Management directory. The selected attributes are shown in the column on the right. The `ApplLocalityId` attribute is mandatory for synchronization; therefore it must not be deleted under any circumstances.

- **Attribute Mapping for Locality:**
  You can adjust the assignment of the fields from the CSV file to the relevant fields in the HiPath User Management directory to your requirements. The assignment of the `address` to `ApplLocalityID` must never be changed or deleted as these are the key attributes for synchronization.

- **Import Properties:**
  No modifications shall be made here.

- **Import Tracing:**
  You can specify the settings for tracing the import of the locality data into the DS-Win database.

5.3.5 Configuring the Workflow for Download to DS-Win

Overview

This workflow is used for synchronizing user and locality data from HiPath User Management with the DS-Win database. The workflow will be configured based on the "Download_to_DSWin" template.

Procedure

Proceed as follows to configure the workflow:

Step	Action
1	Open the "Download_to_DSWin" template. A configuration steps list opens (description of the configuration steps, refer to paragraph «"Download_to_DSWin" Template»).
2	Configure the template that it contains the following steps: 1. Exporting the locality data from the HiPath User Management directory. 2. Importing the locality data to the address table of the DS-Win database. 3. Exporting the subscriber IDs stored in the DS-Win database (key attributes for accessing the subscriber table). 4. Exporting user data from the HiPath User Management directory and finding entries to be deleted in DS-Win with the aid of previously read subscriber IDs. 5. Importing user data to the DS-Win subscriber table.

"Download_to_DSWin" Template

In this section, you find a description of the settings which are contained in the "Download_to_DSWin" template, and how they have to be set:

- **General Information:**
  You can select a suitable name and a corresponding description for the workflow.
- **DirXmetahub Server:**
  Do not change the settings (`main` as DirXmetahub Server).
- **Source Selected Attributes For Locality:**
  You can add or delete attributes that are to be read from the HiPath User Management directory locality tree. The `applLocalityId` and `cdsSyncAllowed` attributes must not be deleted under any circumstances.

- **Export Properties For Locality:**
With the exception of the "Filter" field, the settings must not be changed. You can exclude specific locality objects from the synchronization with DS-Win by setting an appropriate filter (LDAP notation).

- **Target Selected Attributes For Locality:**
You can add or delete attributes that are to be written to the DS-Win database. The selected attributes are shown in the column on the right. The `Delete-In-ODBC` attribute controls whether or not an entry is to be deleted from the DS-Win database and must not be deleted under any circumstances. The `Address` attribute must not be deleted because it acts as a key field for accessing the address table.

- **Attribute Mapping for Locality:**
You can adjust the assignment of the User Management locality attributes to the relevant fields in the DS-Win database to your own requirements. The assignment of the `applLocalityId` to `Address` must not be changed or deleted under any circumstances because this would cancel the assignment of entries.

- **Import Properties for Locality:**
You can specify how the data is to be written to the DS-Win database. The `Table`, `Select By`, `Create IF Absent`, `Insert Only`, `Relationships`, `Always Follow References`, `Modify Anyway` and `Change Type` fields shall not be changed.

  In the `Modify` field, you can enter the other fields that are to be written to the DS-Win database.

- **Export Tracing For Locality:**
You can specify the settings for tracing the export of the locality data from the HiPath User Management directory.

- **Import Tracing For Locality:**
You can specify the settings for tracing the import of the locality data into the DS-Win database.

- **Delta Handling:**
To perform a full download, you just have to unmark the "delta handling" checkbox. For a delta workflow, you have to mark this checkbox and set `Delta Type` to `File` and `Changes Since` to `Recent`. You also have to set the operational properties for a delta synchronization.

- **DS-Win Export Tracing for Users:**
You can specify the settings for tracing the export of the subscriber IDs from the DS-Win database.

- **Source Selected Attributes For Users:**
You can add or delete attributes that are to be read from the HiPath User Management directory user tree. The `applLocalityId`, `applUserId` and `cdsSyncAllowed` attributes must not be deleted under any circumstances.

- **Export Properties For Users:**
  The settings must not be changed except for the `Filter` field. You can exclude specific users from the synchronization with DS-Win by setting an appropriate filter (LDAP notation).

- **Target Selected Attributes For Users:**
  You can add or delete attributes that are to be written to the DS-Win database. The selected attributes are shown in the column on the right. The `Delete-In-ODBC` attribute controls whether or not an entry is to be deleted from the DS-Win database and must not be deleted under any circumstances.
  The `Subscriber.Address` field is required for correctly linking the subscriber to the address table. In the same way, the `Subscriber.SubscriberID` attribute must not be deleted because it acts as a key field for accessing the subscriber table.

- **Attribute Mapping for Users:**
  You can adjust the assignment of the User Management locality attributes to the relevant fields in the DS-Win database to your own requirements. The assignment of the `applUserId` to `SubscriberID` must not be changed or deleted under any circumstances because this would cancel the assignment of entries. If locality data is also to be synchronized, the assignment of the `applLocalityId` to `Subscriber.Address` must not be changed.

- **DS-Win Import Properties for Users:**
  You can specify how the data is to be written to the DS-Win database. The `Table`, `Select By`, `Create IF Absent`, `Insert Only`, `Relationships`, `Always Follow References`, `Modify Anyway` and `Change Type` fields shall not be changed.

  In the `Modify` field, you can enter the other fields that are to be written to the DS-Win database.

- **Operation for Users:**
  You can set whether all users or only those users that were modified since completion of the last workflow are to be processed.

  Disable the "Delta Synchronization" checkbox for a complete synchronization.

  Set this checkbox for a delta synchronization. In addition, you must set `Delta type` to `Date` and `Changes since` to `recent`. In the case of a delta synchronization, both new and modified users are adopted accordingly in the DS-Win database. Deleted users are not removed from the DS-Win database.

- **Export Tracing For Users:**
  You can specify the settings for tracing the export of the locality data from the HiPath User Management directory.

- **Import Tracing For Users:**
  You can specify the settings for tracing the import of the locality data into the DS-Win database.

6 Synchronization By Export/Import of a Text File

Overview

The synchronization of the DS-Win database with the database of a communication system can be also performed by exporting the data from the database, manually changing the exported file, and the following import of the changed file.

Contents

You find the following topics in this chapter:

6.1 General Description of the Data Transfer

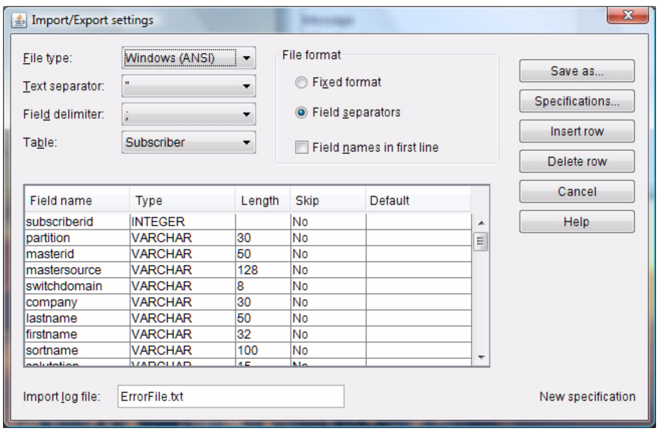
A database was created as an example during the installation of DS-Win V4 (refer to A31003-G6640-S100-3-20, DS-Win V4 Service Manual -> 3.3.1 "Creating a PostgreSQL Example Database From the Installation Data" and 3.3.2 "Creating Example Database Via Existing Database Server"). This database is still empty and can be manually filled via an XML editor like Notepad++, and then imported by initial synchronization into DS-Win V4.

You usually synchronize the subscriber data.

6.2 Creating Synchronization Specification

A synchronization specification which is used to create an editable file is required for the export and the import of the database data.

Example for the "Import/Export settings" window



Prerequisite

The DS-Win Administration was started. Refer to Chapter 2, "Starting Administration".

Procedure

Proceed as follows:

Step	Action
1	Select in the "DS-Win Administration" window: **Database** -> **Export data**. The "Export data" window opens.
2	Click **Define** in the "Export data" window. The "Import/Export settings" window opens.
3	In the "Import/Export settings" window, the settings must be done in this manner that the exported file can be edited. Refer to 3a - 3d.
3a	The following settings are recommended: ● "File type": **`Windows (ANSII)`** ● "Text separator": **`"`** ● "Field delimiter": **`;`** ● "Table": **`Subscriber`** (for the subscriber synchronization)

Step	Action
3b	• "File format" area: – Select `Field separators` – Activate `Field names in first line`
3c	• In the table: Define whether certain entries can be ignored or must be filled by data. This depends on which data of the communication system's database shall be used to fill the DS-Win database.
3d	• "Import log file": Define the name of the error file.
4	Click **Save as**. The "Save specification" window opens.
5	Enter the name of the specification in the "Save specification" window, e.g., `Text_Import-Export`, then click **OK**. The specification is saved, and the "Import/Export settings" window opens again.
6	Click **Cancel** in the "Import/Export settings" window. This window is closed; and the "DS-Win Administration" window remains open.

Further Processing

Refer to Section 6.3, “Exporting Data”.

6.3 Exporting Data

Prerequisites

- A synchronization specification for the data export was created, refer to Section 6.2, “Creating Synchronization Specification”.
- The DS-Win Administration was started, refer to Chapter 2, "Starting Administration".

Procedure

Proceed as follows:

Step	Action
1	In the "DS-Win Administration" window: Select **Database** -> **Export data**. The "Export data" window opens.
2	Perform the following settings in the "Export data" window: 1. To fill the "File name" field: a) Click **Browse**. The "Open" window opens. b) Select a directory in the "Open" window into which you want to save the file to be exported, enter a file name, and click **Open**. The "Export data" window opens again. 2. In the "Specification" drop-down list, select the created specification which shall be used for the synchronization by text file (refer to Section 6.2, “Creating Synchronization Specification”).
3	Click **Execute** in the "Export data" window. The DS-Win database data are exported into the defined text file.
4	Open the exported text file with an editor, e.g., Notepad++, and check if this text file is similar to the text file example which is described in the following part of this section.

Example for an Exported Text File

The content of the exported text file is similar to the following example if you have performed your settings as described above (refer to Section 6.2, “Creating Synchronization Specification”):

```
"subscriberid";"partition";"masterid";"mastersource";"switchdomain";"company";"lastname";"firstname";"sortname";"salutation";"orgid";"organiz
"1";"";"";"1.79.21.212";"";"";"ANATE   KN 79 200*";"";"ANATE   KN 79 200* ";"";"null";"";"0027";"0027";"";"";"";"";"7200";"";"";"";"";"";"";"
"2";"";"";"1.79.21.212";"";"";"ANATE   KN 79 200*";"";"ANATE   KN 79 200* ";"";"null";"";"8127";"8127";"";"";"";"";"7218";"";"";"";"";"";"";"
"3";"";"";"1.79.21.212";"";"";"OPTI IP KN 79 200*";"";"OPTI IP KN 79 200* ";"";"null";"";"0227";"0227";"";"";"";"";"7220";"";"";"";"";"";"";"
"4";"";"";"1.79.21.212";"";"";"PROF.70 KN 79 200*";"";"PROF.70 KN 79 200* ";"";"null";"";"0327";"0327";"";"";"";"";"7230";"";"";"";"";"";"";"
"5";"";"";"1.79.21.212";"";"";"ISDN M  KN 79 200*";"";"ISDN M  KN 79 200* ";"";"null";"";"3327";"3327";"";"";"";"";"7233";"";"";"";"";"";"";"
"6";"";"";"1.79.21.212";"";"";"OPTI    KN 79 200*";"";"OPTI    KN 79 200* ";"";"null";"";"0427";"0427";"";"";"";"";"7240";"";"";"";"";"";"";"
"7";"";"";"1.79.21.212";"";"";"OPTI    KN 79 200*";"";"OPTI    KN 79 200* ";"";"null";"";"1427";"1427";"";"";"";"";"7241";"";"";"";"";"";"";"
"8";"";"";"1.79.21.212";"";"";"OPTI    KN 79 200*";"";"OPTI    KN 79 200* ";"";"null";"";"2427";"2427";"";"";"";"";"7242";"";"";"";"";"";"";"
"9";"";"";"1.79.21.212";"";"";"OPTI    KN 79 200*";"";"OPTI    KN 79 200* ";"";"null";"";"3427";"3427";"";"";"";"";"7243";"";"";"";"";"";"";"
"10";"";"";"1.79.21.212";"";"";"OPTI    KN 79 200*";"";"OPTI    KN 79 200* ";"";"null";"";"5427";"5427";"";"";"";"";"7245";"";"";"";"";"";"";
"11";"";"";"1.79.21.212";"";"";"OPTI    KN 79 200*";"";"OPTI    KN 79 200* ";"";"null";"";"6427";"6427";"";"";"";"";"7246";"";"";"";"";"";"";
"12";"";"";"1.79.21.212";"";"";"OPTI    KN 79 200*";"";"OPTI    KN 79 200* ";"";"null";"";"7427";"7427";"";"";"";"";"7247";"";"";"";"";"";"";
"13";"";"";"1.79.21.212";"";"";"OPTI    KN 79 200*";"";"OPTI    KN 79 200* ";"";"null";"";"0527";"0527";"";"";"";"";"7250";"";"";"";"";"";"";
"14";"";"";"1.79.21.212";"";"";"OPTI AP KN 79 200*";"";"OPTI AP KN 79 200* ";"";"null";"";"0627";"0627";"";"";"";"";"7260";"";"";"";"";"";"";
"15";"";"";"1.79.21.212";"";"";"OPTI AP KN 79 200*";"";"OPTI AP KN 79 200* ";"";"null";"";"1627";"1627";"";"";"";"";"7261";"";"";"";"";"";"";
```

The content of this file depends on the content of the DS-Win database and your settings.

6.4 Editing Data

Forward the exported text file to the person who edits the data, e.g., the administrator of the customer.

If you have performed your settings as described above (refer to Section 6.2, “Creating Synchronization Specification”), pay attention to the following points to edit the data:

- The names of the fields are in the first line of the exported text file.
- The fields are divided by semicolon (;). These delimiters must not be changed.
- You must only edit between the two " " characters which are used to delimit the text, e.g., for the field **`"firstname"`**: **`""`** -> **`"Mario"`**.

6.5 Importing Data

Prerequisites

- You have got back the text file, and it was correctly edited.
- The DS-Win Administration is started, refer to Chapter 2, "Starting Administration".

Procedure

Proceed as follows:

Step	Action
1	Open the edited text file in an editor, e.g. Notepad++, and check if the data are correct (refer to the description in Section 6.4, “Editing Data”).
2	Select **Database** -> **Import data** in the "DS-Win Administration" window. The "Import data" window opens.
3	Perform the following settings in the "Import data" window: 1. To fill the "File name" field: a) Click **Browse**. The "Open" window opens. b) Select the directory in the "Open" window into which you have saved the file to be imported, select the file, and click **Open**. The "Import data" window is displayed again. 2. In the "Specification" drop-down list, select the created specification which shall be used for the synchronization by text file (refer to Section 6.2, “Creating Synchronization Specification”). 3. Select **Fill table with new records** to perform the initial synchronization.
4	Click **Execute** in the "Import data" window. The data from the text file are imported into the DS-Win database. A progress bar is displayed and then a message apears which indicates the correct import.
5	If you have synchronized the subscriber data: Open DS-View. Check if the imported subscriber data are displayed in this application.

7 Setting Up Presence Management

Overview

In order to provision DS-Win V4 with Presence functionality, DS-Win V4 must work together with a mail server. DS-Win V4 can be used with Lotus Domino, Outlook 2003, WebDAV, Exchange 2007, and Exchange 2010. Depending on which mail server DS-Win V4 is working with, different settings are needed.

DS-Win V4 can either be installed on the same server where the mail server is installed or on a different server. If DS-Win V4 and the mail server are installed on different servers, DS-Win V4 must be able to access the mail server, i.e., both servers must be in the same network.

For subscribers whose presence information is to be visible, the database table and the respective columns containing the e-mail information must be specified on the Presence Management tab in the settings of DS-Win V4.

Contents

You find the following topics in this chapter:

- Section 7.1, “Setting Up Exchange 2007/2010 Servers and DS-Win V4”
- Section 7.2, “Setting up Lotus Domino Server 8.5 and DS-Win V4”

7.1 Setting Up Exchange 2007/2010 Servers and DS-Win V4

Overview

The following sections describe the configuration of DS-Win V4 for Presence Management when it works with the Exchange Servers 2007 and 2010

Contents

This section contains the following topics:

Section 7.1.1, “Installing the Exchange Servers 2007/2010”

Section 7.1.2, “Configuring DS-Win V4”

7.1.1 Installing the Exchange Servers 2007/2010

Installation

Proceed as follows:

Step	Action
1	Install Exchange Server 2007 or 2010 on a suitable Windows server: ● Exchange 2007: e.g., Windows Server 2003, Windows Server 2008 ● Exchange 2010: e.g., Windows Server 2008

Exchange Server 2010

For Exchange Server 2010, the configuration is similar but not identical with the configuration of Exchange Server 2007. Via Exchange Web Services API (EWS), client applications communicate with the Exchange Server. The EWS provides access to most of the same data that is available by Microsoft Office Outlook.

The following settings are required for Presence Management in DS-Win:

- enable on Exchange Server:
  - Client Access role
  - Autodiscover Service
  - Availability Service
- and configure the DS-Win client

Testing the Exchange Server 2010 settings:
Because Outlook Web Access (OWA) also needs these services, configure OWA and test it. If OWA is enabled and works, DS-Win should also work.

7.1.2 Configuring DS-Win V4

In order to configure DS-Win V4 to work with an Exchange Server, proceed as follows:

Step	Action
1	Open **Start** -> **Programs** -> **DS-Win V4** -> **DS-Win** and log in as administrator.
2	Open the **Options** -> **Application Settings** -> **Presence Management** tab.
3	Enable the **Use Presence Management** check box on the **Presence Management** tab.
4	Enable one of the **Exchange 2007** or **Exchange 2010** radio buttons in the "Presence Management type" area.
5	Enter the database table and the database column containing the e-mail information of the subscribers: 1. In the "Data source" field, enter the name of the database table, e.g., `Subscriber`. 2. In the "Account field", enter the database column, e.g., `email`.
6	In the "Server Settings" area, fill in the authentication information of the Windows server on which the Exchange Server is installed: 1. Enter the login name of the Windows Server (e.g., `Administrator`) in the "User ID" field. 2. Enter the password of the Windows Server in the "Password" field. 3. Enter the IP address of the Windows Server, (e.g., `192.168.1.74`) in the Exchange server" field. If DS-Win V4 and the Exchange Server are installed on the same server, then `127.0.0.1` must be entered as the IP address. 4. Enter the domain name of the Windows Server, e.g., `exc2007.com` in the "Domain" field (can be determined via **Computer** -> [right mouse click] **Properties** -> ***<Computer Name>*** -> **Domain**).
7	Click **OK**. Your entries are saved.

7.2 Setting up Lotus Domino Server 8.5 and DS-Win V4

Overview

The following paragraphs describe the installation of Lotus Domino Server 8.5 and the configuration of DS-Win V4 for Presence management.

Contents

This section contains the following topics:

7.2.1 Installing Lotus Domino Server 8.5

Proceed as follows:

Step	Action
1	Install Lotus Domino Server 8.5 on a suitable Windows server, e.g., Windows 2003 Server. After the standard installation, some additional settings are required on the Domino Server.

Further Processing

Refer to Section 7.2.2, “Configuring Lotus Domino Server 8.5”.

7.2.2 Configuring Lotus Domino Server 8.5

The SMTP Server must be configured on the Lotus Domino Server 8.5. To do this, proceed as follows:

Step	Action
1	Edit the `notes.ini` file: 1. Open the `notes.ini` file on the Windows Server (e.g., under `C:\Program Files\IBM\Lotus\Domino\notes.ini` for an English operating system). 2. Add the line **`ServerTasks=SMTP`** to the `notes.ini` file. 3. Save and close the file.

<table>
<tr><th>Step</th><th>Action</th></tr>
<tr><td>2</td><td>Open the Services window with Start -> Run -> <code>services.msc</code> -> OK and stop the Domino Server.</td></tr>
<tr><td>3</td><td>Load SMTP:
1. Open the Domino console by opening the <code>scontroller.exe</code> file (e.g., <code>C:\Program Files\IBM\Lotus\Domino\scontroller.exe</code> for an English operating system.
2. Enter the <code>Load smtp</code> command in the "Domino Command" field.
3. Click Send.
4. Close the Domino console.</td></tr>
<tr><td>4</td><td>Start the Domino Server in the Services window.</td></tr>
<tr><td>5</td><td>Configure the Domino Server:
1. Open the Internet Explorer and enter <code>http://<IP address of Domino server>/names.nsf</code> in the address bar (e.g., <code>http://192.168.1.78/names.nsf)</code>.
2. Enter the user name and password for the Domino Server (assigned on installation of the Domino server). The user interface of the <code>names.nsf</code> file is displayed ("Domino Directory/Add Person" window).
3. Select Configuration -> Servers -> All Server Documents in the "Domino Directory" pane on the left. The "Domino Directory/Add Server, Web, Search" window with the list of servers is displayed.
4. Enable the check box of the server you want to configure. A window with the "Domino Directory", "Edit Server", "Create Web" and "Cancel" headers appears with tabs such as "Basics", "Security", "Ports", etc.
5. On the Basics tab, set the <code>SMTP listener task</code> entry to <code>Enabled</code>.</td></tr>
<tr><td>6</td><td>Configure Lotus Notes:
1. Open Lotus Notes with Start -> Programs -> Lotus Applications -> Lotus Notes 8.5.
2. Configure a meeting with the Lotus calendar.</td></tr>
<tr><td>7</td><td>Open the Services window with Start -> Run -> <code>services.msc</code> -> OK and stop the Domino Server.</td></tr>
</table>

Step	Action
8	Validate the task scheduler on the Domino server database: 1. Open the Domino console by opening the `scontroller.exe` file (e.g., from `C:\Program Files\IBM\Lotus\Domino\scontroller.exe` for an English operating system). 2. Enter the command **`tell sched validate`** in the "Domino Command" field and click **Send**. All users and all scheduled items in the database are validated. 3. Enter the command **`tell sched validate`** ***`<user name>/<domain>`*** in the "Domino Command" field and click **Send**. All scheduled items for the specified user are validated in the database.
9	Start the DIIOP server: 1. Enter the **`Load DIIOP`** command in the "Domino Command" field. 2. Click **Send**. The DIIOP server is initiated.

Further Processing

Refer to Section 7.2.3, “Configuring DS-Win V4”.

7.2.3 Configuring DS-Win V4

In order to configure DS-Win V4 to work with Lotus Domino Server 8.5, proceed as follows:

Step	Action
1	Open **Start** -> **Programs** -> **DS-Win V4** -> **DS-Win** and log in as an administrator.
2	Open the **Options** -> **Application Settings** -> **Presence Management** tab.
3	Enable the **Use Presence Management** check box on the **Presence Management** tab.
4	Enable the **Lotus** radio button in the "Presence Management type" area.
5	Enter the database table and column containing the e-mail information of the subscribers: 1. In the "Data source" field, enter the name of the database table, e.g., **`Subscriber`**. 2. In the "Account field", enter the database column, e.g., **`email`**.

Step	Action
6	Enter the Lotus Domino Server 8.5 authentication information in the "Lotus Server Settings" area: 1. In the "User ID <Name>/<Organization>" field, enter the user name of the e-mail address to be used by DS-Win V4 for sending e-mails. 2. Enter the password of the user entered in the preceding step in the "Password" field. 3. Enter the IP address and port of the Domino Server, (e.g., `192.168.1.78:63148`) in the "Domino IIOP Server <IP number>:<Port>" field. If the Domino Server was installed with the default settings, the port is `63148`.
7	Click on the **OK** button. Your entries are saved.

8 Setting up the E-mail Feature

Overview

In order to use the e-mail feature, DS-Win V4 must work together with an e-mail server. For DS-Win V4, "Exchange 2007 Server" and "Lotus Domino Server 8.5" can be used. The configuration of DS-Win V4 is independent of the e-mail server being used.

Contents

This chapter contains the following topics:

8.1 Setting up Exchange 2007 Server

Overview

The following steps describe how to set up the e-mail feature for Exchange Server 2007.

Contents

You find the following topics in this section:

8.1.1 Start the Management Console

To open the Management Console of the Exchange Server 2007, proceed as follows:

Step	Action
1	Start the Management Console of Exchange Server 2007 via **Start** -> **Program Files** -> **Microsoft Exchange Server 2007** -> **Exchange Management Console**.

Further Processing

Refer to Section 8.1.2, “Add a «Send Connector»”.

8.1.2 Add a «Send Connector»

To add a "Send Connector", proceed as follows:

Step	Action
1	Open the **Organization Configuration** -> **Hub Transport** -> **Send Connectors** tab in the menu tree on the left.
2	Create a new "Send Connector" via the menu item **New Send Connector** (in the right window pane). A "New SMTP Send Connector" input window appears.
3	Enter a connector name in the "Name" input field and select die option **Internet** in the `Select the intended use for...` list box. Click **Next**.

Step	Action
4	Set the address options: 1. Open the **New SMTP Send Connector** -> **Address Space** -> **Add** -> "SMTP Address Space" input window. 2. Make the following entries: Type: **`SMTP`**; Address: **`*`**; enable the **Include all subdomains** check box, and Cost: **`1`**. 3. Click **OK**. The settings are saved.
5	Enable **New SMTP Send Connector** -> **Network settings** -> **Use domain name system (DNS) "MX" records to route mail automatically**. Click **Next**.
6	Define the server to be used: 1. Open **New SMTP Send Connector** -> **Network settings** -> **Source Server**. 2. Mark the displayed server. Alternatively, if no server is displayed, click **Add** and mark the predefined server. 3. Click **Next**. The end configuration of the "Send Connector" is displayed. 4. Click **New**. The "Send Connector" is created.

Further Processing

Refer to Section 8.1.3, “Add the «Receive Connector»”.

8.1.3 Add the «Receive Connector»

To add the "Receive Connector", proceed as follows:

Step	Action
1	Open **Server Configuration** -> **Hub Transport** in the menu tree on the left.
2	Create a new "Receive Connector" via the **New Receive Connector** menu item (in the right window pane). A "New SMTP Receive Connector" input window appears.
3	Enter a connector name in the "Name" input field and select the **`Internet`** option in the **Select the intended use for...** list box. Click **Next**.

Step	Action
4	Define the network settings: 1. Open the **New SMTP Receive Connector** -> **Introduction** -> **Local Network settings** --> "Local Network settings" input window. 2. Mark the local network settings displayed. 3. Click **Next**. The end configuration of the "Receive Connector" is displayed.
5	Click **New**. The "Receive Connector" is created.

8.2 Setting up Lotus Domino Server 8.5

Overview

The following steps describe how to set up the e-mail feature for Lotus Domino Server 8.5.

Contents

You find the following topics in this section:

8.2.1 Install Lotus Domino Server

To install the Lotus Domino Server, proceed as follows:

Step	Action
1	Install Lotus Domino Server 8.5 on a suitable Windows server, (e.g., Windows Server 2003. After the standard installation, some additional settings are required on the Domino Server.

Further Processing

Refer to Section 8.2.2, “Configure the SMTP Server on the Domino Server”.

8.2.2 Configure the SMTP Server on the Domino Server

To configure the SMTP Server on the Domino Server, proceed as follows:

Step	Action
1	Edit the `notes.ini` file: 1. Open the `notes.ini` file on the Windows Server (e.g., under `C:\Program Files\IBM\Lotus\Domino\notes.ini` for an English operating system). 2. Add the line **`ServerTasks=SMTP`** to the `notes.ini` file. 3. Save and close the file.
2	Open the Services window with **Start** -> **Run** -> **`services.msc`** -> **OK** and stop the Domino Server.

Step	Action
3	Load SMTP: 1. Open the Domino console by double-clicking the `scontroller.exe` file (e.g., from `C:\Program Files\IBM\Lotus\Domino\scontroller.exe` for an English operating system). 2. Enter the **`Load smtp`** command in the "Domino Command" field. 3. Click **Send**. 4. Close the Domino console.
4	Start the Domino Server in the Services window.
5	Configure the Domino Server: 1. Open Internet Explorer and enter **`http://`*`<IP address of Domino server>`*`/names.nsf`** in the address bar (e.g., **`http://192.168.1.78/names.nsf)`** 2. Enter the user name and password for the Domino Server (assigned on installing the Domino server). The user interface of the `names.nsf` file is displayed ("Domino Directory/Add Person" window). 3. Select **Configuration** -> **Servers** -> **All Server Documents** in the "Domino Directory" pane on the left. The "Domino Directory/Add Server, Web, Search" window with the list of servers is displayed. 4. Enable the check box of the server you want to configure. A window with the headers "Domino Directory", "Edit Server", "Create Web" and "Cancel" appears with tabs such as "Basics", "Security", Ports", etc. 5. On the **Basics** tab, set the **`SMTP listener task`** entry to **`Enabled`**.

8.3 Configuring DS-Win V4

In order to configure DS-Win V4 to work with Exchange Server 2007/Lotus Domino Server 8.5, proceed as follows:

Step	Action
1	Start DS-Win V4 and log in as an administrator.
2	Open the **Options** -> **Application Settings** -> **eMail Settings** tab.
3	Enable the radio button **SMTP Server** in the "eMail Type" area.
4	Optional: Enable the **Subject** and **Message** check boxes in the "Defaults" area. These input areas are automatically displayed in an e-mail popup window when a user creates an e-mail using DS-Win V4.
5	Enter Sender data: 1. In the "Sender" input field, enter the sender in the following format: • For Exchange Server 2007: ***<Name>@<Domain_Name>***, (e.g., **`Administrator@exc2007.com).`** • For Lotus Domino Server 8.5: ***<Name>/<Domain_Name>***, (e.g., **`Administrator/Unify).`** 2. Optional: In the "BCC" field, enter any recipient to whom a blind copy of each e-mail should be sent.
6	In the "SMTP Server" area, enter the authentication information of the server on which the E-mail server is installed: 1. Enter the IP address of the server on which the e-mail server is installed (e.g., **`192.168.1.78`**) in the "Hostname" input field. 2. Enter the port number used by the e-mail server in the "Port" field. The default is **`25`**. 3. Enter the user name of the server on which the e-mail server is installed (e.g., **`Administrator`**) in the "UserID" input field. 4. Enter the password of the server on which the e-mail server is installed in the "Password" field. 5. In the "Timeout (ms)" field, enter the timeout in milliseconds that determines the expiration period for an e-mail. The default is **`6000`**. If an e-mail cannot be sent within this time period, it is deleted.
7	Enable the **DSWin E-Mail User Interface** radio button to have an e-mail popup window displayed when a user wants to create an e-mail.

Step	Action
8	Enter the database table and database column containing the e-mail information of the subscribers: 1. In the "Data source" field, enter the name of the database table, e.g., **`Subscriber`**. 2. In the "eMail field", enter the column of the database table, e.g., **`email`**. Make sure that the e-mail addresses of the subscribers you have selected on the **View** tab are contained in the specified database table.
9	Click **OK**. Your entries are saved.

9 Administering Users

Overview

The complexity of the system and the need to protect the data contained in the database call for security measures to ensure that the software cannot be damaged by incorrect operation or improper use.

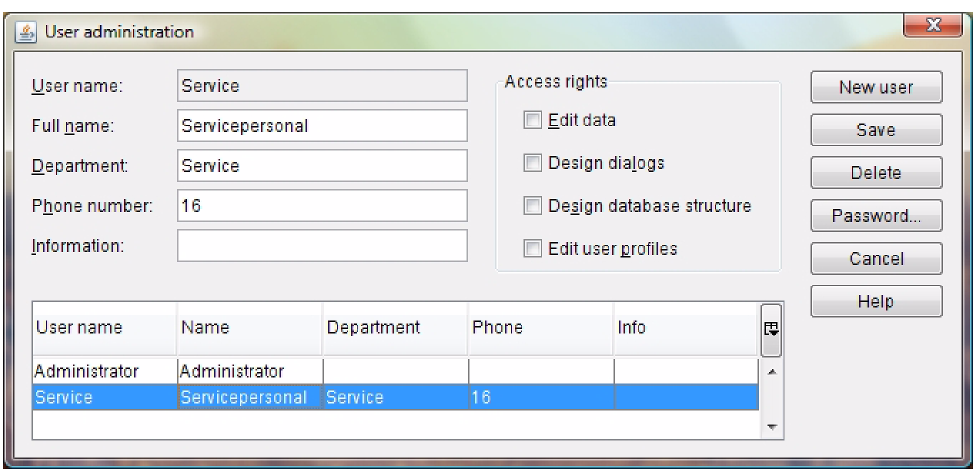
DS-Win has a graded access concept at user level so that it is only necessary to enable the functionality actually needed in each case. An extended access permission comprises the more restricted access permissions.

Contents

You find the following topics in this chapter:

9.1 Different Access Rights

Example for the «User administration» window



User Data

In the "User administration" window, for every user the user name, the full name, the department, the phone number, and additional information are displayed.

Access Permissions

You can define for every user the following access permissions in the "Access rights" area:

- **Edit data**
  The user is allowed to add data records to any tables and to import, export, synchronize, print, and delete data.
- **Design dialogs**
  This access permission allows the user to design Data view dialogs or to modify existing objects.
- **Design database structure**
  This access permission allows the user to create databases and to modify table structures or to create new tables, in other words, to insert new fields and to edit or delete existing fields, and to edit the MSysMappingTable and MSysCountry tables.
- **Edit user profiles**
  The user can enter new users and delete existing ones as well as issue access rights. This access right reveals **all** DS-Win functions.

Without special access permissions, the user can only open the DS-Win Data view and examine data records there or repair the database.

9.2 Viewing and Assigning Access Rights, Adding New Users

Starting DS-Win Administration

Refer to Chapter 2, "Starting Administration".

Procedure

Proceed as follows:

Step	Action
1	In the "DS-Win Administration" window: Select **Options** -> **User administration**. The "User administration" window opens. The table shows the users already entered.
2	You have the following options in the "User administration" window: ● Viewing access rights ● Assigning access rights ● Adding new users Proceed as described in the following steps.
2a	**Viewing access rights:** Mark the user whose access permissions you want to see. You can see what functions are permissible from the check boxes marked in the "Access rights" option group.

Step	Action
2b	**Assigning access rights:** 1. Mark the user whose access permissions you want to change. You can see what functions are permissible from the check boxes marked in the "Access rights" option group. 2. Mark or unmark the required check boxes. 3. Click **Save**. The new settings are saved, and the "New password" window opens. 4. Enter a new password for the user and click **OK**.
2c	**Adding a new user:** 1. Click **New user**. The "User administration" window opens. 2. Enter the user data and assign the access rights. Refer also to Section 9.1, “Different Access Rights”. 3. Click **Save**. The new settings are saved, and the "New password" window opens. 4. Enter a new password and click **OK**. The new user is created.

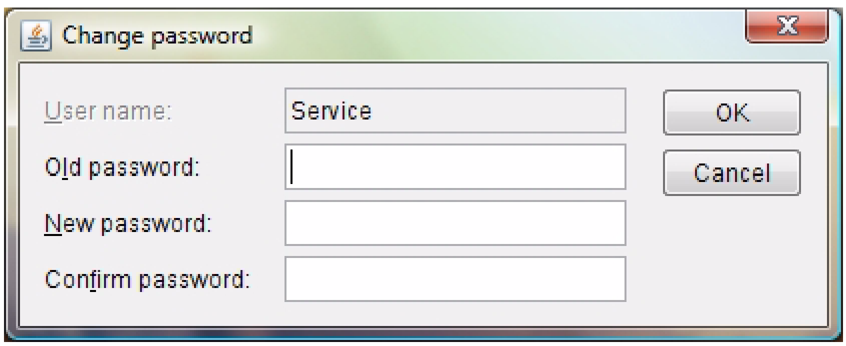
Further Processing

If you enter the user name and the password of the new user in the "DS View" application, you can check if the user was created and which access permissions were assigned. If no access permissions were assigned, the user cannot perform changes.

9.3 Changing the Password

You can change user passwords. You must have the access right “Edit user profiles".

To do this, proceed as follows:

Step	Action
1	In the “User administration" dialog, select the user whose password you wish to modify from the list of users.
2	Click the **"Password..."** button in the "User administration" dialog. The "New password" dialog opens.
	
3	Enter the old password.
4	Enter a new password.
5	Enter the new password a second time to confirm it.
6	Click **OK**.

The new password is saved and must be used the next time you log on.

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