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Manual

GALsync 2.5

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If you experience any errors or if you may ask questions, feel free to contact us directly:
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Chapter 1: Documents

▶ **Read GALsync Manual if you want to know**

- How can I configure GALsync in detail?
- What system requirements does GALsync need?
- Which internal rules does GALsync use for synchronizing?
- May I get some best-practices tips?

▶ **Read GALsync Quick Start if you want to know**

- May I see some screenshots for understanding GALsync?
- How can I quickly test GALsync following some pre-configured settings?
- How can I configure synchronization without reading the manual?

▶ **Read GALsync Concept if you want to know**

- May I get some management summary for my bosses?
- What is the idea behind this software?
- What is the value for my company, my users and my it-staff?

► Chapter 2: How GALsync works - example scenario

Task:

Users in forest B should be able to list with OUTLOOK the mail-objects of forest A.

Technical architecture of GALsync:

1. Export

- a. Install GALsync on a computer in forest A and configure an export-profile
- b. GALsync exports the selected objects of forest A to a local xml-file in folder "export".
- c. This object file may be encrypted
- d. If you selected Email as transfer-protocol, this object file will be sent to a given smtp-address in Forest B
- e. The configuration is stored in a xml-file in folder "profiles" so that you are able to repeat these steps.

2. Import

- a. Install GALsync on a computer in forest B and configure an import-profile
- b. If you configure Email as transfer-protocol, GALsync downloads the attachment file from the mailbox and stores it to a local xml-file in folder "import".
- c. GALsync will extract the content of the datafile and import them into the Active Directory of Forest B into an Organizational Unit you have created during configuration
- d. The configuration is stored in a xml-file in folder "profiles" so that you are able to repeat these steps.

► Chapter 3: System Requirements

The table below shows the basic system requirements for GALsync. It runs great in a number of configurations, including on an Exchange 2000/2003/2007 server, in an Exchange 5.5 organization or on a Windows 2000/2003/2008 server without Exchange installed.

Recommended is to place GALsync on a member server of the domain.

Hardware & Software Requirements

Component	Required	Recommended
Operating System	Windows 2000 Server (all versions), Windows 2003 Server (all versions), Windows 2003 Server, Windows 2008 Server, Windows XP.	GALsync does not need to run on a Domain Controller or Exchange Server. Recommended is to place GALsync on a member server of the domain. NOTE: For testing purposes you may install GALsync on a client computer like Windows XP.
Software	.NET Framework 2.0 MDAC 3.8 (Windows 2000)	
Additional	If you use SMTP as transfer method you need a WEBDAV service like OWA-Server (Exchange 200/2003) or WEBDAV enabled mail server role (Exchange 2007)	

► Chapter 4: What happens with the data? – some rules

The behavior depends sometimes on the Export method you choose. You may choose “Export by objects” (EBO) or “Export by group membership” (EBG).

With EBO you can mark Organizational Units or users, contacts and groups. If you mark an OU, all objects in this object-tree are selected for export. Otherwise you have to mark the objects individually.

With EBG you can mark groups. All members of the group(s) are exported. The group by itself is not exported. Nested groups are exported as object if they are mail-enabled. Members of nested groups are not exported.

1. **Mail-enabled or mailbox-enabled:** GALsync exports only objects which have an email address.
If an object in source is marked as “Hide from address book”, this object will not be exported.
If an object in source has the value “NoGALsync” in extension attribute 3 this object will not be exported.
2. **Groups and members:** Because in target all objects are created as email-enabled contacts exporting a group object means to create a contact in target with the name of the group and the smtp-address of this group. Members of the group are not exported.
3. **Attributes:** All those attributes are exported which are related to contacts. Because in target the exported object is created as contact, no further attributes can be used from source. You may configure on export which of this set of attributes should be visible to the target. Required are only a few. In target you can modify most attributes before importing them by adding a suffix or prefix or by replacing a found string through a given value.
4. **Adding:** If an object in source is added it will be exported being in an OU which is selected (valid for “Export by objects”)
5. **Deleting:** If an object in the source is deleted, it will be removed also in target at next import. If an object is deleted

in the target it will be recreated at next time import happens.

6. **Moving:** If an object is moved to another OU in target which is not the import OU, the object will not be imported a second time. If an object is moved in the source it will be exported, if the object by itself is selected for export. If the object was exported previously while being in a selected OU, it will be exported anymore. If an object value in source is modified, the value will be modified in target as well.
7. **Modifying:** If you modify an objects value in the source this attribute is modified in target by next import.
8. **Duplicates:** if GALsync finds an object in another OU having the same smtp-address, no new object is imported. If GALsync has to import an object having the same Common Name like another object in the forest it compares the distinguished name. Is the dn different, the object will be imported.

► Chapter 5: Setup in detail

Run your **installation package** (GALsync.msi). This will **install and register** all the **components** necessary to run GALsync on your server or workstation.

During Setup choose the administrative account which should run the service.

Note

- The GALsync installation must be run by an account with administrative rights on the machine.
- Installation will add shortcuts for running the **GALsync** Control Panel, Setup Wizard and this User Guide to your Program Menu under the **GALsync** sub menu.

What is done by GALsync setup?

- A service which runs the console application in a scheduled manner
- An additional registry keys in HKLM\software
- An additional key in HKLM\System\CurrentControlSet\eventlog
- An additional folder in %system%\system32\logfiles
- An additional folder with subfolders below your program folder
- Granting permissions to the service account to access all resources described above
- Granting service account local rights to log on as a service

Remove GALsync from your computer manually

To perform a un-install you only need to:

- Run the uninstall procedure from inside Windows control panel. Check all resources described above and delete them if still present
- There are no dependencies to other programs!

Note

- The application folders profile, import or export are only deleted if they do not contain any data files.

► Chapter 6: The GALsync Control Panel

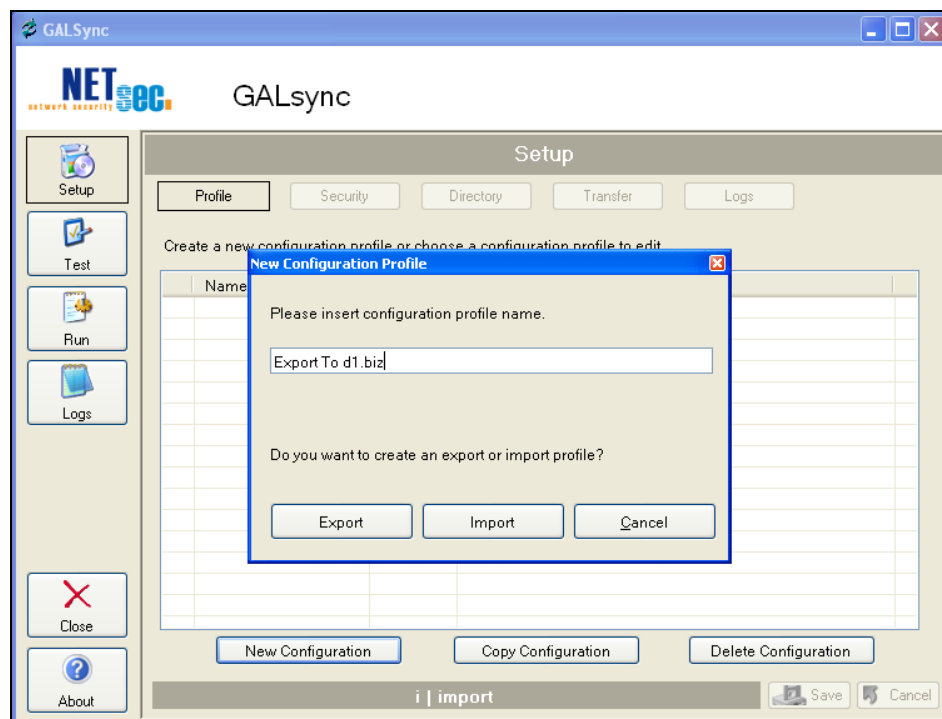
The GALsync Control Panel allows you to:

- **SETUP:** Create, change and delete your GALsync profile **parameters** (Security, Transfer, Directory and Logging options).
- **TEST:** Test a GALsync profile without performing data modifications. This allows you to validate all your settings.
- **RUN:** Run a GALsync profile performing all settings. This allows you to execute your import / export manually.
- **LOGS:** View the log files from within the GALsync application.
- **ABOUT:** View the license status of your installation.

► Main Menu **SETUP**

Create, change and delete your GALsync profile **parameters** (Security, Transfer, Directory and Logging options).

► Main Menu **SETUP - Section Security**



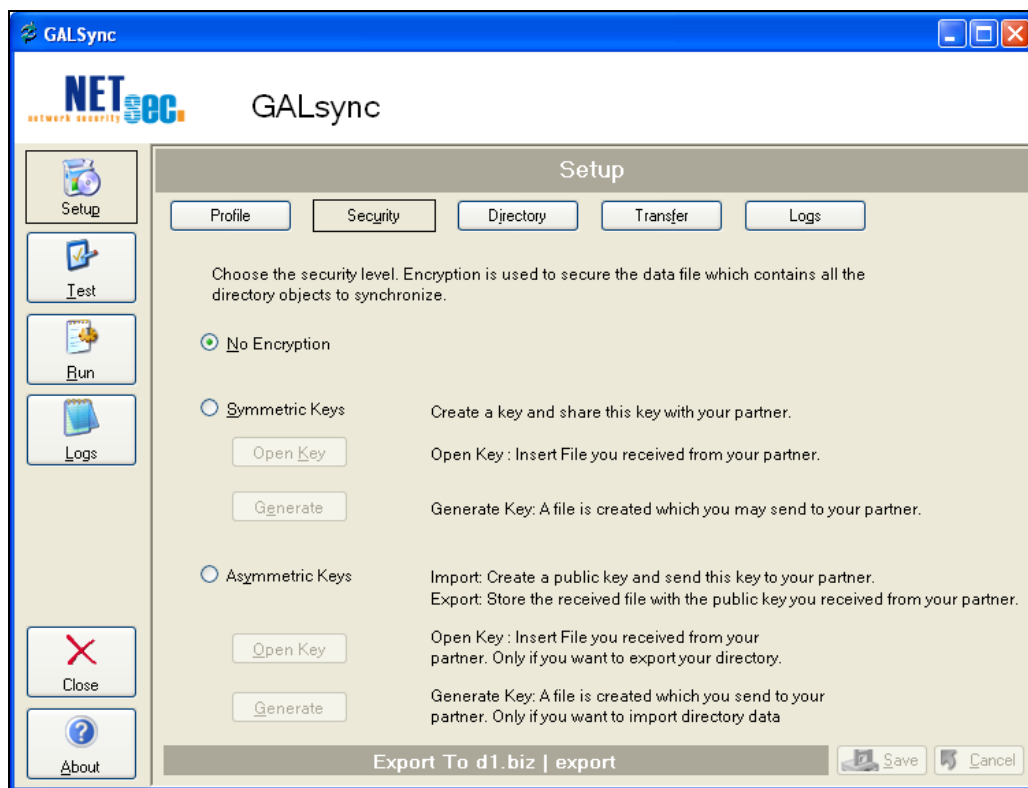
As result you should see:



► Main Menu **SETUP** - Section **Security**

In this menu you configure the security settings related to the chosen profile.

Security settings define how object data are stored in the export file and with which security settings the target organization must receive the data.



No encryption

All object data you want to export are stored in the export data file unencrypted. You may use an editor to open the xml file and you will read all objects attributes.

If you configure an import profile you have to choose "No encryption" if the exporting organization sent you the file as not encrypted.

Recommendation

To have a first quick look to the features of GALsync choose "No encryption".

► Main Menu **SETUP - Section Directory**

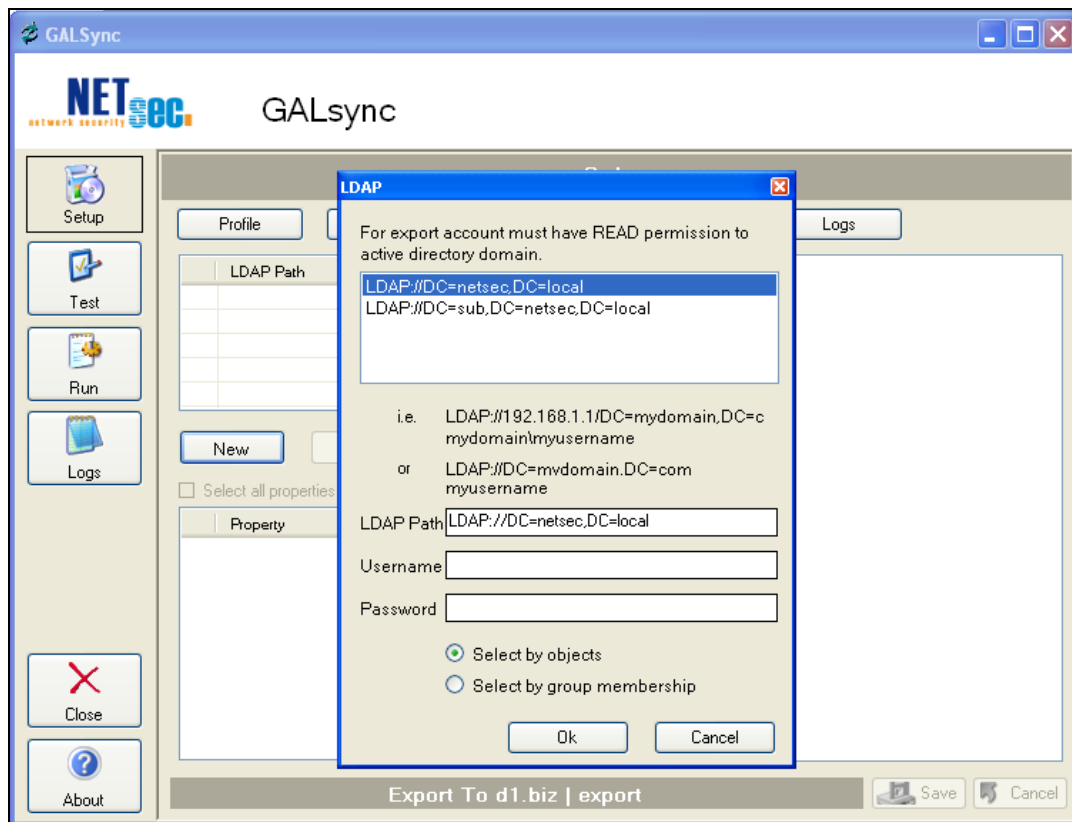
In this menu you configure the objects to be exported or imported. The actions you can take depend on the type of your chosen profile (export or import).

Export

If you choose an export profile you are able in Directory tab to

- **New:** create a new connection setting to an Active Directory
- **Edit:** edit a given connection setting
- **Delete:** delete a connection setting or
- **Show:** show the data of a defined and selected connection setting.
- **Select properties:** select the properties you want to export

Note: You may address more than one forest.



Action New

If you choose an export profile you may create a new connection setting to an Active Directory domain.

- configure the required LDAP path to access your Directory you may list the structure of organizational units (button "Show"). By default the current domain is listed. If you do not configure a username and password the current logged in user will be used.
- Sometimes it is recommended to add the domain controllers server name like
 "LDAP://server/dc=myorg,dc=com" or
 "LDAP://192.168.50.5/dc=myorg,dc=com"

Important: Because GALsync lists the OU structure the query runs against the domain controller and not against the global catalog. In a multi-domain forest you have to define a connection setting for each domain you want select objects from.

Select by objects

An Active Directory tree with

- all mail-enabled contacts
- all mail-enabled groups
- all mailbox-enabled or mail-enabled users

will be listed. If you select an OU, all included objects will be marked for export.

Note: if you select a group, the group as object (with its mail address) will be exported (not the memberships).

Select by group membership

An Active Directory tree with only group objects is listed. If you select a group all members (including nested group membership) will be marked for export.

Note: The group itself will not be marked for export.

Action Edit

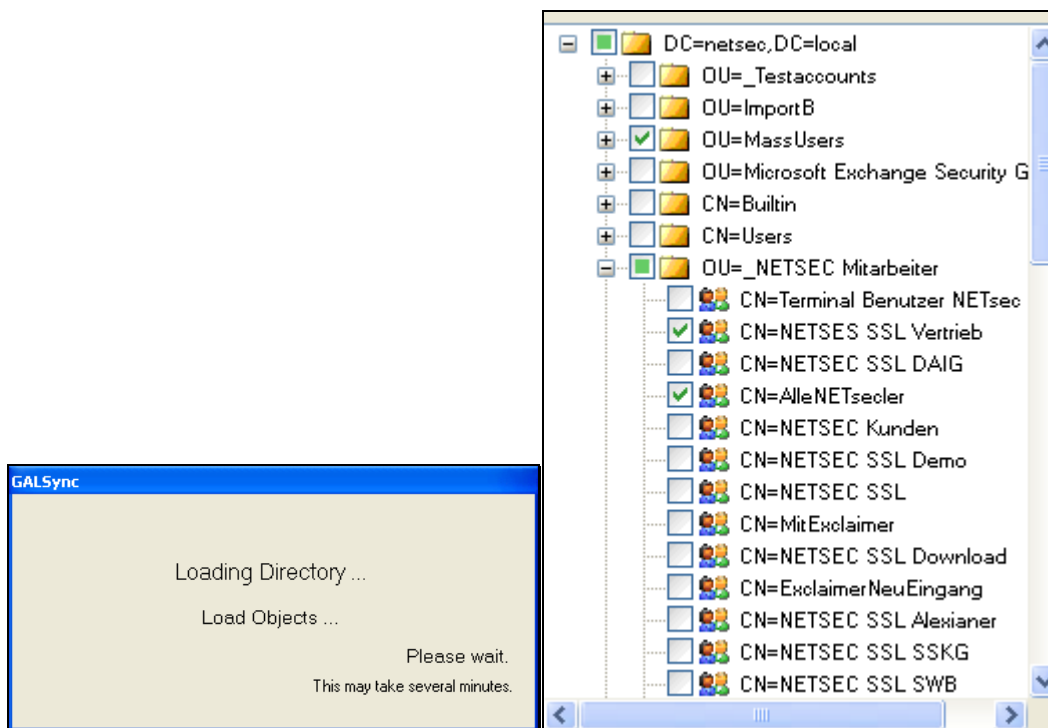
If you choose an export profile you may modify the connection settings to Active Directory. After such a modification you must choose **"Show"** and reconfigure your objects to be exported.

Action Delete

If you choose an export profile you may delete the selected connection setting.

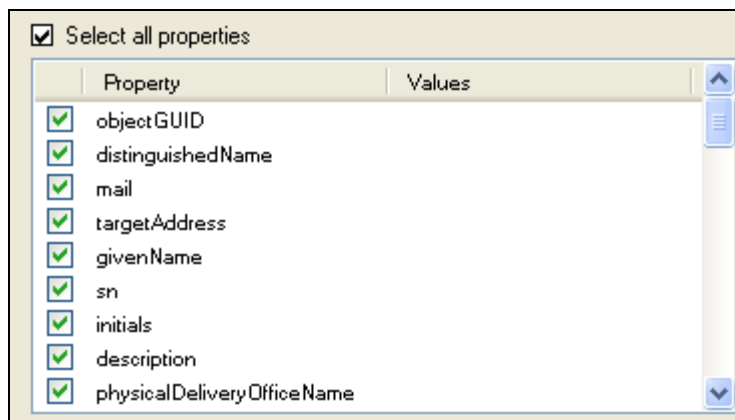
Action Show

If you choose an export profile you may show the Active Directory structure to select objects to be exported. Because all your directory structure is loaded it may take some time to perform this step.



Select All Properties

By default only some properties are selected. If you want to export other properties select all or those you want.

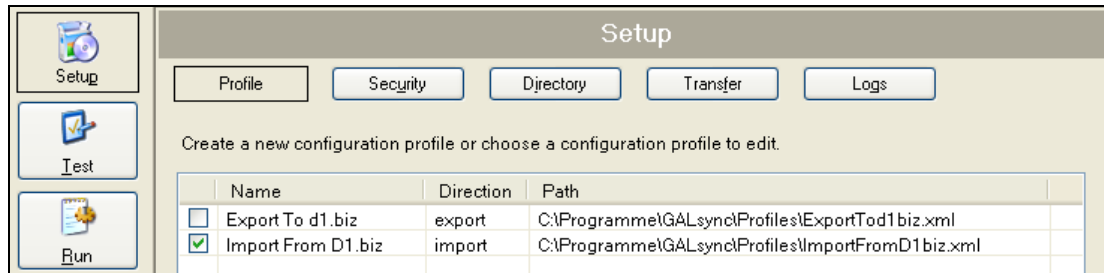


Recommendation

To have a first quick look to the features of GALsync select the defaults.

Import

Create an Import profile



By default the current domain is listed. If you do not configure a username and password the current logged in user will be used.

Note: The account you configure must have write permissions to the OU data will be imported to.

If you choose an import profile and configured the required LDAP path to access your Directory you may list the structure of organizational units (button "Show").

Note: Listing Active Directory objects may take several minutes because the structure is cached for future use.

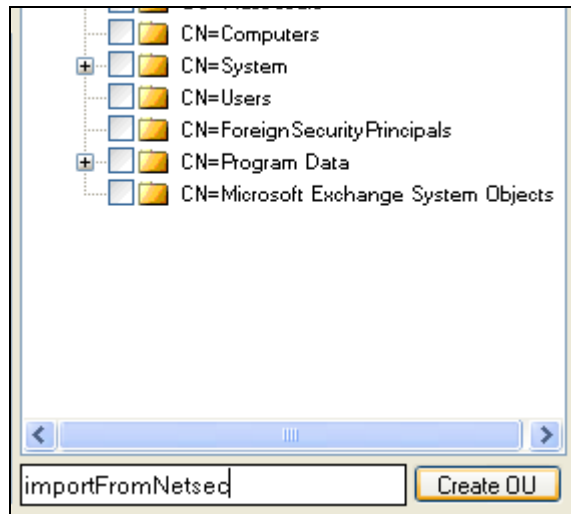
If you choose an import profile you are able in Directory tab to

- configure a connection setting to an Active Directory
- **Show:** show the structure of organizational units.
- **Edit properties:** you may configure prefixes or suffixes for each property - or you may replace a given string

You should have already created an organizational unit if you want to import the objects to before performing the next task.

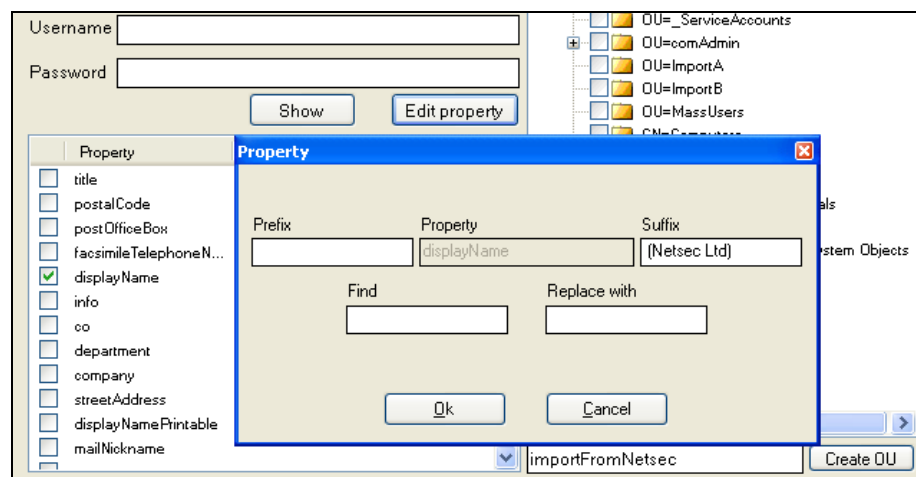
Import configuration

- Select the organizational unit you want to import the objects to or create a new OU



Note: You can select only 1 OU for a given import profile.

- Edit Properties: Modify the selected property by using pre- or postfixes or replace a found string

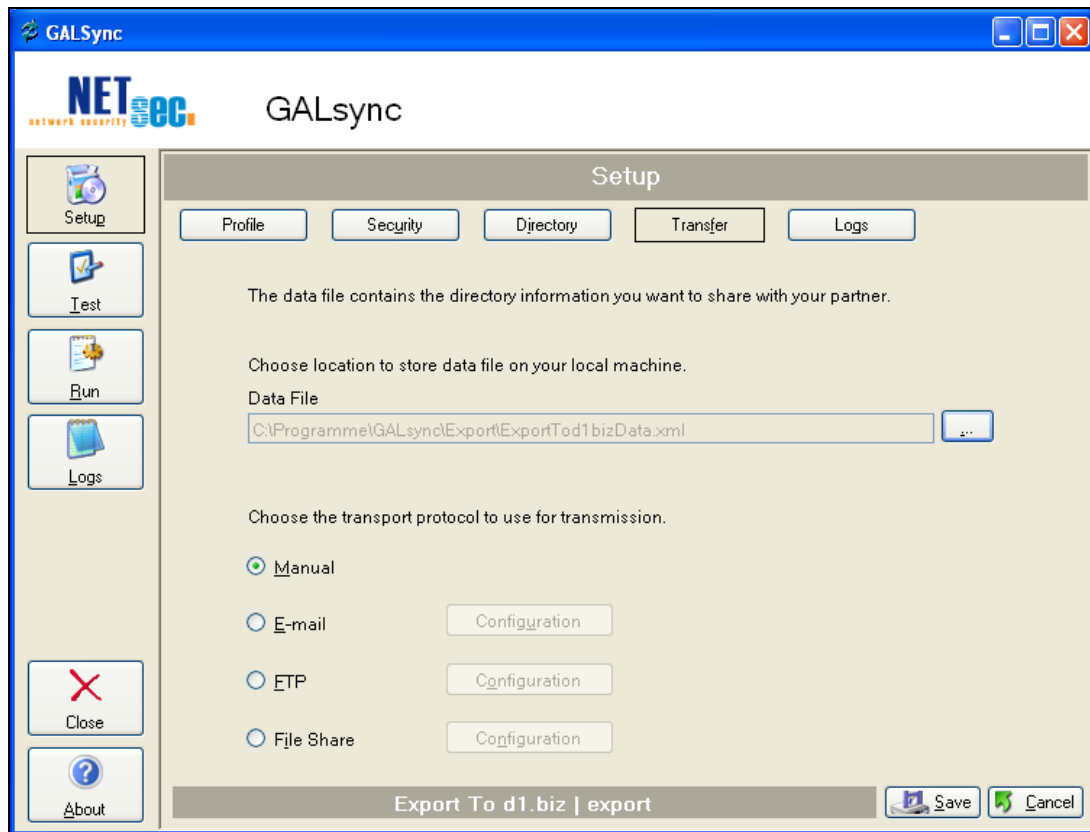


Recommendation

To have a first quick look to the features of GALsync select the defaults and import to a new OU named "import"

► Main Menu **SETUP** - Section Transfer

In this menu you configure the file (containing the object data) and the type of transferring the file to or from your partner organization.



Data File

Choose the location and the name of the file which will contain the data objects you export or import.

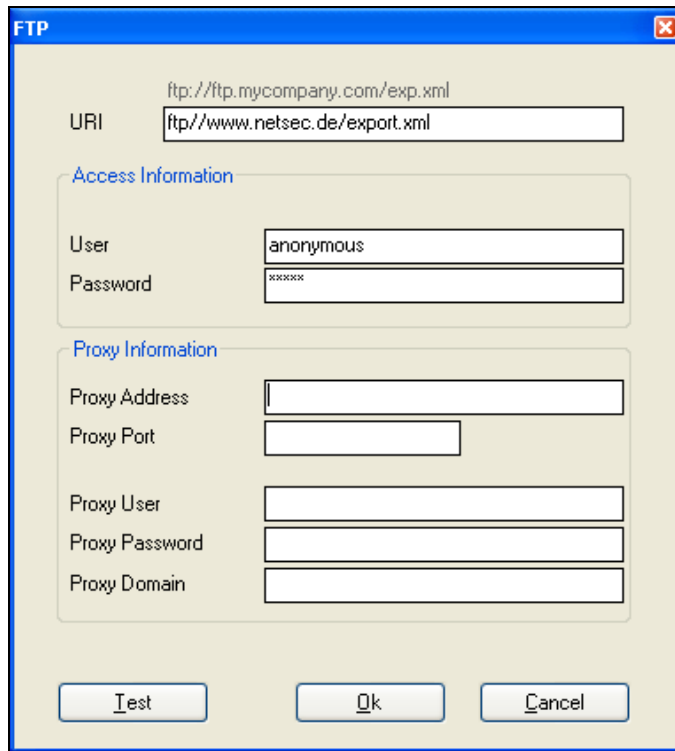
Transport protocol

Choose the transport protocol you want to use for transmission.

- **Manual:** you want manually exchange the file with your partner organization.
No further configuration is required.
- **FTP:** you want to exchange the file with your partner organization by using a common ftp service.
You have to configure all required settings to perform the

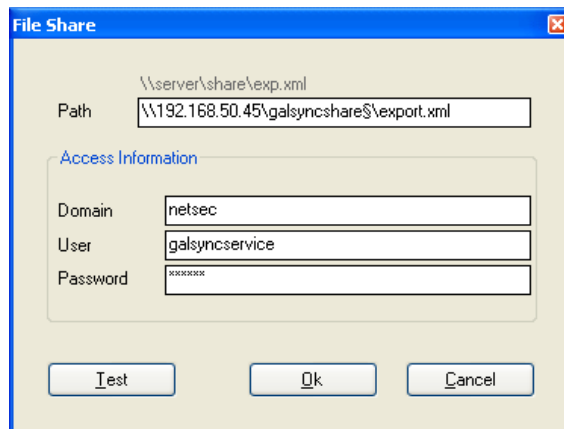
access to the ftp service.

Note: there is no validation of your settings at this time!
You may validate the configuration using the menu "Test".



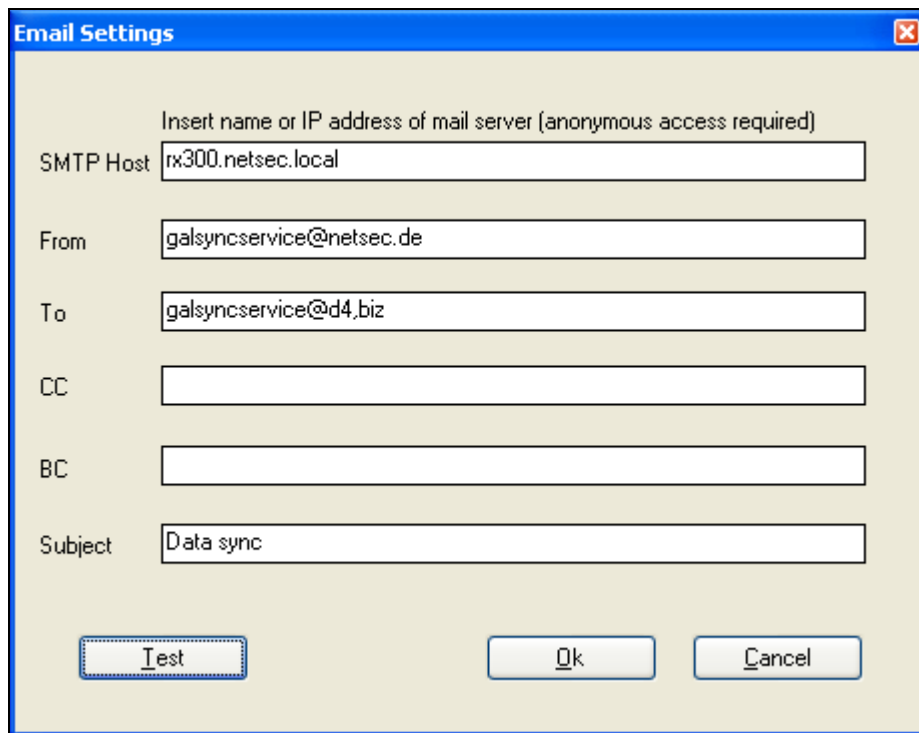
The FTP configuration dialog box has a title bar with "FTP" and a close button. It contains a "URI" field with the text "ftp://ftp.mycompany.com/exp.xml" and a text input field containing "ftp://www.netsec.de/export.xml". Below this is a section titled "Access Information" with "User" (anonymous) and "Password" (masked with 'x') fields. Another section titled "Proxy Information" contains fields for "Proxy Address", "Proxy Port", "Proxy User", "Proxy Password", and "Proxy Domain". At the bottom are "Test", "Ok", and "Cancel" buttons.

- **File Share:** you want to exchange the file with your partner organization by using a Windows file share.
You have to configure all required settings to perform the access to the file share.
Note: there is no validation of your settings at this time!
You may validate the configuration using the menu "Test".



The File Share configuration dialog box has a title bar with "File Share" and a close button. It contains a "Path" field with the text "\\server\share\exp.xml" and a text input field containing "\\192.168.50.45\galsyncshare\$\export.xml". Below this is a section titled "Access Information" with "Domain" (netsec), "User" (galsyncservice), and "Password" (masked with 'x') fields. At the bottom are "Test", "Ok", and "Cancel" buttons.

- **Email:** you want to exchange the file with your partner organization by sending a email with the data attached. You have to configure all required settings to perform sending a message or to retrieve a message. GALsync will extract the attachment and store it in file system before inserting it into Active Directory.



The image shows a Windows-style dialog box titled "Email Settings". It contains several text input fields for configuring email settings. The fields are labeled "SMTP Host", "From", "To", "CC", "BC", and "Subject". The "SMTP Host" field has a placeholder text "Insert name or IP address of mail server (anonymous access required)" and contains the value "rx300.netsec.local". The "From" field contains "galsyncservice@netsec.de". The "To" field contains "galsyncservice@d4.biz". The "CC" and "BC" fields are empty. The "Subject" field contains "Data sync". At the bottom of the dialog, there are three buttons: "Test", "Ok", and "Cancel".

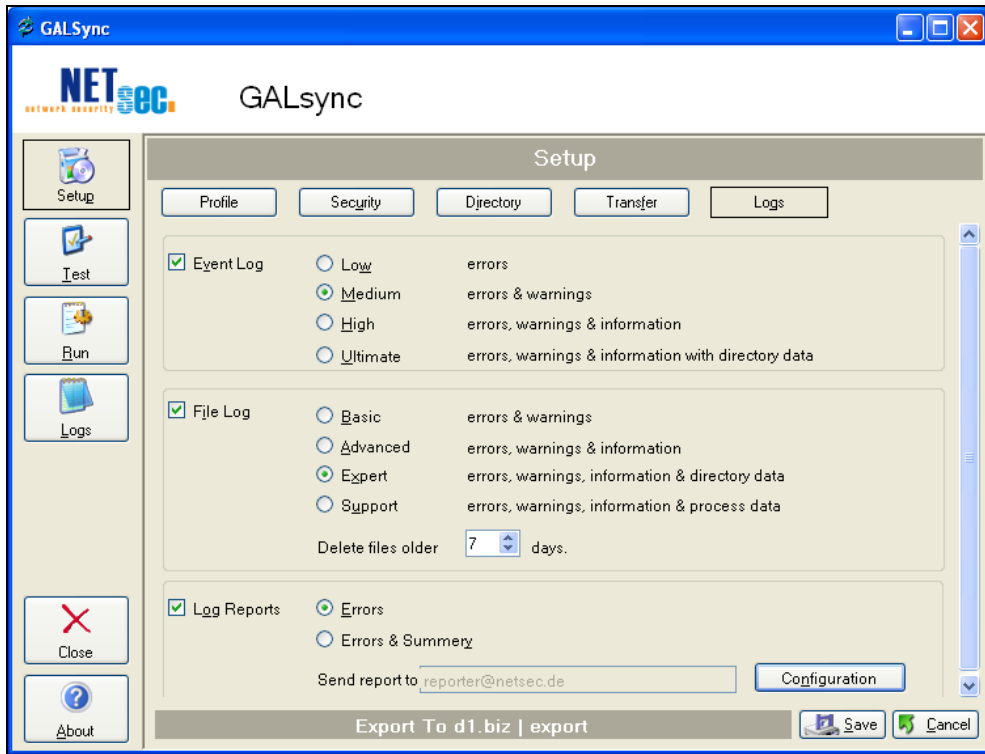
Field	Value
SMTP Host	rx300.netsec.local
From	galsyncservice@netsec.de
To	galsyncservice@d4.biz
CC	
BC	
Subject	Data sync

Recommendation

To have a first quick look to the features of GALsync choose "manual".

► Menu **SETUP** - Section **Logs**

In this menu you configure the types and level of logging all GALsync operations.



Event Log

- Select if you want logging into the Windows application log.
- Choose the level of logging.

File Log

- Select if you want logging into a log file.
- The log files will be created on a daily schedule and for each profile.
- Log files are stored in "*%system%/system32/logfiles/GALsync*".
- Configure the number of days after a specific log file will be deleted automatically.
- Choose the level of logging.

Log Reports

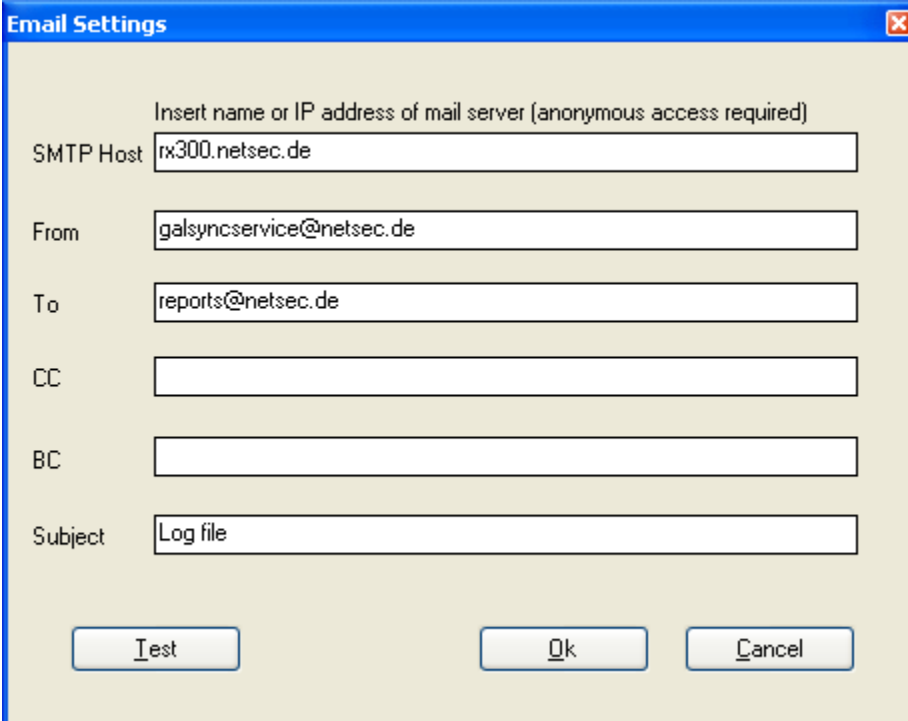
- Select if you want an administrative account to get a logging report.
- The administrative report is sent each time a profile is be executed.
- Configure the required information for sending emails to the administrative account

Logging Level

- **Errors:** a serious, critical problem.
- **Warnings:** a problem which is not fatal.
- **Information:** nice to know
- **Directory data:** log includes attribute values of objects
- **Process data:** log does not includes attribute values of objects but general data of export / import process

Recommendation

To have a first quick look to the features of GALsync choose "File Log – Advanced".



The image shows a screenshot of the "Email Settings" dialog box. The dialog has a blue title bar with the text "Email Settings" and a close button (X). The main area is light beige and contains several input fields. At the top, there is a label "Insert name or IP address of mail server (anonymous access required)" above the "SMTP Host" field, which contains the text "rx300.netsec.de". Below this are fields for "From" (containing "galsyncservice@netsec.de"), "To" (containing "reports@netsec.de"), "CC" (empty), "BC" (empty), and "Subject" (containing "Log file"). At the bottom of the dialog are three buttons: "Test", "Ok", and "Cancel".

► Main Menu TEST

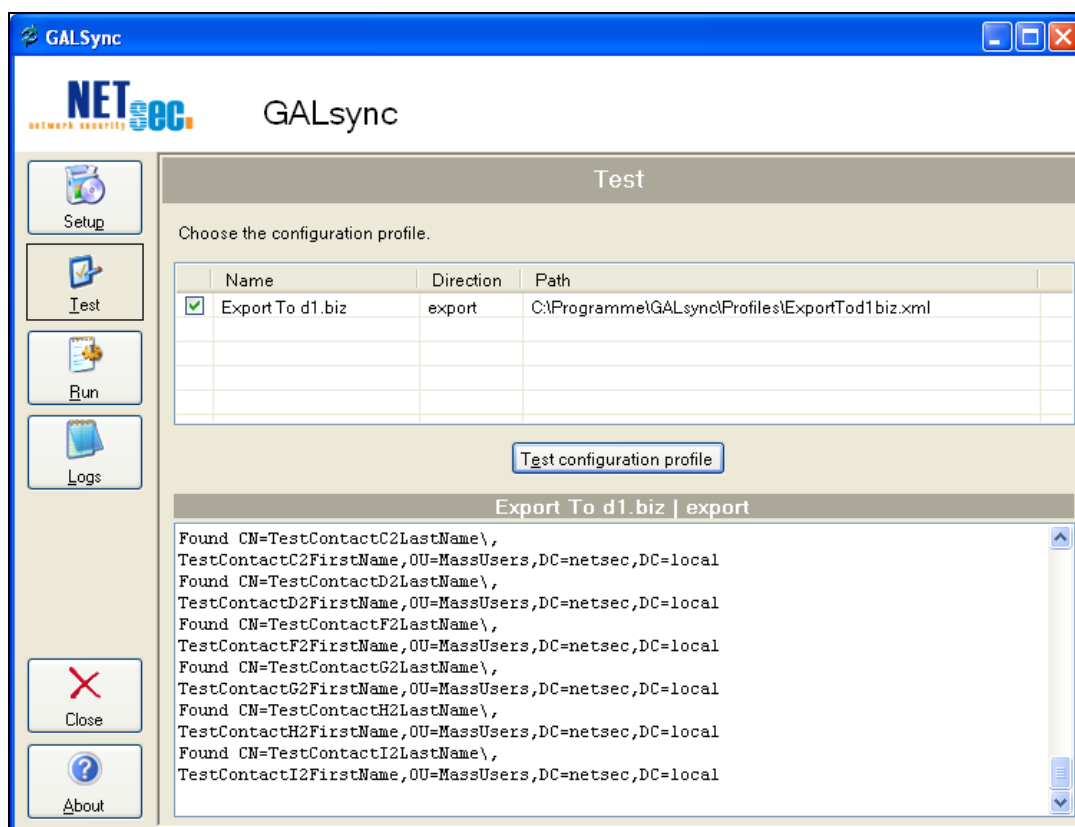
In this menu you can validate all the settings of a selected profile.

Important: No data writing is performed in any Active Directory!

Test

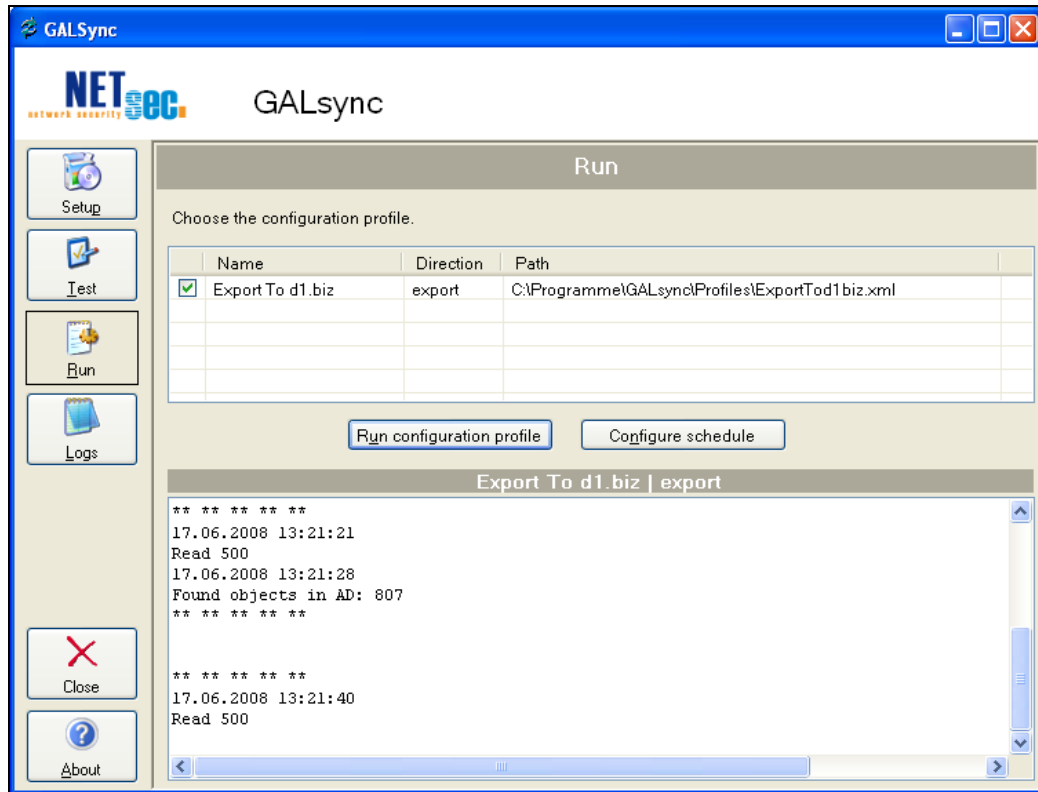
- Select the profile you want to validate.
- Press button "**Test configuration profile**".
- Check in log if any error occurred.
-

Running the test should result in an output of logging data



► Main Menu RUN

In this menu you can manually run a selected profile.



RUN

- Select the profile you want to validate.
- Press button "**Run configuration profile**".
- Your configured log file level will be shown in the output pane.

You may configure to schedule the execution of a profile.

- Select the profile you want to edit logs from.
- In the right detail pane all logs are listed.
- Select the log you want to edit. The log file will be opened in your default editor.

Note: if the log file does not contain any content you may have no configuration setting made in Menu SETUP - LOGS for the selected profile!

► Chapter 7: Frequently asked Questions

Question: On which servers I should install GALsync?

Answer: We recommend to install GALsync on a file server or on a print server of the domain. Installations on Domain controllers or Exchange servers as well as on XP or Vista clients are also supported.

Question: I want to secure the permissions for Galsync program. What should I do?

Answer: By default the service account is granted permissions by setup. The account needs permissions on "%system%\system32\logfiles\Galsync" and the Galsync program folder. Also in registry he must access "HKLM\software\Netsec" and "HKLM\system\CCS\eventlog\Galsync". The account is added to the local security rights group "Log on as a service". All other access permissions you can configure in GALsync Control Panel.

Question: I selected an Organizational Unit with 250 objects to be exported. How can I configure a special object in this OU not to be exported?

Answer: Insert the value "NoGALSync" in "extention attribute 9". GALsync will not export an object having this value.

Question: What happens if an object has the attribute "Hide from address book" selected?

Answer: GALsync will not export objects with this attribute selected.

Question: What happens if an object is disabled?

Answer: GALsync will export all mailbox- or mail-enabled objects if they are enabled or not. Only the attribute "Hide from address book" and the value "NoGALsync" in "extention attribute 9" are recognized for a decision.