

# Reference Manual



INSTALLATION AND CONFIGURATION



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# GWTreecast

## Getting Started

### Thank you for Purchasing GWTreecast

Thank you for entrusting Messaging Architects with the care of your internet mail management solution. At Messaging Architects, we pride ourselves in the high quality of our software solutions and the devotion with which our customer service will address all your concerns and needs. This guide is meant to assist you in the daily tasks of administering the features of your GWTreecast Server. Do not hesitate to refer to this guide often, as it contains helpful tips and tricks for the administration, configuration, and operation of your GWTreecast Server. If this guide is outdated, please contact Messaging Architects and we will provide you with the latest electronic version or download it from [www.messagingarchitects.com/GWTreecast](http://www.messagingarchitects.com/GWTreecast)

### About GWTreecast

GWTreecast is a Shared Folders management solution for GroupWise, integrated with eDirectory. It allows building of Shared Folders trees, without end users intervention. GWTreecast supports broadcast of entire trees to users' accounts, maintaining the folder's hierarchy. GWTreecast is also capable to rebuild the trees in the end users accounts in case of accidental deletion, move or renaming of folders.

### Intended Audience

This guide is intended for the GroupWise Administrator. It explains how to install, configure, operate, and maintain GWTreecast. This guide assumes the user is knowledgeable about common GroupWise and NetWare terms, concepts, and techniques.

### Technical Support & Feedback

If you have a technical support question, please consult the Technical Support section of our website at [www.messagingarchitects.com/support](http://www.messagingarchitects.com/support) or call **1-866-497-0202** (US & Canada) or **+1-514-392-1303**, and a member of our technical support team will contact you as soon as possible during regular business hours. If you have a general feature question or comment, you may submit it at [www.messagingarchitects.com/contactus](http://www.messagingarchitects.com/contactus).

### Sales

To contact a Messaging Architects sales team member, send an email to [info@messagingarchitects.com](mailto:info@messagingarchitects.com), call **1-866-497-0101**, or complete the form at [www.messagingarchitects.com/contactus](http://www.messagingarchitects.com/contactus) and we will contact you as soon as possible during regular business hours.

### Other Resources

Messaging Architects is committed to providing the best support available for GWTreecast. If your question is not answered in this guide, our website ([www.messagingarchitects.com](http://www.messagingarchitects.com)) includes additional information.

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## How to Use this Guide

This guide is intended to complement GWTreecast and introduces concepts in the same order as the layout of the GWTreecast Administration Console and associated components. If you are looking for a particular function, take a look at the index found at the end of the guide.

## Advice Boxes

Throughout the guide, you will sometimes see special advice boxes. These advice boxes are intended to supplement the information presented in the section where they are found. These advice boxes serve different functions based on the icon used to represent them. The three types of advice boxes are:



**More information:** This advice box tells you where to find more information pertaining to the current subject. Look for this advice box if you want to find out where else in the document a certain subject is being discussed.



**Warning:** This advice box lets you know when something requires caution. The goal of this advice box is to let you know about the potential errors into which you might run when using the function in question.



**Helpful tip:** This advice box will inform you of advanced configuration tricks. This way, you can optimize your configuration and make better use of your GWTreecast components.

## Application and Online Help

You can access the *GWTreecast Installation and Configuration Guide* from the application by clicking the **Help** icon in the GWTreecast Administration Console. You can also send support reports (information about questions you have that are not covered by this guide) directly to our customer support representatives.

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# 1 GWTreecast Overview

## 1.1 What Is GWTreecast

GWTreecast is a Shared Folders management solution for GroupWise that integrates with eDirectory. It builds Shared Folders trees without end-user intervention. GWTreecast supports broadcasting of entire trees to end user accounts, maintaining the folder hierarchy. GWTreecast is also capable of rebuilding the shared folder trees in end user accounts in cases of accidental deletion, moving, or renaming of folders.

The Shared Folders are owned by a dedicated GroupWise account. GWTreecast logs into this account and through it manages the folder trees and the rights granted to end users. Leveraging the GroupWise Trusted Application functionality, GWTreecast also transparently logs into end user GroupWise accounts and accepts, arranges, and rebuilds the shared folders it broadcasts.

## 1.2 GWTreecast Licensing

GWTreecast is licensed per GroupWise domain. GWTreecast supports distributed systems without requiring a complex licensing mechanism. There may be an unlimited number of GWTreecast installations on a single GroupWise system.

Before you can begin using GWTreecast, you must obtain a valid GWTreecast license from Messaging Architects.

To activate your GWTreecast license:

- 1) Install GWTreecast.
- 2) Place the *malic\_signed.xml* file in the *C:\Program Files\Messaging Architects\GWTreecast* directory if you installed GWTreecast in its default installation location.
- 3) Restart the GWTreecast service.



Do **not** attempt to modify the xml file in any way. The license file is digitally signed and will not work if tampered with.



As licensing is bounded to domain names, if the name of your GroupWise domain changes, contact Messaging Architects to re-issue the software license.

## 1.3 Trusted Application API

GWTreecast uses the Trusted Application APIs available in GroupWise version 6.5 and higher to perform tasks against multiple GroupWise accounts without requiring proxy rights to the accounts.

To run as a Trusted Application, GWTreecast needs a unique key that is created when the program is launched for the first time. A Trusted App key can also be recreated later, by choosing **Options > Create Trusted Application Key** from the **Main Menu**. The Trusted App key is stored in the Primary GroupWise Domain and is distributed to all Domains and Post Offices in the system.



The Trusted Application APIs may raise some security and privacy issues. Note, however, that GWTreecast does not expose direct methods to access content in end user accounts.



For more information on the behavior of the Trusted Application functionality, see [http://www.novell.com/documentation/gw7/index.html?page=/documentation/gw7/gw7\\_admin/data/ak8h8gs.html](http://www.novell.com/documentation/gw7/index.html?page=/documentation/gw7/gw7_admin/data/ak8h8gs.html)



## 2 Installing GWTreecast

To install GWTreecast, a single executable file must be run on the target workstation. Before launching the setup program (*SetupGWTC25.exe*), make sure that the minimum system requirements are met.

### 2.1 System Requirements

For a successful installation of GWTreecast, ensure that your system meets the recommended system requirements as listed below:

#### System Requirements

##### GWTreecast Server Requirements

RAM 512 MB

Novell DirXML 1.1 or higher or Identity Manager 3.0.1 or higher

ConsoleOne 1.3.5 or higher

20 MB of free disk space for Program files and additional space for users' trees database and logs

##### Supported Operating Systems

Windows Server 2003, all versions\*

Windows XP\*

Windows 2000 Professional or Server

\*For Win XP and 2003, a special setup is required if the control MSCOMCTL.OCX is not present. The *SetupMSCC.zip* file is available at <http://www.messagingarchitects.com/GWTreecast>. To access the file, complete the registration fields.

##### Supported GroupWise versions\*\*

GroupWise 7.x

GroupWise 6.5.x

\*\* Caching and Remote access modes are not supported

##### Client Requirements

NetWare client, using IP, version 4.83 or above, with latest SP

GroupWise client 6.5.1 or higher configured to run against GroupWise via IP access



The DirXML engine is now referred to as the Identity Manager.

### 2.2 Important Setup Considerations

To ensure that the GWTreecast installation runs properly:

- The GroupWise User Interface of the client **must** be US English.
- The Format of the Address Book Name Display **must** be First Name, Last Name.

To ensure the smooth creation of the Trusted Application key during the GWTreecast setup procedure, you need:

- Proper authentication to the eDirectory tree where the Primary GroupWise Domain resides;
- Full Admin rights when logging in to the eDirectory tree;
- Full rights to the target Domains and Post Offices.

## 2.3 Running the Setup Program

For a successful GWTreecast installation and trouble-free operation afterwards, follow the procedure below:

- Run the GWTreecast *SetupGWTC25.exe* file.
- Follow the onscreen instructions.
- Review and accept the EULA.
- Choose the destination folder, program group name and if you want to create a shortcut on the desktop.
- Review the settings and wait for the file copy operation to complete.



**Figure 1: GWTreecast Final Setup Screen**



Before launching GWTreecast for the first time, prepare the Sharer's account and have the GroupWise Client logged into this account using the English User Interface. The Address Book Name Display must be First Name, Last Name. To integrate GWTreecast with eDirectory, you need the OpenNet Generic Subscriber DirXML Driver (see Integrating GWTreecast with eDirectory for more details).

### 2.3.1 Upgrading from Previous Versions of GWTreecast

By default GWTreecast 2.5.1 installs in folder *C:\Program Files\Messaging Architects\GWTreecast\*. This is different from previous installations.

If you are upgrading GWTreecast from a previous version, before you launch the program for the first time, perform the following manual changes:

1. Back up your previous Treecast program folder.
2. Make a separate copy of the **\Trees** subfolder; this is the Shared Folders database.
3. Copy the contents of the old **\Trees** subfolder to the new GWTreecast installation **\Trees** subfolder.
4. Copy the contents of the old **\Config** subfolder to the new GWTreecast installation **\Config** subfolder.



You'll be prompted to perform the above procedure if GWTreecast detects a previous version installed on the same machine.

After you complete the GWTreecast upgrade, start GWTreecast:

- Let the program check the Folders IDs.
- Let the program upgrade Folder IDs.
- If errors occur during the check, confirm the fixes.
- Save the last log file as it contains important information on the upgrade. The log file is found in the **\Logs** subfolder.



GWTreecast 2.5.1 uses a new licensing mechanism and requires a new license. To obtain a new license for GWTreecast 2.5.1, contact Messaging Architects at [logistics@messagingarchitects.com](mailto:logistics@messagingarchitects.com).

### 2.3.2 Migrating Registry Settings to Config.xml

GWTreecast 2.5.1 keeps its settings in an XML file found in *C:\Program Files\Messaging Architects\GWTreecast\Config\Config.xml*. If there is a previous installation of GWTreecast on the workstation, the settings will be migrated automatically from the Registry to the XML file. You will be notified if this process fails.

### 2.3.3 Installing GWTreecast on a New Workstation

If you are already using GWTreecast in your organization and want to install the new version on a different workstation, perform the following procedure before the first launch of the program:

1. Using Regedit.exe export the following registry key from your previous installation:  
**HKEY\_CURRENT\_USER\Software\VB and VBA Program Settings\OpenNet Generic Subscriber DirXML Driver-TreeCastServer**
2. Import the key onto the new workstation.
3. Copy the content of the old **\Trees** subfolder to the new GWTreecast installation **\Trees** subfolder.
4. Copy the content of the old **\Config** subfolder to the new GWTreecast installation **\Config** subfolder.

## 2.4 Uninstalling GWTreecast

To uninstall GWTreecast, choose **Control Panel > Add or Remove Programs** and select **Add or Remove Programs** to open the currently installed program list on Windows. Select **GWTreecast** from the list and click **Remove**. The Windows uninstaller will remove GWTreecast from your system.

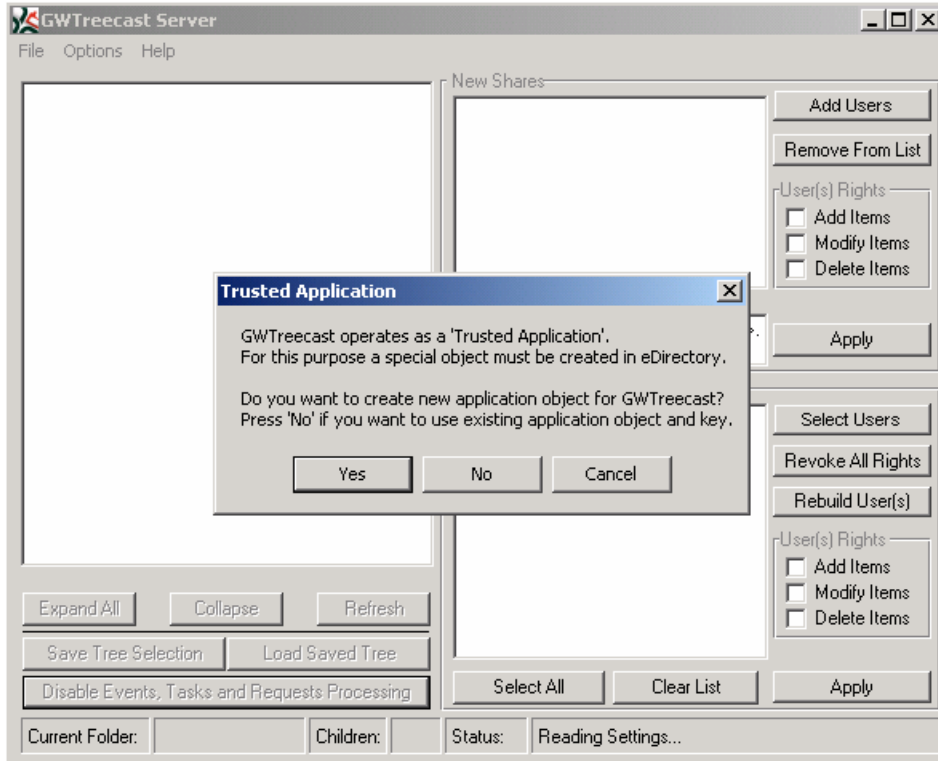
## 2.5 Defining GWTreecast as a Trusted Application

GWTreecast v2.5.1 runs as a Trusted Application with GroupWise 6.5.1 and above. When running as a Trusted Application, GWTreecast is able to access end user mailboxes without proxy rights to their accounts. A special, system-unique key, called a Trusted App Key, must be created to define GWTreecast as a Trusted Application.

### 2.5.1 Defining a Trusted Application Key

The first time you run GWTreecast, you will be prompted to create a new Trusted Application object to define GWTreecast as a Trusted Application. When prompted, click **Yes**. You will be notified when the key is created successfully. It will take a minute to distribute the key to the GroupWise system.

The successfully created Trusted Application key is encrypted and stored in the *Config.xml* file located in *C:\Program Files\Messaging Architects\GWTreecast\Config*.



**Figure 2: Trusted Application Key Creation**



For the Trusted App Key procedure to complete successfully, you must close the GroupWise Client, Address Book, and Notify.



Optionally, you may click **No** in the message box if you wish to import another Trusted Application key. For example, if you are already using GWArchive, which also runs as a Trusted Application, you may use that key with GWTreecast.

## 2.5.2 Defining a Trusted Application Key for Multiple GWTreecast Servers

The option to import an existing Trusted Application Key is useful when you have more than one installation of GWTreecast. In that case, create a Trusted App key for the first installation, and then import that key for any other installations.

To import a Trusted App Key:

- From the GWTreecast **Options** menu choose **Show Trusted App Key**.
- Copy the key to the clipboard and paste into a text file.
- On the second GWTreecast installation, click **Create Trusted App Key** and answer **No** when prompted to create new key.
- Enter **GWTreecast** as the application name and paste the previously created key.

## 2.6 Configuring GWTreecast

When you first launch GWTreecast, the **Settings** window opens automatically. The fields highlighted in red below are obligatory and need to be filled in.

### GWTreecast Administrators

The **GWTreecast Administrators** are users that will be notified via email on GWTreecast events and errors if the **Send Admin Messages** box is selected. Use the **Add** button to add the users to the list.

### Refresh Delay

This setting is needed for some operations to be completed by the GroupWise Post Office Agents. Adjust it to your particular GroupWise system. The default setting is 3 seconds; if you experience failures, increase the value.

### Write Logs

Select this option if you want logs to be written by GWTreecast. As a best practice, Messaging Architects recommends enabling the Write Logs option.

### Debug Level

This option is used for troubleshooting and should be enabled if requested by Messaging Architects' Support Team in the event of problems.

### Process Events and Tasks

Select this option to enable processing of scheduled tasks and DirXML events.

### Lock the GUI at startup

Select this option to disable all user controls for security reasons.

### Shared Trees Owner Account ID

All the Shared Folders are owned by a dedicated GroupWise account (the Sharer's account) to which GWTreecast logs to manage the Shared Folders trees and the end user rights. The credentials for this account need to be entered in the GWTreecast Admin Console.

- **Shared Trees Owner Account ID:** Enter the GroupWise account that owns the Shared Folders.
- **Password:** Enter the GroupWise password for the Sharer's account

### Path to Primary Domain

Browse to select the location of your primary GroupWise domain – this is the **Path to primary domain**.

### User Settings

Select the option **Send Welcome Mail** to send a Welcome message to users when trees are automatically distributed to them based on eDirectory events.

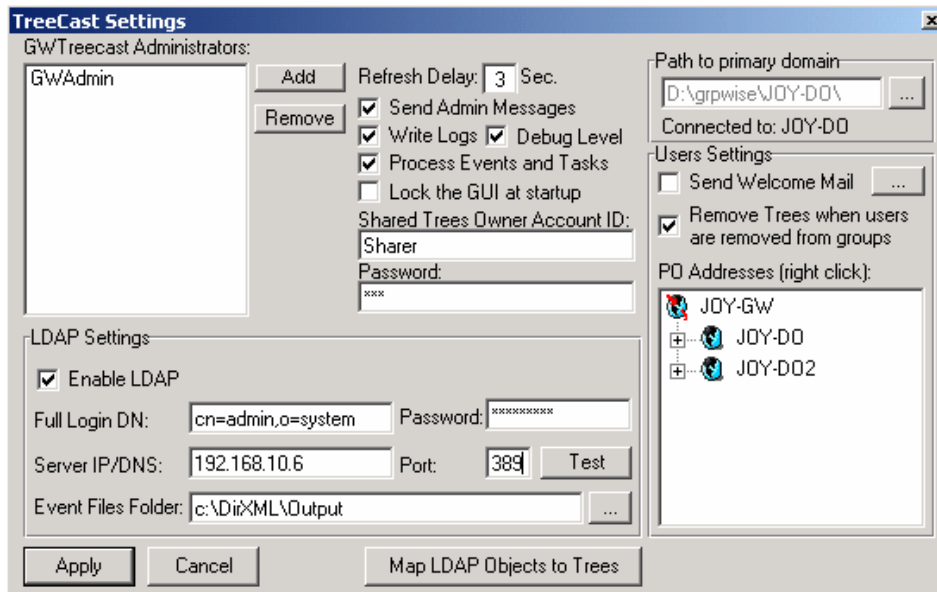
Select the option **Remove Trees** to instruct GWTreecast to revoke folder sharing rights when users are removed from groups to which Shared Trees are assigned (see Integrating GWTreecast with eDirectory for details).

### PO Addresses

Expand the Domains listed in **PO Addresses**. Right-click each Post Office to set the IP address and port of the respective Post Office Agent.

### Enable LDAP

Select **Enable LDAP** to enable eDirectory integration. Fill in the fields with the necessary information. For more details on LDAP Settings and the association between Shared Folders trees and eDirectory groups, see eDirectory Integration Configuration.



**Figure 3: GWTreecast Settings Screen**

## 2.7 Integrating GWTreecast with eDirectory

The GWTreecast integration with eDirectory allows NDS group membership to determine and trigger automatic provisioning of the group's assigned Shared Folder tree to new members. To accomplish this Novell DirXML or Identity Manager 3.0.1 or higher must be installed in the eDirectory tree.



GWTreecast requires LDAP Access to eDirectory (see Basic LDAP Configuration).

When a user is added or removed from an eDirectory Group, this triggers an event in eDirectory. This event is exported by the OpenNet Generic Subscriber DirXML Driver to an XML file. GWTreecast checks the output folder of the driver and when an event file is found, it processes it as follows:

- When a user is added to a group, GWTreecast checks if there are Shared Folders trees assigned to the group and distributes the folders to the user.
- When a user is removed from a group, GWTreecast, if configured so, revokes the rights to all Shared Folders trees associated to that group.

Since GWTreecast works as Trusted Application it accesses all GroupWise accounts without special proxy rights. However, the users **must** be already members of GroupWise Post Office.



Only newly added or removed users are processed.

### 2.7.1 Basic LDAP Configuration

To configure the LDAP settings (bottom left-hand panel of the GWTreecast Admin Console) go to **Options > Settings** on the GWTreecast menu.

**Figure 4: LDAP Settings**

- Select **Enable LDAP**.
- Enter the full DN of the eDirectory administrator and the administrator's password. In this version, the LDAP server does not require SSL and allows clear text password.
- Enter the LDAP Server DNS name or the IP address and the port.
- Click **Apply** to apply the setting changes and then reopen the LDAP Settings window.
- Click **Test** the connectivity to eDirectory.
- Under Event Files Folder, enter the path to the folder where GWTreecast's OpenNet Generic Subscriber DirXML Driver will export NDS Events. The same path must be configured in ConsoleOne for the OpenNet Generic Subscriber DirXML Driver.



The option **Process Events and Tasks** in the GWTreecast Admin Console must be enabled for eDirectory Integration. It may be also temporary enabled/disabled from the main screen.

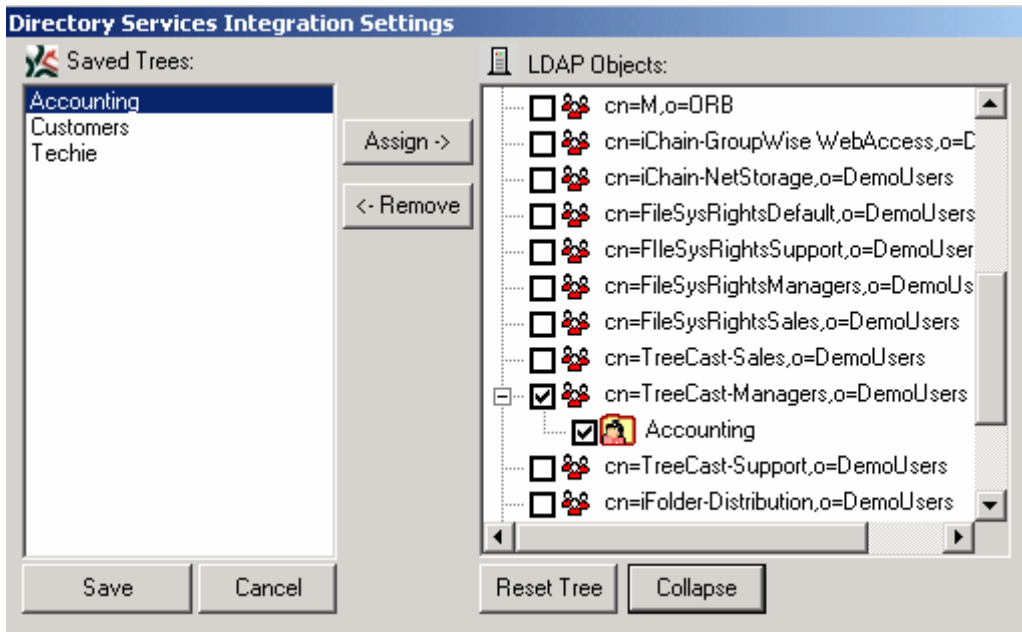
- Enable **Send Welcome Mail** in the **User Settings** frame to send an email message to users when new trees are broadcast to them. Click the button to enter Subject and Text
- Enable **Remove Trees when users are removed from groups** to revoke trees associated with an eDirectory group when a user's membership in that group is canceled. Otherwise the Shared Folders trees will be left in the user's mailbox after his/her removal from the group.

### 2.7.2 eDirectory Integration Configuration

To allow GWTreecast to respond to relevant events occurring in eDirectory, you need to install and configure the OpenNet Generic Subscriber DirXML Driver. You also must already have LDAP configured and tested.

Before you start the integration process, save at least one tree as it will be required later to be assigned to a group object in eDirectory.

From the GWTreecast main menu choose **Settings** and click **Map LDAP Object to trees** to open the **Directory Services Integration Settings** dialog box.



**Figure 5: GWTreecast eDirectory Integration Settings**

This window has two areas:

- A list of all saved trees with the names they were given when saved. Messaging Architects recommends using group names as a best practice.
- eDirectory trees – the view filters for Group objects.

#### Assigning Saved Trees to eDirectory Groups

- Select the saved trees in the list on the left.
- In the right window, select the group(s) to which you want to add trees.
- Click **Assign** to add a saved GWTreecast tree to the selected group object(s).
- Click **Save** to save the changes made on this screen.

#### Removing (Unassigning) Saved Trees from eDirectory Groups

- In the right window, highlight the Assigned tree(s) you wish to remove from the group object.
- Click the **Remove** button.
- Click **Save** to save the changes made on this screen.



GWTreecast must be restarted after changing the configuration.

### 2.7.3 Installing the OpenNet Generic Subscriber DirXML Driver

To install the OpenNet Generic Subscriber DirXML Driver, follow the procedure below:

1. Install Novell DirXML 1.1 or higher or the Identity Manager 3.0.1 or higher on your server. If you only intend to use DirXML for the OpenNet Generic Subscriber DirXML Driver, disregard installation of preconfigured drivers as you only need the engine components. You will need a license from Novell for the DirXML engine. The default evaluation period is 90 days. You may use the OpenNet Generic Subscriber DirXML Driver with an evaluation version of the Novell DirXML engine. The engine license can be installed later without requiring reinstallation of the driver.



The DirXML engine is now referred to as the Identity Manager.

2. Install Java SDK or JRE version 1.4.x; to download the latest version, go to <http://www.sun.com/java/>. On Windows servers, make sure that the JAVA\_HOME and CLASSPATH environment variables are defined and refer to the correct path.

3. The GWTreecast Setup Program will install the Generic Subscriber DirXML Driver in the GWTreecast installation directory – *C:\Program Files\Messaging Architects\GWTreecast\DirXML* – and in the two sub-directories: *\jar* and *\xml*.

4. Copy the ONGenSubscriberDriverShim.jar file from *C:\Program Files\Messaging Architects\GWTreecast\DirXML\jar* to:

- On NetWare: SYS:System\Lib
- On Windows: [NDS Installation]\Lib (Typically, this is *C:\Novell\Nds\Lib*)
- On Linux/Unix: [NDS Installation]/Lib

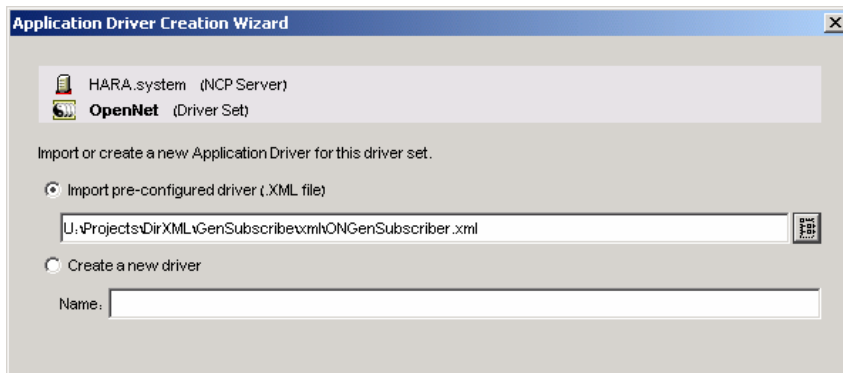
5. Start ConsoleOne. If you have an older version of DirXML, you can use the DirXML snap-ins. If you don't have DirXML, download Identity Manager 3.0.1, and then use the DirXML snap-ins.

6. Run the **Create a New Application Driver** option from the ConsoleOne Wizard menu.

7. Select an existing Driver Set or create a new one. Choose to create a partition on the Driver Set (Novell's recommendation) and click **Next**.

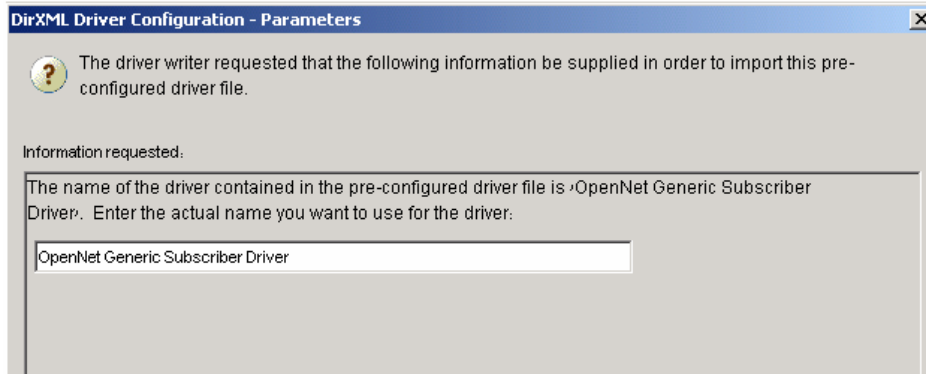
8. Select **Import pre-configured driver**.

9. Browse to the **ONGenSubscriber.xml** file in *C:\Program Files\Messaging Architects\GWTreecast\DirXML\xml* folder.



**Figure 6: Application Driver Creation**

10. Enter a name for the driver, and then click **Next**.

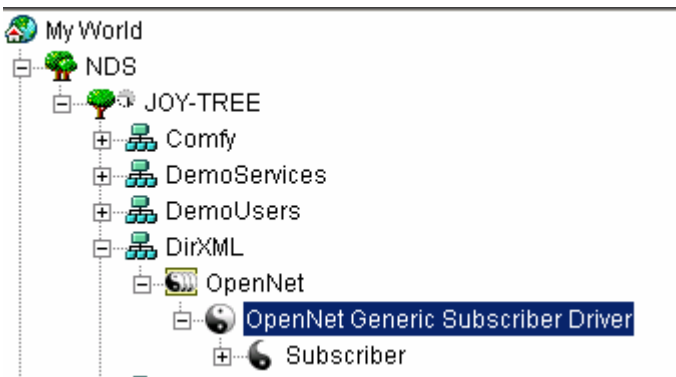


**Figure 7: Application Driver Naming**

11. Define the **Security Equivalences** for the driver, i.e., what rights the driver will have in the directory. Since the driver only receives events from eDirectory, any user with Read rights to the relevant containers may be used.

12. Define the **Administrative Roles**, i.e., the users and other objects, such as Admin, to be excluded from replication by the driver and click **Finish**.

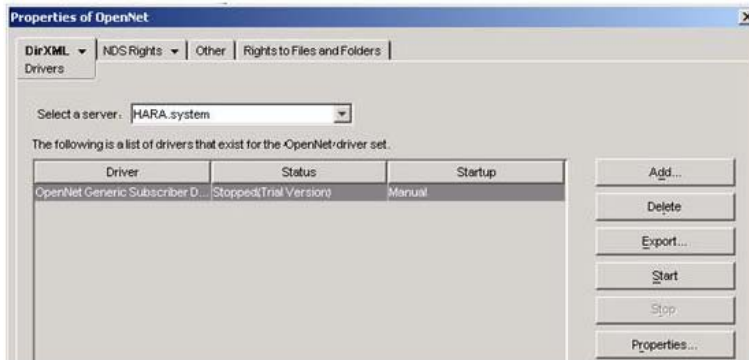
13. The Driver Object and the Subscriber beneath it are created in eDirectory.



**Figure 8: OpenNet Generic Subscriber DirXML Driver and Subscriber in eDirectory**

## 2.7.4 Configuring the OpenNet Generic Subscriber DirXML Driver

1. In ConsoleOne, right-click the Driver Set object and select **Properties**.
2. On the DirXML tab, select **Drivers**. If you have more than one server, select the location where the OpenNet Generic Subscriber DirXML Driver is installed.



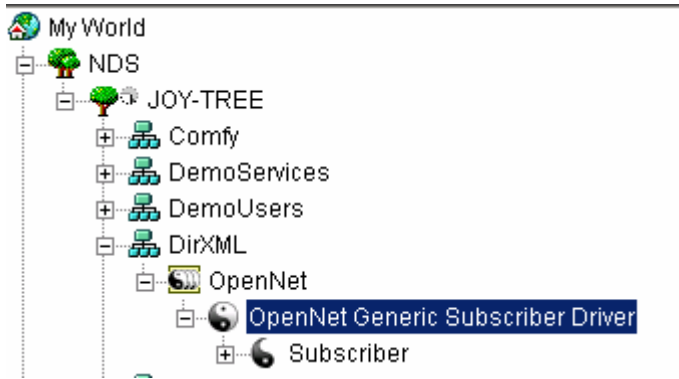
**Figure 9: Configuring the OpenNet Generic Subscriber DirXML Driver**

3. Select the driver from the list, and then click **Properties**.



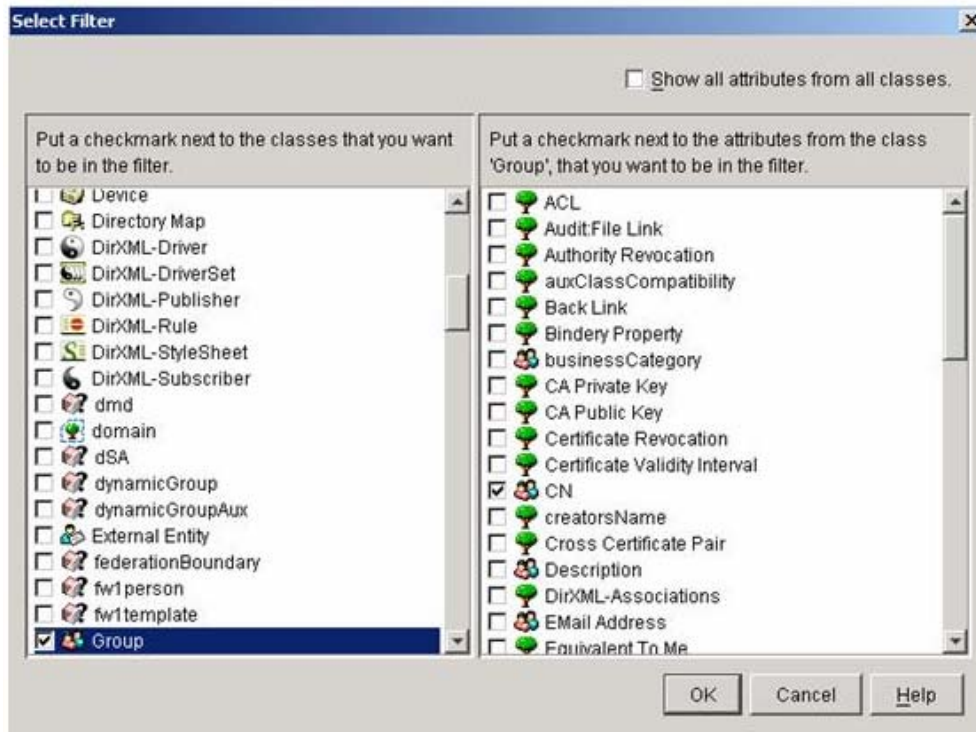
**Figure 10: OpenNet Generic Subscriber DirXML Driver Properties**

4. Choose the **Driver Parameters** tab. Specify an output folder for the DirXML event files. The driver will create a **Logs** subfolder in the selected path. Click **OK** to close the window.
5. Next configure the **Subscriber filter** to define the types of objects and attribute changes monitored. You may add as many object classes as you wish; be careful as adding too many attributes to the filter will generate a lot of events.
6. Right-click the Subscriber object and click **Properties**.



**Figure 11: OpenNet Generic Subscriber DirXML Driver and Subscriber in eDirectory**

7. Click **Edit Filter**. A new dialog box appears that allows you to select the type of objects and the attributes to monitor. First click and select the Group class on the left, then select the attributes for the selected class on the right. At a minimum, make sure that CN and Member are selected. In addition, you can filter Create events by changing the Creation Rule found under the Subscriber object.



**Figure 12: Configuring the subscriber filter**

8. Start the OpenNet Generic Subscriber XML Driver by right-clicking the OpenNet object in eDirectory. Right-click the Driver Set object and select **Properties**. From the DirXML tab, select **Drivers**. If you have more than one server, select the server the driver is installed on. Highlight the OpenNet Generic Subscriber XML Driver in the list and press **Start**. The driver state should change to Running.

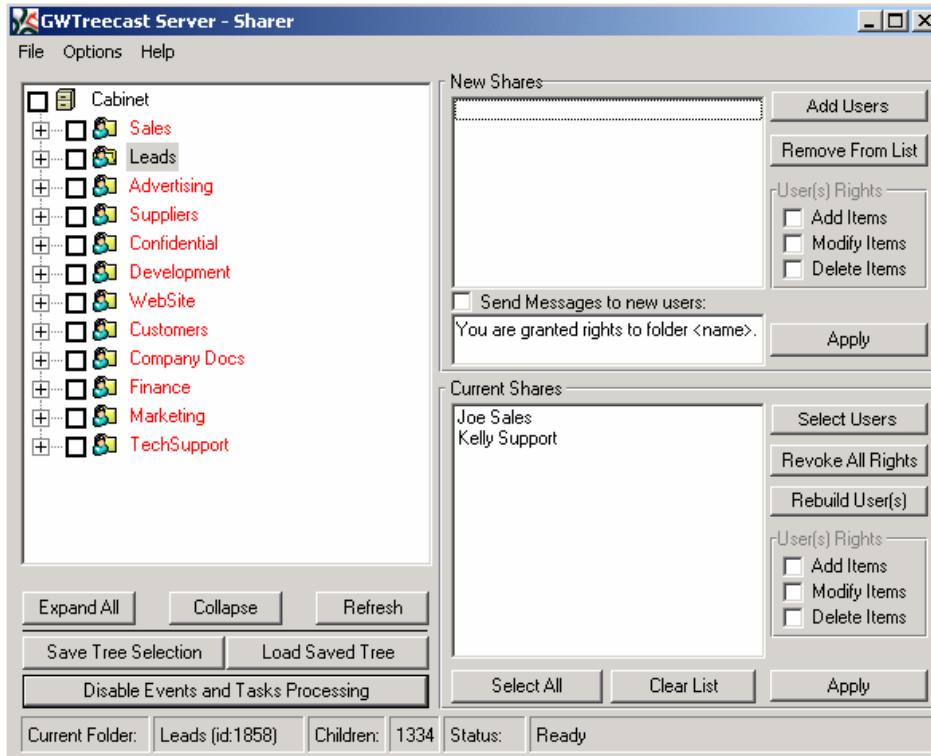
9. Check the output folder that you defined in step 4. If the driver is working, a new log file will be created in the Logs subdirectory.

10. Set the startup type of the driver to automatic, so it is loaded when eDirectory starts on the server.

## 3 Running GWTreecast

### 3.1 GWTreecast Admin Console

The following options are available in the GWTreecast Admin Console.



**Figure 13: GWTreecast Admin Console**

Choose **File** to perform the following tasks:

- **Show Log:** Opens the current log in Notepad.
- **Delete Log:** Deletes the current log.
- **Create Scheduled Task:** Opens a window for creation of scheduling tasks.
- **Manage Scheduled Tasks:** Opens a window where you manage scheduled tasks.
- **Quit:** Exits GWTreecast. Disabled during processing.

Choose **Options** to perform the following tasks:

- **Debug Logging:** Enables debug logging during the current run of GWTreecast. The option can be set as default in **Settings**.
- **Lock Console:** Locks the console; the Sharer's GroupWise password is required to unlock it.
- **Settings:** Opens the **Settings** dialog box.
- **Create Trusted App Key:** Creates a Trusted Application Key to configure GWTreecast as a Trusted Application.
- **Show Trusted App Key:** Shows the decrypted Trusted Application Key.

Choose **Help** to perform the following tasks:

- **User Guide:** Launches the **Help** file.
- **About:** Gives information about the GroupWise APIs, GWTreecast version, and system information.
- **Create Configuration Report:** Creates a report on the settings and installation environment which is useful for troubleshooting.

**Folders Tree**

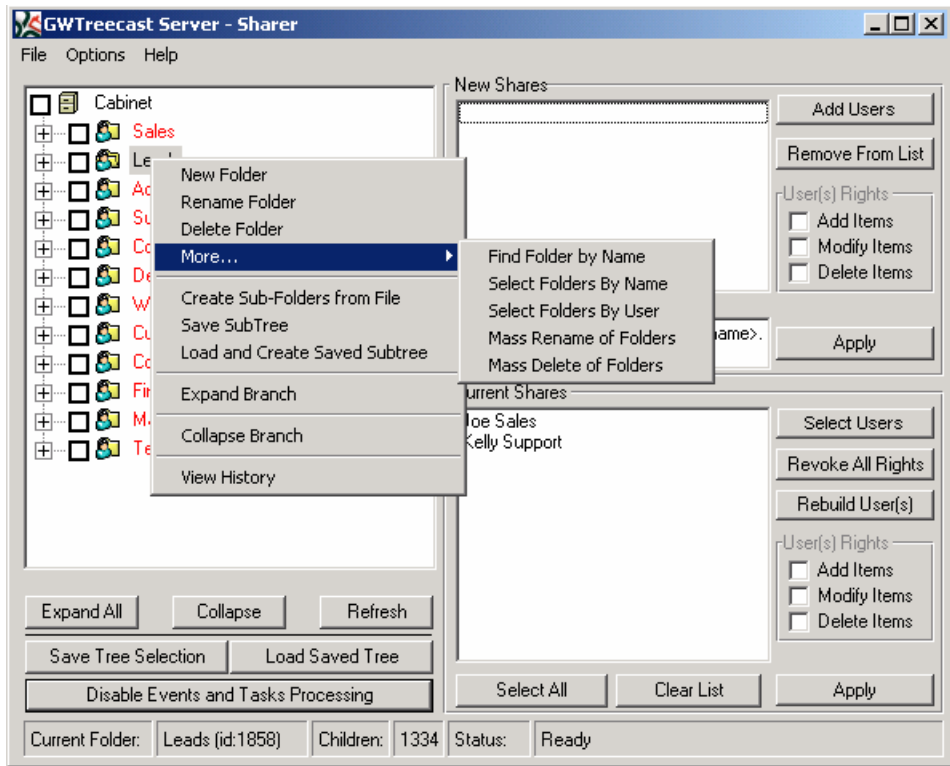
- Shared Folders appear with the GroupWise icon for shared folder and their names in red.
- **Refresh** refreshes the folders list from GroupWise.
- **Expand All** opens the entire folders tree – in large trees this can be a time-consuming.
- **Collapse** reduces the display to the first level under Cabinet.
- Check the Cabinet to select all subfolders.
- Expand a folder to see its subfolders. If the folder is checked, all child folders will be checked too.
- Right-click a folder and select **Expand Branch** to expand only its children.
- **Enable/Disable Events and Tasks Processing** temporarily enables/disables processing of scheduled tasks and DirXML events.
- Use **Save Tree Selection** to save a subset of selected folders.
- Use **Load Saved Tree** to load a subset of selected folders. To delete a saved tree, highlight it and right click to enable its deletion.



The last two options are useful when you work with constant sets of folders for assigning trees to eDirectory groups or for use of trees in scheduled tasks.

**Folder Actions Pop-up Menu**

When you right-click a folder, a drop-down menu with the following options appears:



**Figure 14: Folder actions pop-up menu**

- **New Folder:** Creates a new subfolder under the selected folder.
- **Rename Folder:** Renames the selected folder.
- **Delete Folder:** Deletes the selected folder. GWTreecast will delete only empty, unshared folders.



You cannot delete a shared folder or a folder with subfolders directly. To delete a shared folder, remove sharing rights from the folder you wish to delete and delete all subfolders. This ensures that tree integrity is maintained and minimizes possible errors.

- **More:** Opens a sub menu with the following options:
  - **Find Folder by Name:** Finds one or more folders with a given name in the entire folders tree.
  - **Select Folders by Name:** Selects all folders with a given name.
  - **Select Folders by User:** Selects all folders shared with a given user.
  - **Mass Rename of Folders:** Renames all folders with a given name to a new one.
  - **Mass Delete of Folders:** Deletes all folders with a given name in the entire tree.
- **Create Subfolders From File:** Enables creation of single-level folders, with names read from a text file. Folders are assigned unique GWTreecast ID during this process.
- **Save Subtree:** Saves the names of the selected folders to a file
- **Load and Create Saved Subtree:** Creates a subtree from the option above under the currently selected folder. This is similar to a Copy & Paste operation.
- **Expand Branch:** Recursively expands each level of subfolders until the entire branch is displayed.
- **Collapse Branch:** Closes the expanded subfolders.
- **View History:** Opens a dialog box displaying a log of all actions performed by GWTreecast on the selected folder (such as sharing, revocation or modification of rights).



**Figure 15: Viewing folder's history**



Currently, GWTreecast does not support moving folders in the tree. To move existing folders, open the Sharer's account in the GroupWise Client and perform the desired changes there.

#### New Shares

- **Add Users:** Opens the GroupWise Address Book to let you select users to share folders with.
- **Remove from list:** Removes selected users or distribution lists from the new shares.
- **User(s) Rights:** Select the appropriate options to set the desired rights.
- **Send Messages to new users:** Select the option and type a message to be sent to new users after folders' broadcast. The <name> string will be replaced with the shared folder name.
- **Apply:** Click to start folder sharing for the users in the list.

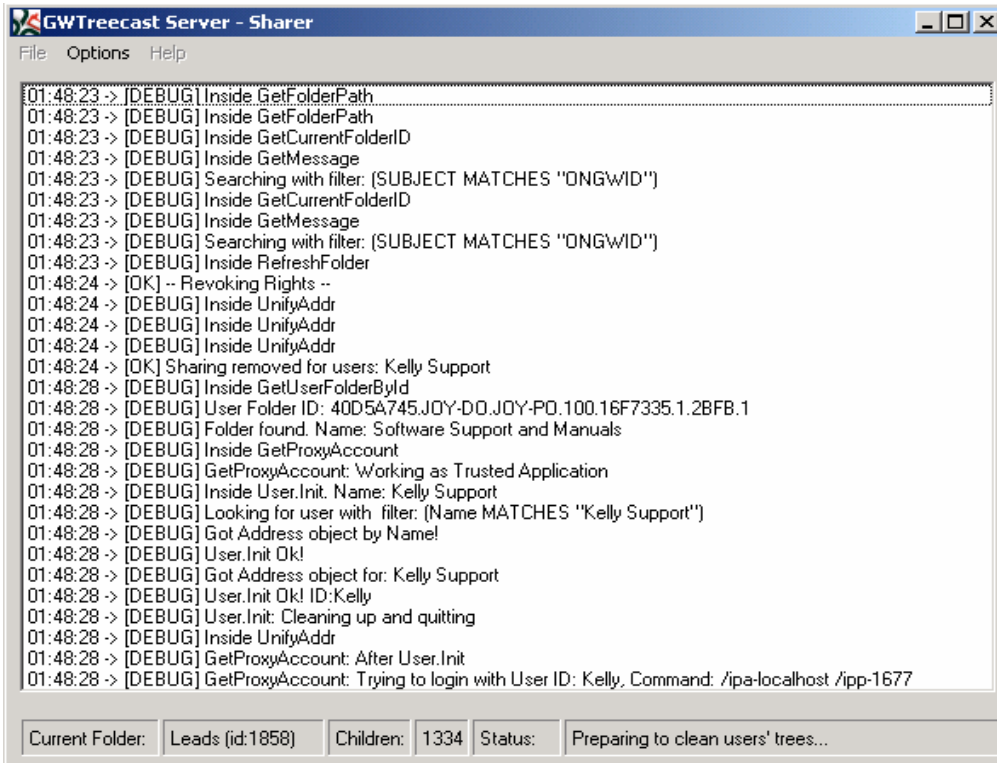
#### Current Shares

- Highlight a folder to display the list of users that have rights to it.
- If more than one folder is selected, only the shares of the last folder are displayed. Use the **Select Users** button to add other users. **Revoke All Rights** removes the sharing rights from the selected users in the Current Shares list.
- **User(s) rights** checkboxes show the rights the selected user has on the selected folder(s). Changing the marks in the boxes enables modifying rights. Click **Apply** after making changes to user rights for the changes to take effect.
- Click **Rebuild User(s)** to check or fix problems with Shared Folders in the selected users' accounts.
- **Select All** selects all users in the Current Shares list.
- **Clear All** resets the list. Click the folder again to see list of shares.

**Status Bar**

- Displays the currently selected folder and its GWTreecast ID.
- Shows the number of subfolders under the currently selected folder.
- Shows the action that GWTreecast currently performs.

Double-click the status bar to see the current actions as written to the log. Double-click the bar again to return to normal display.



**Figure 16: GWTreecast Main GUI – current actions display**



## 4.2 GWTreecast Placeholder Folders

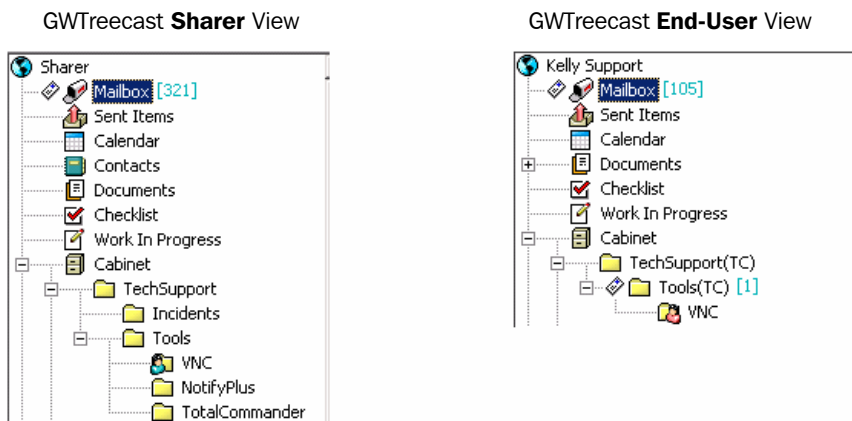
It is common practice for some folders to be shared with a given user and others not. Nonetheless, the structure of the shared folder tree or subtree is important (such as when the root of the sub-tree is a department or a client name) in that it provides the context of the folder. GroupWise does not currently provide the folder context; only the folders that are shared with users are sent to them without the relevant context.

GWTreecast solves this problem by building the exact shared folder tree structure that was defined in the Sharer's account, including the correct folder names. GWTreecast creates **placeholders**, i.e., personal folders in place of folders that were not shared with the user and adds a (TC) suffix to indicate their special status as placeholders.

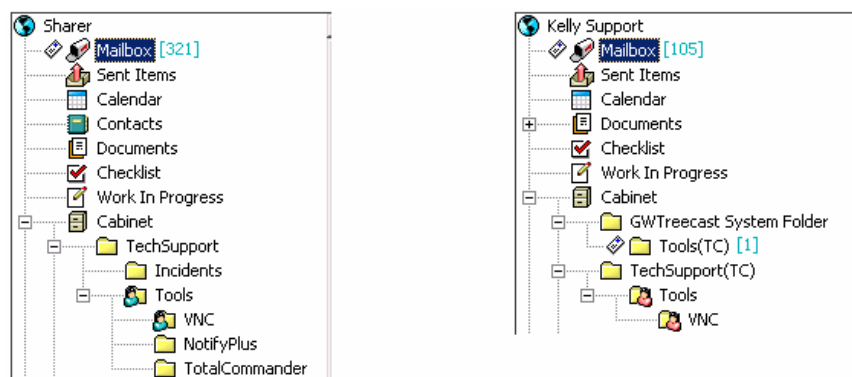
### Example

Here is a typical scenario that shows the Sharer's folder tree and the end-user's folder tree, composed of Shared and Placeholder folders. The views in the GroupWise clients are shown and vary depending on the viewing rights of the end user in each case.

#### Case A



#### Case B



**Figure 19: Place Holder folders**

In the GWTreecast Sharer view, we see the complete folder structure, even if the folders are not shared with the end user (such as **TechSupport**, **Incidents** and **Tools**). Folders and subfolders that are not shared with the GWTreecast end user are not created in the end user's GroupWise account (such as **Incidents**), except where necessary for structural context (such as **TechSupport** and **Tools**).

To help the user understand the context of a shared folder placed under an unshared one (such as **VNC**), GWTreecast creates Placeholder folders, such as **TechSupport(TC)** and **Tools(TC)**. These folders are personal folders in the user's account and have no connection to the original folders in the Sharer's account except their names (See Fig.18, Case A).

If a user stores email, documents or other messages in a Placeholder folder (such as **Tools**), and the original folder with the same name is shared with the user, GWTreecast will move the Placeholder folder to the **GWTreecast System** folder retaining the saved messages and documents (See Fig. 18, Case B).

### 4.3 Folders Verification

When GWTreecast verifies end-user folders, it performs the following:

- Checks if the folders are in the expected place.
- Checks for unaccepted **GWTreecast Sharing** messages.
- Checks for moved or renamed folders. GWTreecast maintains a special XML database for each user in order to find corrupted (renamed) folders. If the folder is not found, it is revoked from the user in order to prepare it for re-sharing.
- After all folders are checked and if there were missing folders for one or more users, GWTreecast shuts down and launches another program, **TCReShare.exe**, which re-shares the missing folders to end users. GWTreecast launches automatically when re-sharing is completed.
- GWTreecast accepts all new shares for the end users and arranges the folders in the correct structure.
- Messages are sent to admin users notifying them that re-shares are processed.

### 4.4 Modifying / Removing Users' Rights on Folders

When GWTreecast modifies or removes end user rights to existing shared folders, it performs the following:

- When rights are modified, GWTreecast sends a notification message to the affected end users and updates the users' XML database.
- When rights are removed, GWTreecast revokes rights in the correct order.
- If a folder is removed without removing its subfolders, GWTreecast creates a private Placeholder folder in the end user's account to maintain the tree structure.
- GWTreecast checks that the folders are really removed from the end user. The XML user database is updated with the new status of the user.



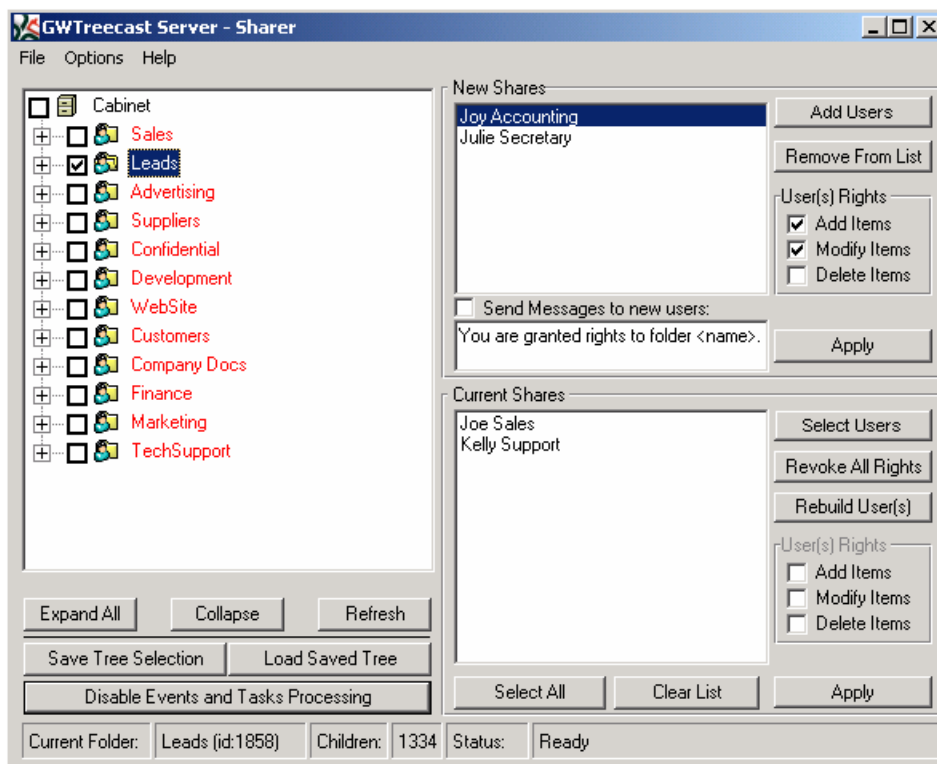
## 5 Using GWTreecast

### 5.1 Sharing Folders and Trees

#### Sharing a folder with GWTreecast

To share a folder with GWTreecast, select each folder you want to share in the Tree Folder view of the GWTreecast Admin Console. If no folder is selected but is highlighted, it will be shared. If you want to share the entire tree or subtree, collapse it to the level you wish to share from and then select it. All subfolders are automatically selected for sharing.

To share “discontinuous” folders from different levels and trees, just check the desired folders. Unselected folders with selected subfolders will be created as private Placeholder folders in the target users’ accounts to maintain the correct folder structure.



**Figure 20: Sharing a tree**

#### Selecting users to assign sharing rights

Select Groups or Users by clicking **Add Users** and selecting the desired entries from the GroupWise Address Book.

#### Assigning Folder Access Rights to User(s)

Select one or more users (**CTRL+click**) and define the desired access rights for that/those user(s) by selecting **Add**, **Modify**, or **Delete**.

#### Applying Shares to Folders

When you click **Apply**, GWTreecast will broadcast the assigned access rights for each of the selected folders to each of the defined users. GWTreecast accepts the shares on behalf of the respective users employing the GroupWise proxy capabilities and building the Shared Folders tree in each account transparently.

## 5.2 Rebuilding Users' Trees

**GWTreecast** can rebuild the entire Shared Folders tree for a given user if they have been accidentally erased, moved, or renamed. To do this, follow the steps below:

- Define the scope of the Rebuild operation: Entire Tree, Branch (subtree), or single folder.
- Select the entire Tree by selecting the Cabinet, a branch or sub-tree by selecting it when collapsed, or a folder by selecting or highlighting it.
- **Select User(s)**: From the list of users in the **Current Shares** pane or by clicking **Select Users**.
- Click **Rebuild User(s)**: GWTreecast Server will traverse the selected trees and rebuild the correct Shared Folders tree for the selected users.

## 5.3 Modifying Rights to Shared Folders

To modify rights to a folder already shared with one or more users:

- Select the folder in question in the tree view on the left. To modify rights for an entire subtree, select the folder when collapsed which will select all subfolders.
- Highlight the folder and all users it is shared with will appear in the **Current Shares** pane. You may also manually add users selecting them from the GroupWise Address Book and clicking **Select Users**.
- Set the new rights by selecting the desired boxes (**Add**, **Modify**, or **Delete**) and click **Apply**.

## 5.4 Revoking Rights to Shared Folders

To revoke rights to a folder already shared with one or more users:

- Select the folder in question in the tree view on the left. To remove an entire subtree, check the folder when collapsed which will select all subfolders.
- Highlight the folder and all users it is shared with will appear in the **Current Shares** pane. You may also manually add users for removal by selecting them from the GroupWise Address Book and clicking **Select Users**.
- Click **Revoke All Rights** and then **Apply**.

## 5.5 Revoking All Shared Folders from a User

In some cases, for example when a user leaves the organization, you may need to remove all folders shared with the user. To do this:

- Right-click a folder and from the drop-down menu select **More... >Select Folders by User**.
- Select the user from the pop-up Address Book and click **OK**.
- GWTreecast will automatically select all folders shared with this user.
- From the bottom right frame click **Select Users** and choose the target user.
- Click **Revoke All Rights** and then **Apply**.
- GWTreecast will revoke all rights and delete the folders from the target account.

## 5.6 Defining and Saving Shared Folder Trees

It is common in an enterprise to share different sets of folders with different groups, such as Sales, Support, Management, etc. GWTreecast enables defining and saving such sets (Trees) and easily distributing them to every new user joining a particular group.

Saving trees is also used for the creation of tasks which can be scheduled to run in a convenient time (see Task Scheduling).

Define the tree you would like to save and select the folders to be part of this tree from anywhere in the entire tree, regardless of branch or level. Click **Save Tree Selection**, enter a name for the tree, set the access rights for each folder in the tree, and click **Save**.

To delete a saved tree, click **Load Saved Tree**, select a tree from the list of trees, and right-click the desired tree to enable its deletion.

To load a tree, select its folders in the left panel, click **Load Save Tree**, select the desired tree, and click **OK**. Once the folders are selected you may use the selection for sharing, modifying, removing, or rebuilding.

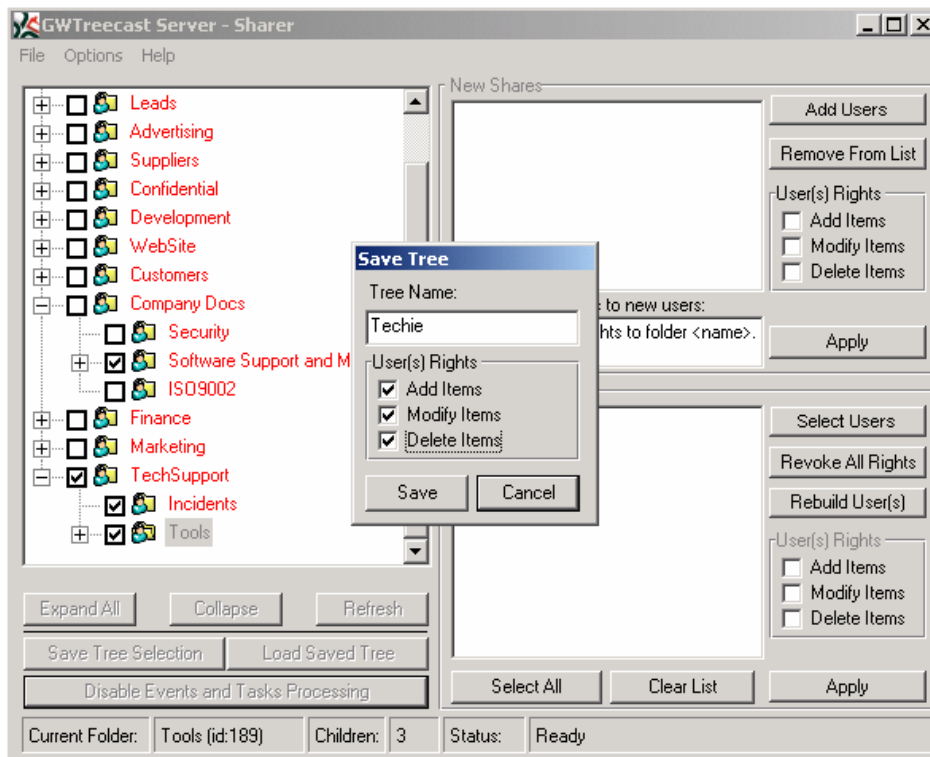


Figure 21: Saving a Tree

## 5.7 Task Scheduling

GWTreecast v2.5.1 enables users to create tasks and schedule them to run at a convenient time. To create a task and manage already created tasks, use the two submenus under the **File** menu.

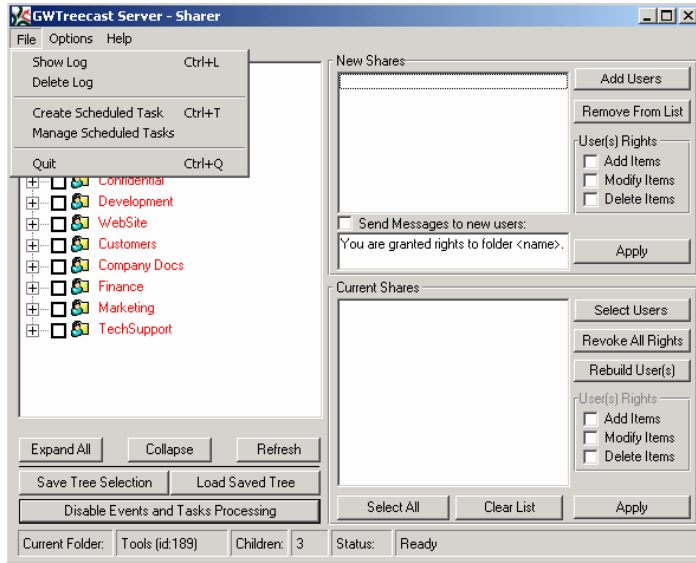



Figure 22: Task Scheduling

### 5.7.1 Creating a Scheduled Task

You can create 3 types of scheduled tasks with GWTreecast:

- sharing folders;
- rebuilding shared folders;
- removing users' rights from folders.

 For a scheduled task the folders which will be shared, rebuilt or unshared should be preliminarily defined and saved as trees (see Defining and Saving Shared Folder Trees).

From the Main Menu, choose **File > Create Scheduled Task (Ctrl+T)**. From the left-hand pane, select the trees which will be shared, rebuilt, or removed and define the type of action in the **Task Type** field. Add users from the right-hand upper pane. Choose if the task will be recurring or will be performed only once and define the start time. Select the start date in the calendar. Click **Save** and give the task a relevant name.

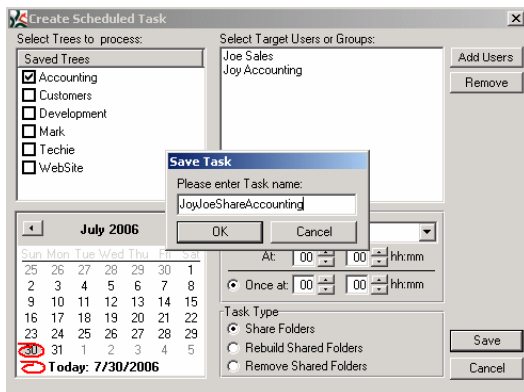
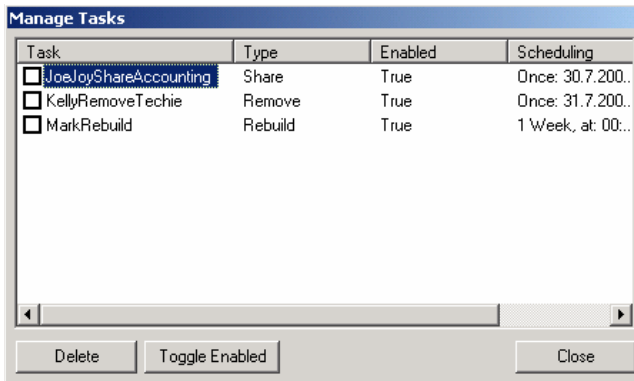


Figure 23: Create Scheduled Task

## 5.7.2 Managing Scheduled Tasks

To view and manage scheduled tasks click **File > Manage Scheduled Tasks**.

The tasks are displayed in a window showing the time they are scheduled to run and the type of action that will be performed, as well as a recurring tasks' last run time. The tasks scheduled for single run are automatically deleted after execution.



**Figure 24: Managing Scheduled Tasks**

A task's current status is shown in the Enabled column. To see the trees and target users of a task, double-click it. To delete a task, select it and click **Delete**. To disable/enable a task, select it and click **Toggle Enabled**.



GWTreecast must be running in order to perform scheduled tasks.



## 6 Troubleshooting GWTreecast

### Logging

In case of any persistent problems, run GWTreecast Server and check **Enable Logging** in the **Settings** window. The log files are necessary for solving issues when contacting technical support at Messaging Architects is needed. It is recommended to enable logging even during normal use.

### Debug level logging

Set the option to output debug information in the log, if instructed so by support. Do not leave this option on in standard operation mode.

### Refresh Delay

This defines how long GWTreecast will wait for target client's account to refresh. GroupWise uses multithreading and queues, thus messages and events are not processed sequentially. This is why the delay is necessary for operations such as broadcasting new folders or rebuilding deleted trees. A good value to start with is 3 seconds. If you experience problems such as unaccepted new shares, or folders remaining in the target client after removal, increase the value. For a slow or heavily loaded Post Office, a value of 10 to 15 seconds is recommended.

### The Trees Database

GWTreecast keeps important data about the shared trees structure in the **/Trees** subdirectory. Do not alter its content in any way. If this occurs, you will need to rebuild the whole database, which may be time consuming.

### Trusted Application Login

To set GWTreecast to work as Trusted Application, you need a Trusted Application key present in the *Config.xml* file. If you have to re-create the key, click **File > Options > Create Trusted App Key** to create it.

### Cached / Remote GW modes

These are not supported for GWTreecast, make sure that the GroupWise client is configured to log in in direct mode, via IP connection to the POA.

### Rebuilding the GWTreecast Shared Trees Database:

- a) Delete or move the **\Trees** subdirectory, found under the GWTreecast program directory.
- b) Create two empty files, named **Upgrade.txt** and **Check.txt** under the GWTreecast installation directory.
- c) Restart GWTreecast.
- d) When prompted, accept the upgrading of all IDs from the previous version.
- e) Wait for the process to complete.
- f) Restart GWTreecast.
- g) Check the Cabinet to select all subtrees.
- h) In the Current Shares list, select all users using GWTreecast trees.
- i) Choose **Select All** users in the list.
- j) Perform **Rebuild** on the selected users.
- k) Wait for the process to complete
- l) After the process is complete, verify that XML files were created under the **\Trees** sub-directory

**Common Problems and Solutions:**

<b>Problem</b>	<b>Possible Cause</b>	<b>Fix</b>
GWTreecast fails to launch before GroupWise login	No valid license.	Obtain a valid license. If you have purchased a license, ensure the <i>malic_signed.xml</i> file is in the installation directory.
	No connection to the Sharer account's PO.	Log into the Sharer account from GroupWise. If you can't, resolve the issue and retry.
	GWTreecast installation directory is read-only.	Give full access to the GWTreecast Windows account, the installation directory, and subdirectories.
	Settings can't be read from the Windows registry.	Check Registry permissions. Rerun GWTreecast setup, installing it in the same directory to preserve the GWTreecast database.
	Another instance of GWTreecast is running.	Check the log file for errors. Check Windows Task Manager for a running instance of <b>TCServer.exe</b> .
	Disk is full.	Free up disk space.
GroupWise connectivity problems	Incorrect Username/ Password credentials.	Specify the correct credentials in the <b>Settings</b> window.
	GroupWise/Notify are logged into another account.	Close all GroupWise components that hold a connection to another GroupWise account.
	GroupWise login information cache is incorrect.	Delete the Registry values under: <b>HKEY_CURRENT_USER\Software\Novell\GroupWise\Login Parameters</b>
	Network problems- no IP connection to the GroupWise PO.	Check network settings and configuration.
	Incorrect GroupWise Address Book format.	Set the GroupWise Address Book display format to <b>First Name, Last Name</b> .
	Log file can't be created.	Check disk space and rights to the <b>Logs</b> subdirectory.
No Folder Tree is displayed.	Trees Database was modified manually or XML files are corrupt.	Restore the <b>Trees</b> subdirectory or perform a complete rebuild of the GWTreecast database.
Selecting a folder also selects additional folders.	The view is out of date.	Click <b>Refresh</b> in the GWTreecast Admin Console
Folders are sorted incorrectly.	Refresh Delay time setting is too short.	Increase <b>Delay Time</b> in GWTreecast Admin Console.
Folders remain under the GWTreecast System Folder.		
Rights to folders are not removed.		
Looping when restoring shared folders occurs.		
Status Bar displays "Cannot login to user's account"	Failed Trusted Application login.	Check or recreate the Trusted App Key. Check the settings for the Sharer's account name and password.
Folders are shared with incorrect rights.	No rights were granted during the sharing.	Users/Groups need to be selected in the <b>New/Current Shares User List</b> before granting user rights to folders.
Rights modification doesn't work correctly.	Required changes weren't saved.	Click <b>Apply</b> to apply the modifications.
Only root folders are processed.	The root folder was checked while the sub-tree was expanded or the collapsed folder was highlighted without being checked.	For operations on an entire sub-tree, ensure the sub-tree is collapsed and check the root folder's checkbox.
Administrators do not receive notifications	Admin notification isn't enabled.	Check the <b>Enable Admin Messages</b> option in the GWTreecast Admin Console.
Unexpected errors	Trying to access Sharer account in Proxy mode.	Shut down the GroupWise Client, and restart GWTreecast Server.

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