

HP OpenView OmniBack II A.03.50

Supported add-ons

Microsoft Exchange Single Mailbox Backup and Restore

Readme file

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Table of Contents

1. Overview	3
2. Single Mailbox Backup and Restore Components	5
2.1. Password Encoder.....	5
2.2. Mailbox Copy	6
2.2.1. Copy Specification	7
2.2.2. Running MBXCopy.exe	12
2.2.3. Running MBXCopy.exe as a Standalone Agent	13
3. Backing Up Single Mailboxes	14
4. Restoring Single Mailboxes	17
5. Troubleshooting.....	18
5.1. MapiSvc.inf [Services] Section.....	18
5.2. Problems with permissions.....	19
5.3. Mailbox logon failed	19

1. Overview

Single mailbox and public folders backup consists of copying folders and messages from the Exchange Server 5.5 or Exchange 2000 Server mailbox to a temporary location, and then storing this data to tape.

The following components are involved in the single mailbox and public folders backup and restore process:

- Password Encoder (`Encoder.exe`), which sends a user's encoded password to the backup administrator.
- Password Encoder initialization file (`Encoder.ini`).
- Mailbox Copy utility (`MBXCopy.exe`), which copies the contents of a mailbox to the `.pst` file.
- Mailbox Copy initialization file (`<filename>.ini`).

For detailed information on the components, refer to section 2. Single Mailbox Backup and Restore Components.

Single mailbox and public folders are best used in combination with OmniBack II filesystem backup specification. For more information, please refer to section 3. Backing Up Single Mailboxes.

Before performing single mailbox and public folders backup and restore, you need to:

- Have Exchange Server 5.5 or Exchange 2000 Server with an Exchange client (for example, Outlook).
- Install the MS Exchange 5.5 Integration or MS Exchange 2000 Integration.
- Install Omniback_00017 patch. The `MBXCopy.exe` and `Encoder.exe` files will be copied to the `<OmniBack_home>\bin` directory.
- Create a directory on the Microsoft Exchange Server 5.5 or the Microsoft Exchange 2000 Server system for the copied mailboxes.
The required disk space depends on the number of mailboxes and their contents.
- Get encoded passwords from all users for whom you need to perform single mailbox backup and restore.
- Add the parameters for each mailbox to be backed up to the Mailbox Copy initialization file.

For the information on how to add the parameters, refer to section 2.2.1. Copy Specification.

Mailbox backup is slower and requires more media space than the backup of the whole server. It happens because only one copy of message addressed to more than one recipient is saved on the Exchange Server system and linked to all the recipients. The message is copied to the personal folders file for each mailbox when performing a single mailbox backup.

Disk and CPU utilization is also much higher because the data has to be extracted from the Exchange Server database before it is backed up.

Single mailbox backups cannot be used to recover a crashed system. Recovery can be made from the backup of the Exchange Server database. For more information, refer to *HP OpenView OmniBack II Windows Integration Guide*.

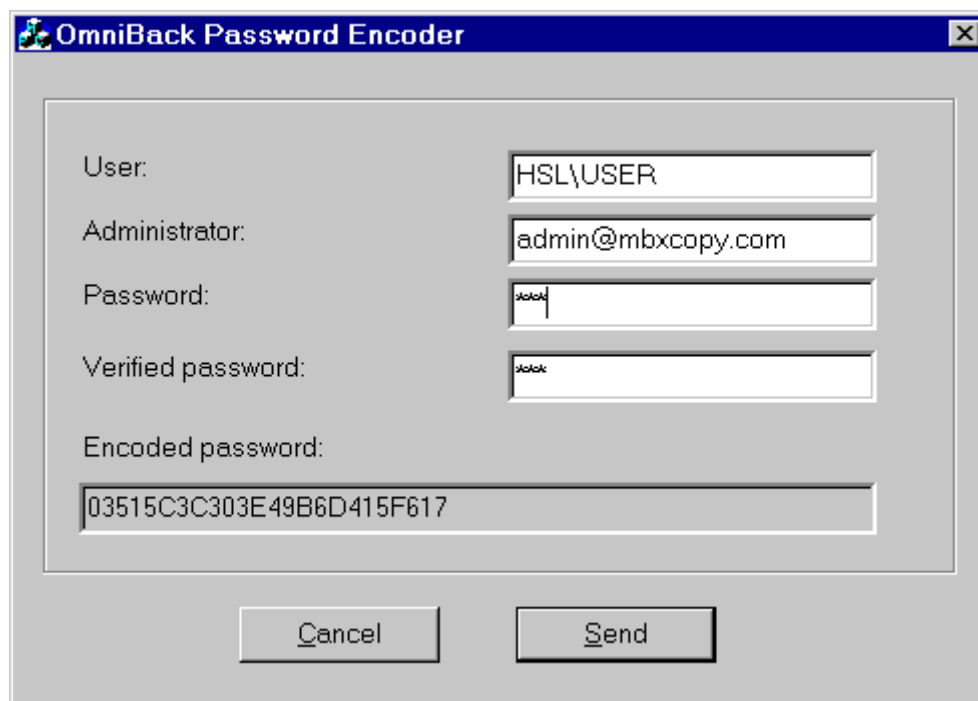
2. Single Mailbox Backup and Restore Components

2.1. Password Encoder

Password Encoder is a utility that encodes users' passwords and sends them to the backup administrator. These passwords are used to protect the mailbox contents while it is outside the Exchange Server, so nobody is able to access the information. In case the user changes the password, it cannot be applied to the previous backups.

The password, which is used to protect the mailbox folder, does not need to be the one provided by the user at login.

Figure 1: Password Encoder

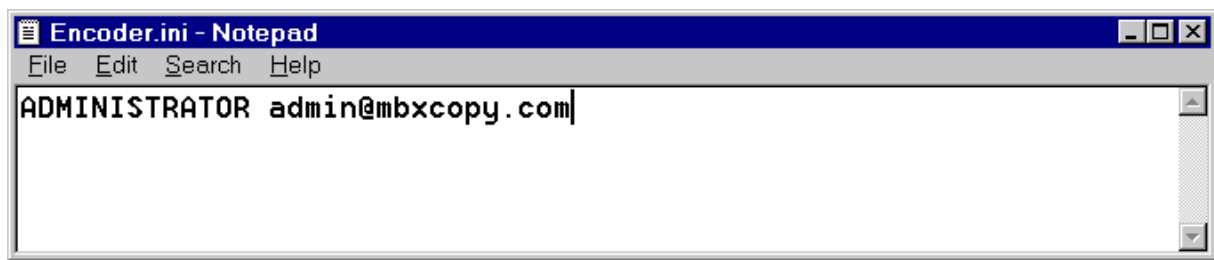


To present the administrator's e-mail address when you run Password Encoder, create the Encoder.ini file with the following syntax:

```
ADMINISTRATOR <e-mail address>
```

Then save this file in the same directory as Encoder.exe.

Figure 2: Encoder Initialization File



2.2. Mailbox Copy

MBXCopy is a utility that copies mailbox and public folders contents to .pst files.

When started, the MBXCopy utility does the following:

1. It copies the mailboxes and public folders to the specified directory on the Exchange Server 5.5 or Exchange 2000 Server system.
2. It creates a temporary profile for the administrator who has access to all the mailboxes that will be backed up. MBXCopy logs into every mailbox through this profile. Before creating personal folders for a particular mailbox, the utility creates a new subfolder called %<MAILBOX_NAME>%. If the subfolder already exists, the utility deletes all the existing personal folders files from it.

After the connection to mailbox is established, the utility performs these steps:

- Decodes the encoded password.
- Creates personal folders file with the .pst extension in the %<MAILBOX_NAME>% subfolder.
- Protects the personal folders files with the password provided by the users.
- Copies the messages from the server to the personal folders.

The Exchange Server 5.5 or Exchange 2000 Server name, mailbox names, public folders, encoded passwords, and other parameters are read from the Mailbox Copy initialization file. Refer to Figure 3, which shows the example of the MBXCopy initialization file.

3. If the MBXCopy utility is started as a pre-exec script from the backup specification, a filesystem backup of the directory that contains the personal folders files will start, when the utility finishes its work.

2.2.1. Copy Specification

For copying mailboxes, the administrator needs to create a copy specification, where the following parameters have to be specified:

1. Administrator

- Server: Name of Exchange Server 5.5 or Exchange 2000 Server.
- Mailbox: Administrator's mailbox that has privileges to access users' mailboxes and public folders that will be backed up.

Example:

```
Administrator={server='ajvar'; mailbox='mbxadmin';}
```

2. Path

%MAILBOX_NAME% subdirectories, to which the .pst files will be copied, will be created under the C:\mbxbackup\pst directory.

Example:

```
path='c:\mbxbackup\pst\';
```

3. Mailboxes

List of mailboxes that are to be copied. Each mailbox has its own subsection, which contains:

- Mailbox name (name of subsection).
- Password: Encoded password sent by mailbox owner.
- Organization: The organization is the root object or starting point of the Microsoft Exchange Server directory.
- Site name: Site is a group of one or more servers connected to the same local area network.
- Container: The container holds Microsoft Exchange Server message recipients. If parameter is not set specified, recipients container is taken by default. Container is available only in Microsoft Exchange Server 5.5.

Specify `public_folders` as mailbox name for copying public folders. Utility copies all folders specified by full pathname and their subfolders.

Example:

```
mailboxes={  
  
mbxtest1={password='188AA9F85DAEF';organization='HSL';  
          sitename='Omniback';container='First Group';}  
  
#mbxtest2={password='188AA9F85DAEF65A4E88C4C';  
#          organization='HSL';sitename='Omniback';}  
  
public_folders=('Omniback II\DA\Defects','Omniback II\HA')  
  
}
```

A subfolder named `mbxtest1` containing the `<time>.pst` file will be created to the `c:\mbxbackup\pst` directory. The `<time>.pst` file will contain the `mbxtest1` mailbox content from the `ajvar` server. `Mbxtest2` mailbox will not be copied because it is commented.

Public folders `Omniback II\DA\Defects` and `Omniback II\HA` and their subfolders will be copied into `public_folders` subdirectory.

4. Debug

- Range: Levels of debug messages
- Postfix: Postfix for debug file

Example:

```
Debug={range='1-100'; postfix='MBXCopy.txt';}
```

Use a # sign to disable debugging:

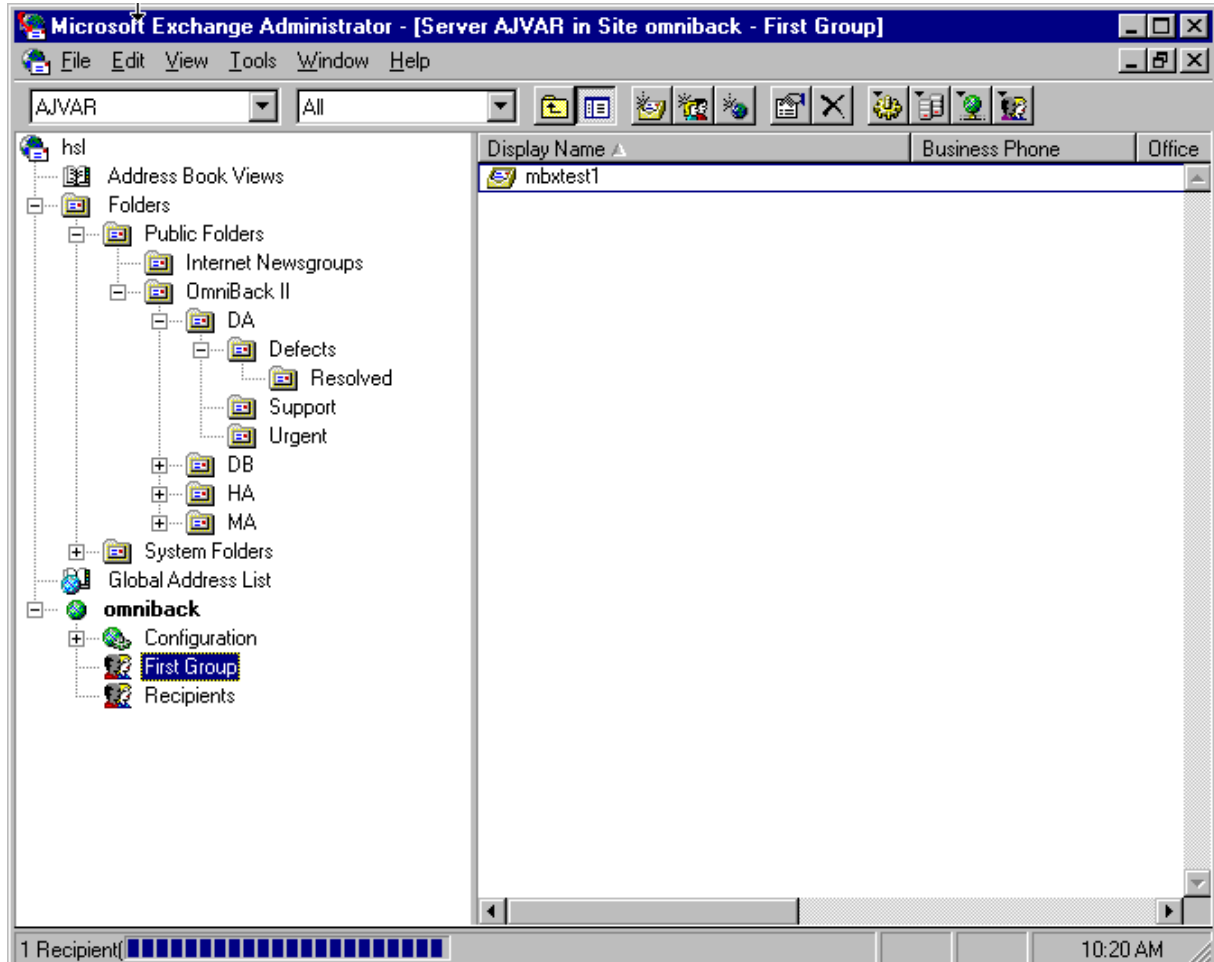
```
#Debug={range='1-100'; postfix='MBXCopy.txt';}
```

Figure 3: MBXCopy Initialization File

```
MBXCopy - Notepad
File Edit Format Help
#####
#
#   A D M I N I S T R A T O R
#
#   server: server name (mandatory)
#   mailbox: administrator's mailbox name (mandatory)
#
#####
administrator={server='ajvar';mailbox='mbxadmin';}
#####
#
#   P A T H
#
#   path: all pst files will be copied into this directory
#         (put \ at the end)
#
#
#####
path='c:\mbxbackup\pst\';
#####
#
#   M A I L B O X E S
#
#   mailbox name = {
#     password: encoded password for .pst file;
#     organization;
#     sitename;
#     [container];
#   }
#
#####
mailboxes={
mbxtest1 = {password='188AA9F85DAEF';organization='HSL';sitename='OmniBack';container='First Group';}
#mbxtest2 = {password='188AA9F85DAEF65A4E88C4C';organization='HSL';sitename='OmniBack';}
public_folders = ('OmniBack II\DA\Defects', 'OmniBack II\HA')
}
#####
#
#   D E B U G
#
#####
#debug={range='1-100';postfix='mbxcopy.txt.txt';}
```

To access the Organization structure in Exchange Server 5.5, click Start in your Windows session, select Programs and Microsoft Exchange menu and click on the Microsoft Exchange Administrator. A window as shown in Figure 4 is displayed.

Figure 4: Organization Structure in Microsoft Exchange Server 5.5

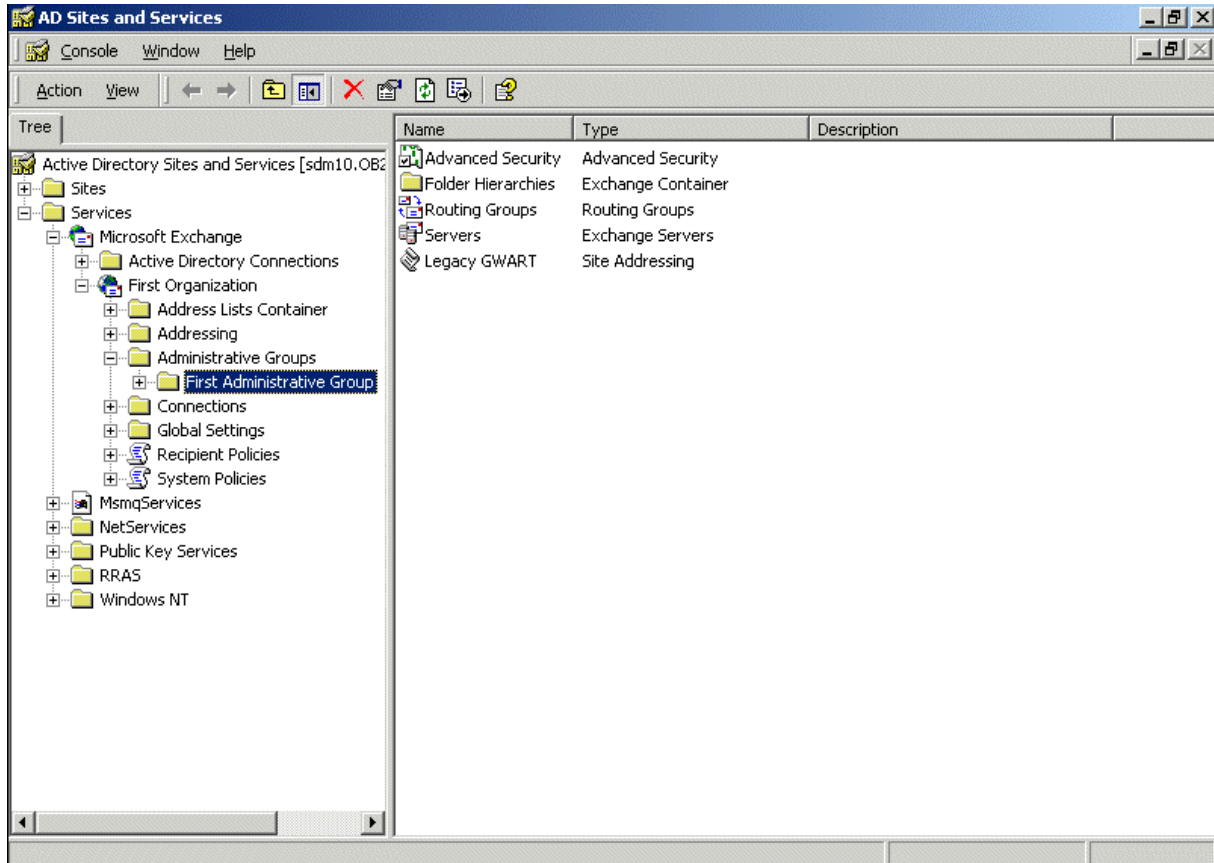


From the window displayed, you can gather the required information for the mailbox subsection:

- Organization (HSL).
- Sitename (omniback).
- Container (Recipients or First Group).

To access the Organization structure in Exchange 2000 Server, click Start in your Windows session, select Programs -> Administrative Tools menu and click on the Active Directory Sites and Services. A window as shown in Figure 5 is displayed.

Figure 5: Organization Structure in Microsoft Exchange 2000 Server



From the window displayed, you can gather the required information for the mailbox subsection:

- Organization (First Organization).
- Sitename (First Administrative Group).

There is no Recipients Container subsection in Exchange 2000 Server. Instead, a Recipients subsection is set as default and cannot be changed.

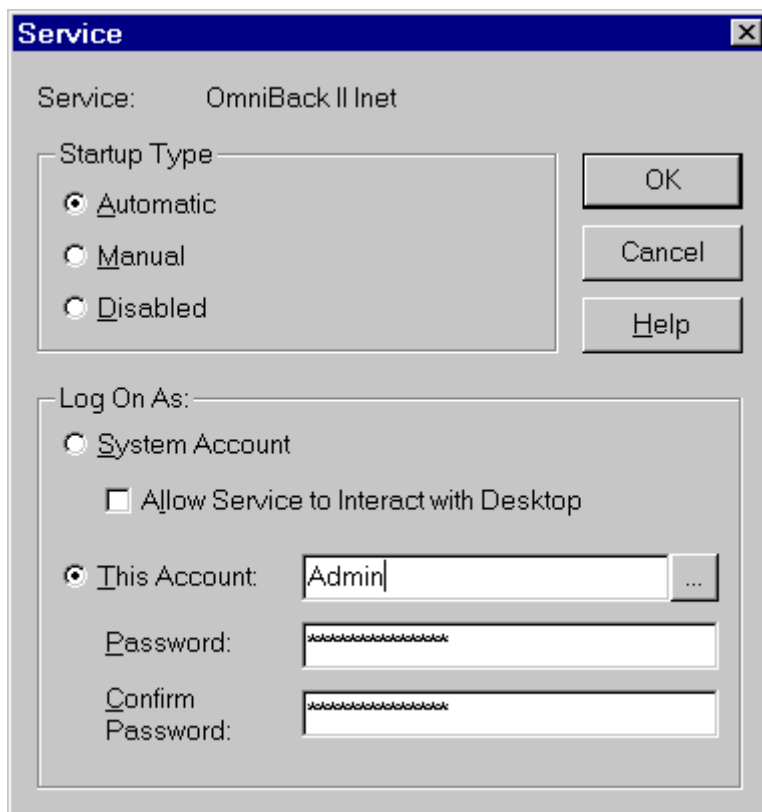
2.2.2. Running MBXCopy.exe

MBXCopy.exe must be run with the `-ini` parameter, which specifies a full path and name of the copy specification file.

To run MBXCopy.exe as a filesystem pre-exec script, you have to:

1. Check if the MBXCopy.exe resides in the `<OmniBack_home>\bin` directory on the server side.
2. Start OmniBack II Inet service under Exchange administrator's account:
 - Go to Control Panel, Services, OmniBack II Inet. Click Startup.
 - In the Service window, select This Account in the Log On As field.

Figure 6: Starting OmniBack II Inet Service



MBXCopy.exe can be started as a pre-exec script in a filesystem backup from the Graphical User Interface, or it can be run from the command line as a standalone utility.

Example of MBXCopy.exe script:

```
MBXCopy.exe -ini c:\mbxcopy\specifications\MBXCopy.ini
```

MBXCopy utility copies the contents of a mailbox or public folders to .pst files, which can be easily backed up with OmniBack II.

For information on backing up .pst files, refer to section 3. Backing Up Single Mailboxes.

2.2.3. Running MBXCopy.exe as a Standalone Agent

You can run MBXCopy.exe as a standalone agent from the command line. Besides the `-ini` command-line parameter, the `-inc` parameter can be set. In this case, MBXCopy agent copies only those messages that are not older than the number of days given by the `-inc` parameter.

If you run MBXCopy agent without setting the `-inc` parameter, all the messages from a mailbox will be copied to the personal folders file.

NOTE:

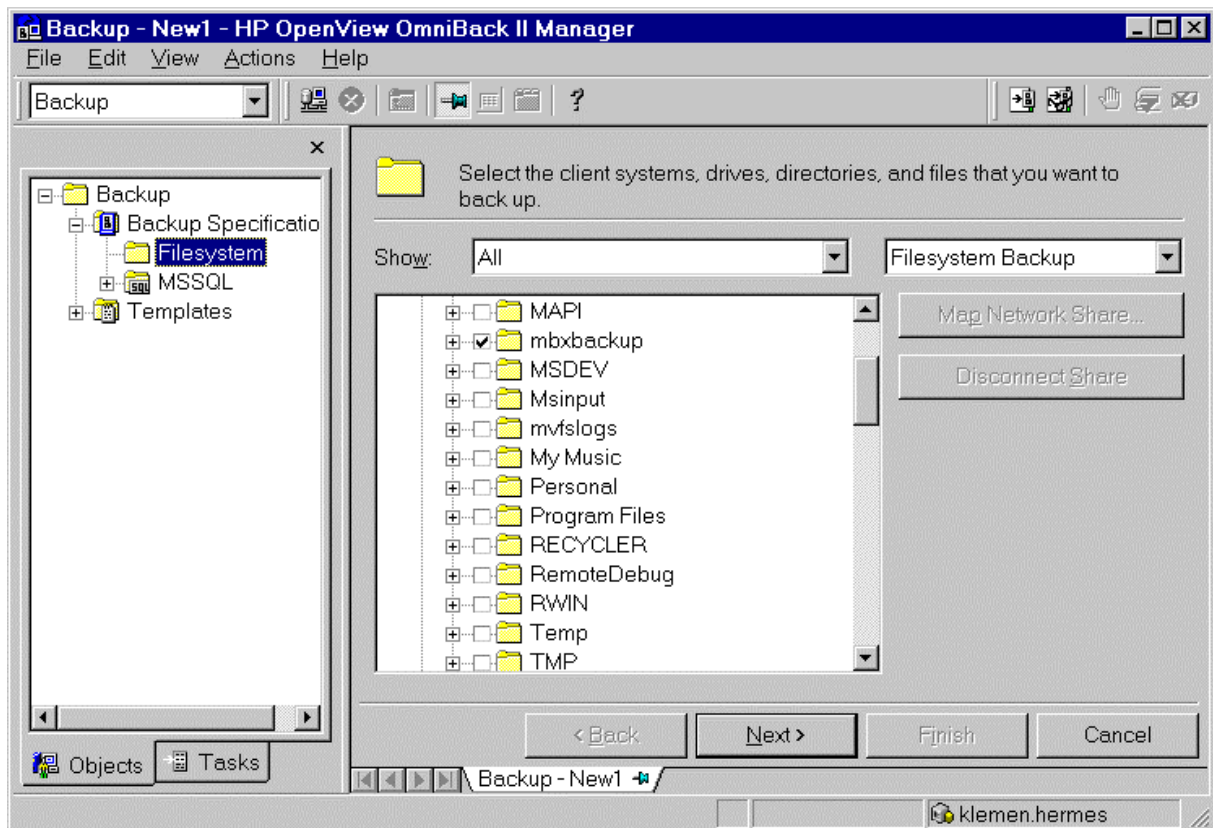
The `-inc` command-line parameter is not meant for the incremental backup. For information about incremental backups, see section 3. Backing Up Single Mailboxes.

3. Backing Up Single Mailboxes

Use the following procedure to perform a single mailbox backup:

1. In the HP OpenView OmniBack II Manager, switch to the Backup context.
2. In the Scoping Pane, expand the Backup item, and then double-click Backup Specifications.
3. In the Results Area, right-click Filesystem, and then click Add Backup. The Create New Backup dialog box appears.
4. In the Create New Backup dialog box, select a template to apply to the new backup, and then click OK to start a backup wizard.
5. In the first page of the wizard, select the directory to which .pst files will be copied. The directory is specified in the Mailbox Copy initialization file. Refer to Figure 7.

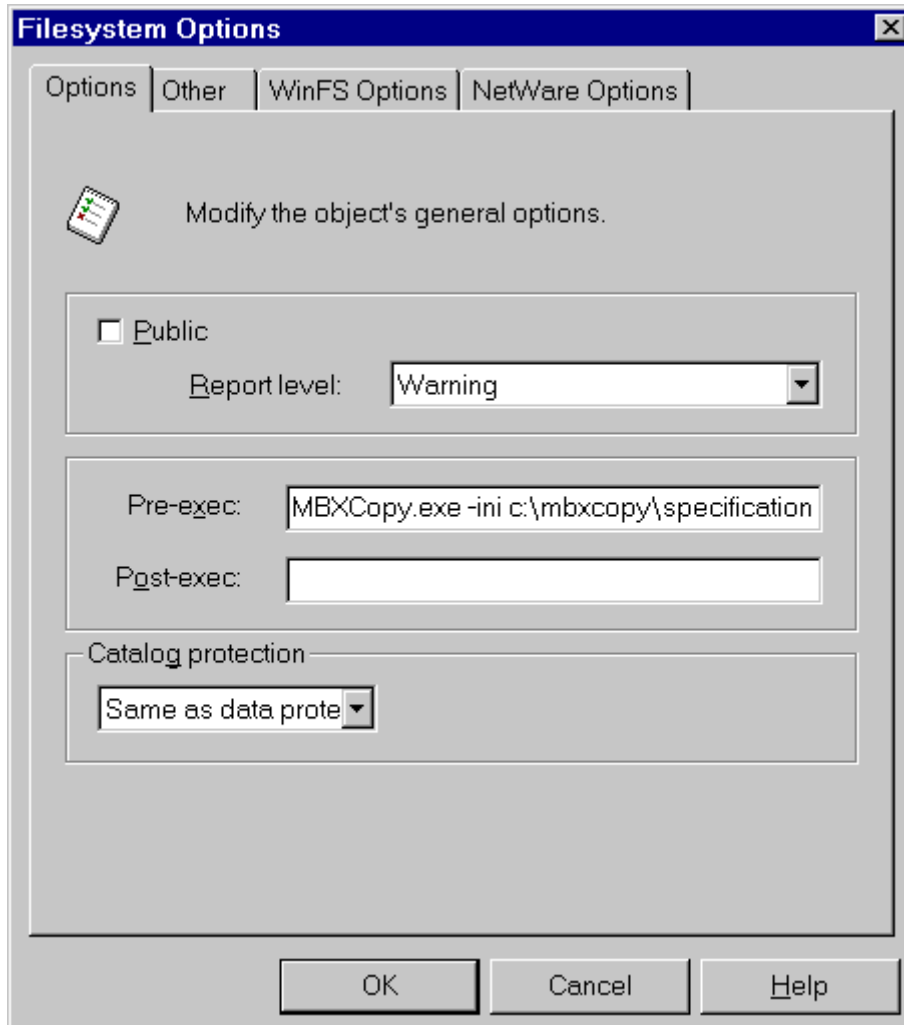
Figure 7: Selecting a Directory for the Backup



Click Next to proceed.

6. Select the devices or drives to be used for the backup.
7. In the next page of the wizard, specify the backup options.
In the `Filesystem Options` dialog box, click the `Advanced` button, and specify the pre-exec script, which will start `MBXCopy.exe`. Refer to Figure 8.

Figure 8: Specifying MBXCopy.exe as a Pre-Exec Script



Refer to online Help or the *HP OpenView OmniBack II Administrator's Guide* for details about options, common to all OmniBack II backup specifications.

Optionally, schedule your backup.

8. Once you have defined all backup options and scheduled your backup, name and save the newly created backup specification.

Once saved, the backup specification can be tested by clicking `Start Preview`, or can be started by clicking `Start Backup` after you have specified backup type and network load.

Mailbox and public folders backup uses filesystem backup types if it is used as a filesystem pre-exec script. Full filesystem backup would cause the whole mailbox to be copied to a .pst, while an incremental backup would cause only a part of the mailbox to be copied.

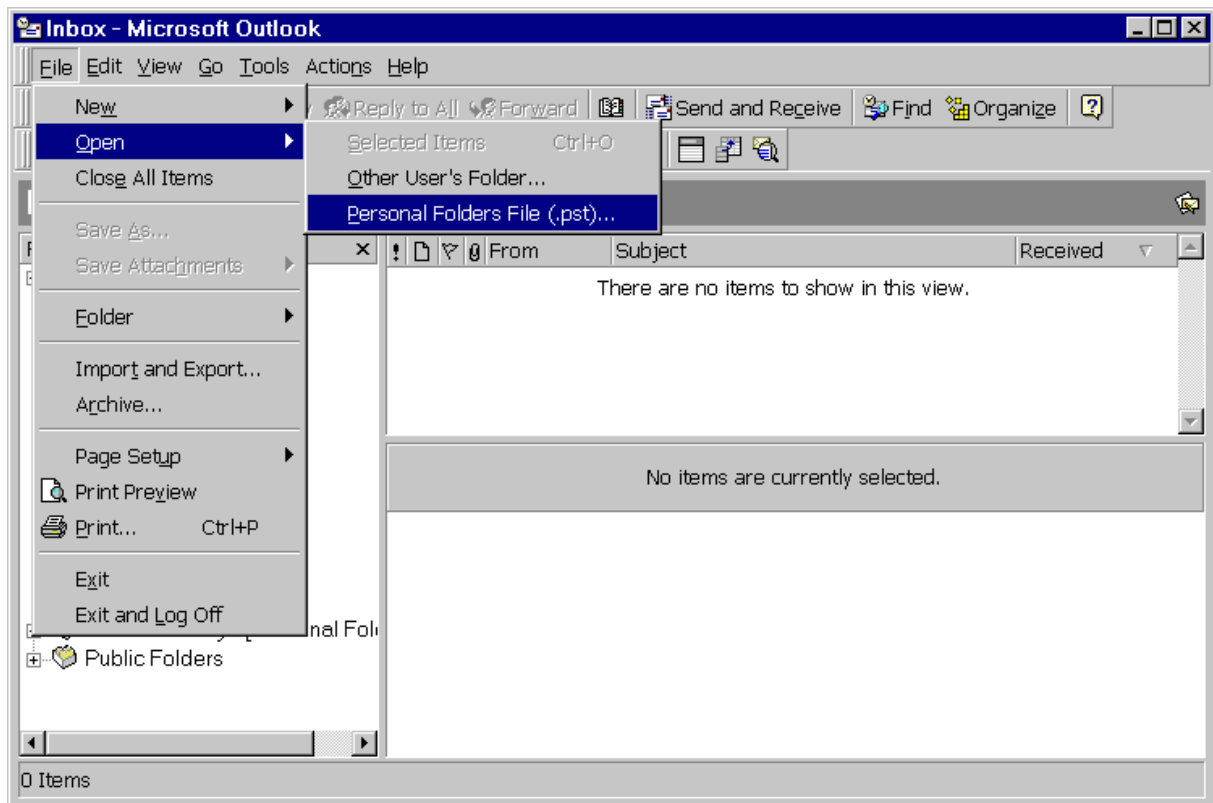
For information on full and incremental filesystem backups, please see *HP OpenView OmniBack II Administrator's Guide* or online Help.

4. Restoring Single Mailboxes

- Since personal folders have been saved as ordinary files, restore can be performed to any system that has OmniBack II Disk Agent installed. The .pst files will be restored as single files.
- User can open the restored file with the Exchange mail client, which is capable of dealing with multiple personal folders, for example with Outlook. Multiple versions of backed up mailboxes can be restored and opened.

To view the content of the .pst file, start Outlook, go to File/Open, and select the personal folders file. Refer to Figure 9.

Figure 9: Opening Personal Folders File in Outlook



Refer to *HP OpenView OmniBack II Administrator's Guide* or online Help for information on the restore procedure.

5. Troubleshooting

Before you start troubleshooting the OmniBack II Single Mailbox backup and restore, check the following:

1. Ensure that the latest OmniBack II patches are installed. Refer to the *HP OpenView OmniBack II A.03.50 Software Release Notes* or <http://www.openview.hp.com/products/omniback/index.asp> for an up-to-date list of supported versions, platforms, and other information.
2. Refer to the *HP OpenView OmniBack II A.03.50 Software Release Notes* for a description of general OmniBack II limitations, supported versions, problems and workarounds, and a list of related OmniBack II patches.

The following sections provide some checking procedures you should perform before you call the OmniBack II support. This way you may either resolve the problem yourself or identify the area where the difficulties occur.

5.1. MapiSvc.inf [Services] Section

The `MapiSvc.inf` file must reside in `Windows\System32` directory. The [Services] section lists the message services that are installed on a computer. Entries in this section use the following format:

```
[Services]
message-service section name=message service name
```

In case you receive an error creating message service administration object, check if the [Services] section has the following information:

```
[Services]
MSEMS = Microsoft Exchange Server
MSPST MS = Personal Folders
...
```

This is just an example and can differ on your Exchange configuration.

If `MapiSvc.inf` does not contain `MSEMS` and `MSPST MS` sections proceed as follows:

1. Make sure that one of the `MAPI` mail clients is installed (for example Outlook).
2. Find `MapiSvc.inf` file on your disk. It usually resides in `\Program Files\Common Files\System\MAPI\1033\NT` directory.

3. Use `Mergeini.exe` tool from Microsoft Platform Software Development Kit (SDK).

Example:

```
MERGEINI C:\Program Files\Common Files\System\MAPI\1033\NT\Mapisvc.inf -m -q
```

For details on using the Mergeini tool, please see the following link:

http://msdn.microsoft.com/library/psdk/mapi/_mapi1book_file_format_of_mapisvc.inf.htm

5.2. Problems with permissions

In case you encounter problems with administrator's privileges to access user's mailboxes proceed as follows:

1. Check `debug.log` in `<OmniBack_home>\log` directory and try to resolve problem with messages that appear in log file.
2. Check if `OmniBack II Inet Service` runs under Exchange Administrator account (this is a must in case you run `MBXCopy` utility as a filesystem pre-exec script).
3. Check the following parameters in copy specification file:
 - Administrator
Ensure that server name and administrators mailbox are correct.
 - Path
Ensure that specified path exist.

5.3. Mailbox logon failed

In case you can't access any mailbox specified in mailboxes section in copy specification proceed as follows:

1. Check the organization and site name parameter.
2. In case that user mailbox is defined in other `Recipients Container` instead of the default (`Recipients`), check the container parameter in the `MBXCopy` specification (this refers only to Exchange Server 5.5).