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Paragon® Exchange Granular Recovery

Evaluator's Guide

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Product Concept

Paragon Exchange Granular Recovery is a plug-in for Microsoft Outlook 2003/2007 that enables to get transparent access to backup mail databases of MS Exchange Server 2007 through the standard facilities of MS Outlook for easy and fast data recovery at a granular level.

Product Key Differentiators

The key differentiators of the product are:

- ✓ Full integration with MS Outlook 2003/2007;
- ✓ Access to MS Exchange mail databases (EDB files);
- ✓ Simultaneous work with multiple EDB files;
- ✓ Granular data export from EDB files;
- ✓ Support for the MS Exchange log files replay;
- ✓ Selection of mailboxes to work with.

Primary Audience

Paragon Exchange Granular Recovery has been specially designed for MS Exchange 2007 administrators to help them:

- ✓ Do away with slow and unreliable “brick-level” mailbox backups;
- ✓ Recover user mailboxes or individual mail items directly from MS Outlook.

Workflow Procedure

Paragon Exchange Granular Recovery can help an MS Exchange 2007 administrator minimize time and efforts required to find and restore lost email items. The workflow procedure involves the following steps:

- ✓ [Extract the required EDB file and its logs](#) (if necessary) to a separate folder with Volume Explorer, File Transfer Wizard, or Restore Wizard, which are components of Paragon Drive Backup;
- ✓ [Open it in MS Outlook 2003/2007](#). If the selected EDB file contains a private store, it's possible to additionally specify mailboxes to work with;
- ✓ [Find the required email items](#) with the built-in facilities of MS Outlook;
- ✓ [Export them to any location](#), including a local PST file, or an MS Exchange mailbox, again with the built-in facilities of MS Outlook.

Thus there are only 4 steps, the first two of which are accomplished with easy to use intuitive wizards from Paragon, and the last two – familiar functionality of MS Outlook.

Supported Platforms

The current version of Paragon Exchange Granular Recovery can work with MS Exchange Server 2007 and MS Outlook 2003/2007 under 64-bit versions of the following operating systems:

- ✓ Windows 2003/R2 Server x64 Standard or Enterprise;
- ✓ Windows 2008/R2 Server x64 Standard or Enterprise;
- ✓ Windows XP SP2/SP3 x64 Professional;
- ✓ Windows Vista x64 Ultimate or Business;
- ✓ Windows 7 x64 Ultimate or Business.

Getting Started

Recommended Target Environment

The recommended target environment should meet the following criteria:

- ✓ The system is based on [one of the supported operating systems](#);
- ✓ Installed MS Outlook 2003 or 2007;
- ✓ At least one outlook profile is configured*.

* You're free to configure an outlook profile after the installation of the program is accomplished.

* The program can either be installed on a computer with MS Exchange 2007 or without it. In the last case you will have to additionally provide three ESE libraries (ESE.dll, ExchMem.dll, and JCB.dll) during the installation, which you can find in a binary folder of the currently installed MS Exchange Server (by default, **C:\Program Files\Microsoft\Exchange Server\Bin**) or in its backup. It's not a limitation of our product, it's a limitation imposed by Microsoft.

Installation

The setup utility has the standard user interface and set of installation steps. There are only several minor points we'd like you to focus on:

- ✓ You need to close MS Outlook before installing the program. If you don't do that, you will anyway need to restart it after the installation process is over for the changes to take effect.
- ✓ You need to accept Paragon License Agreement. Otherwise you won't be able to proceed with the installation.



- ✓ If you install the program on the computer without MS Exchange 2007, [you will have to additionally provide three ESE libraries](#) (ESE.dll, ExchMem.dll, and JCB.dll).



Lost Email Recovery

Extracting EDB files and logs from a backup

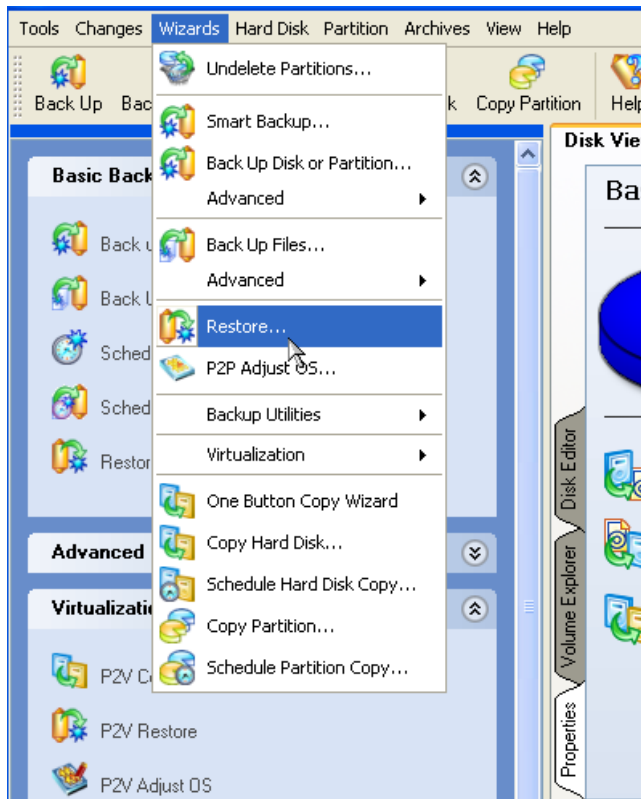
You can accomplish this operation with Volume Explorer, File Transfer Wizard, or Restore Wizard, which are components of Paragon Drive Backup. Below you can find how to do that with Restore Wizard:

Conditions:

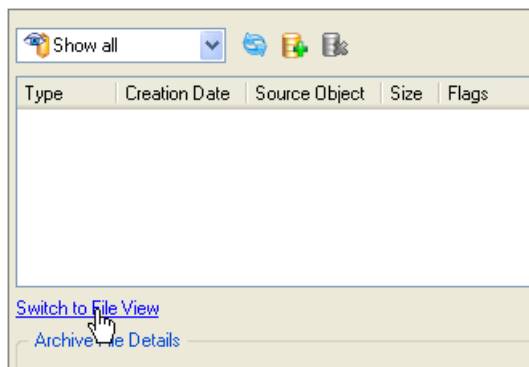
- ✓ If you're dealing with a backup of a correctly stopped MS Exchange Server, you're free to use EDB files without logs. But if you're dealing with a backup of a working MS Exchange Server, as we are, you should extract from it not only the required EDB file but its logs as well, to let the program play them and open the mail database correctly, i.e. with all the latest changes reflected. The same goes for a EDB file copied from an incorrectly stopped or a crashed server.
- ✓ When you open a EDB file and related logs in MS Outlook, these files will be automatically modified, so please do not open the originals of a working MS Exchange Server, but copy them to a separate folder.
- ✓ If you're going to open several EDB files of the same storage group, you need to copy every EDB file together with logs of that group to a separate folder, this is the only way you can guarantee them open correctly, i.e. with the latest changes reflected.
- ✓ If you don't have logs, you can still open the required EDB file, but only after fixing it up with MS Eseutil (<http://technet.microsoft.com/en-us/library/aa998249.aspx>).

Scenario:

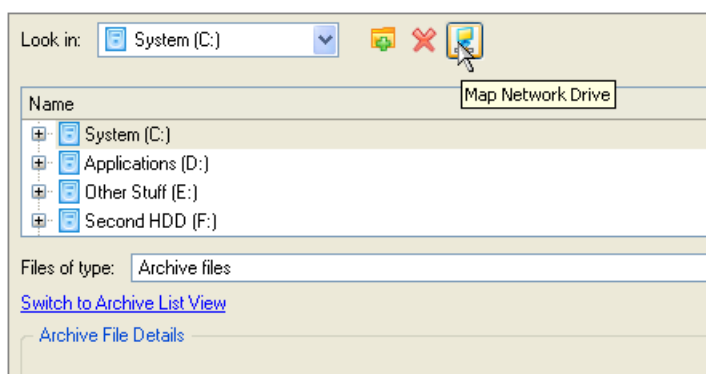
1. Launch Paragon Drive Backup.
2. Select in the Main Menu: **Wizards > Restore...**



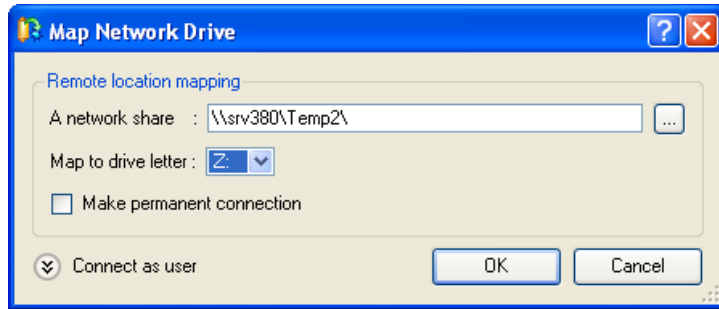
3. On the Wizard's Welcome page, click **Next** to continue.
4. Browse for the required backup. In our case it's located on a network share, so we need to additionally map it.
 - Click **Switch to File View**;



- Click on the appropriate icon to map a network drive;

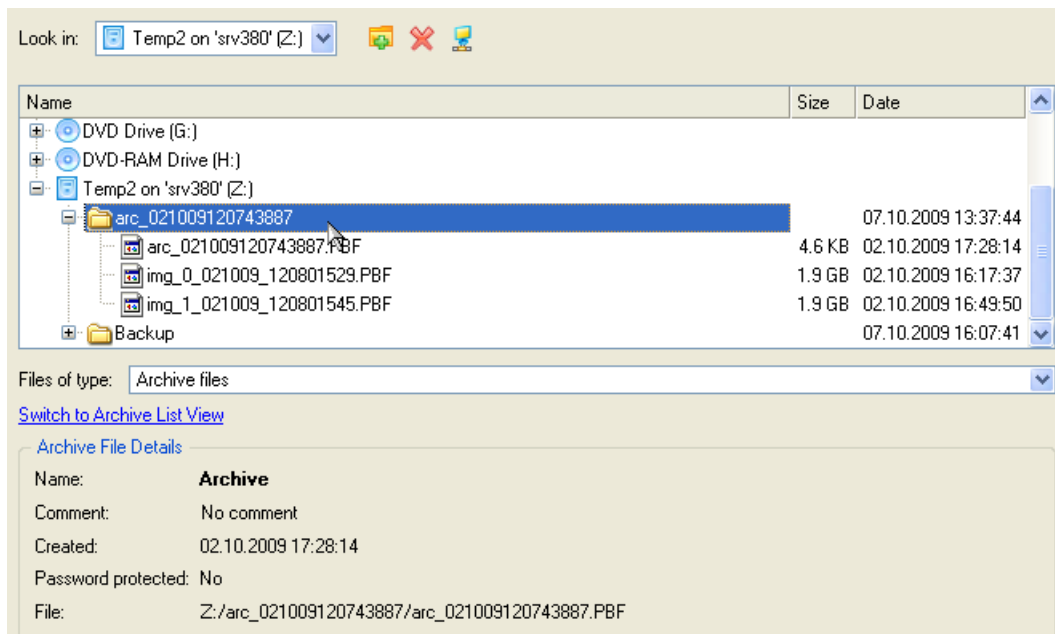


- In the opened dialog set up all the necessary parameters;



- Click the standard browse button [...] to browse for the required network share or manually enter a path to it;
- Define a letter from the pull-down list of available drive letters;
- Mark the checkbox to make this connection permanent. Otherwise it will only be available for the current Windows session;
- Click the **Connect as user** button at the foot of the dialog page to specify a user name and password to access the selected network share if necessary.

5. Click on the mounted network share to select the required backup. In our case we've got to do with a complex archive containing two partitions. Click **Next** to continue.




6. Since mail databases (EDB files) and logs are stored on different disks, we need to browse them both and mark checkboxes next to the required data items to extract. Click **Next** to continue.

Please select one of the object(s) to restore:

Name	Type	File system	Size	Used
First Storage Group				
CatalogData-132709b9-0f2b-431c-92dc-12a86ae59632-cc64...				
CatalogData-521a37db-310e-43f8-b713-07f75a899bc2-cc64...				
CatalogData-f009e0fa-04c8-4749-ac8b-5b134ddf4bf-cc64dd...				
E00.chk	File		8 KB	
Mailbox Database.edb	File		478.3 MB	
New mailbox database.edb	File		1.6 GB	
Russian.edb	File		564 MB	
tmp.edb	File		2 MB	
Public Group				
Mailbox - Copy (020909)				
System Volume Information				
Temp - Mail				
Temp - Public				
Second HDD (F:)	Primary	NTFS	299.9 GB	31.6 GB
/				
\$RECYCLE.BIN				
First Storage Group				
Logs				
First Storage Group - Copy (020909)				
System Volume Information				
Temp				
Temp1				

Archive Details




Name: **Second HDD (F:)**
Volume label: Data1
File system: NTFS
Used space: 31.6 GB

Total size: 299.9 GB
Free space: 268.3 GB

To select where to restore the selected object(s), click **Next**





File by file restoring can take a long period of time.
Data size to restore: less than 114.3 GB

7. Specify how and where you'd like to restore the data. In our case we need to restore it to a specific folder. Click **Next** to continue.

Restore files to: 

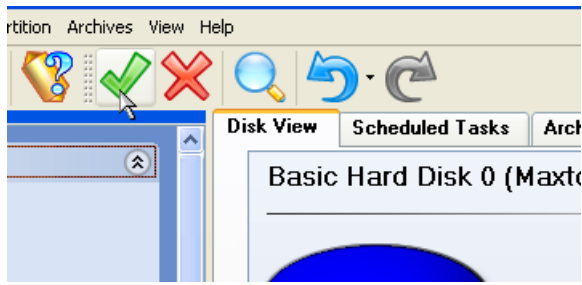
The files and folders will be restored to the specified folder. The disk structure will be restored, i.e. volume C: to folder, named "Disk_C" etc.

Please select a folder to restore to

Look in:    

Name
System (C:)
Applications (D:)
Backup Data
Other Stuff (E:)
Second HDD (F:)
Temp2 on 'srv380' (Z:)

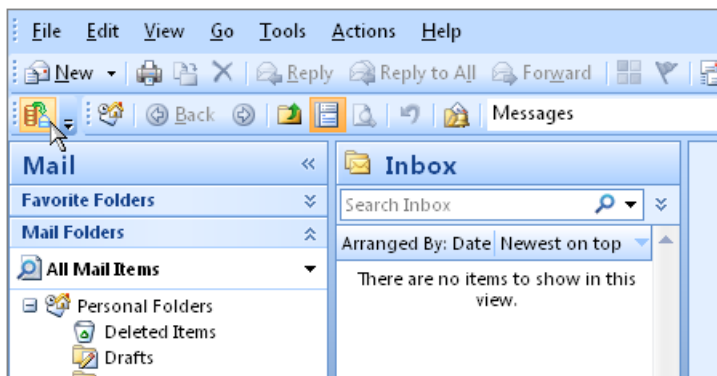
8. Complete the wizard, then click **Apply** to accomplish the operation. Extracting separate files from a disk backup is rather a time-consuming operation, especially when the backup is located on the net, so please be patient.



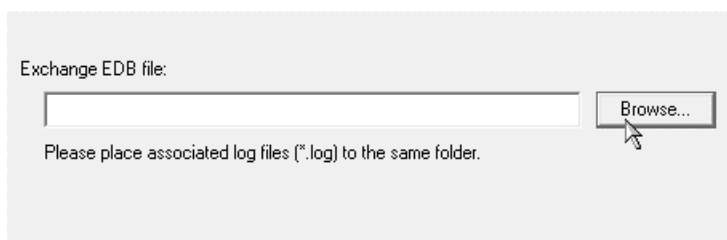
- When done, make sure the extracted EDB file and logs are located in one and the same folder (fix it if necessary). The problem is that Drive Backup keeps the original disk structure intact, so backup files from different folders of different partitions will be extracted to different sub-folders.

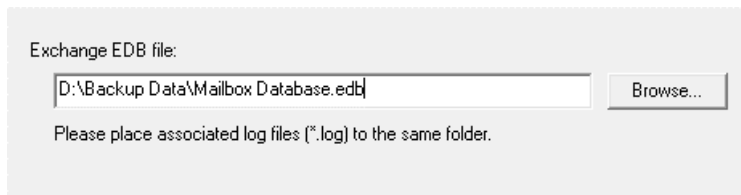
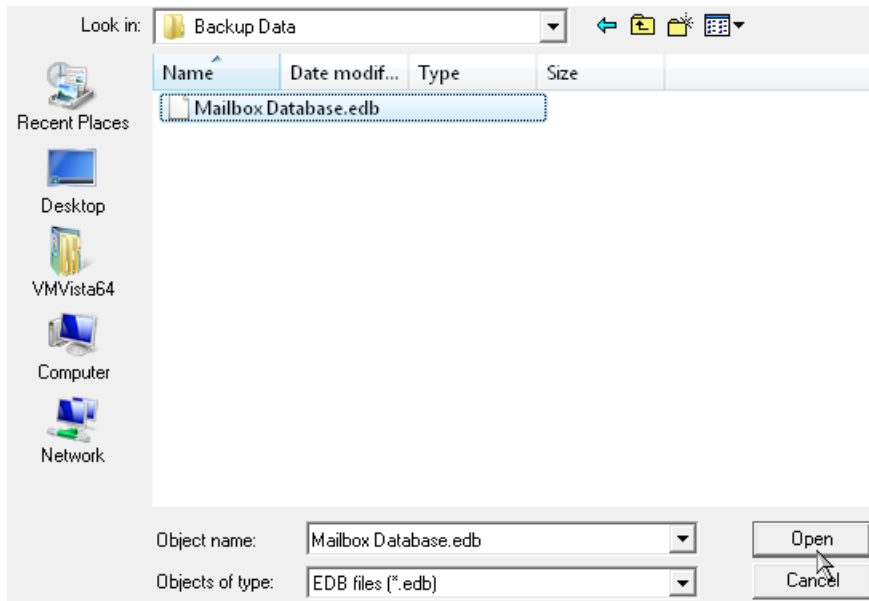
Opening EDB files in MS Outlook

- Launch MS Outlook.
- Click on the **Add an Exchange Database Archive** icon found in the MS Outlook toolbar.



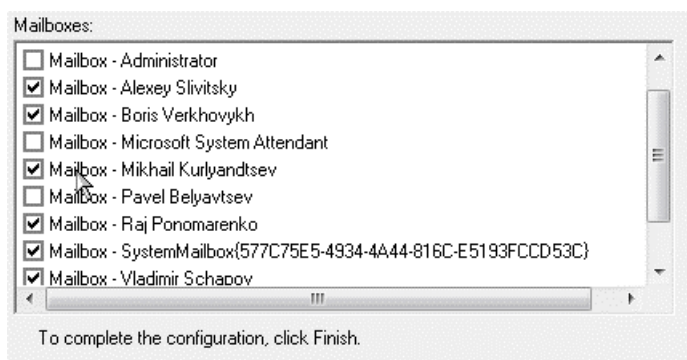
- Browse for a folder containing the extracted EDB file and logs or set a full path to it manually.





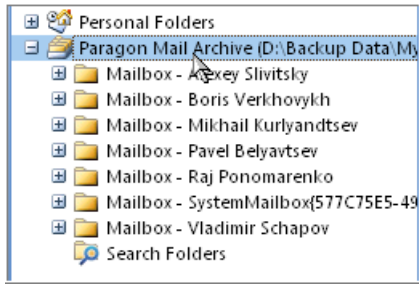
Processing a EDB file with logs is rather a time-consuming operation, as our program has to play back all logs to open the mail database correctly, i.e. with all the latest changes reflected. Anyway everything depends on the number of processed files and the system performance.

4. If you've got to do with a private store, you can select a mailbox you want to work with by marking a checkbox next to it. You're also free to select several mailboxes. If working with a public store (a "Public Folders" database) – this option will be unavailable.



One MS Exchange message store may contain hundreds of mailboxes. Our program enables to select mailboxes to be shown in MS Outlook, so you can improve usability and cut the system resources.

5. Click **Finish** to complete the wizard.
6. As a result you'll get a new mail folder called **Paragon Mail Archive**.

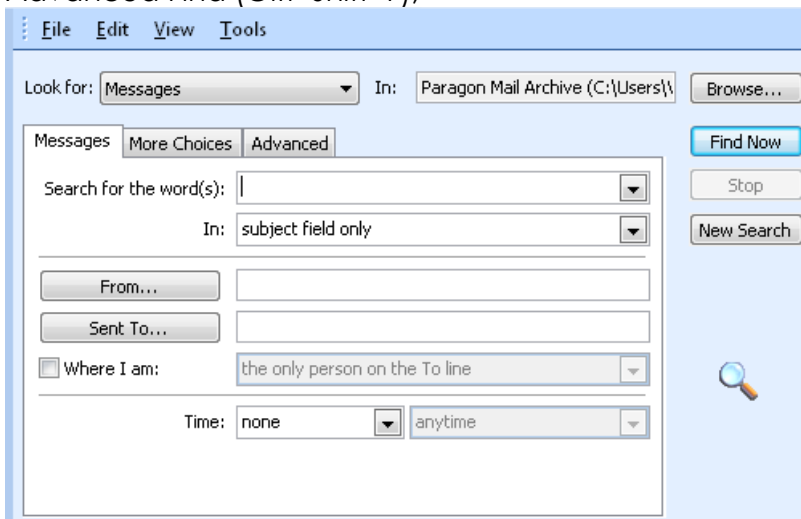


A EDB file can be opened in the read-only mode so you won't be able to save any changes back to it.

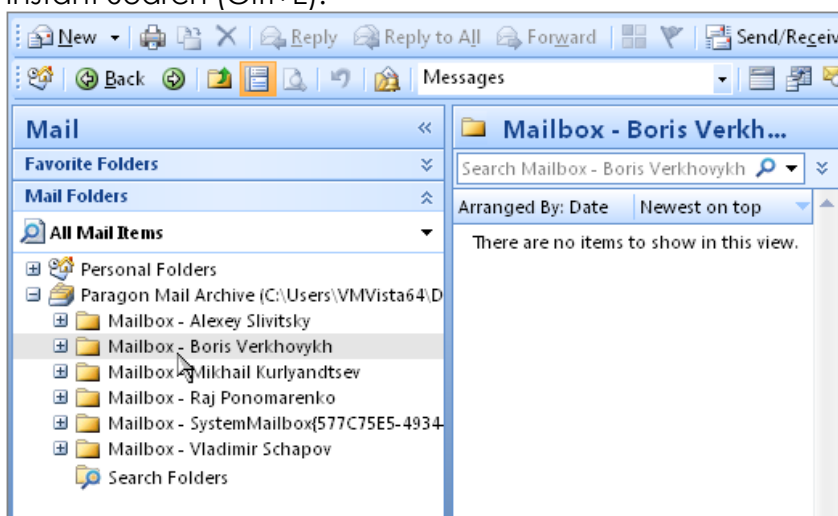
Searching for lost email items

Paragon Exchange Granular Recovery enables to use all search and preview capabilities of MS Outlook when working with EDB files.

- Advanced Find (Ctrl+Shift+F);



- Instant Search (Ctrl+E).



To know more on the subject, please consult documentation that comes with MS Outlook.

Exporting lost email items

Paragon Exchange Granular Recovery enables to export email items from EDB files just the way it's done with ordinary MS Outlook mailboxes, so you can export data to the active MS Exchange Server, or a standard PST, or even a file of the desired extension (HTM, MSG, TXT, etc.):

For a single message

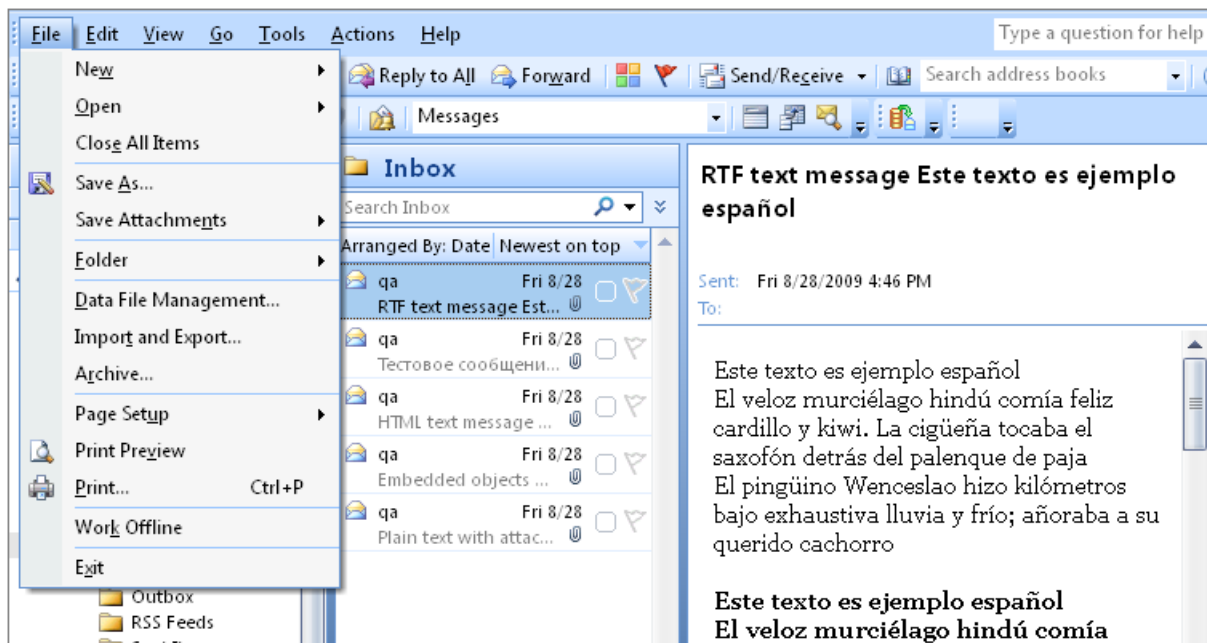
- Export the selected message to a standard PST or Exchange mailbox with the drag-and-drop technique;
- Save the selected message as a file (HTM, MSG, TXT, etc.) through the **Save As...** dialog (**File > Save As...**);

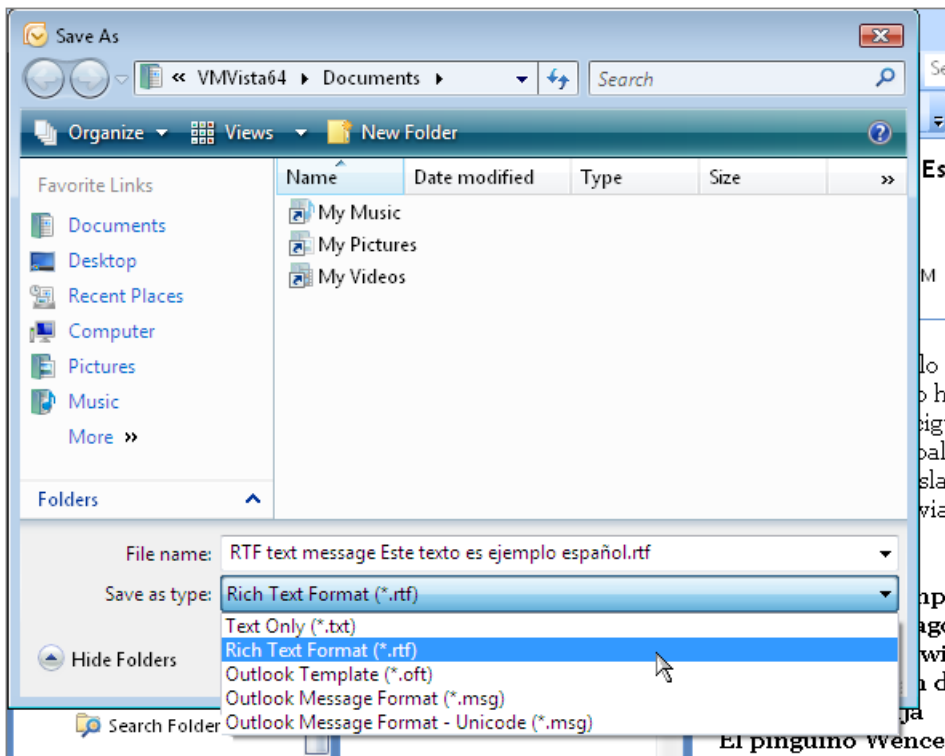
For multiple messages/folders

- Export multiple messages/folders to a standard PST or Exchange mailbox with the drag-and-drop technique;
- Export multiple messages/folders to a new PST file through the **Import and Export...** wizard (File > Import and Export... > Export to a file > Personal Folder File).

Exporting a single message

To export a single message from a EDB file, either save the selected message as a file (**File > Save As...**),





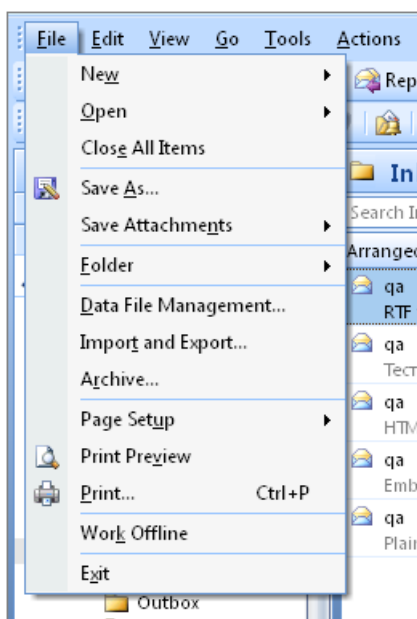
or drag-and-drop it to a standard PST folder, Exchange mailbox, or any other folder of the file system (in this case the message will be saved as an **.msg** file).



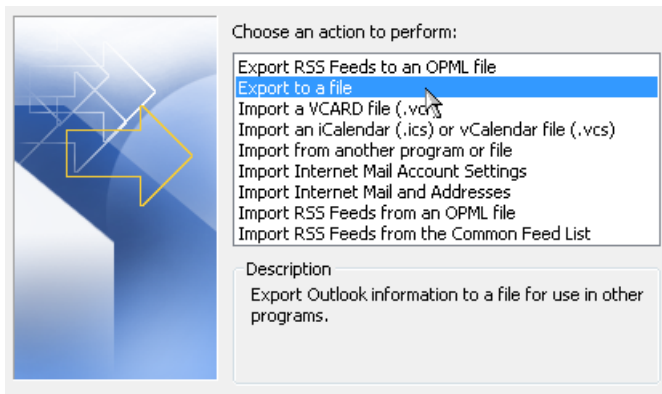
To know more on the subject, please consult documentation that comes with MS Outlook.

Exporting multiple messages/folders

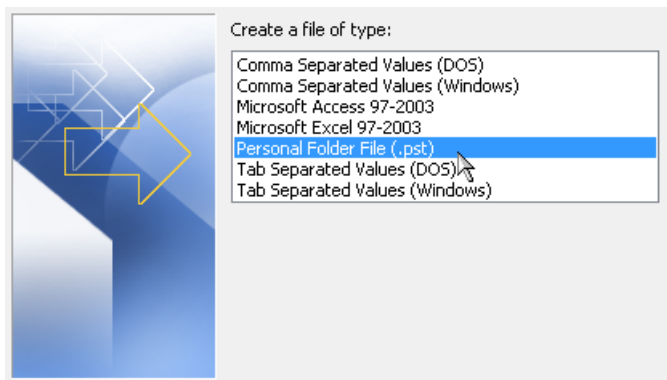
1. Launch **Import and Export** wizard (**File > Import and Export...**).



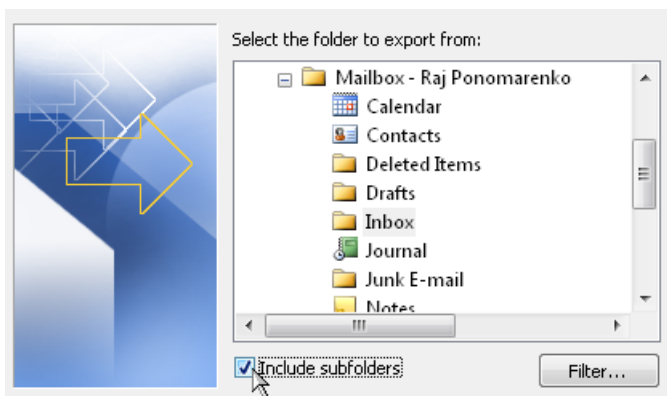
2. Select **Export to a file**.



3. Then select **Personal Folder File (.pst)**.



4. Select a mailbox or a folder to export from.



5. Set a filter if necessary by clicking the **Filter** button.

The screenshot shows the 'Advanced' tab of the Outlook search filters dialog. It includes the following fields and options:

- Search for the word(s):** An empty text box with a dropdown arrow.
- In:** A dropdown menu currently set to 'subject field only'.
- From...:** An empty text box.
- Sent To...:** An empty text box.
- Where I am:** A dropdown menu set to 'the only person on the To line'.
- Time:** Two dropdown menus, the first set to 'none' and the second set to 'anytime'.

6. Choose how to treat duplicates.

The screenshot shows the 'Save exported file as' dialog box. It includes the following elements:

- Save exported file as:** A text box containing the path 'data\Local\Microsoft\Outlook\backup.pst' and a 'Browse...' button.
- Options:** A section with three radio button options:
 - Replace duplicates with items exported
 - Allow duplicate items to be created
 - Do not export duplicate items

7. On the last page you've got the option to set a password to the newly created PST file.

The screenshot shows the 'Personal Folders File' dialog box. It includes the following fields and options:

- File:** A text box containing the path 'C:\Users\WMVista64\AppData\Local\Microsoft\O'.
- Name:** A text box containing 'Personal Folders'.
- Format:** A dropdown menu set to 'Personal Folders File'.
- Password:** A section with two text boxes labeled 'Password:' and 'Verify Password:'.
- Save this password in your password list

or drag-and-drop the selected messages to a standard PST folder, Exchange mailbox, or any other folder of the file system (in this case the message will be saved as an **.msg** file).



To know more on the subject, please consult documentation that comes with MS Outlook.

Conclusion

With Paragon Drive Backup™ and Paragon Exchange Granular Recovery a system administrator can redefine traditional protection of MS Exchange 2007 by doing away with slow and unreliable “brick-level” mailbox backups while still providing the option to recover not only the whole mail server, but also a single mailbox, folder, message, contacts item, note, etc. Unlike 3rd party solutions of similar functionality, and rather complicated procedures described in Microsoft best practices, our solution is simple and user-friendly and it can boast full integration with MS Outlook. Moreover with the option to play back logs from incremental and differential backups of MS Exchange, our program offers to restore a mail database with the latest changes reflected.