

A **Transend Corporation** White Paper



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Microsoft Exchange to **Novell GroupWise Migration
TA0751**

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Contents

Introduction	3
Requirements	3
Microsoft Exchange Server.....	3
Novell GroupWise	3
System Requirements.....	3
Permissions	4
Exchange 2003/2007 Server	4
Novell GroupWise Server.....	5
Trusted Mode or Proxy Access	5
Message Folder Migration	7
Migrating Messages from Outlook/Exchange to GroupWise IMAP4.....	7
Address Book Migration	9
Calendar Migration	10
Checklist / Tasks	10
Program Options	11
Batch Mode Processor	11
Directories.....	12
Project Template	14
Variables	15
Command Options	17
For More Information	18

Introduction

Transend Migrator is a Windows utility for converting messages, address books, calendars, and tasks between varieties of email systems. This white paper summarizes how to migrate messages from Microsoft Exchange Server into Novell GroupWise versions 5.5 and greater by using Transend Migrator.

Requirements

Microsoft Exchange Server

- Logon ID and Server Address
- Receive-As Permissions on Exchange Server Mailbox Database
- Microsoft Outlook

Novell GroupWise

- Novell GroupWise 5.5 or greater
- Novell Client
- GroupWise [API Gateway](#) for Calendars

System Requirements

The following hardware and software are the minimum requirements to use Transend Migrator.

Minimum Requirements

- Pentium III or higher
- 16MB of RAM (256 or greater is recommended)
- Microsoft Windows 98 Second Edition, Windows Millennium Edition, Windows 2000, Windows XP Professional or Home Edition, and Windows Vista (certified)
- 40 MB of available hard disk space and enough space to store migrated files

Recommended Requirements

- Windows XP Professional or Windows Vista with current service packs
- Pentium 4, 1.7GHz system or greater
- 512MB RAM or greater (Optimized for your motherboard)
- 50% or more free space on hard drive and enough space to store data files
- High performance 10/100/1000 Network PCI/PCIe/SCSI network adapter
- Independent video card (does not borrow from system RAM)

[Download Article: TA1951](#) for Suggested Performance Guidelines

Permissions

Exchange 2003/2007 Server

The account you use to migrate with must be an active member of the domain you are converting from. This AD account must have, at a minimum, Receive-As permissions on the Exchange Information Store or Mailbox Database.

A good practice is to create an AD Domain group and then add users to that group who will be performing the migration of multiple accounts. Give that group the Receive-As permissions on the Exchange Information Store where the user accounts are located.

Exchange 2003

After creating a Migration Group, start the Microsoft Exchange System Manager application.

1. Locate the Exchange Server and its Information Store
2. Right Click on the Information store and select Properties
3. Select the Security Tab
4. Select the group or account that the Migrator account belongs to. In this example, the Migration group will be given Send-As and Receive-As permissions
5. In the Permissions window, scroll down and allow Send-As and Receive-As privileges for your group or specific account
6. Apply these changes and exit out of the Exchange Administrator.

Exchange 2007

In Exchange 2007, Receive-As permissions can be set by using the Exchange Management Shell. The following command line is the syntax you can use to give a Migration group or user full access to the Mailbox database:

```
Add-ADPermission -Identity "Mailbox Store" -User "Trusted User" -ExtendedRights Receive-As
```

The Mailbox Store is the Exchange Server mailbox database, and the Trusted User is the Active Directory user or Group, which will be given permissions. For more information about giving access to the Mailbox Database please review the Microsoft Technet Article located at: <http://technet.microsoft.com/en-us/library/aa996343.aspx>

Testing Permissions

It is recommended that you attempt to access multiple Exchange Accounts using the Outlook email client to ensure the Migrator account has the proper security permissions applied. To perform this test, log into Windows using an AD account who is a member of the Migration group or who has been given the above permissions. Then, go into the

control panel, select the Mail icon, and create a new profile for a user other than the current logged on user. Set Outlook to prompt for profiles.

Start Outlook (you might want Outlook to prompt for profiles). Select the test account and verify that you can log into that account directly without being prompted for a password. If you are not prompted for a password then the permissions have been set. You can now continue migrating from multiple users via the Graphical version of Transend, or via the Batch Mode Processor.

If you are still prompted for a password, then it is possible that you have multiple Windows Servers that have Active Directory, and you may need to wait 20 minutes or more for the servers to synchronize. Otherwise, verify that your account has the proper permissions, and test again.

Novell GroupWise Server

Trusted Mode or Proxy Access

Normally, you will use a logon ID and password in order to connect to the GroupWise email server. If you are migrating into multiple GroupWise accounts you may use Trusted or Proxy access. Trusted Access allows you to perform migrations for users without having to know each user's password. You must have admin permission on the GroupWise server in order to use Trusted Access. A user ID is still required, and you must be running GroupWise 6.5 or greater for this capability to be used. Proxy access does not require admin permission. Instead, the alternate user account you will be migrating into must give you proxy access to their data.

Proxy Access

GroupWise has a feature allowing one user to open email for another user. This is called Proxy Access and more information can be found on Proxy Access in the GroupWise documentation. Proxy access allows User A to grant access rights to User B, so that User B may read or create email for User A.

If proxy access has been given to the Admin performing the email migration then the Admin account will be able to convert email for users without knowing their password. It is recommended that you use Trusted Mode (see above), but if you are using a version of GroupWise older than 6.5 then Trusted Access mode is not an option. In that case, use Proxy Access or provide the user password.

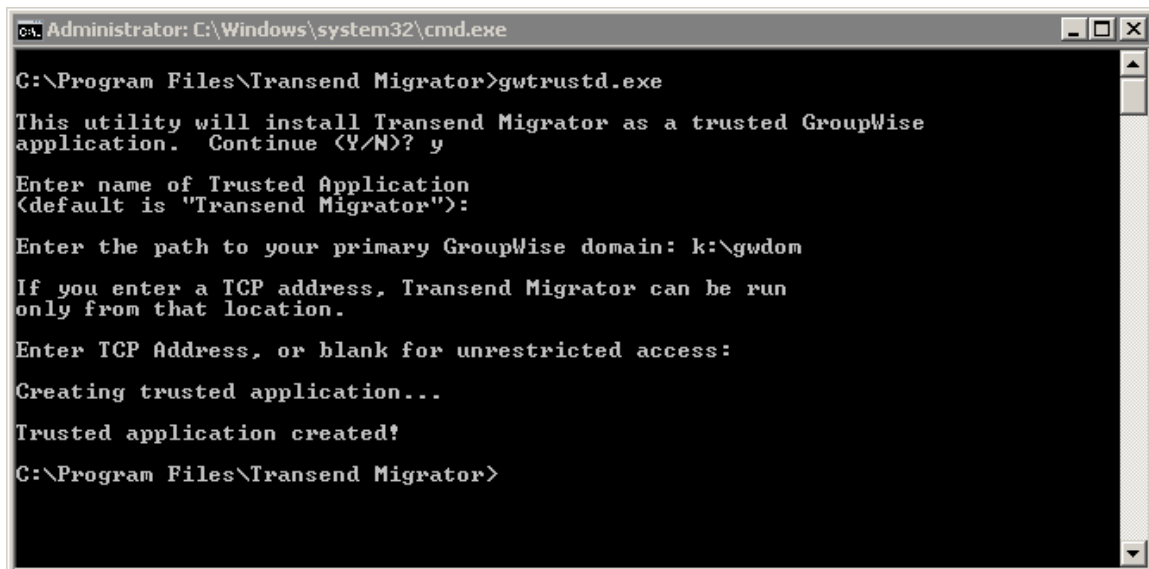
In Transend Migrator, to perform a proxy login, modify the syntax of the "GroupWise User" field. Instead of using a single User ID, enter "UserB for UserA", where UserB is the person who has been granted proxy rights, and "UserA" is the person who owns the mailbox. The password required will be that of UserB. In batch mode, this syntax is used for the "FromDatabase" field.

Trusted Access (GroupWise 6.5+)

Perform the following steps to configure Transend Migrator as a Trusted application.

This procedure requires Netware Admin access to the GroupWise email server. Contact your Network Administrator if you need Admin Access.

1. Download the Transend Trusted package from <http://www.transend.com/ftp/gwtrustd.zip>. This package contains two files, gwtrustd.exe and gwtapp.dll.
2. Place gwtrustd.exe in the same directory as Transend Migrator, and place gwtapp.dll in a directory on your system path, for example C:\Windows\System32.
3. Log into the Novell Network as administrator
4. Map a drive to the location of where the GroupWise domain and post office can be found. The Trusted application requires a mapped drive and it needs to know where the domain files are located.
5. Open a DOS window, and change directories so that the current directory is the Transend Migrator installation directory. Run gwtrustd.exe. This utility will ask you for the path to the GroupWise domain directory. This is the directory in which you can find the files GWDOM.DC and GWPO.DC. The utility optionally allows you to enter an IP address.
6. Enter optional settings or hit enter to complete the Trusted installation.
7. When it completes successfully, the effect of running this utility is to set Transend Migrator as a Trusted application. It creates inside the Transend Migrator installation directory the file "gwappkey.dat", which contains the key information that Transend Migrator uses to enable Trusted mode.



```
Administrator: C:\Windows\system32\cmd.exe
C:\Program Files\Transend Migrator>gwtrustd.exe
This utility will install Transend Migrator as a trusted GroupWise
application. Continue (Y/N)? y
Enter name of Trusted Application
(default is "Transend Migrator"):
Enter the path to your primary GroupWise domain: k:\gwdom
If you enter a ICP address, Transend Migrator can be run
only from that location.
Enter ICP Address, or blank for unrestricted access:
Creating trusted application...
Trusted application created!
C:\Program Files\Transend Migrator>
```

Important

At this point you can run Transend Migrator as a Trusted application; however, you must tell Transend Migrator that it is in Trusted mode by using the **/trusted** switch (when using the GroupWise Client) or the **/gwtrusted** switch when connecting to GroupWise using the GroupWise IMAP protocol.

Message Folder Migration

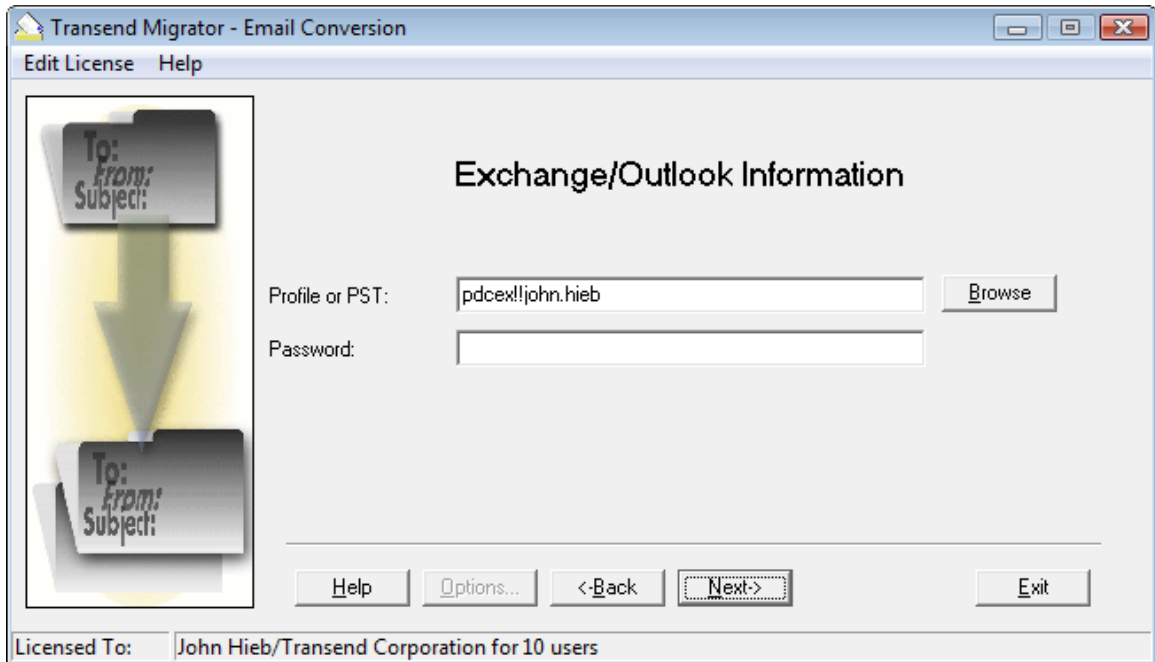
Enable the IMAP4 protocol on the GroupWise email server and then use the IMAP4 Server conversion choice for GroupWise. The IMAP protocol is also the preferred conversion choice for migrating live messages into Novell GroupWise because it is up to 35% faster, and because it avoids potential conflicts between Microsoft Outlook and GroupWise.

Transend Migrator requires that the IMAP server be at version 4.1 or above. The migration machine must have a TCP/IP connection to the server, and there must be a valid email account on the server. Before migrating with Transend Migrator, test your IMAP account using a standard email client. This will ensure there is a valid connection.

Migrating Messages from Outlook/Exchange to GroupWise IMAP4

The following Example migrates from Exchange/Outlook.

1. Start Transend Migrator
2. Select Messages from the default screen
3. Press the Options button to set additional options. Review the *General* tab, and the tabs related to your source and destination application
4. Select Exchange/Outlook from the Migrate From: drop down selection box
5. Select IMAP4 Server from the Convert To: drop down selection box to convert into GroupWise using the IMAP4 protocol
6. Press Next to continue



7. Enter the Outlook Profile, filename of the Personal Folders file, or browse to locate and select the Personal Folders File.

Default **Accept the default profile, which will be filled into the Profile or PST text box.**

Clear the Text Box Clear the information inside the Profile or PST text box. Then, press Next to continue. Transend Migrator will display all available Outlook profiles and allow you to choose any of those accounts to migrate from

Direct Syntax You can migrate directly from the Exchange Server by using special syntax. This syntax will work if Outlook has been setup with at least one active profile into an Exchange account. After doing that the following syntax will allow you to migrate directly from an account without having to create a profile for it.

<servername>!!<username>

For example, if your servername is Plato and the username is jsnuffy enter in the information as follows:

Plato!!jsnuffy

This will allow you to migrate from the Exchange server.

PST file

Type in the path and filename for the Personal Folder File (PST) or browse and select an existing PST file.

8. Press Next continue
9. Enter the User Name required for the destination account
10. Enter the DNS or IP Address of the GroupWise server
11. Enter the password for the destination account
12. Press Next to continue
13. Select the folders to migrate
14. Press Next to continue
15. Set Miscellaneous Options, or keep the default settings to migrate all items
16. Press start to begin migration

Address Book Migration

In order to migrate Contacts into a GroupWise account you will need to have the GroupWise email client (API) installed. You will also need to have the Outlook email client (API) installed. Most of the time, you will be able to migrate contacts directly from Outlook to GroupWise. But, if there are conflicts, you may want to perform a two step migration from Outlook. This means, you may have to migrate from Outlook to a NAB file, and then from the NAB file to the destination GroupWise account.

The following Example migrates Contacts from an Exchange account directly into Novell GroupWise using the Outlook and GroupWise API.

1. Start Transend Migrator
2. Select Address Books
3. Press the Options button to customize your migration
4. Press Next to continue
5. Select Exch/Outlook from the Convert From: drop down selection box
6. Select GroupWise from the Convert To: drop down selection box
7. Press Next to continue
8. Enter the Outlook Profile, filename of the Personal Folders File, or browse to locate and select the Personal Folders File. You must have Receive-As permissions on the Exchange account. The password is only required on password protected PST files.
9. Enter the Contact folder name if it is something other than the default Contacts.
10. Press Next continue
11. Enter the name of the destination Novell GroupWise personal address book. The default is Frequent Contacts.
12. Enter the GroupWise user name
13. Enter the password for the GroupWise user
14. Press Start to begin address book migration

Calendar Migration

Transend Migrator does not migrate calendar entries into GroupWise directly. Instead, it will migrate calendar entries into the Novell GroupWise API directories, and the GroupWise Gateway will import them. The GroupWise Gateway API is an NLM running on the GroupWise messaging server. At determined intervals, it will look into the predefined directory locations for items to import. When it finds files to import it looks for the account owner and then places those items into the specified account. The GroupWise Gateway API must be loaded on the Novell GroupWise system. Contact Novell Technical Support on how to setup the Gateway API.

Contact Novell Technical Support for more information on how to install and configure the Gateway API. More information can be found about the Gateway files by visiting [Novell's web site](#).

The following Example migrates Calendar Entries into GroupWise Gateway Directories

1. Start Transend Migrator
2. Select Calendar Entries
3. Press the Options button to customize your migration
4. Press Next to continue
5. Select Outlook Calendar from the Convert From: drop down selection box
6. Select the GroupWise Gateway from the Convert To: drop down selection box
7. Press Next to continue
8. Enter the Outlook Profile, filename of the Personal Folders File, or browse to locate and select the Personal Folders File. You must have Receive-As permissions on the Exchange account. The password is only required on password protected PST files
9. Select "Upcoming events only" to migrate only future events
10. Press Next continue
11. Enter the GroupWise User Name and the Directory for the Gateway files. This location is normally on a captured drive pointing to a location on the Novell GroupWise server. This location is where the GroupWise Gateway expects to find the files.
12. Press Start to begin migration

Checklist / Tasks

Transend Migrator does not migrate Tasks entries into GroupWise directly. Instead, it will migrate Tasks entries into the Novell GroupWise API directories, and the GroupWise Gateway will import them. The GroupWise Gateway API is an NLM running on the GroupWise messaging server. At determined intervals, it will look into the predefined directory locations for items to import. When it finds files to import it looks for the account owner and then places those items into the specified account. The GroupWise Gateway API must be loaded on the Novell GroupWise system. Contact Novell Technical Support on how to setup the Gateway API.

Contact Novell Technical Support for more information on how to install and configure the Gateway API. More information can be found about the Gateway files by visiting [Novell's web site](#).

Migrating To GroupWise Gateway Directories

The following Example migrates Tasks items into GroupWise Gateway Directories.

1. Start Transend Migrator
2. Select Tasks/To Do
3. Press the Options button to customize your migration
4. Press Next to continue
5. Select the Outlook Tasks from the Convert From: drop down selection box
6. Select the GroupWise Gateway from the Convert To: drop down selection box
7. Press Next to continue
8. Enter the Outlook Profile, filename of the Personal Folders File, or browse to locate and select the Personal Folders File. You must have Receive-As permissions on the Exchange account. The password is only required on password protected PST files.
9. Press Next continue
10. Enter the GroupWise User Name and the Directory for the Gateway files. This location is normally on a captured drive pointing to a location on the Novell GroupWise server. This location is where the GroupWise Gateway expects to find the files.
11. Press Start to begin migration

Program Options

Program Options are additional settings, which allow you to customize your migration. Program Options are set using the Graphical User Interface version of Transend Migrator, or they are set by using the switches associated with each option. Each program option has a command line switch associated with it, which you can use with the Batch Mode Processor, Windows shortcut, or directly into the Batch File Creator tool. Remember to review the available program options for your particular migration project. Review the General Options section, and the sections related to your source application and GroupWise.

Batch Mode Processor

The Transend Batch File Creator helps simplify the batch conversion process because it uses a graphical user interface to organize all the components required for a successful batch job. You can still create the batch file and DAT file manually; however, it is much easier to do with the Batch File Creator tool.

1. Perform a single conversion with the graphical version of Transend. By doing so, a sample DAT file called lastrun.dat will be created inside the Transend application data directory. This file will represent the keywords used in that single conversion.
2. After successfully converting data, close Transend Migrator and start the Transend Batch File Creator.
3. Select the Directories tab and enter in the required and optional path information for your conversion project.

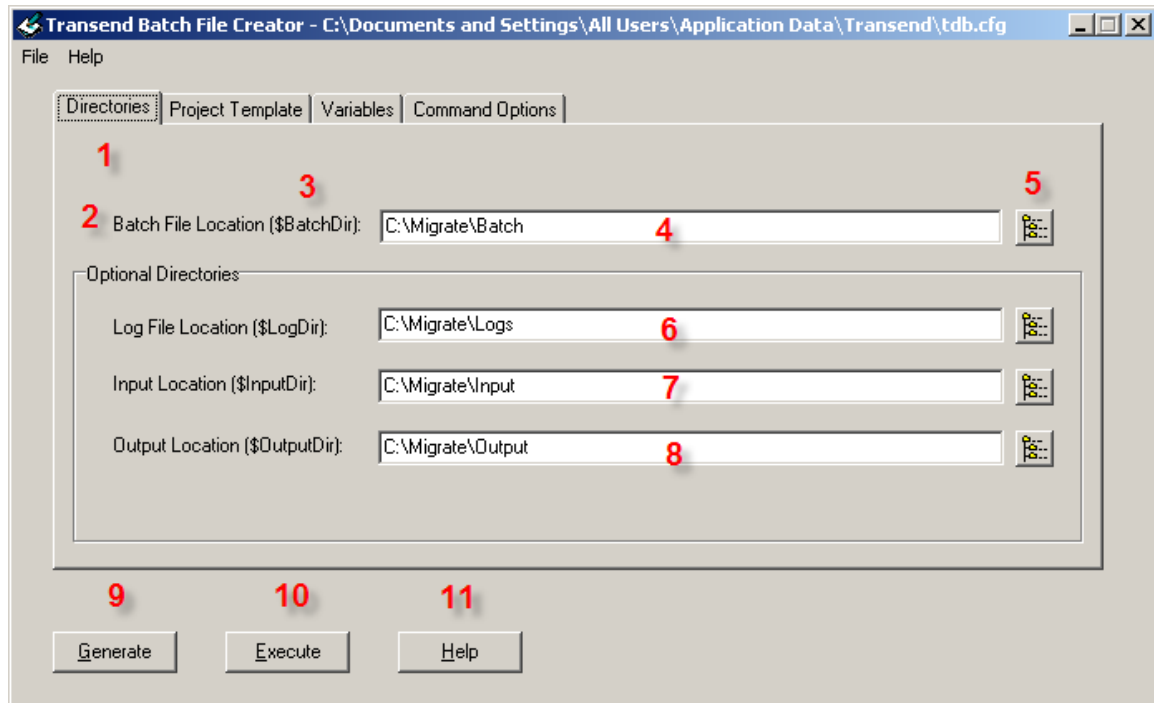
4. Select the Project Template tab and select the Import Last Run button. This button imports the contents of the lastrun.dat created in step 1.
5. While in the Project Template tab, add or delete any items you may need for your conversion project. Determine what settings will be constant for everyone, and which items need to be assigned variables.
6. While in the Project Template tab substitute keyword items with a variable by using \$var1, \$var2, \$var4 for example. These variables can represent source account names, passwords, and destination account names, etc.
7. Select the Variables Tab and enter in or import in values for the variables you declared in the Project Template tab.
8. Select the Command Options tab and enter in any optional switches, pre-processing, or post-processing commands. At a minimum, you might want to enable logging by typing in /LX and enable screen logging by using /SL.
9. Once the required information is entered save the configuration. Then, generate the batch and DAT files by selecting the Generate button. The Generate button places the batch and DAT file into the location defined on the Directories tab.
10. After the batch and DAT file(s) are generated you can begin the conversion process by selecting the Execute button. Alternately, select the auto.bat file located in the batch file directory.

Note

Each time a change is made on any of the tabs you'll need to Generate the files again for the changes to take place. Review each of the following sections for details on how to use the Transend Batch File Creator.

Directories

The Directories tab is used to define where the batch files and DAT files, log file location, and optional input/output directories.



1. Select the Directories Tab
2. Enter the path to where the batch file and DAT files will be created. This is the only required location. If the location does not exist then it will be created for you.
3. Each location is associated with a variable. These variables can be used in your batch file or DAT file.

Note

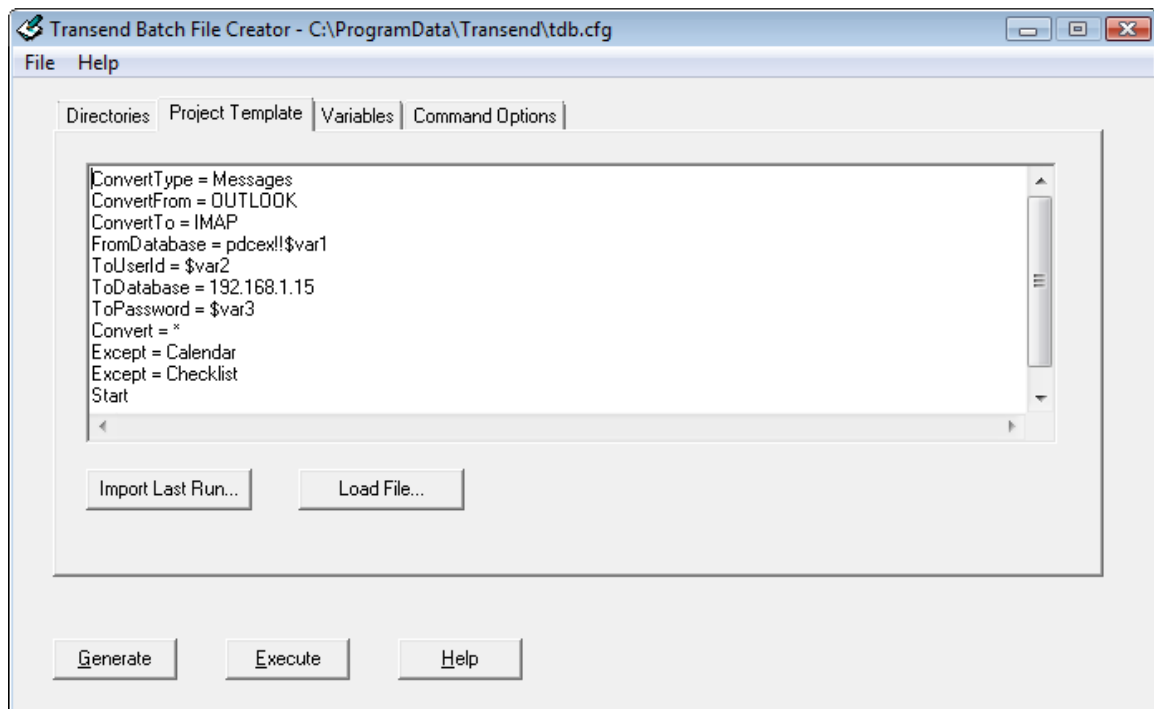
The Batch File Creator will always supply the trailing backslash after the directories even if they are not entered here. In other words, if the batch file location is entered as C:\Migrate\Batch the variable will record the path as C:\Migrate\Batch\ (notice the trailing backslash).

4. Type in the path to the log file folder into the text box or browse to the desired folder and select it. This is an optional field.
5. Optionally, select this button to select an existing folder.
6. Type in the path to the Log File folder or browse to the desired folder and select it. This is an optional field.
7. Type in the path to the input folder or browse to the desired folder and select it. This is an optional field.
8. Type in the path to the output folder or browse to the desired folder and select it. This is an optional field.
9. Select this button to generate the batch file script and DAT files. Remember, each time you make a change you will need to regenerate the batch file script and DAT files. If the batch file and DAT file exist then they will be overwritten.

10. Select this button to execute and begin the batch process. The Execute button will start the auto.bat file located in the path defined in Item 4. Optionally, you can run the batch process by selecting the auto.bat file located in the directory defined by Item 4.
11. Select this button to get context sensitive help for this subject.

Project Template

The Project Template is a text box that allows you to enter in the required information for the DAT file. The DAT file is the file that tells the Batch Mode Processor what to convert. The Project Template contains information about what you are converting, source account information, destination account information, and any exceptions required for the conversion project.

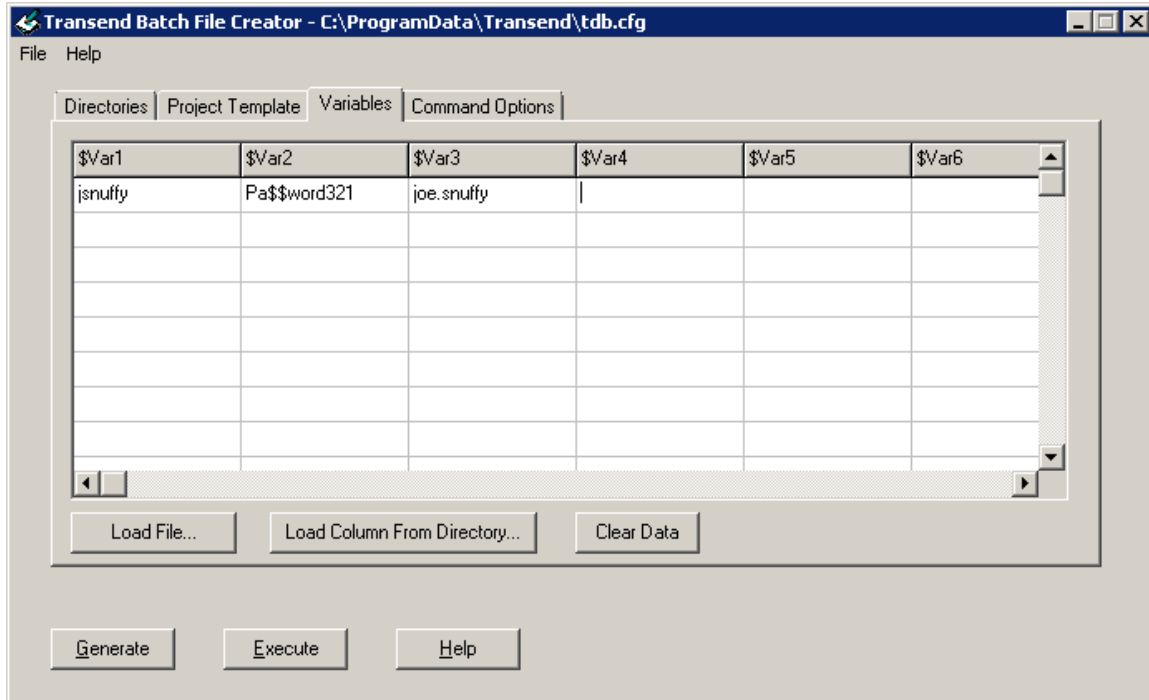


1. Enter the information required for your conversion project.
2. Optionally, use the Import Last Run button to import a copy of the lastrun.dat file (if it exists). To create a lastrun.dat file perform a single conversion with the Transend Migrator graphical program. The lastrun.dat file will be created for you after completion.
3. Use the Load File button to import another DAT or TEXT file if one exists. These text files are user created.
4. Select the Generate button to generate the batch file script and DAT files. Remember, each time you make a change you will need to regenerate the batch file script and DAT files. If the batch file and DAT file exist then they will be overwritten.
5. Select the Execute button to execute and begin the batch process. The Execute button will start the auto.bat file located in the path defined on the Directories Tab

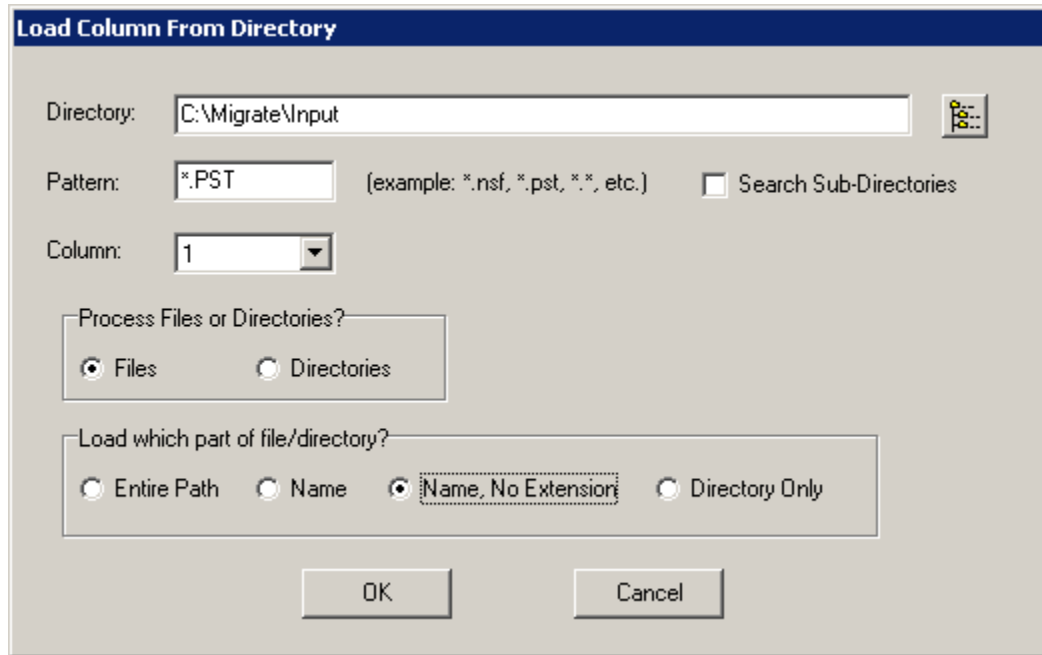
- and in Item 4. Optionally, you can run the batch process by selecting the auto.bat file located in the directory defined by Item 4.
6. Select the Help button to get context sensitive help for this subject.

Variables

Variables are required for the Project Template and they are defined here on the Variables tab. The Batch File Creator supports up to six variables and up to 64,000 rows. The variables are commonly used for source account information and destination account information, and are used when multiple accounts are converted.



1. Each column is a variable and each column is given a variable name such as \$var1. The variables represent values entered into the cells. For example, if the project template FromDatabase keyword = \$var1 then each value in the \$var1 column will be converted.
2. Optionally, rather than typing in each variable you can import a comma separated value file (CSV), which contains the values needed for your particular conversion.
3. The Load Column from Directory button loads directories or specific files. This is optional. Select the desired options to populate the variable column.
4. The Clear Data button clears the contents of all the columns and rows.

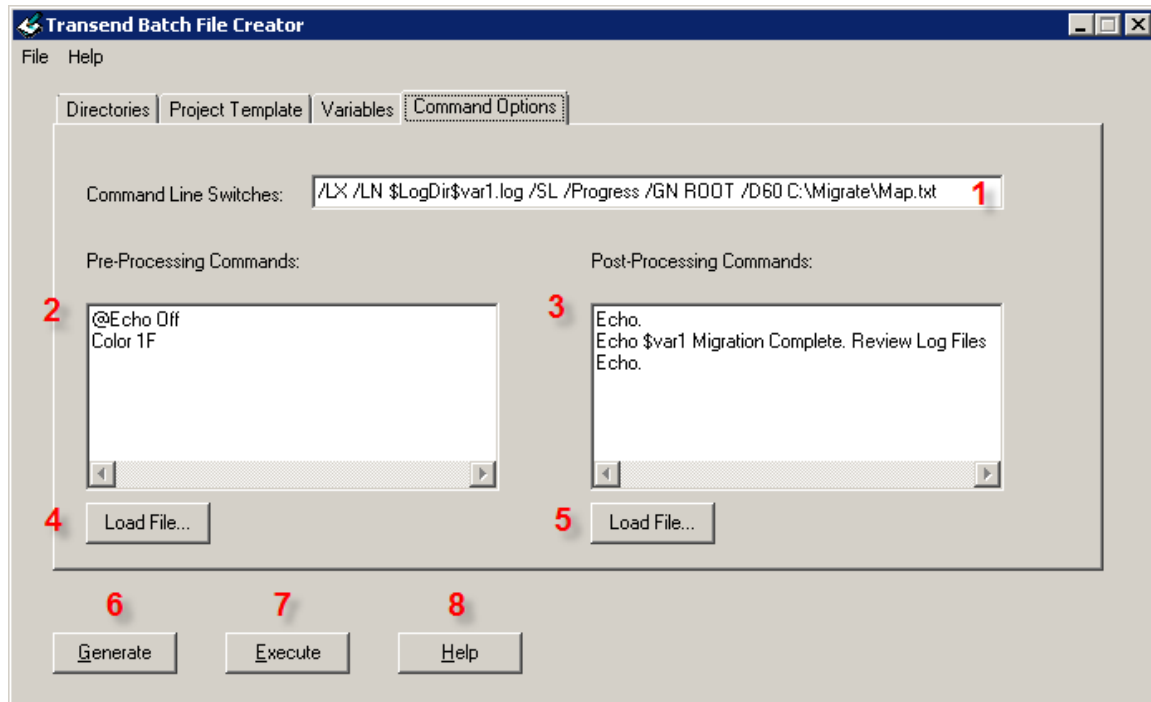


The Load Column from Directory Window will load a given column (variable) based on a wildcard file specification. For example, you can find *.PST files in a directory and place each filename into \$var1. Additionally, you can place directories into a given variable.

5. Select OK to return to the Variables interface
6. Select the Generate button to generate the batch file script and DAT files. Remember, each time you make a change you will need to regenerate the batch file script and DAT files. If the batch file and DAT file exist then they will be overwritten.
7. Select the Execute button to execute and begin the batch process. The Execute button will start the auto.bat file located in the path defined on the Directories Tab and in Item 4. Optionally, you can run the batch process by selecting the auto.bat file located in the directory defined by Item 4.
8. Select the Help button to get context sensitive help for this subject.

Command Options

Command Options are optional items used to customize the conversion project. Command line switches are used to fine tune the conversion. At a minimum, the logging (/LX) and /SL switches are recommended. Review the Program Options section of the help file for the General, Source and destination items related to your conversion project.



1. Enter the command option switches desired for your conversion project.
2. Enter any optional pre-processing commands.
3. Enter any optional post-processing commands.
4. Optionally, load a text file containing pre-processing commands.
5. Optionally, load a text file containing post- processing commands.
6. Select the Generate button to generate the batch file script and DAT files.
Remember, each time you make a change you will need to regenerate the batch file script and DAT files. If the batch file and DAT file exist then they will be overwritten.
7. Select the Execute button to begin the batch process. The Execute button will start the auto.bat file located in the path defined on the Directories Tab and in Item 4. Optionally, you can run the batch process by selecting the auto.bat file located in the directory defined by Item 4.
8. Select the Help button to get context sensitive help for this subject.

For More Information

This document is intended to provide an overview on how to migrate email items to Novell GroupWise from Microsoft Exchange/Outlook. For additional information, please contact:

Transend Corporation

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