How to transfer FSMO (Flexible Single Master Operations) Roles from Windows server 2000 to Windows Server 2003

Follow this Tutorial EXACTLY STEP BY STEP and you will have an easy move.

Transfer FSMO roles and GC from win server 2000 to win server 2003

a) Transfer the FSMO Roles to the new server.

(For more information, check this MS article)

There are 5 FSMO roles: Domain naming Master, Schema Master, RID Master, PDC Emulator and Infrastructure Master. There must be a domain controller that owns each one of those roles. These roles can be transferred to another Domain Controller either by using the MMC GUI tool or by using the ntdsutil.exe command line utility. Here are the steps to transfer FSMO roles by using the MMC tool:

Transferring RID, PDC, and Infrastructure Master roles:

- Click Start, point to Programs, point to Administrative Tools, and then click Active Directory Users and Computers.
- Right-click the icon next to Active Directory Users and Computers, and then click Connect to Domain Controller.

Note: If you are not on the domain controller where you want to transfer the role, you need to take this step. It is not necessary if you are connected to the domain controller whose role you want to transfer.

- Click the domain controller, which will be the new role holder, and then click OK.

- Right-click Active Directory Users and Computers icon and then click Operation Masters.

- In the Change Operations Master dialog box, click the appropriate tab (RID, PDC, or Infrastructure) for the role you want to transfer. You need to transfer all the 3 roles.

- Click Change in the Change Operations Master dialog box.

- Click OK to confirm that you want to transfer the role.

- Click OK.

- Click Cancel to close the dialog box.

Transferring the Domain Naming Master role:

- Click Start, point to Programs, point to Administrative Tools, and then click Active Directory Domains and Trusts.

- Right-click the Active Directory Domains and Trusts icon, and then click Connect to Domain Controller.

Note: If you are not on the domain controller where you want to transfer the role, you need to take this step. It is not necessary if you are connected to the domain controller whose role you want to transfer.

- Click the domain controller that will be the new role holder, and then click OK.

- Right-click Active Directory Domains and Trusts, and then click Operation Masters.

- In the Change Operations Master dialog box: click Change.

- Click OK to confirm that you want to transfer the role.

- Click OK.

- Click Cancel to close the dialog box.

Transferring the Schema Master Role:

You can use the Schema Master tool to transfer the role. However, the Schmmgmt.dll dynamic-link library must be registered in order to make the Schema tool available as an MMC snap-in.

Registering the Schema Tool:

- Click Start, and then click Run.

- Type **regsvr32 schmmgmt.dll**, and then click OK. A message should be displayed stating that the registration was successful.

Transferring the Schema Master Role:

- Click Start, click run, type **mmc**, and then click OK.

- On the Console menu click Add/Remove Snap-in.

- Click Add.

- Click Active Directory Schema.

- Click Add.

- Click Close to close the Add Standalone Snap-in dialog box.

- Click OK to add the snap-in to the console.

- Right-click the Active Directory Schema icon, and then click Change Domain Controller.

Note: If you are not on the domain controller where you want to transfer the role, you need to take this step. It is not necessary if you are connected to the domain controller whose role you want to transfer.

- Click Specify Domain Controller, type the name of the domain controller that will be the new role holder, and then click OK.

- Right-click Active Directory Schema and then click Operation Masters.

- In the Change Schema Master dialog box: click Change.

- Click OK.

- Click OK.

- Click Cancel to close the dialog box.

Transfer the Global Catalogue role:

- Click Start, point to Programs, point to Administrative Tools, and then click Active Directory Sites and Services.

- Under sites, expand your site name, then Servers and then your server name so that you can see NTDS Settings. Now right click on the NTDS Settings under the server that you want to demote (Win2K) and choose properties, in the window that appears, un-check Global Catalog and click OK.

- Now right click on the NTDS Settings under the server that you want to promote (Win2K3) and choose properties, in the window that appears, check Global Catalog and click OK.

- After making these changes wait about fifteen minutes till the Global Catalog replicates between domain controllers, after it you can continue with further configurations.

How to Migrate file server

,DHCP Server Migration,Domain controller diagnostics from windows server 2000 to windows server 2003

6. Transfer files/permissions over win server 2003

If you are using this server as file server you need to copy all your data in to the new win server 2003 with the following procedure

For this purpose you can use FSMT tool on Win2K3 server (FSMT cannot be run on Win2K), which can be downloaded from the Microsoft Website. Using FSMT all the shared files and folders can be transferred from the old Win2K server to the new Win2K3 server without losing the permissions on the shared folders.

If you want complete detailed Instructions how to use FSMT Check here

7. Take backup of win 2000 DHCP Server database.

- Run DHCPEXIM.EXE utility from MS Resource Kit (download from here)and export the required DHCP Scope(s) and configurations to a text file and copy this file on to the new win server 2003.

- Now, you can either disconnect the network cable or shutdown the win server 2000 completely. This server will again be used in the event of this migration failure.

8 . Authorize DHCP Server on win server 2003

- Click Start, point to All Programs, point to Administrative Tools, and then click DHCP

Note:- You must be logged on to the server by using an account that is a member of the Administrators group. In an Active Directory domain, you must be logged on to the server by using an account that is a member of the Enterprise Administrators group.

- In the console tree of the DHCP snap-in, expand the new DHCP server. If there is a red arrow in the lower-right corner of the server object, the server has not yet been authorized.

- Right-click the server object, and then click Authorize.

After several moments, right-click the server again, and then click Refresh. A green arrow indicates that the DHCP server is authorized.

9. Running domain controller (on win server 2003) diagnostics tools

From the command propmt, run DCDIAGS and make sure the command is completed successfully, without displaying any errors.If you want DCdiag GUI tool check here

Run adcheck (freeware tool from netiq) run through all the checks and make sure that the domain is healthy.

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How to view and transfer FSMO roles in the graphical user interface

View products that this article applies to.

This article was previously published under Q255690

Notice

This article applies to Windows 2000. **Support for Windows 2000 ends on July 13, 2010.** The Windows 2000 End-of-Support Solution Center is a starting point for planning your migration strategy from Windows 2000. For more information see the Microsoft Support Lifecycle Policy.

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SUMMARY

There are five Flexible Single Master Operations (FSMO) roles in a Windows 2000 forest. There are two ways to transfer a FSMO role in Windows 2000. This article describes how to transfer all five FSMO roles by using Microsoft Management Console (MMC) snap-ins. The five FSMO roles are:

- Schema Master - One master role holder per forest. The schema master FSMO role holder is the domain controller responsible for performing updates to the directory schema.

- Domain Naming Master - One master role holder per forest. The domain naming master FSMO role holder is the DC responsible for making changes to the forest-wide domain name space of the directory.

- Infrastructure Master - One master role holder per domain. The infrastructure FSMO role holder is the DC responsible for updating an object's SID and distinguished name in a cross-domain object reference.

- RID Master - One master role holder per domain. The RID master FSMO role holder is the single DC responsible for processing RID Pool requests from all DCs within a given domain.

- PDC Emulator - One master role holder per domain. The PDC emulator FSMO role holder is a Windows 2000 DC that advertises itself as the primary domain controller (PDC) to earlier

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Article Translations

Related Support Centers

- Windows 2000 Server
- Windows 2000
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version workstations, member servers, and domain controllers. It is also the Domain Master
Browser and handles password discrepancies.

For additional information about FSMO roles in Windows 2000, click the article number below to view
the article in the Microsoft Knowledge Base:

197132 Windows 2000 Active Directory FSMO Roles

Note To successfully perform the steps in this article, you must be a member of the Enterprise
Administrators group.

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Transferring FSMO Roles with MMC Tools

You can transfer all five FSMO roles through the MMC tool in Windows 2000. In order for a transfer to
work both computers must be available on-line. If a computer no longer exists, then the role must be
seized. To seize a role, you must use a utility called Ntdsutil. For additional information, click the
following article number to view the article in the Microsoft Knowledge Base:

255504 Using Ntdsutil.exe to Seize or Transfer FSMO Roles to a Domain Controller

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Transferring the Domain-Specific Roles: RID, PDC, and Infrastructure Master

1. Click **Start**, point to **Programs**, point to **Administrative Tools**, and then click **Active
   Directory Users and Computers**.
2. Right-click the icon next to **Active Directory Users and Computers**, and then click
   Connect to Domain Controller.**NOTE**: If you are not on the domain controller where you
   want to transfer the role ,you need to take this step. It is not necessary if you are connected
   to the domain controller whose role you want to transfer.

3. Click the domain controller which will be the new role holder, and then click **OK**.
4. Right-click **Active Directory Users and Computers** icon, and then click **Operation
   Masters**.
5. In the **Change Operations Master** dialog box, click the appropriate tab (**RID**, **PDC**, or
   Infrastructure) for the role you want to transfer.
6. Click **Change** in the **Change Operations Master** dialog box.

7. Click **OK** to confirm that you want to transfer the role.

8. Click **OK**.

9. Click **Cancel** to close the dialog box.

Transferring the Domain Naming Master role

1. Click **Start**, point to **Programs**, point to **Administrative Tools**, and then click **Active Directory Domains and Trusts**.

2. Right-click the **Active Directory Domains and Trusts** icon, and then click **Connect to Domain Controller**.**NOTE**: If you are not on the domain controller where you want to transfer the role ,you need to take this step. It is not necessary if you are connected to the domain controller whose role you want to transfer.

3. click the domain controller that will be the new role holder, and then click **OK**.

4. Right-click **Active Directory Domains and Trusts**, and then click **Operation Masters**.

5. In the **Change Operations Master** dialog box, click **Change**.

6. Click **OK** to confirm that you want to transfer the role.

7. Click **OK**.

8. Click **Cancel** to close the dialog box.

Transferring the Schema Master Role

You can use the Schema Master tool to transfer the role. However, the Schmmgmt.dll dynamic-link library must be registered in order to make the Schema tool available as an MMC snap-in.

Registering the Schema Tool

1. Click **Start**, and then click **Run**.

2. Type **regsvr32 schmmgmt.dll**, and then click **OK**. A message should be displayed stating that the registration was successful.

Transferring the Schema Master Role

1. Click **Start**, click **run**, type **mmc**, and then click **OK**.

2. On the **Console**, menu click **Add/Remove Snap-in**.

3. Click **Add**.

4. Click **Active Directory Schema**.

5. Click **Add**.

6. Click **Close** to close the **Add Standalone Snap-in** dialog box.

7. Click **OK** to add the snap-in to the console.

8. Right-click the **Active Directory Schema** icon, and then click **Change Domain Controller**.

   NOTE: If you are not on the domain controller where you want to transfer the role ,you need to take this step. It is not necessary if you are connected to the domain controller whose role you want to transfer.

9. Click **Specify Domain Controller**, type the name of the domain controller that will be the new role holder, and then click **OK**.

10. Right-click **Active Directory Schema**, and then click **Operation Masters**.

11. In the **Change Schema Master** dialog box, click **Change**.

12. Click **OK**.

13. Click **OK** .

14. Click **Cancel** to close the dialog box.

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REFERENCES For additional information about a related topic, click the following article number to view the article in the Microsoft Knowledge Base:

324801 How to view and transfer FSMO roles in Windows Server 2003

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APPLIES TO

- Microsoft Windows 2000 Server
- Microsoft Windows 2000 Advanced Server
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Keywords: kbenv kbhowtomaster KB255690

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Easy File Server Migration to win 2003 with FSMT

Many organizations today are migrating and consolidating older file servers to reduce total cost of ownership (TCO) and increase the efficiency of storage management and backup tasks. Microsoft Windows Server 2003 technologies deliver low TCO, reliable file services essential to enterprise computing infrastructures, and an exciting set of customer-focused services to increase return on investment (ROI) and enhance end-user productivity.

To make the file server migration and consolidation process easier, Microsoft has released the Microsoft File Server Migration Toolkit.

File Server Migration Toolkit

The File Server Migration Toolkit (FSMT) provides several tools that simplify the consolidation process and minimize the impact of consolidation on users.

Easy migration: FSMT helps the system administrator easily migrate and consolidate shared folders from servers running Windows NT® Server 4.0 or the Windows 2000 family of servers, to a server running Windows Server 2003 or Windows Storage Server 2003.

Less impact on end users and line-of-business applications: FSMT helps the system administrator configure new functionality in Distributed File System (DFS) to maintain the original Universal Naming Convention (UNC) path of files after they are moved to a new server. This reduces the impact of file server consolidation and migration, saves end users time spent searching for files, and ensures that line-of-business applications keep running.

    Download Microsoft File Server Migration Toolkit 1.0 from [here](#)

How to Use Microsoft File Server Migration Toolkit (FSMT)

After you install the utility on the target server(win 2003 server), perform the following steps

Log on to the target server as an Administrator (and ensure the account also has local Administrator rights on the source server) and start the Microsoft File Server Migration Wizard (Start, Microsoft File Server Migration Toolkit, File Server Migration Wizard).

On the Welcome page, click New to start a new migration project.

Click Next on the introduction screen.

Select a name for the project and a location to save the settings. By default, the folder C:\FileServerMigration is selected. Click Next.

If you want to keep the existing UNC paths, you need to specify the DFS root server. In this example, we won't use that functionality, so clear the "Use the following DFS root server" check box and click Next.

Select the location for the migrated content to be copied to and click Next.
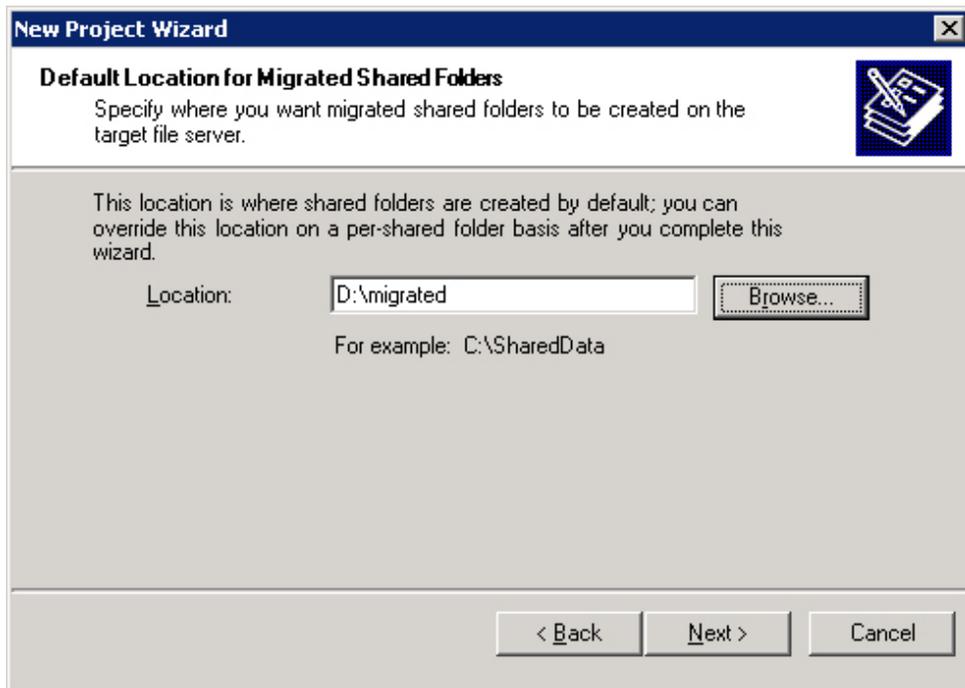
Click Finish at the project summary window.
You must now add the servers from which you want to migrate data by clicking the Add Server button.
Enter the name of the server and click OK, as the figure shows. Repeat this step for each server you want to add.
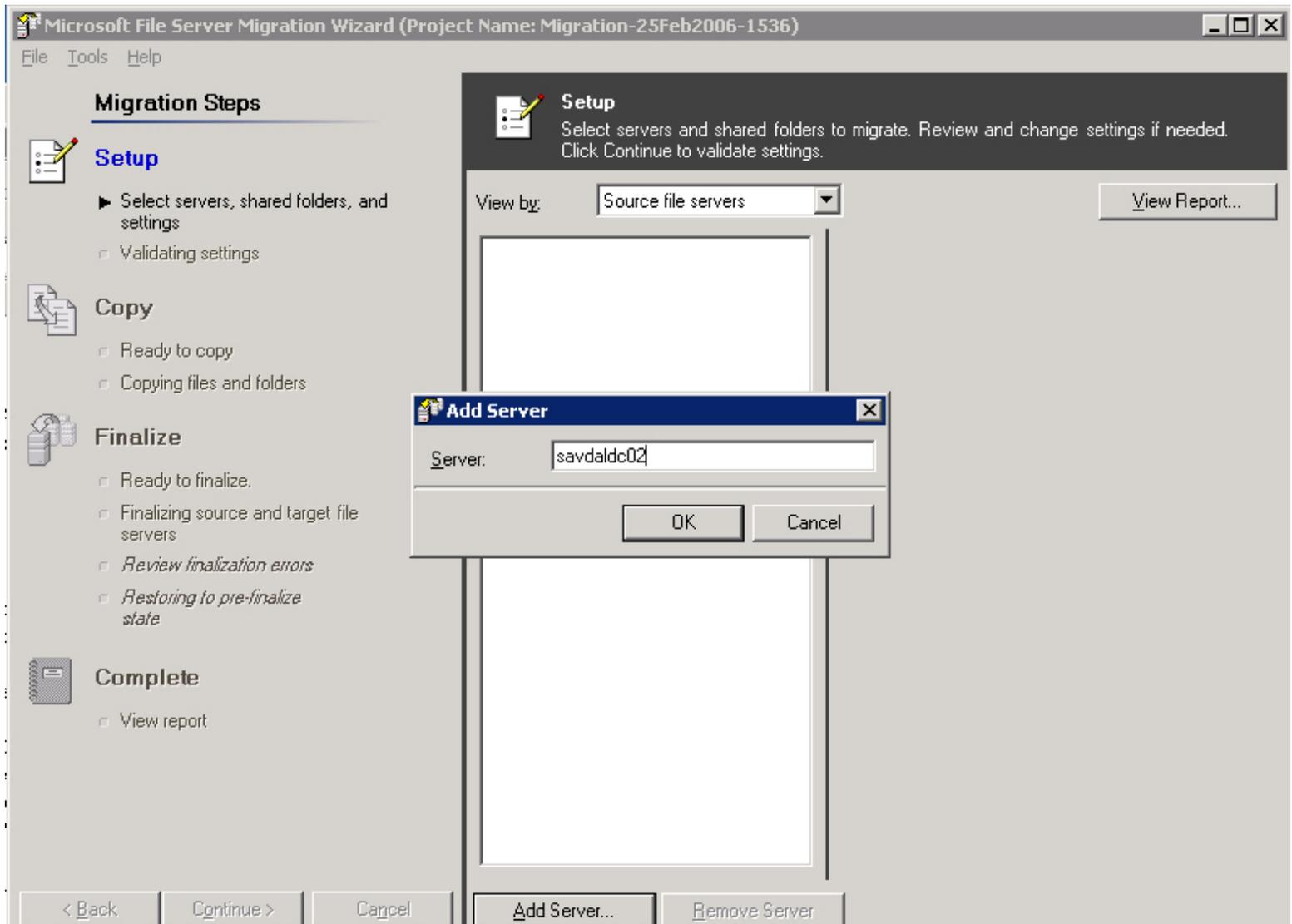
You can expand each added server to view the shares it plans to migrate and clear the check boxes as desired. You can also set the options to stop sharing the original source once the data has been migrated and to migrate security settings.
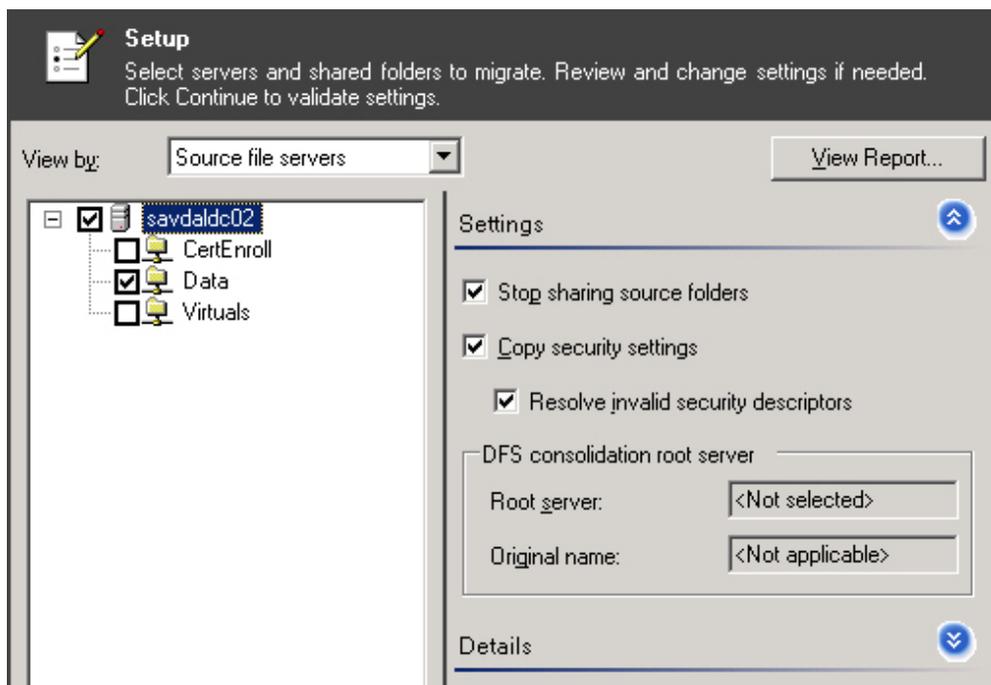
After you've selected all servers and shares, click Continue.

Once settings are validated, the migration stage moves to "Ready to copy" . Click Continue to proceed with the file copy.
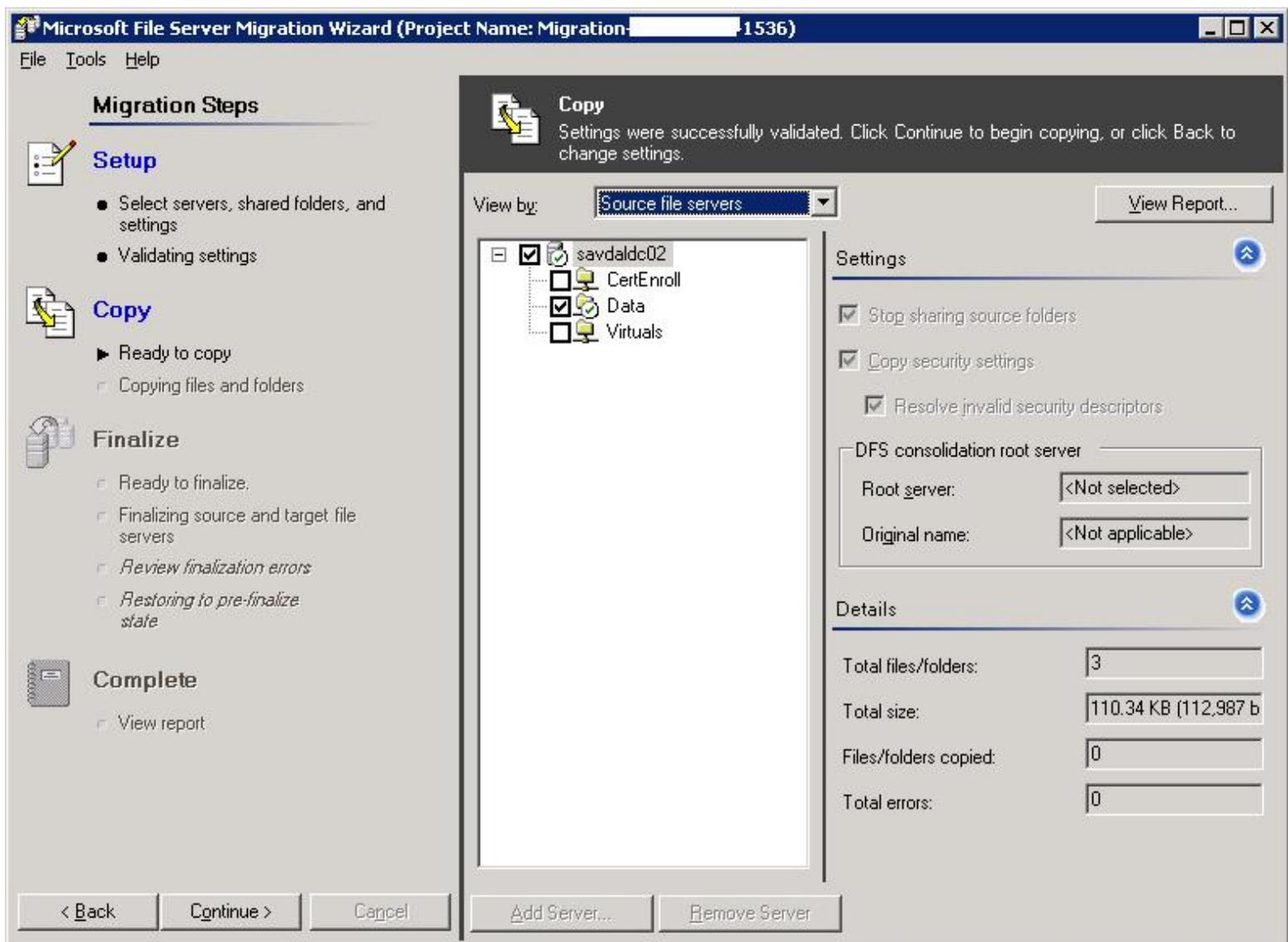
After the file copy finishes, click Continue again to finalize the configuration changes and security settings (at this point the NTFS permissions have not been set and shares haven't been created, only the data copied). Open files are skipped during this phase; missed files will be copied during the final stage.

You will be prompted to click Yes to confirm the finalize process. Any additional files and file changes will be copied over, and NTFS and share permissions are applied along with audit and ownership information. During this phase, users will be disconnected from the source server to ensure that files aren't locked or modified during their final migration.

Click OK to the Migration success dialog box.

Click the View Report button to see a detailed status of the entire migration process

Take note that the new share has the name of <original share name>_ <name of original server> (e.g., Data_savldc02), so you might want to change this share name after migration.

DCDiag (Domain Controller Diagnostic Tool) and NetDiag GUI Tool

Dcdiag (Domain Controller Diagnostic Tool)

This command-line tool analyzes the state of domain controllers in a forest or enterprise and reports any problems to assist in troubleshooting. As an end-user reporting program, Dcdiag encapsulates detailed knowledge of how to identify abnormal behavior in the system. Dcdiag displays command output at the command line.

Dcdiag consists of a framework for executing tests and a series of tests to verify different functional areas of the system. This framework selects which domain controllers are tested according to scope directives from the user, such as enterprise, site, or single server.

Netdiag

NetDiag is a command-line, diagnostic tool that helps isolate networking and connectivity problems by performing a series of tests to determine the state of your network client and whether it is functional. These tests and the network status information they expose help network administrators and support personnel identify and isolate network problems. Moreover, because this tool does not require parameters or switches, you can focus on analyzing the output, rather than training users on tool usage.

NetDiag diagnoses network problems by checking all aspects of a client computer's network configuration and connections. Beyond troubleshooting TCP/IP issues, it also examines a client computer's Internet Packet Exchange (IPX) and NetWare configurations.

NetDiag is part of the Support Tools collection on the Windows 2000 operating system CD. For information about NetDiag, see Windows 2000 Support Tools Help. For information about installing and using the Windows 2000 Support Tools and Support Tools Help, see the file Sreadme.doc in the Support\Tools folder of the Windows 2000 operating system CD.

DCDiag (Domain Controller Diagnostic Tool) and NetDiag GUI Tool Details

The script provides the option to run individual tests without having to learn all the switch options. It automatically outputs the test details to a text file and calls this text file up at the completion of the test. This makes it much easier to read and save the details for future use and analysis.

The front end is an hta file that provides check boxes, radio buttons and dialogue boxes for input. You have the option to select the local server or a remote DC via a text box. This script is customizable.

The storage location of the script storage of the output logfiles and diagnostic tools are modified by a const definition in the working storage section.

Download DCDiag and NetDiag GUI Tool from here, download it and save it to:
c:\program files\support tools\ and double click on the script to open

Just select both dcdiag and netdiag make sure verbose is set. (Leave the default settings for dcdiag as set when selected) When complete search for fail, error and warning messages

Here is the sample screenshot of the tool

Active Directory Diagnostics   _ □ ×

Active Directory Diagnostic's

☐ DC Diagnostics

DC: [   ]

Options: ☐ Verbose   ☐ Fix Minor Errors   ☐ Enterprise Scan   ☐ Comprehensive

    ☐ Errors only

◉ No Special Test   ○ Test   ○ Skip

☐ Network Diagnostics

Options: ☐ Fix Minor Errors   ☐ Errors only

Error Reporting: ◉ Standard   ○ Verbose   ○ More Verbose

◉ No Special Test   ○ Test   ○ Skip

[Startup Diagnostics]   [Cancel]