

White Paper:
Converting VirtualCenter on Access
to SQL Server 2000 (SP3/W2K3)

Document Version 1.1

RTFM Education

Beyond the Manual... with Mike Laverick

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ESX/VirtualCenter Version:

ESX 2.0/VirtualCenter 1.x.x

Author:

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Audience:

Hotshot to Expert

Style:

Bit techy with some humour, not a po-faced article. I use unhappy faces ☹ to flag up events and experiences that are less than pleasant. I use a happy face 😊 to flag up something which is very advantageous.

Objectives:

This white paper deals with a situation where a customer has setup VirtualCenter on Access (MDB) and wishes to convert the database into a SQL Server format. Access is only recommended for development and evaluation purposes – but from time to time people do setup on Access and would rather retain their settings. If you can it is probably desirable to not convert but instead do a clean installation.

In my guide I assume that the vCenter service/client and mdb are all the same machine – and you wish to move the mdb data from it to a SQL server

Disclaimers & Acknowledgements:

In this document I express some personal opinions – which may disagree with – this you right. But please don't "flame" me with your disagreements! On the other hand if you feel that there is technical error in this document – then I implore you to tell me so. I don't want to be responsible for any disseminating misinformation in any of my RTFM Guides or White Papers!

I would like to personal thank Phillip Cohen of VMware who first drew my attention to this procedure. Without his initial word document outlining the process I wouldn't have known where to begin.

Converting VirtualCenter on Access to SQL Server 2000 (SP3/W2K3)

Preamble & Warning

- **WARNING:**

This procedure has NOT been widely tested. Please proceed with caution and engage backup & recovery solutions

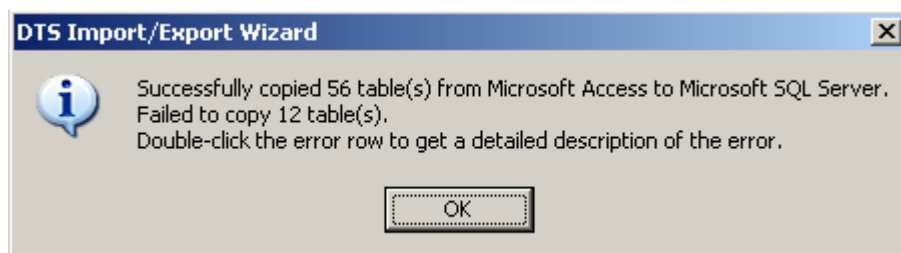
- You must have a very compelling reason to do this conversion – could you not do a clean install and rebuild your environment. If not – then this is worth trying...
- This method is one suggested by some VMware documents – but not supported and not made 100% clear. Answer ID [1747](#) states.

“Important: Data migration issues between Microsoft database products are beyond the scope of VMware products and VMware Technical Support. *VMware is not responsible for any data loss that may arise from this procedure”*

I would like to add to this disclaimer – that neither am I!

- **Overview:**

- This method suggested by Answer ID [1747](#) and MS KB [237980](#)
- Clean SQL DB
- Re-Install VirtualCenter Server new SQL DB
- Import MDB data into the SQL DB
- **Adv:** Does appear work!
- **Dis:** Worrying errors during the import procedure



- I have able to reduce these errors by 0 deleting the tables and views in re-installed database
- **Warning:**
 - As this method involves uninstalling the VirtualCenter Server I would recommend a full backup of the server
 - I've always run VirtualCenter Server in a Virtual Machine, so this very easy for me to do with an export to /vmimages

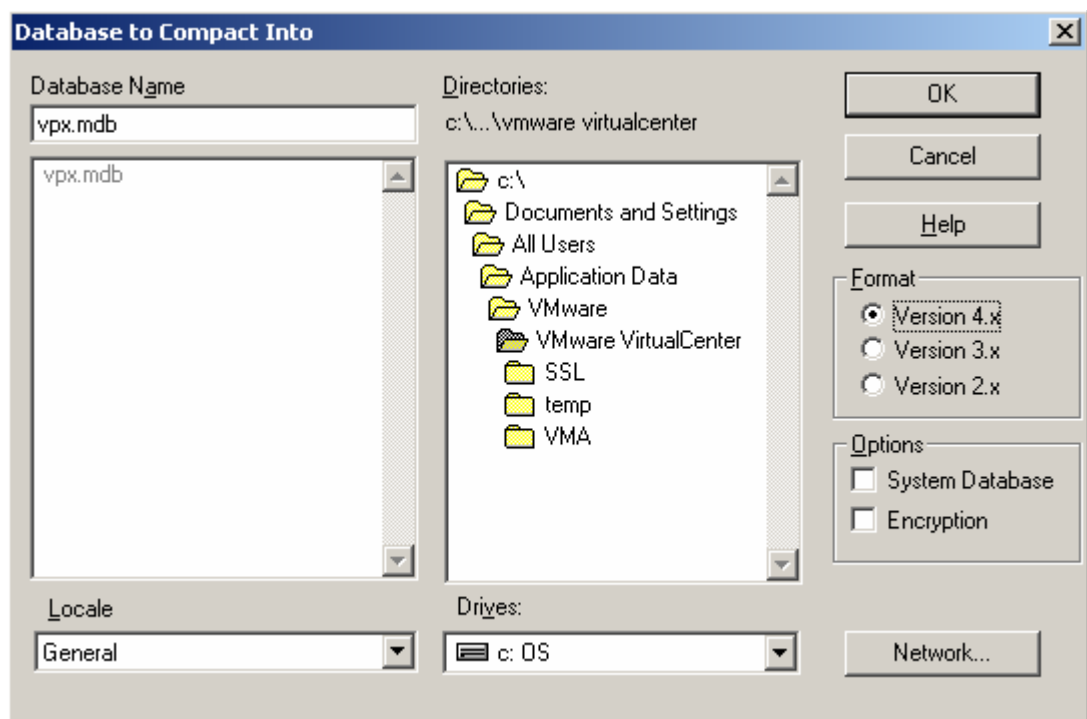
Compress & Copy the Existing MDB Files from Original vCenter

Note:

- Before you begin you might wish to follow VMware KB [1426](#) on how to compact the MDB file

To Compact the MDB File (VirtualCenter Server)

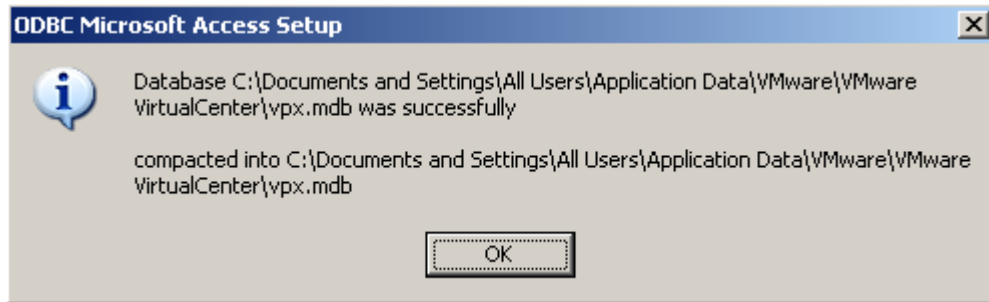
1. **Locate and stop the VMware VirtualCenter Server** service
2. Open the **Data Sources (ODBC) Administrator**
3. When **ODBC Data Source Administrator** opens, click the **System DSN** tab
4. Click **Select** the **VirtualCenter DSN** entry
5. Select **Configure** and choose **Compact**
6. **Verify that vpx.mdb is selected** as the **Database to Compact From** and click **OK**
7. **Verify that vpx.mdb** is selected as the **Database to Compact Into**.
8. In the **Format** section, click **Version 4.x** and click **OK** to continue.



9. Click **Yes** to replace the existing vpx.mdb file

Note:

In my case this took my 27MB MDB file down to 4MB



To Copy the MDB File to SQL Server (VirtualCenter Server)

1. In **Windows Explorer**, use **Folder Options, View**, and **Show hidden files and folders**
2. Right-Click the **VMware VirtualCenter Server** service and choose **Stop**
3. Navigate to **C:\Documents and Settings\All Users\Application Data\VMware\VMware VirtualCenter**

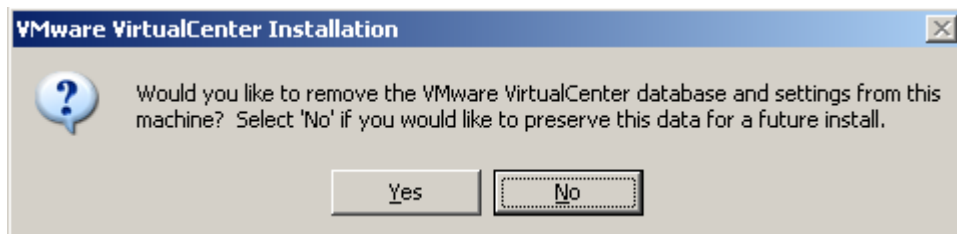
Note:

This is the default location of the vpx.mdb file – if you also have vpx.ldb file then the vCenter Service is still running – this is a "locking" file

4. **Copy the vpx.mdb to the root of C:\ on the SQL server**

Note:

Now uninstall the vCenter server software. During the un-installation choose to remove all the files and settings from the server. This ensures you will have no MDB style access after the conversion



5. Choose **Yes**

Create a new vCenter Database

Note:

- These notes assume your setting up vCenter with DB that is not on the same machine – so two servers are used. The vCenter server and the SQL Server
- SQL2K was set-up using the default settings – I enabled mixed authentication (Windows & SA Authentication) because my other DB require SA...
- I prefer to use Windows Authentication – because it offers more security and SA Authentication is present in SQL2K for backwards compatibility only

Create a DB user account (On a Domain Controller)

1. Use **Active Directory Users & Computers**, to **create a DB account** – in my case, **vc-dbuser** with a complex password

Note:

Ensure that **X Password never expires** and **X User cannot change password** are engaged, otherwise surprising results can occur

Create a DB and Set Permissions (SQL Server)

2. Open **Enterprise Admins**, and Expand **+ Microsoft SQL Servers, + SQL Server Group, + (Local) (Windows NT)**
3. **Right-click the Database folder**, and choose **New Database** and type: **vc-db** (or something similar/appropriate) – and choose **OK**
4. Expand the **+ Security** tab, and **right-click Logins**, and choose **New Login**
5. **Browse with ... button** to select the account created at point 2... and set the **Default Database** to be the DB created at point 5
6. Click the **Database Access** tab, **Permit** access for **X VC-DB**, for the user **vc-dbuser**, also enable **X db_owner** – and choose **OK**

Note:

db_owner access would normally be the default permissions used by the vCenter install to create tables, procedures and schema for the database

Reinstall VirtualCenter Server (vCenter Server)

1. Open the **ODBC Data Source Administrator** from the **Administrative Tools**
2. Select the **System DSN** Tab and Click the **Add** button
3. **Scroll down the list of drivers**, and select **SQL Server**
4. In the **Create a New Data Source to SQL Server**, type in a name for the **DSN** file such as, **VMware VirtualCenter-** and **select your SQL server from the list**, in my case **vc-sql**
5. **Do not change the default login settings**
6. Change the **Default Database** to be **vc-db**
7. **Next** and **Test the DSN** File

8. **Run the Installer for vCenter**
9. Choose **© Use a custom SQL Server database connection**, Click **Next**
10. **You can close the DSN Manager – because we have already created and tested the DSN file...**
11. In the **Database Information dialog** complete the fields as required, in my case:

DSN: **VMware VirtualCenter**
Username: **domain\vc-dbuser**
Password: *********

12. Type in a **name of account/password** for the **WebService**
13. Choose **Next & Install**

Note:

At this point you may get an error with the VirtualCenter Service. The vCenter server uses by default the LocalSystem account to run the Service. I change this so that the vc-dbuser user account created earlier is the Service Account.

If you do get the error – just click ignore and allow the install to complete

Change the Service Start-up Account

Note:

1. Open the **Services** applet
2. Locate the **VMware VirtualCenter Server** Service and Choose **Properties**
3. Select the **Log On tab**
4. Select **© This Account**, and click the **Browse** button – locate and **select the vc-dbuser account**
5. In the **Log On tab**, **set the password for this account** in the two fields provided
6. **Confirm the granting of the “Log On As a Service” right** dialog



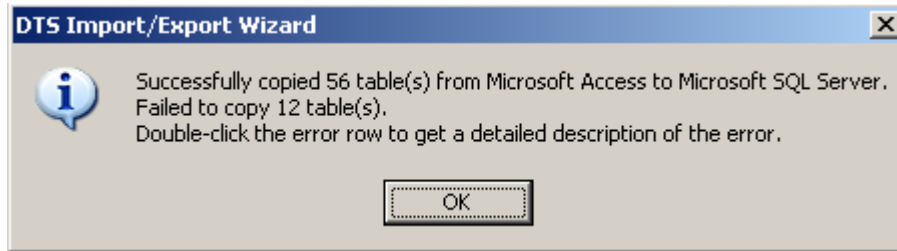
Note:

You might wish to start the VirtualCenter Service and login. As this effectively a clean install of VirtualCenter, you might find your delegate login name no longer works – you will need to be a member of Administrators/Domain Administrators to regain access

Restore the MDB to the VC-DB

Note:

- If we simply import the MDB file to the existing SQL DB – we will get import errors. This because there are existing tables and views created during the re-install process. You will get unique key errors and also “object already” exists errors.
- The solution to this is to remove existing tables & views created during the re-install – and then import the MDB file. If you don’t do this, you will get this error message at the end of the import process

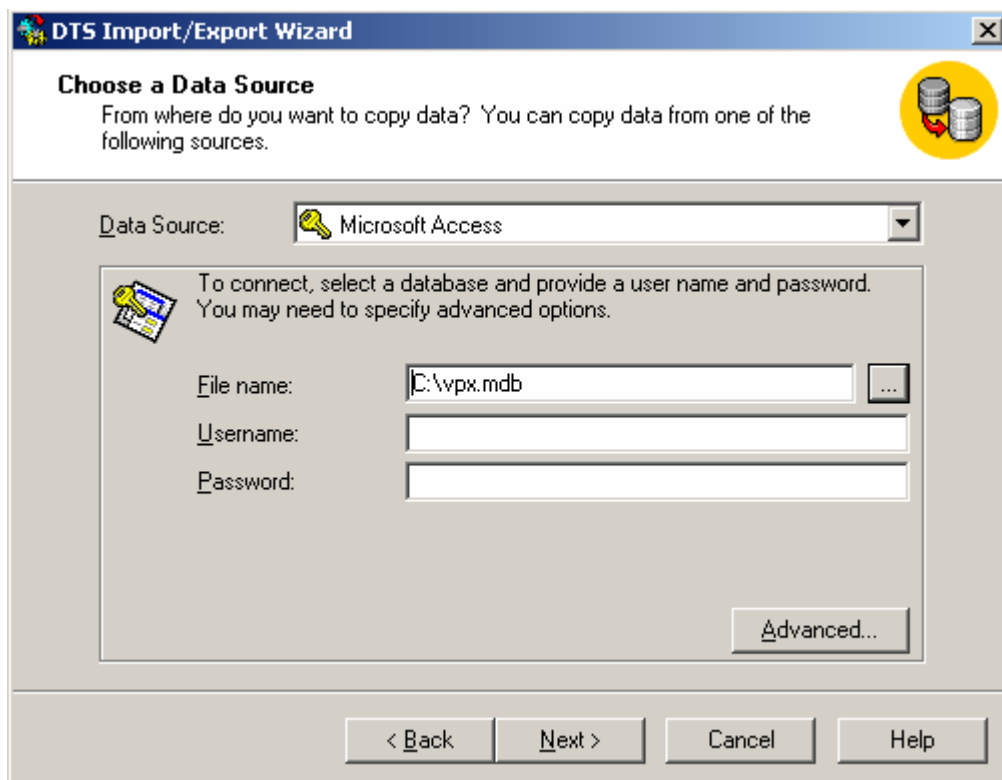


1. **First stop the VirtualCenter Service** (if you started in the previous section)
2. In **Enterprise Manager, +Databases, +vc-db** and **+tables**
3. **Select all the tables** that begin with **STATS_**
4. **Right-Click** and choose **Delete**
5. In the **Drop Object** dialog choose **Drop All**

Note:

Repeat the above with all the tables that being with VPX...

6. **Select the Views** and **select all the views** that being with **vpzv** and **delete** them also
7. **Right-click the vc-db** and select **All Tasks** and **Import Data**
8. Click **Next** to the **"DTS Import/Export Wizard"** dialog
9. **Select the Data Source** as **Microsoft Access** and click the **...** button and browse to **c:\vpz.mdb** and click **Next**



10. In the **"Choose a destination"** page and click **Next**

Note:

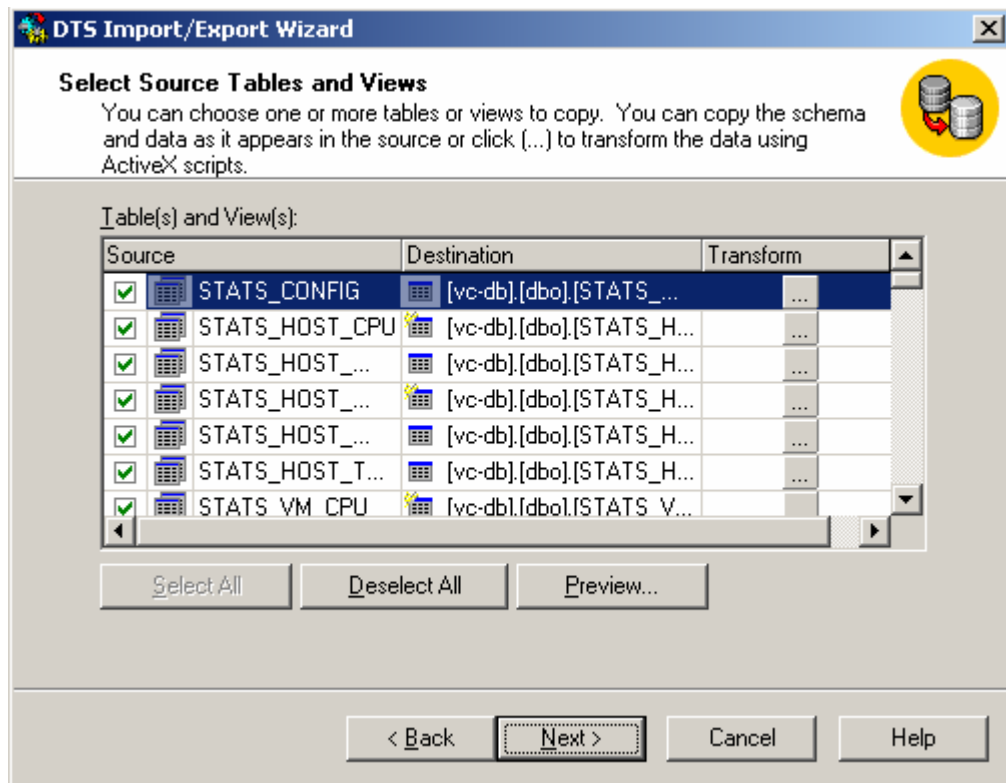
The default database should be correct

11. In the "Specify Table Copy or Query" page click **Next**

Note:

The default database should be correct

12. In the "Select Source Tables and Views" page, click the **Select All** button and click **Next**



13. In the "Save, Schedule and Replicate Package" page click **Next** and **Finish**

14. On the VirtualCenter Server, **Start the VMware vCenter Service...**

Do not delete the vpx.mdb file until you can confirm that the system does work!