

Sequencing Recipe

Quick Books Enterprise 7.0

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Information contained in this recipe is intended to help prepare a SoftGrid package for use by SoftGrid clients that contains the client portion of QuickBooks from Intuit.

As with any software packaged by SoftGrid, you are expected to ensure that all the licensing requirements of the ISV are maintained. Nothing in this document should be construed as advocating a violation of the ISV rights. Check the application license agreement to ensure that you comply with any requirements it provides.

The information provided in this recipe is correct to the best of our knowledge, however we offer no guarantees.

Nothing in this document should be construed as a criticism of the ISV or its software, nor has the ISV been asked to condone or approve the information in this recipe. Microsoft also has not been asked to endorse this work.

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Introduction

Quick Books is a package used, by typically small to medium sized organizations, to manage their financial needs. The application creates a set of files (which they call the “company file”) that are essentially a database for storing the company financial data.

The data files usually need to be accessible and shared between multiple users. This will require that they be placed outside of the package itself so that they are not virtualized.

The package requires the .net framework 2.0 and two services. Because of this, the recipe is only good for the 4.1.1 (aka 4.1 SP1) or above.

The package includes a hardware specific licensing file which requires a work-around. The work-around detailed here does not avoid this licensing requirement, it only makes it easier to comply with the requirement when deployed via SoftGrid.

This recipe was generated by sequencing on a Windows 2003 Terminal Server, as our intent was to deploy using the SoftGrid for Terminal Services Client. The techniques here should work if sequenced on a desktop OS for desktop clients.

Requirements

SoftGrid Sequencer 4.1.1 or 4.2 (or greater).

A mounted drive on another machine to hold a “company file”, which is what Intuit calls the database, is suggested here.

Special Considerations

The installer will generate a license file which would normally be captured as part of the package that is tied to both the user license key and the specific PC being sequenced on. While we do not know how the vendor ties to the specific PC, it is reasonable to assume it includes something such as the first NIC MAC address. We don’t care how they do this as we are not trying to defeat it, just work with their licensing system.

We will install the product and run it. Before closing out the installation monitoring we will remove this license file. After completing the sequencing, we will run the package on the target client. If we did not remove this license file, the client would fail with an error at startup. We have found that we cannot repair this on the client if we leave this license file in the package. Instead, with the file removed the client will start up and the file can be recreated by registering the software on that machine. This will create a new license file that will be saved in the user’s package in his/her profile. This would be

sufficient for a desktop client, however, we want to deploy on Terminal Services so we want to license it ourselves for the Terminal Server. We run the package without the license on the terminal server and then use a trick to extract this license file from the user profile package. We then reopen the sequence for upgrade and copy this new license file back in. After that we can deploy the new package version for use on the client Terminal Server.

This trick of pulling the new license file from the user profile and adding in back into the package would not be needed if we were deploying on a desktop/notebook PC. We use this trick in the recipe because we intend to deploy on a Terminal Server and do not wish each user to have to perform the registration. We need to note that the package will only work on one PC. This means that if you have multiple terminal servers you will need to restrict users of this package to a single terminal server.

The application does include a number of fonts. The last official word we have heard is that virtual fonts do not work on SoftGrid for Terminal Services. In this case the work-around is to install the fonts natively on the client. We did not do so in our testing. Things looked OK to us, but then we aren't picky. It could be that the fonts in question are close enough to native fonts that we couldn't notice, or it might be that virtual fonts was fixed on TS in the latest release. We don't know. If the fonts prove important to you, you should extract them from the sequence before restoring your sequencing station when done.

The resulting package is about 1GB in size (no compression). It might be appropriate to select the 64KB block size on a package of this size. We did not find this necessary, so that is left as an implementation option.

Sequencing Initial Version

Prior to Upon entering the sequencer, mount a server share as a drive. This drive letter should be the same as will be used on the client. (This is a hard requirement, we simply use this as a way to ensure that when a user uses the File menu to open a company file it will be default to the right folder).

In the Installation Monitoring Phase...

Start the Installer.

Select Check Updates option. The installer should say that it wants to install Flash 8. Go ahead and let it do it. After, you can continue with the installation. You will need to enter the license and product keys that you received with the product. Change the install folder to the Asset Folder (the 8.3 compliant named folder on the SFT_MNT drive). Finish the installation.

Launch the product for the first time. Select the product type. This is essentially a kind of customization for how the product appears to the user.

Create a test database on the mounted share. If the product asks you to register the product select "Register Later".

Perform any other customization appropriate for your organization. When done, shut down the application.

We generally recommend launching and shutting down the application a second time.

Use the services manager (start->run->services.msc). Edit the properties of the service called QuickBooksDB17. A Error will occur, just click through it. [NOTE: We are unsure of the source of this error, but it appears to be inconsequential]. The installer added a local login account to the sequencer PC and marked this service to run under this account. Change the login context to use the "local system" account. [NOTES: We should be able to do this in the sequence editor, however we found that when we try to do it there, we are unable to do so. Requesting this change in the sequence editor resulted in the account being changed to our logged in account. Also note that later we will change the restart parameters for this service in the sequence editor. We do this operation there because the tab to make this change in the service properties here is not present – possibly because of the error when we started editing the properties]. When done close the services manager.

Delete the following file at this time:

C:\Documents and Settings\All Users\Application Data\Intuit\Entitlement
Client\V3\EntitlementDataStore.v3\Entitlement*.ecml

Stop Monitoring, complete the Installation and Application Wizards.

In the sequence editor, do the following...

In the Virtual File System Tab, you will find at the bottom a number of file and folder references that are associated with the mounted drive that the database was created on. For example, if the mounted folder was P: you might see ";P:00000xxx". If the mount was to a share on system foo, you will find another set under a "foo" folder. Delete these mappings. To do so, click on the highest level folder of the group and hit the delete key. Do this for each group.

In the File tab, there will be the actual files created on the mounted drive. These will appear at the end of the VFS area. It would be OK to delete these from the file tab in order to shrink the size of the sft, except that when we tried to do this the sequencer died. So we left these files in, where they will not be used.

In the Services tab you should see two services. Edit the parameters of the QuickBooksDB17 service. It is currently configured to reboot the machine if the service fails more than twice in five days. Change this to either restart the service or to stop processing.

Save this sequence and deploy on the SoftGrid server.

Initial Test Deployment

On the target client system (it must be the final target client PC, not a test PC), mount a drive that will hold the database using the same drive letter that was used on the sequencer. If this is a different share than was used in sequencing, copy the test database created while sequencing to this share.

Start QuickBooks. Open the test database. When prompted, perform registration. When done, shut down QuickBooks.

Create a copy of the QuickBooks OSD. Replace the filename parameter in the codebase with "C:\Windows\System32\cmd.exe". Change the VM from "Win32" to "Win16" and change "Windows" to "Console". Run this OSD to get a command prompt inside the virtual environment. Locate and copy the ecml file to a location outside of the virtual environment and exit.

Copy this saved ecml file back to the sequencer.

Sequencing Second Version

Open the sequence by using "Open for Upgrade". If you have not restored your snapshot and performed other sequencing on the sequencer you may do so on the "dirty state" from phase 1 of the sequencing. Otherwise revert to the snapshot and copy the sprj/osd/sft/ico files back to the sequencer to open.

Run the Installation Wizard. Open the windows explorer and copy the saved off ecml file into the C: folder it belongs in. Close the windows explorer and stop monitoring. Do not launch the app to achieve a small launch size as the app will fail licensing on this machine. While normally we recommend running the Application Wizard after making any change in Open for Upgrade, do not do so in this case.

Select File→Save. The sequencer will save the sequencing as a new version of the package. The new sft will have a _2 appended to the basename. The OSDs and SPRJ will also be updated. Copy the new and updated files to the SoftGrid Server content share. Using the management console, right click on the package and select "Add package version". Select the new version of the sft.

Alternate Option:

If you wanted a single package to work on multiple servers, it should be possible to perform the trick of capturing the ecml file from each target server. Then each copy could be put in a special folder inside the sequence. A script would be added as pre-launch with protect=true in the OSD.

This script would examine the hostname and copy the appropriate ecml file to the correct location.