Installing a Windows Based License Server for IBM Rational Tools

Ronald D. Ross (rross@spkaa.com)

In this article, we are going to have a look at how to setup a Rational license server on a Windows machine. As of this writing, the latest version or Rational License Key Server (RLKS) is version 8.1.1. There is also an Interim Fix (IFix) 3 which is available for RLKS 8.1.1 and is shown in the following example.

It also turns out that RKLS 8.1.1 is required in order to support Rational tools 7.1.2 and later. When Rational tools (such as ClearCase and ClearQuest) version 7.1.2 are installed, the license client software, also version 8.1.1, is now required to be installed separately (or at least in a separate repository) from the main applications. This client software, Rational License Key Administrator (LKAD), should not be confused with the server software, RLKS.

All of these various software packages, ClearCase/ClearQuest 7.1.2, RLKS 8.1.1, LKAD 8.1.1 are installed using IBM's Installation Manager utility. Installation Manager became available with the release of IBM Rational tools version 7.1. This new installation management methodology now handles all matters related to the installation and patching of IBM Rational software, and in spite of occasional glitches I've found it to be a great improvement from how things were done prior to Rational 7.1.

The first thing to do is to acquire the base version of any software we want to install. These can be downloaded from IBM and are shown in an example screenshot below:
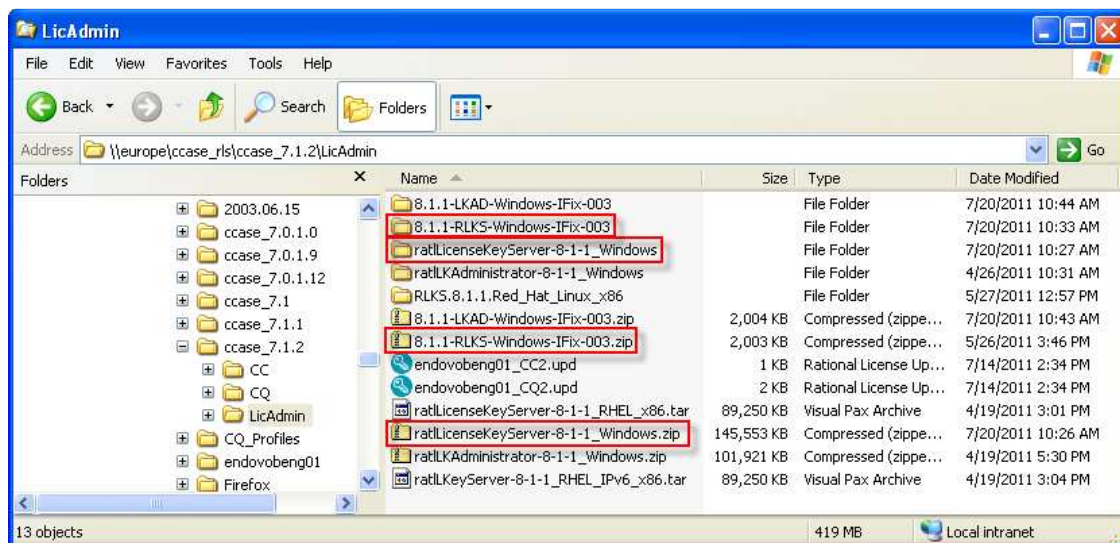
We see marked in red, the Windows version of RLKS 8.1.1 (both zipped and unzipped folders) and also fix pack 3 for RLKS 8.1.1 (zipped and unzipped). Notice that similar folders and zip files are also present for the client machine licensing - LKAD 8.1.1.
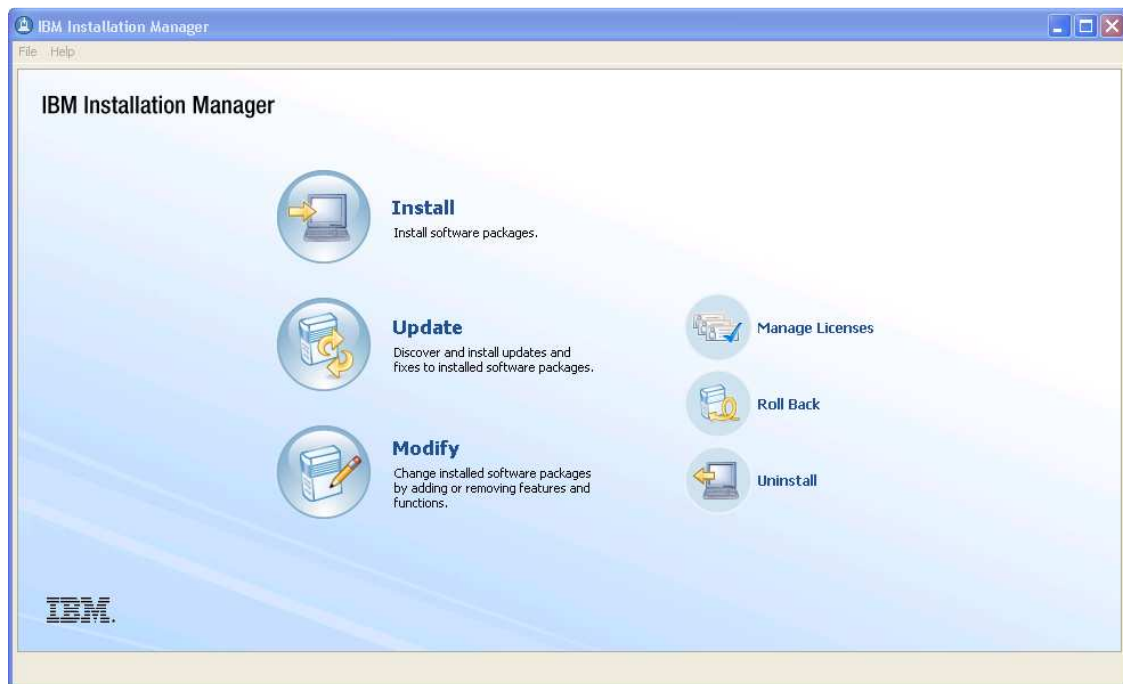

The first step is to bring up Installation Manager (IM), seen in the screenshot above. We assume that this has been installed. If it has not, you might want to consult some of my previously published articles. Or, consult IBM documented sources, for that matter!
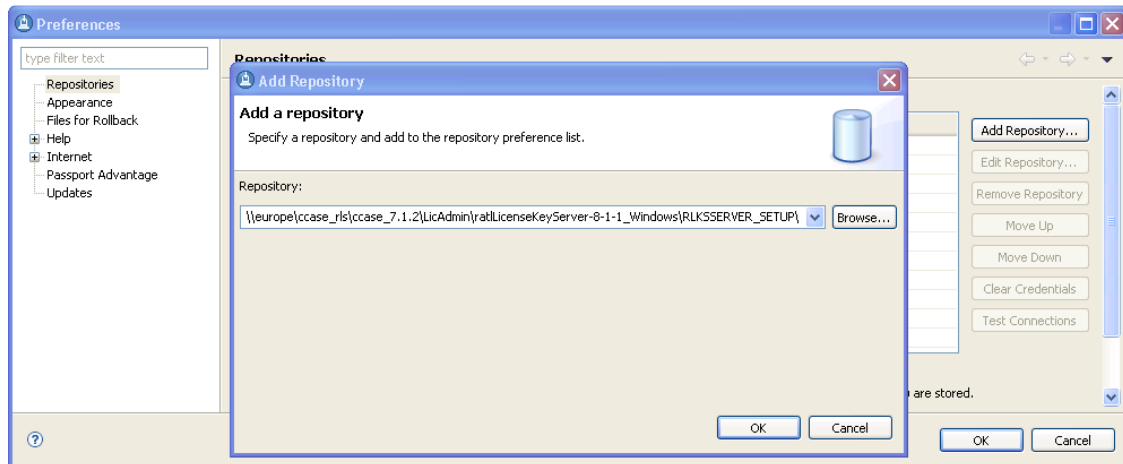
Anyway, once IM has been launched, we need to specify the package(s) that we will use IM to install. See the next screenshot.
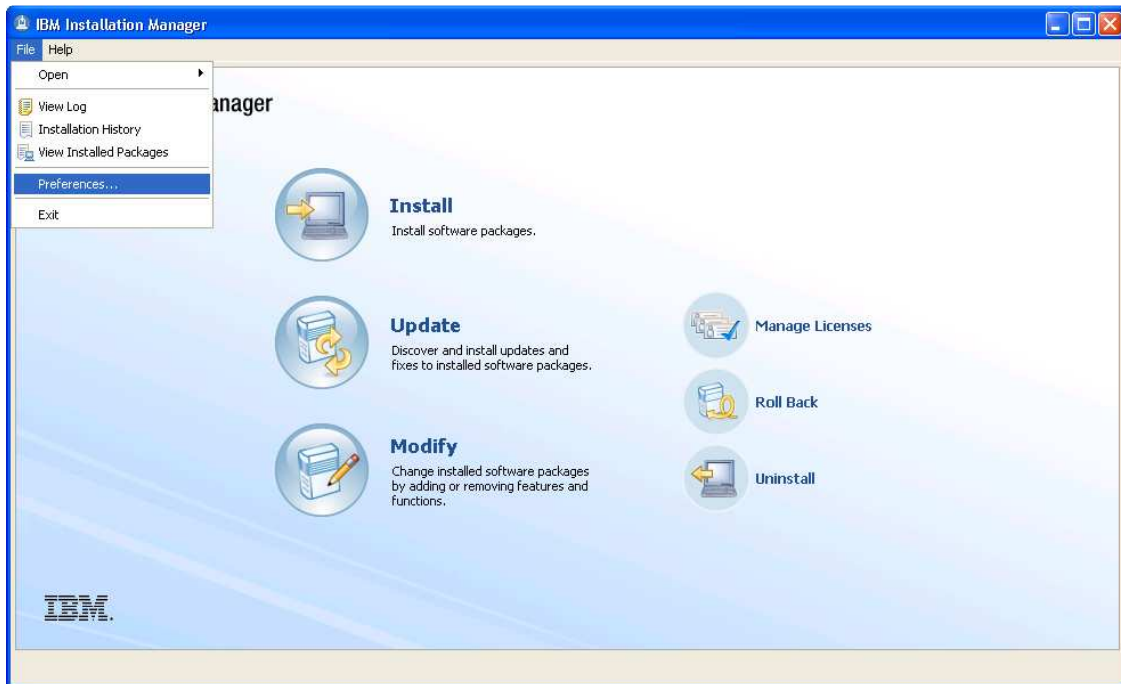
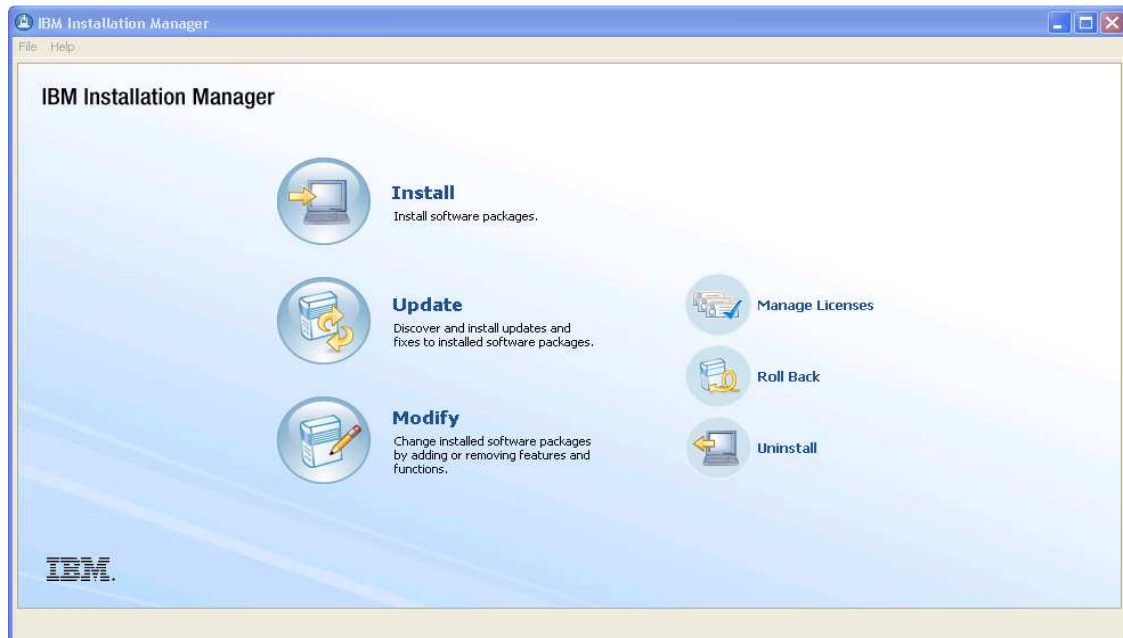Pull down the File menu, and select Preferences to set the repository location(s).
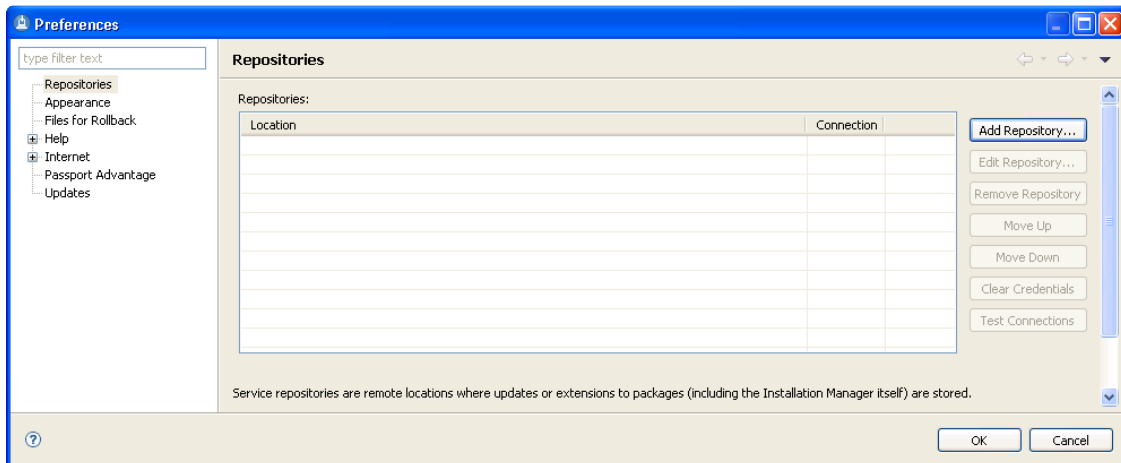
Under the Preferences panel, select Repositories in the upper left column, and click the Add Repository button on the right.

After the Add button is clicked, a pop-up appears which allows us to browse to the location of the package(s) we are interested in. Usually any package will have a suffix of .inf or .config. Select the required package and click OK on the pop-up.
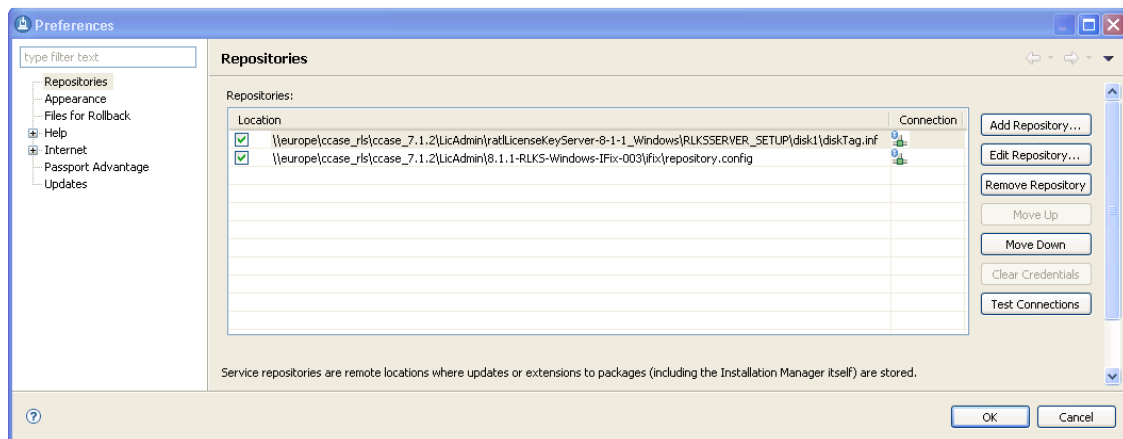

Here we have selected both the RLKS package, and its Interim Fix (IFix) 3 package to install along with the main package. Click Test Connections first to insure that all packages are recognized, and then click OK to close Preferences.

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Now that we have specified the packages that we want IM to work with, click on the Install button on the main IM console. This will initiate the installation process, and the selected package(s) will be displayed. The next screenshot shows the RLKS package and version that will be used in this installation activity.
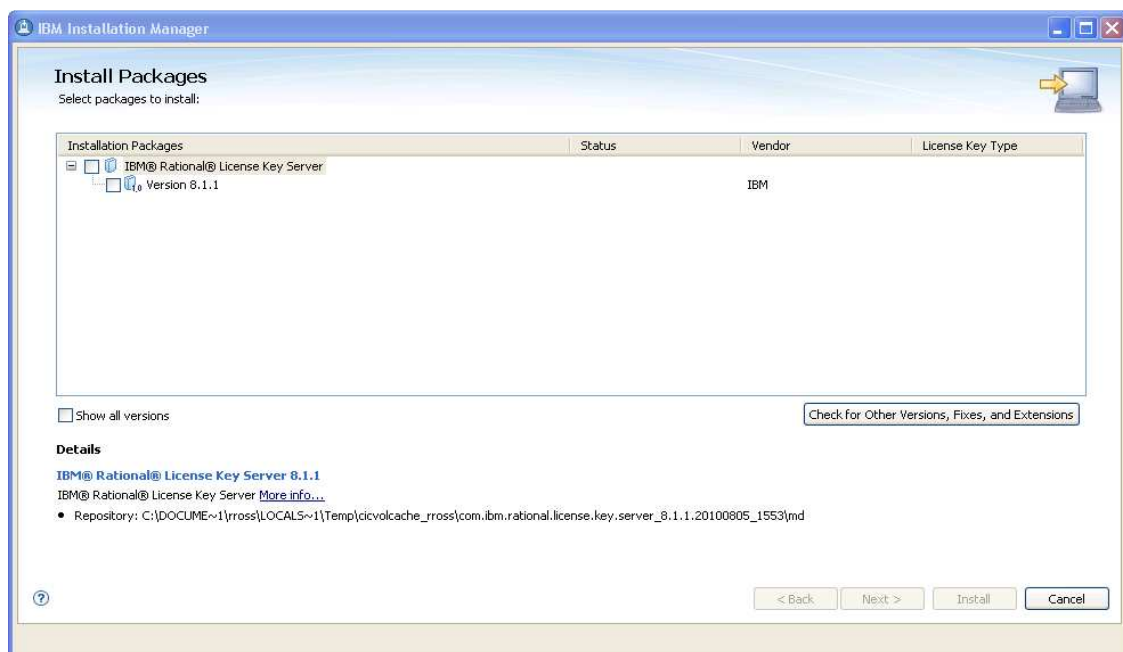
In the prior screenshot, we saw the RLKS package, along with its version number, which IM is ready to use. Check the boxes next to RLKS and then click on the "Check for Other Versions, Fixes, and Extensions" button. We then see IM search for all the fix packages and other related content.
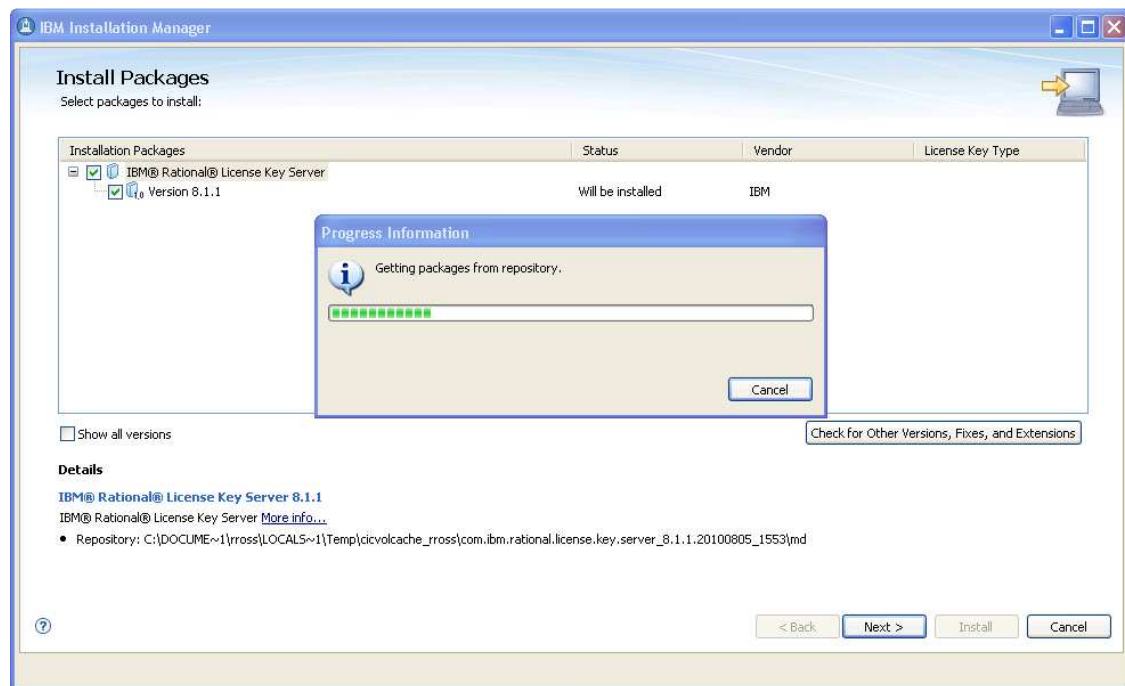

Once this process is finished, we see the results in the next screenshot, where these results are announced.
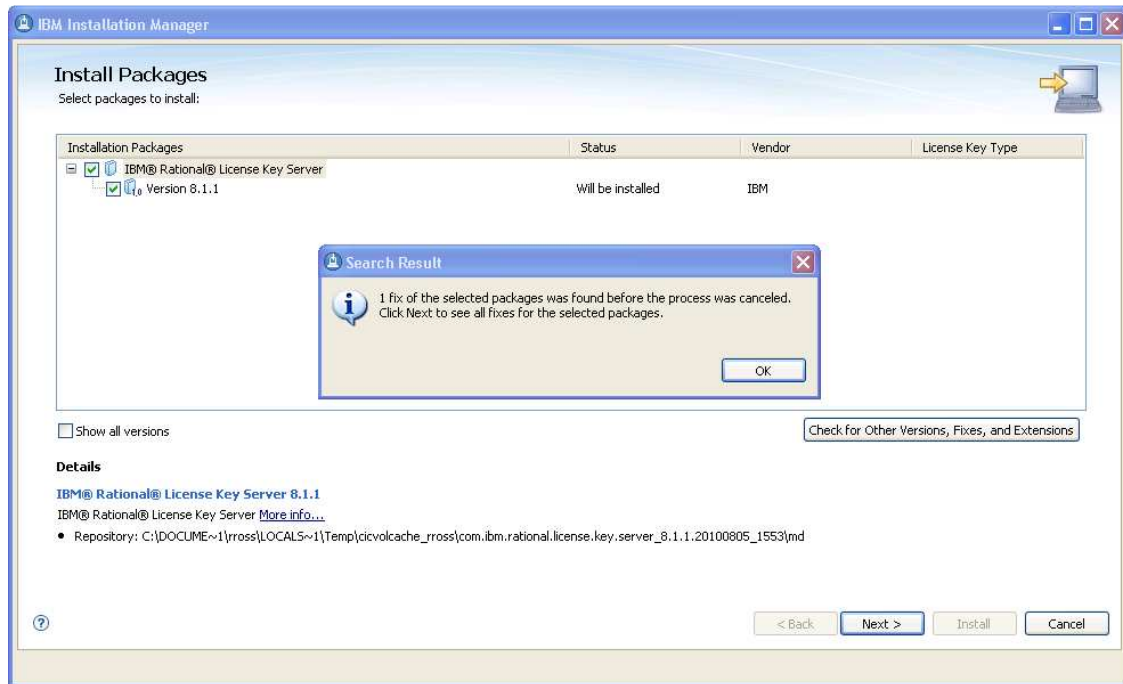
Above, we see the results of the search. The IFix 3 has been located and will be included in the list of packages to install. Click OK to proceed on to the next step.
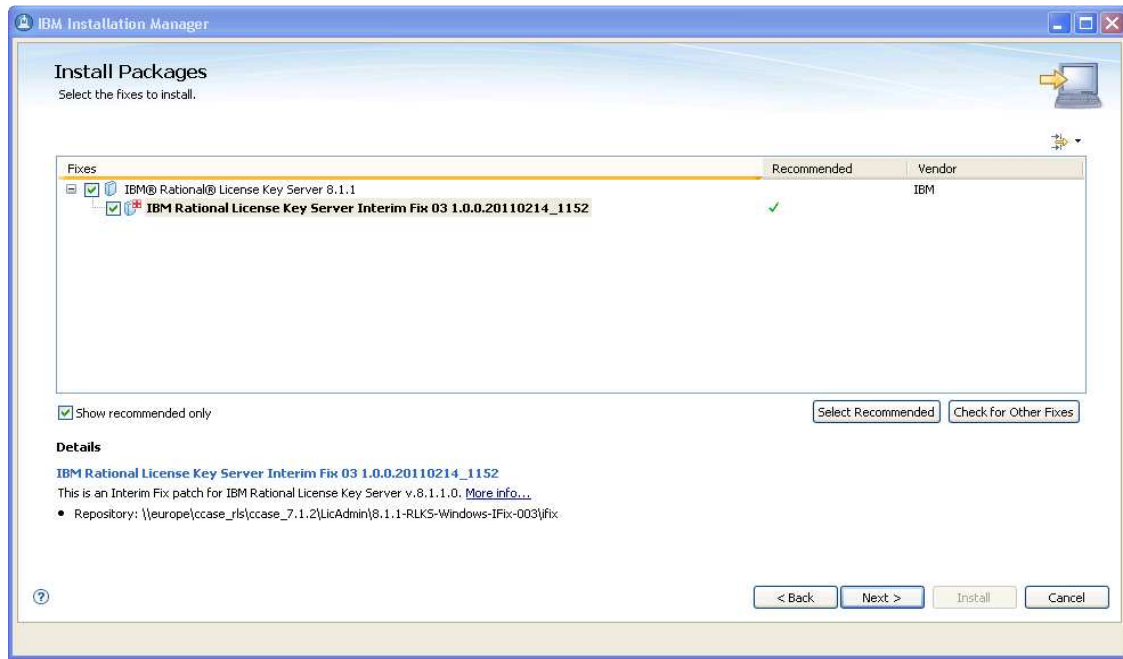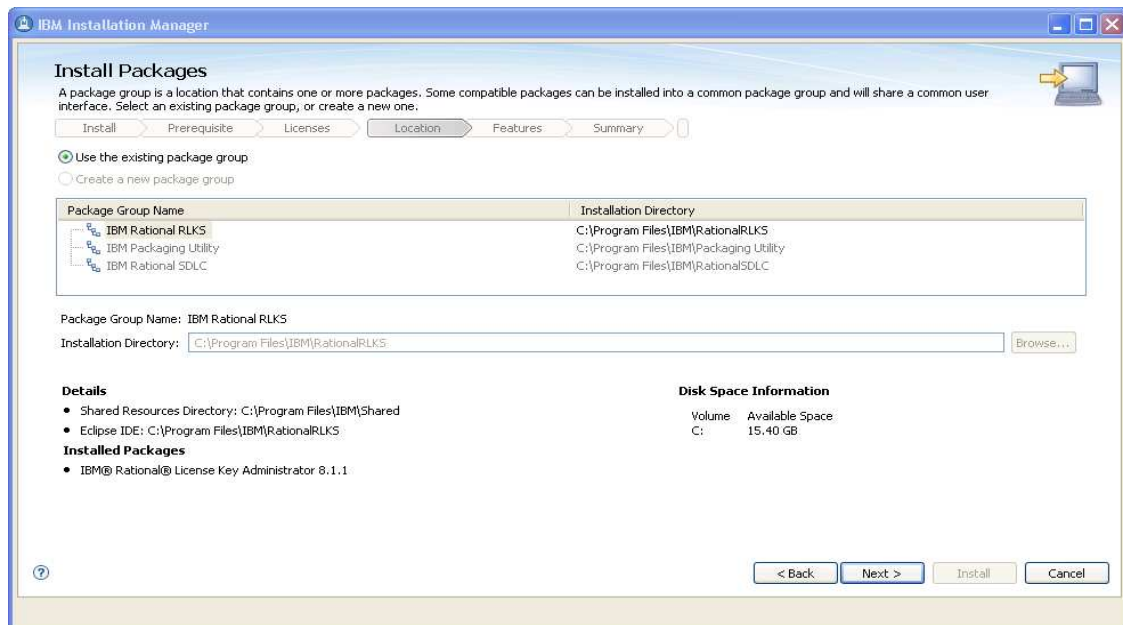
Above, both the base package of RLKS 8.1.1, and IFix 3 are located and displayed. Click Next to continue the installation.
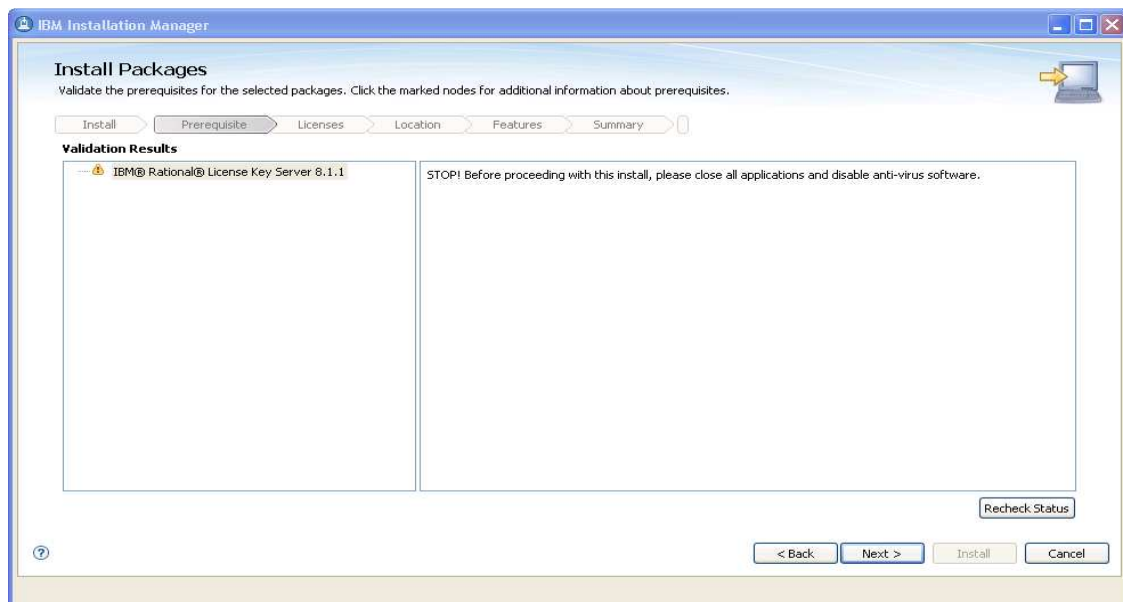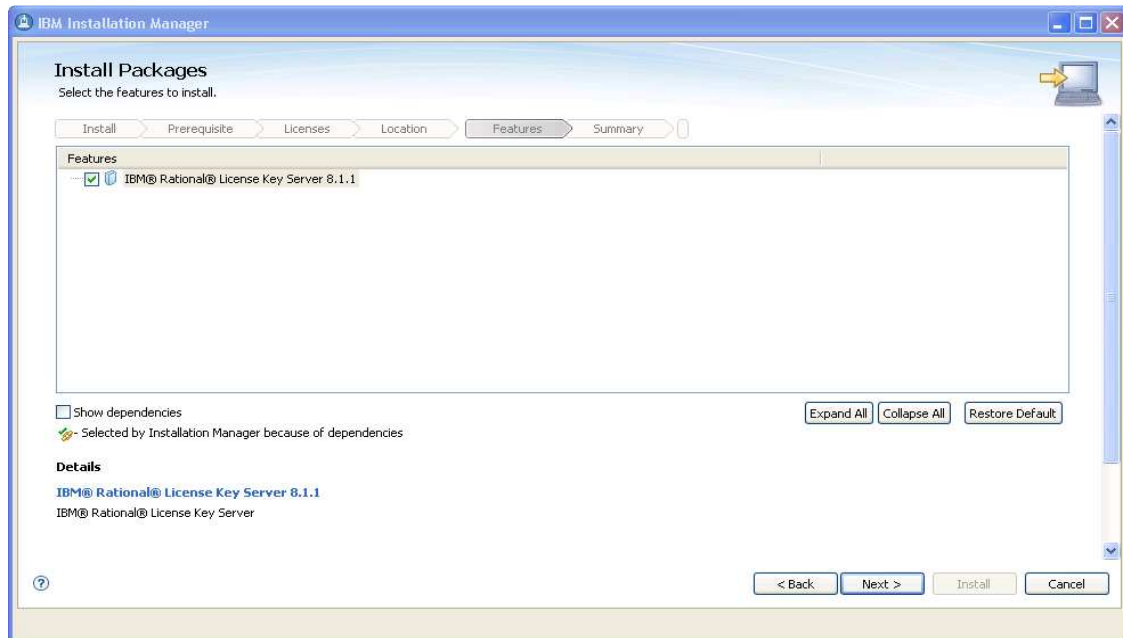

In the screenshot above, make sure there are no outstanding prerequisites before continuing. Here, we might want to shut down any anti-virus software. Click Next.
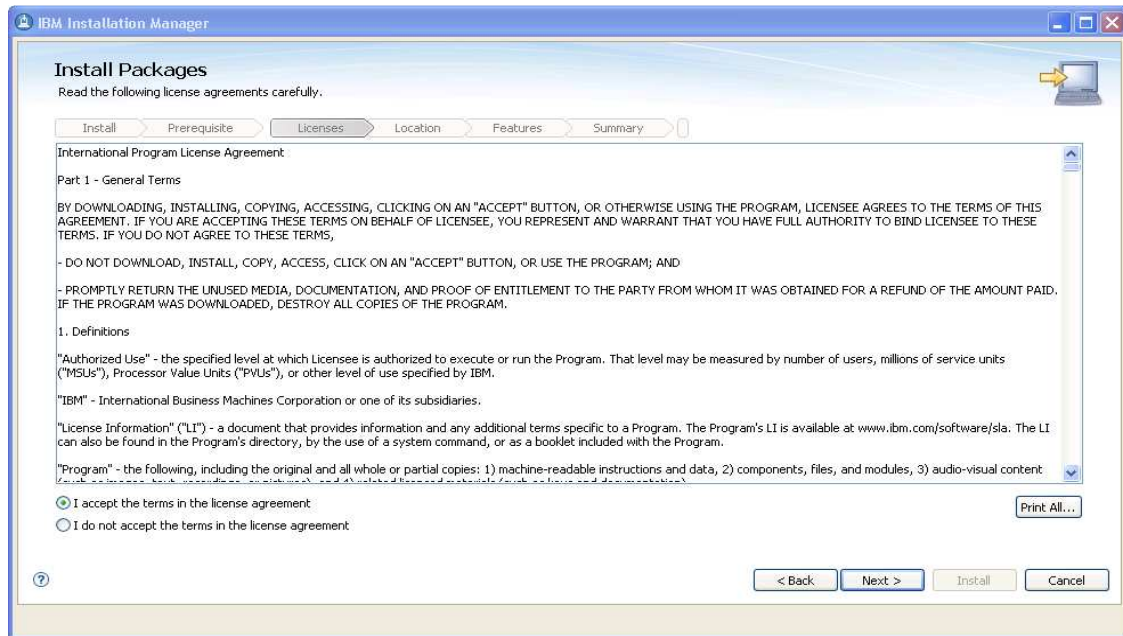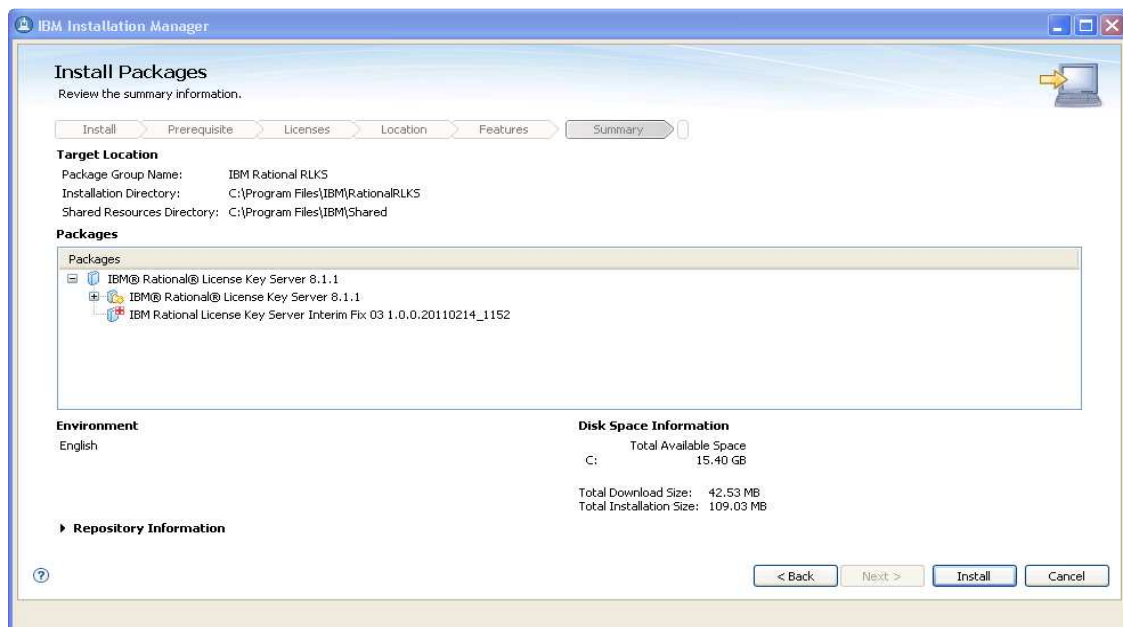
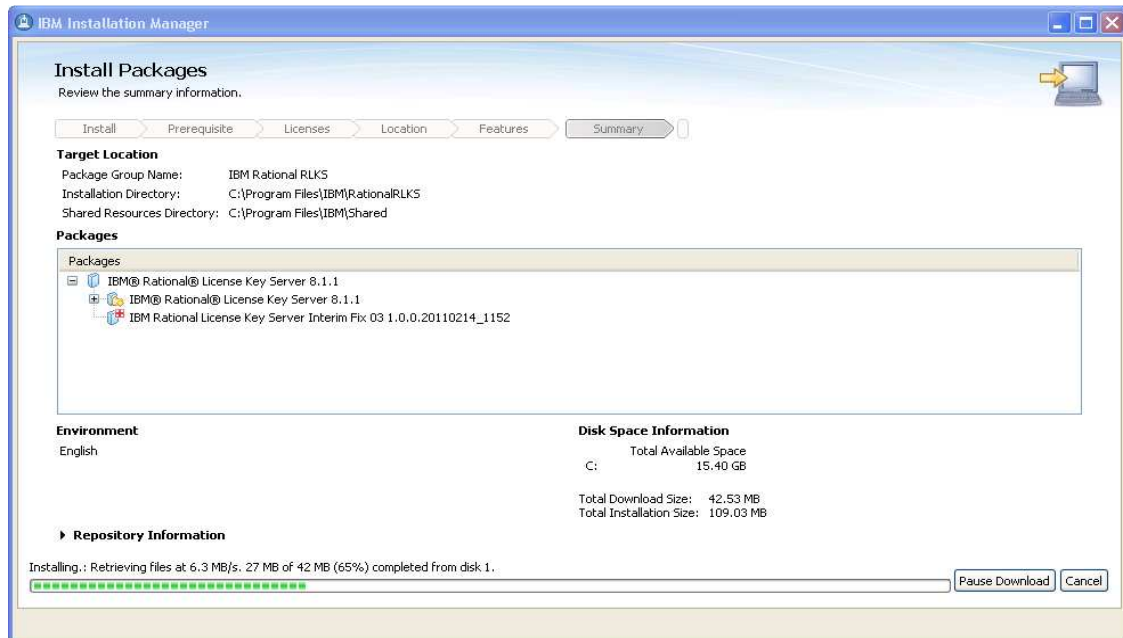Accept the license agreement, and then click Next.

We see here that RLKS will be installed in a separate package group. Click Next to proceed to the next screen.

Since RLKS doesn't have any options to include or exclude from an installation, there is nothing further to do here except to click Next.


We are now ready to proceed with the actual installation of RLKS. Click Install and the process will begin.

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Here we see the installation process proceeding as depicted in the bar graph. This will continue until the install has completed, as shown in the next screenshot.
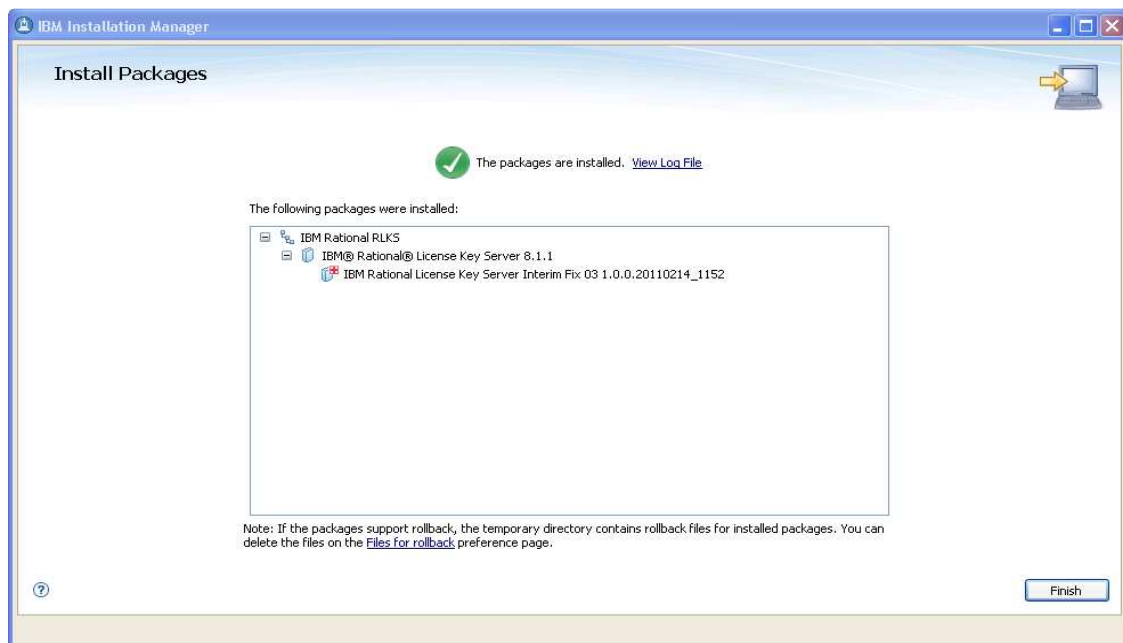

The install for RLKS 8.1.1 and Interim Fix 3 has completed. Click Finish to proceed.
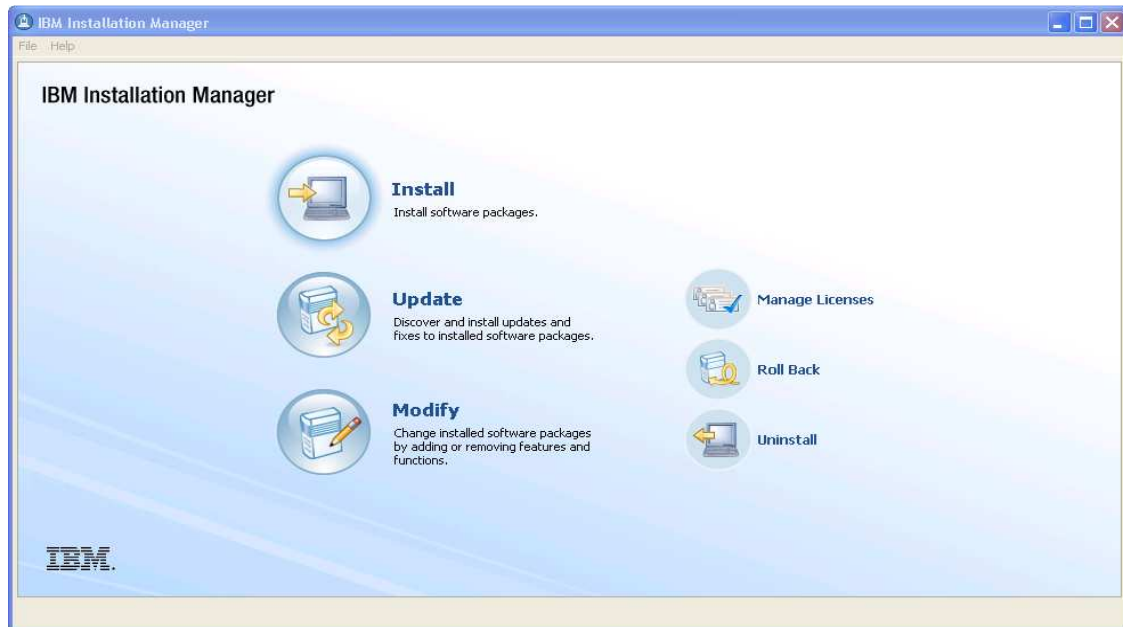
Once the installation in question has been completed, we return to the original IM screen. We are done with the install, so we can now exit IM.

The next set of screenshots depicts how to use the RLKS which we have just installed to actually setup and serve licenses to client machines. In our present example, the same machine will be used as both the server and client, but the mechanics are identical regardless of whether the client machine serves licenses to itself, or if the licenses are served to the client from some other machine.

What this means is that both RLKS and LKAD are active on the client machine. We will see examples of the use of both the server and client software, respectively, in the upcoming screenshots.
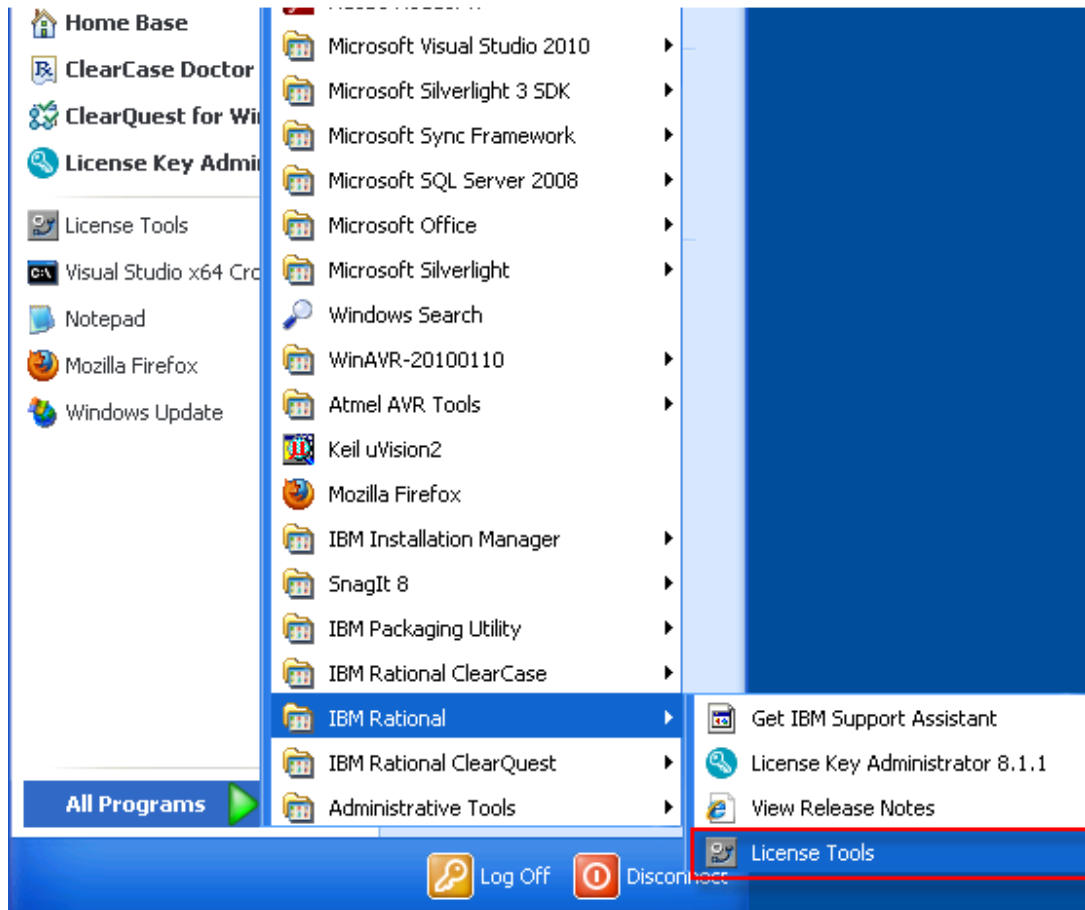
The first thing to do is to start up the RLKS software. The screenshot above shows both RLKS (License Tools) and LKAD (License Key Administrator) in the same folder. We will launch RLKS.
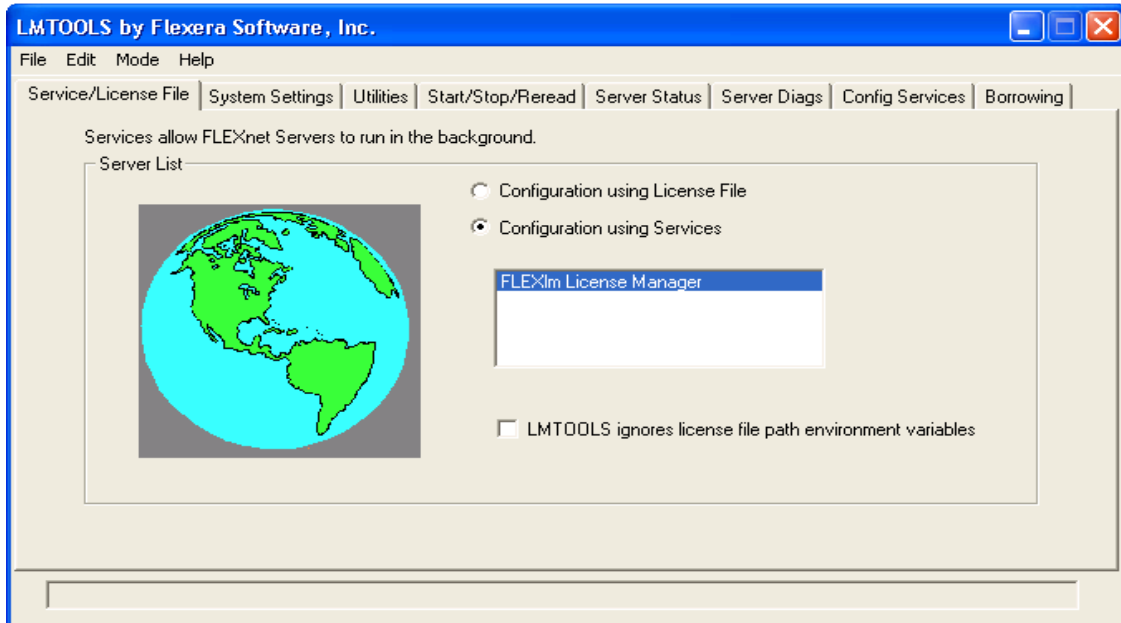
Above we see RLKS 8.1.1 after it is launched. As of yet we have no license file to use in serving licenses, and we must request a license file from the vendor. First, click on the System Settings tab to obtain the necessary information for the vendor to issue licenses.
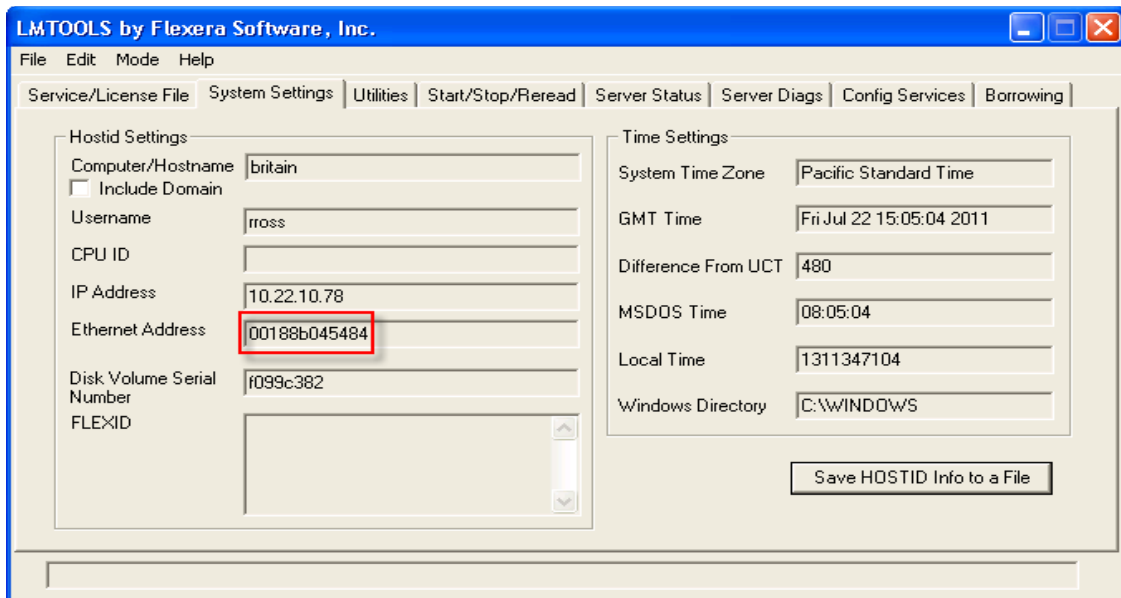

The vendor will need both the hostname and Ethernet address to generate a license. Pass these along to the vendor, and wait to receive a license file.
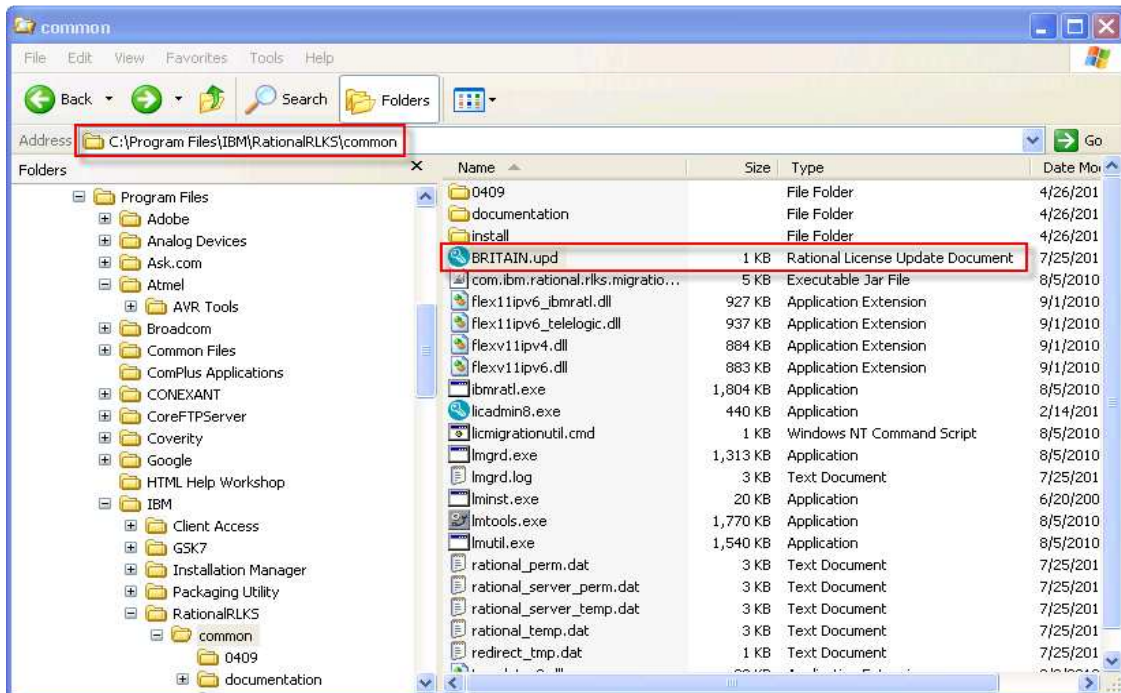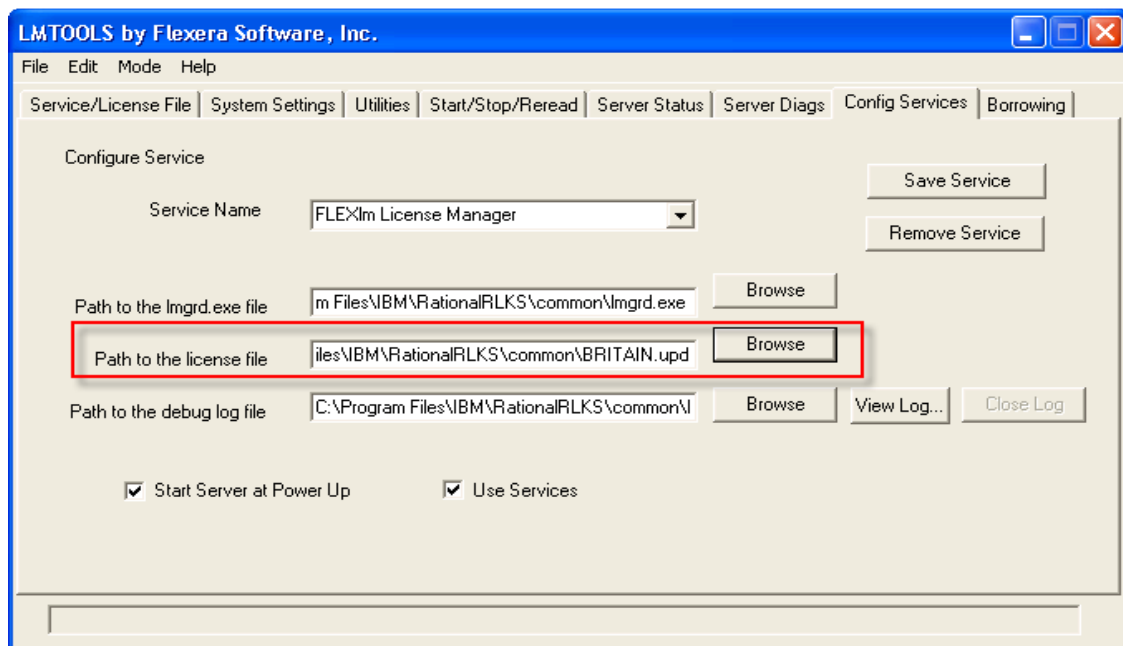
Above we see the file received from the vendor, and the location in which it was installed to be referenced later by RLKS.
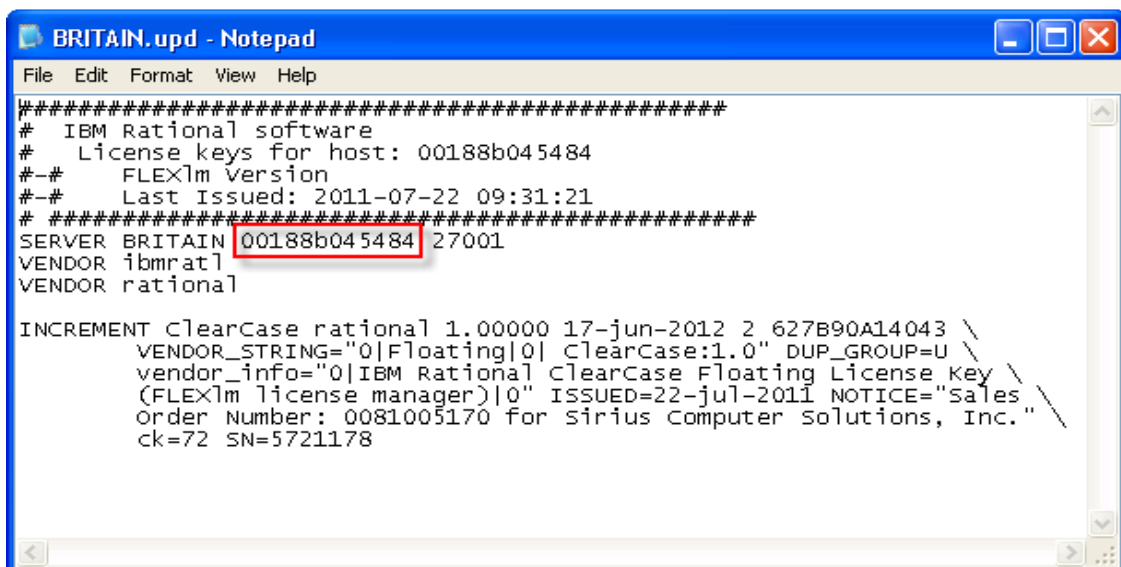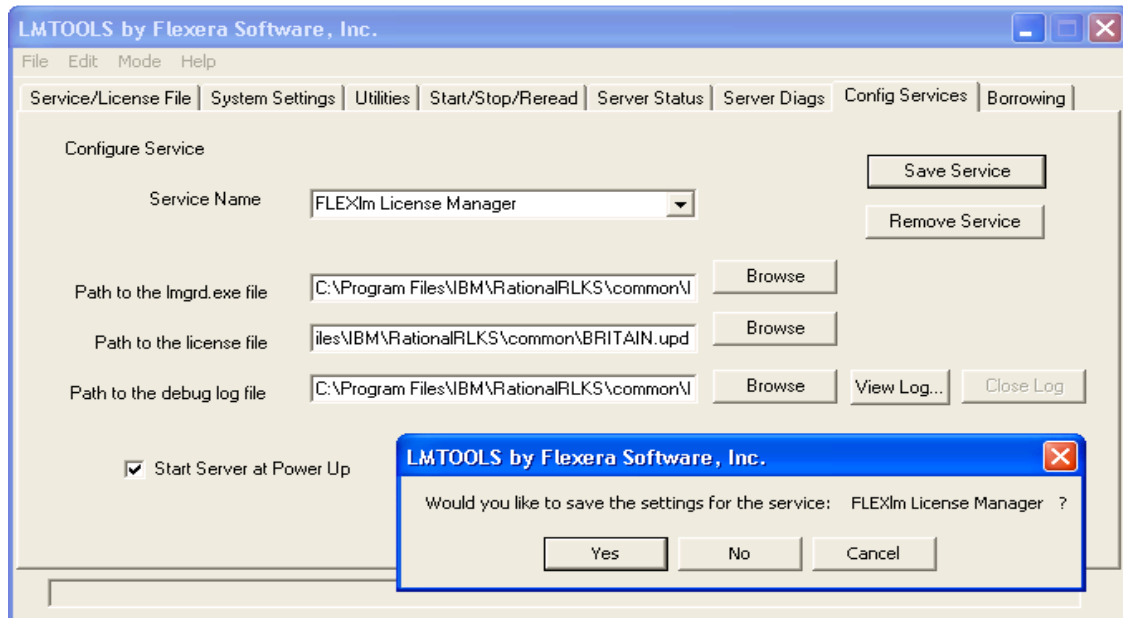

Here are the contents of the license file. Note that both the hostname and Ethernet address are a necessary part of the license file structure.
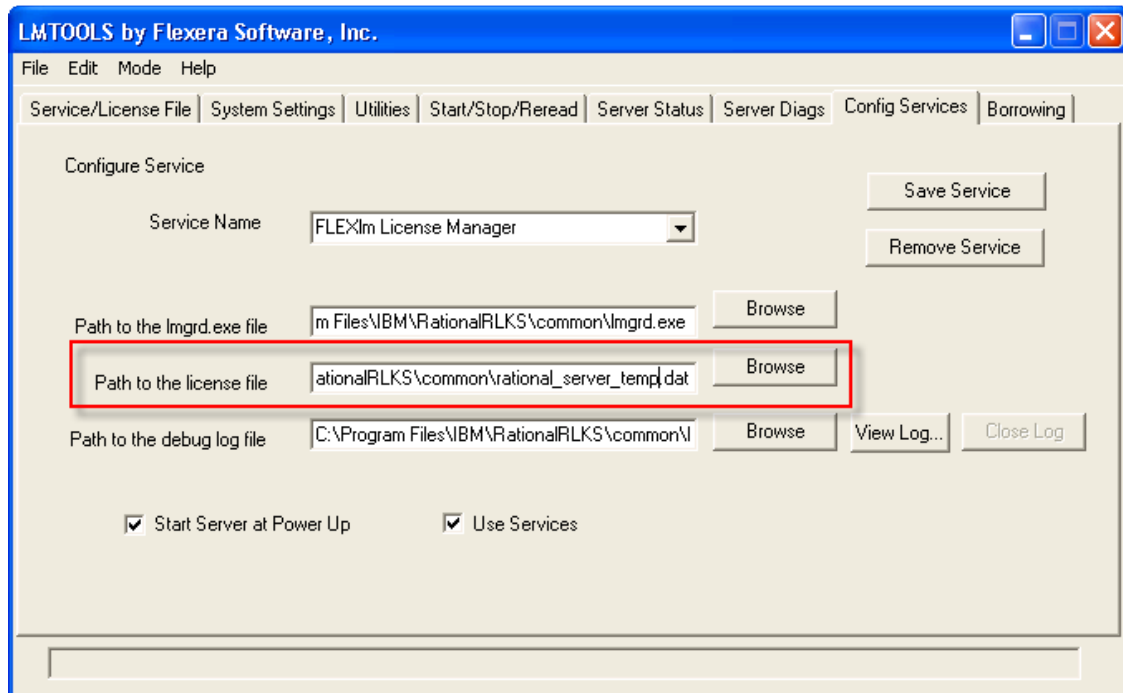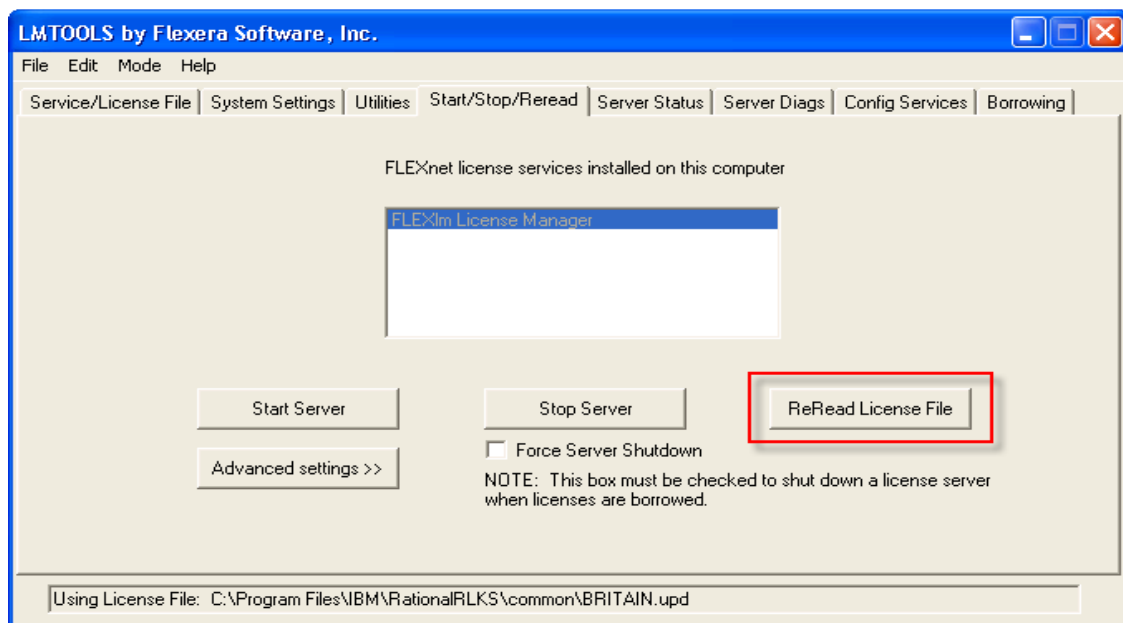
Click on the RLKS Config Services tab. Enter the name of the new vendor license file.

Once we have the correct license file specified, click Save Service to commit the change.

Give assent to the changes by clicking Yes on the pop-up that appears.

Then click on the Start/Stop/Reread tab, and click ReRead License File. This will cause the licenses to be imported into RLKS, after which they can be served out to client machines.
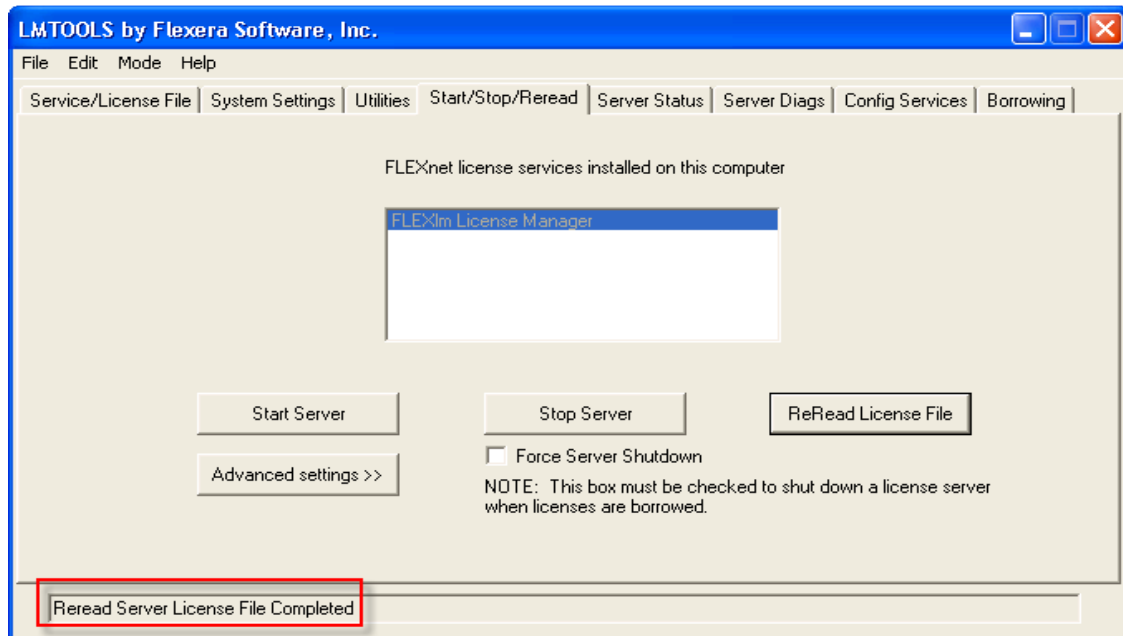
Note the text outlined in red, which acknowledges that we have reread the license file. We are now ready to start the license server and inspect the client LKAD software for the presence of valid licenses.
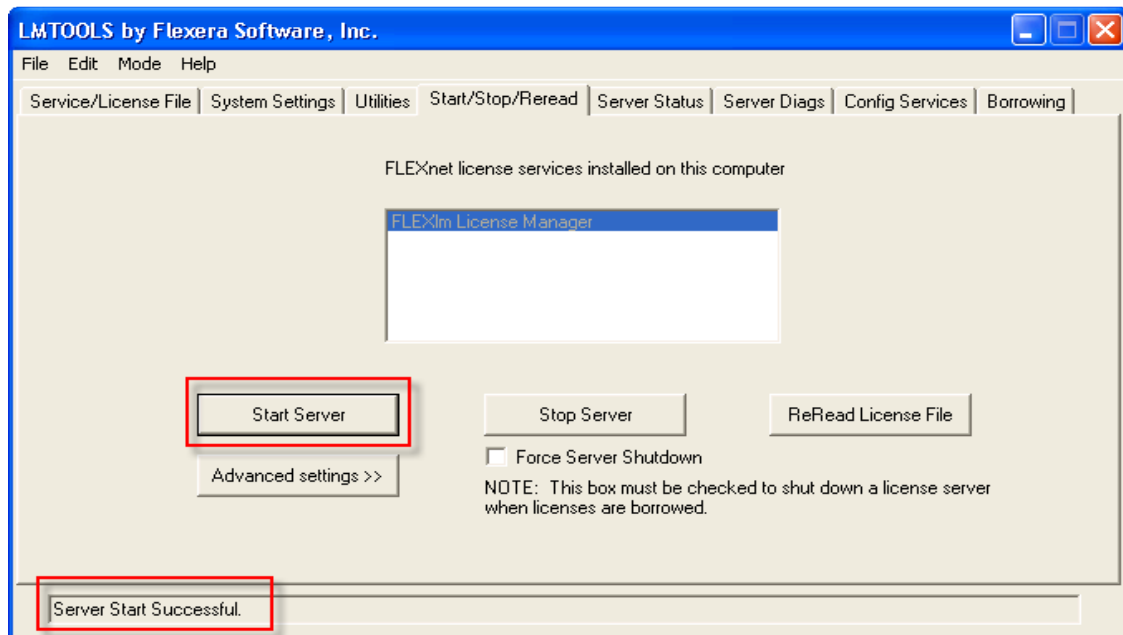
Click on Start Server, and note that RLKS started successfully.
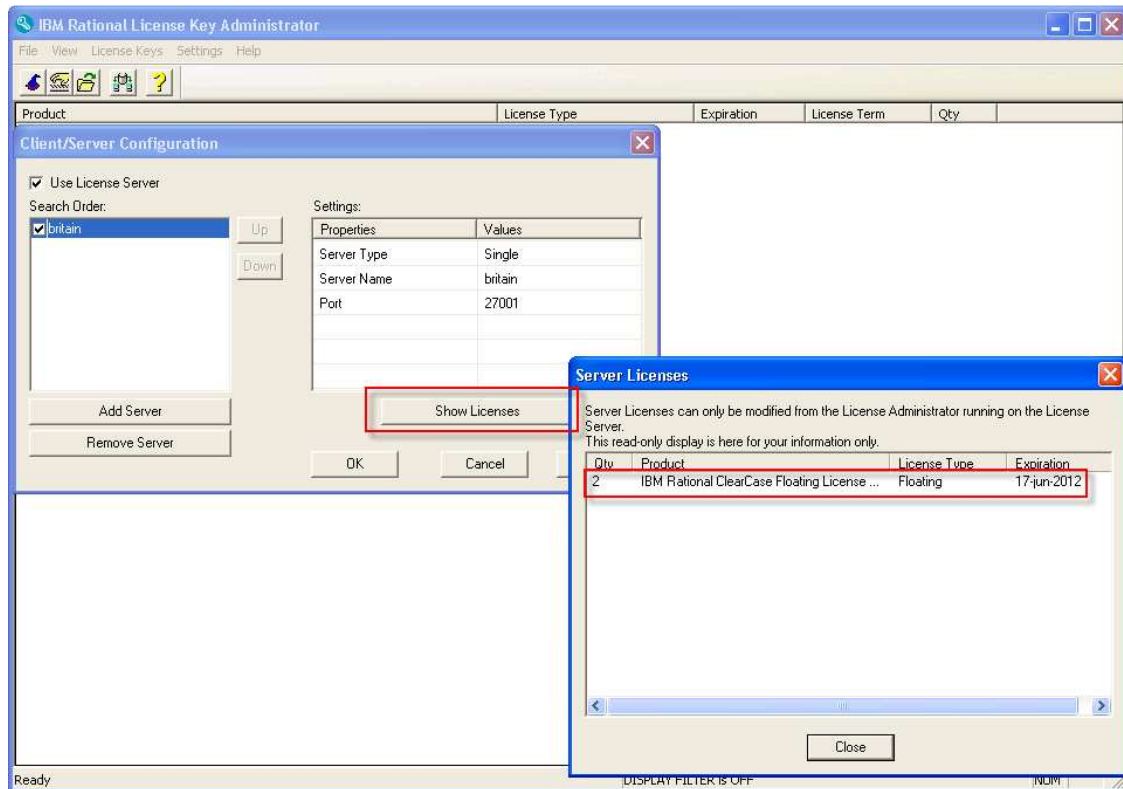
Above we have the client machine LKAD panel. Pull down the Settings menu, and select Client/Server Configuration. We first configure the server and port number in LKAD. We then click on Show Licenses and we can see in the subsequent pop-up the licenses that were contained in the license file that we received from the vendor and imported.
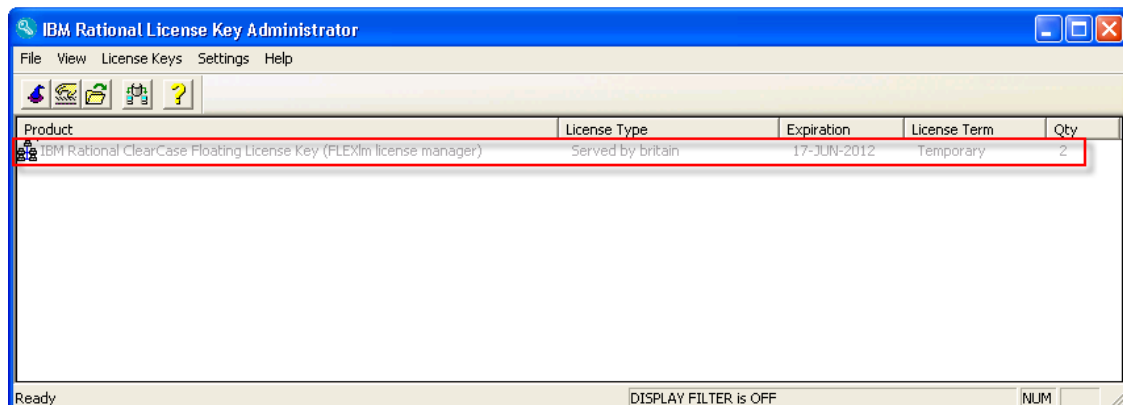
Close all the pop-ups, and now we see the licenses that the client machine recognizes.

If there were multiple servers available, LKAD could be configured to use any available servers, and the results would be displayed in the main window for the application.

This concludes our topic on setting up RLKS 8.1.1, along with a few tips on LKAD 8.1.1. Both can be on a single machine, which would make the machine both server and client, as shown in our example. Perhaps more common would be the case where RLKS is installed on a generic license server, which contains license software for other vendors and products, the machine being dedicated only to the task of serving licenses.

LKAD is required when installing Rational tools on a client machine. This is the communications link to the license server, and the Rational applications (ClearCase, ClearQuest, etc) communicate with LKAD in order to access the licenses which are being provided by the RLKS server.

As stated earlier, prior to version 8.1.1, LKAD was installed as part of the application package group. With the arrival of Rational 7.1.2, LKAD has been separated out and is now installed in its own package group. This is probably a better idea, since application packages can be installed and removed without affecting the LKAD which is installed on the client machine.