



License Migration and Creation



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Second Edition (February 2007)

This edition applies to version 2.3 of IBM Tivoli License Compliance Manager (program number 5724-D33) and to all subsequent releases and modifications until otherwise indicated in new editions.

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About this guide

This document is designed to help you work with licenses using Tivoli® License Compliance Manager, version 2.3. It includes information and instructions for migrating licenses created using Tivoli License Compliance Manager, version 2.2 and for creating new licenses. It includes the following chapters:

- Chapter 1, “Overview,” on page 1 which provides an overview of the means by which Tivoli License Compliance Manager is able to monitor the use of products and licenses.
- Chapter 2, “Migrating licenses,” on page 7 which provides instructions for converting the per-processor licenses used with Tivoli License Compliance Manager, version 2.2 to the processor value unit licenses introduced with version 2.3.
- Chapter 3, “Creating a license and resolving shared components,” on page 9 which provides a scenario describing the steps involved to ensure the correct monitoring of a product you plan to install.

About this guide

Chapter 1. Overview

Monitoring of software and license use by Tivoli License Compliance Manager depends on the following:

- The deployment of the Tivoli License Compliance Manager agent on the operating systems where software use is to be monitored. See “Deployment of Tivoli License Compliance Manager”
- The inclusion of the software program whose use is to be monitored as an entry in the Tivoli License Compliance Manager catalog of software products. See “The catalog of software products” on page 2
- The management of complex products, which might require you to provide information about the deployment of these products in your environment. See “Complex products” on page 3.
- The creation of a license definition that determines how the level of use will be calculated, for example by using the sub-capacity counting rules. “Licenses” on page 5.

Deployment of Tivoli License Compliance Manager

Figure 1 on page 2 shows the components of Tivoli License Compliance Manager deployed in a customer’s environment to monitor the computers **Lab135061** and **Lab238246**, both of which have two partitions. An agent is deployed to monitor the use of software products in each partition.

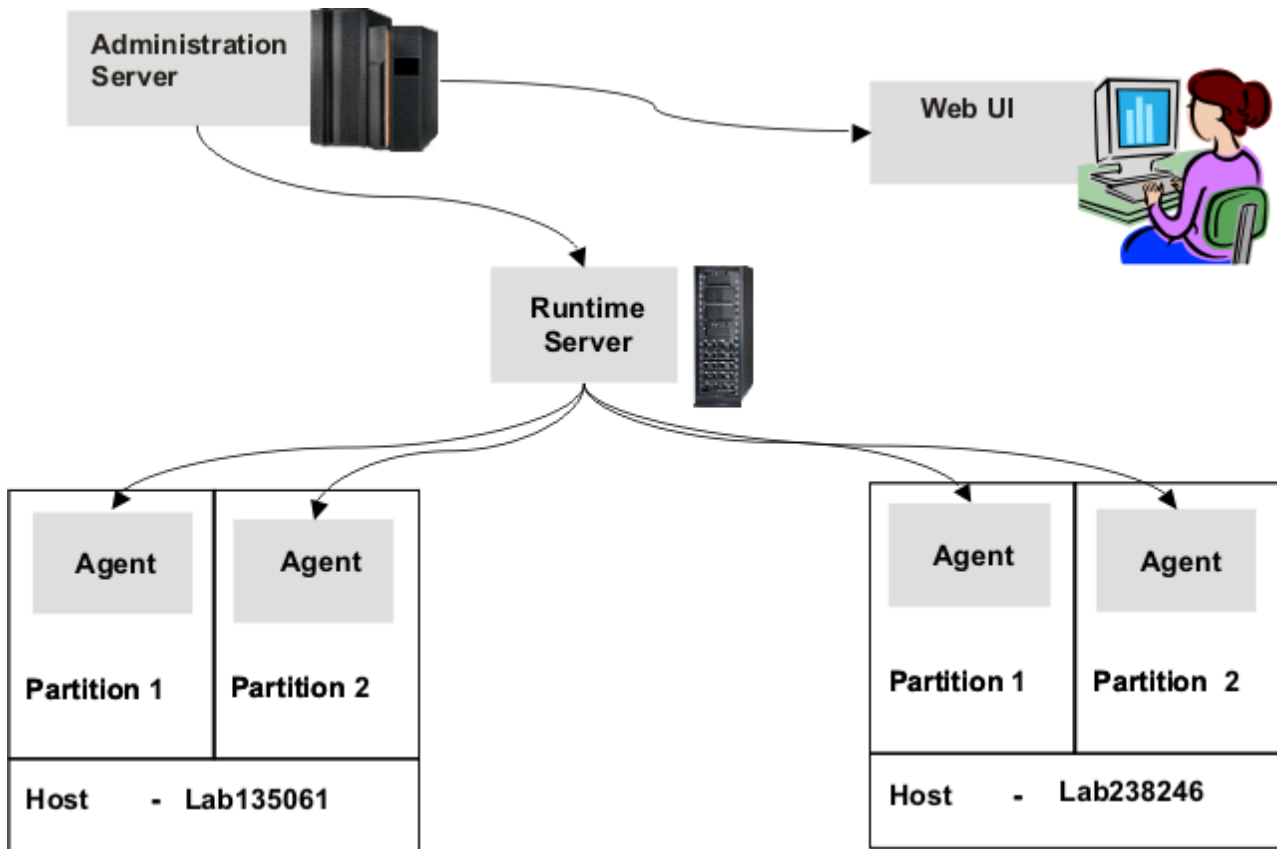


Figure 1. Deployment of Tivoli License Compliance Manager

The catalog of software products

The catalog of software products is a knowledge base, maintained by IBM®, that enables the agent to determine which software products are present and in use on a monitored computer. The catalog includes the following types of definition:

Product

Product definitions are held for each software product that can be detected by Tivoli License Compliance Manager. Each product is represented as a three-tier hierarchical structure of a software product, its versions, and releases. The purpose of the hierarchical structure is to provide levels at which licenses can be assigned and reports can be produced. For example you can define a license at release level to cover a single release or selected releases or you can define the license at a higher level to cover all releases in a selected version or the entire product.

Component

Each product release can contain one or more components. A component represents the actual physical program or part of a program that is installed in an environment. A component is always linked to at least one product at release level. It can be linked to more than one, in which case, the products that share the component are described as *complex products*. Products that do not share any components are described as *simple products*.

Signature

A definition of a file, registry entry, or other identifier included in the

catalog that is used by the Tivoli License Compliance Manager agent to identify software products installed or in use on monitored nodes. A signature is linked to a product component. The detection of a signature indicates the component is installed on the monitored computer.

Complex products

Complex products are products, which are included in the catalog and can be monitored and assigned to licenses, that share a component with another product. The inclusion of complex products in the catalog is designed to cover situations where software that is detected by the agent could potentially be licensed as part of more than one product. Examples of these situations include products that can be included in *bundles* and products that can be managed under a *reference products* license agreement.

Figure 2 illustrates a structure where some of the components of a product defined in the catalog are shared with other products.

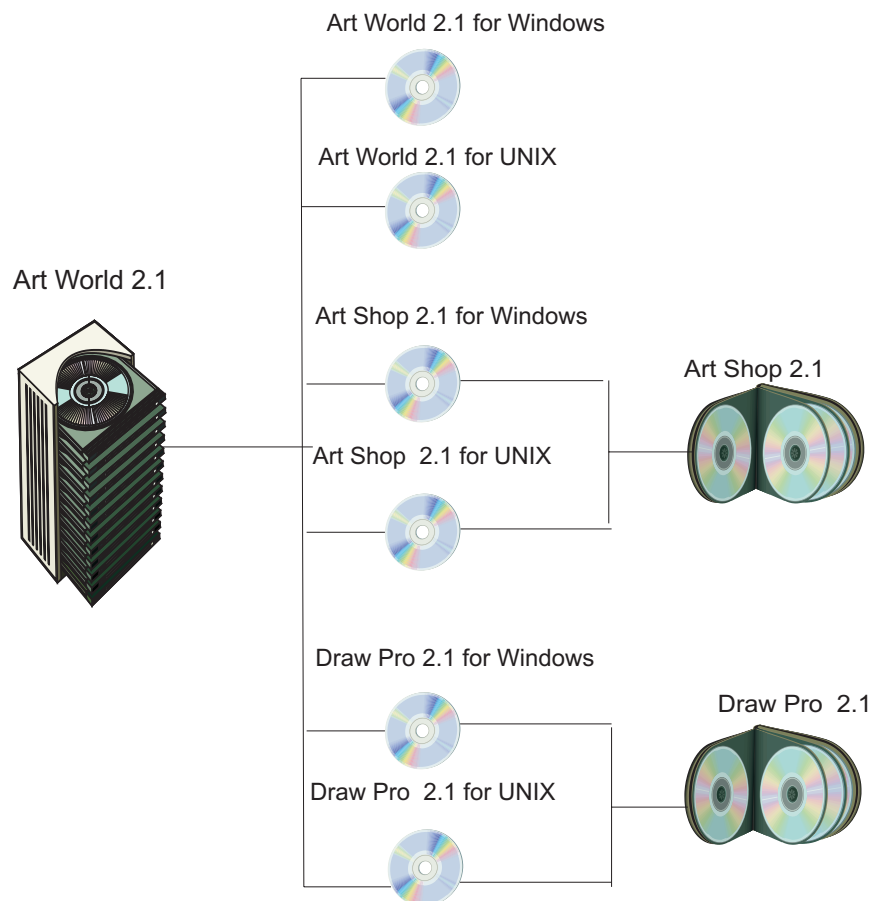


Figure 2. A complex product structure

Art World 2.1 is a bundle that is available on Windows[®] and UNIX[®] systems. It provides a desktop from which the graphics programs Art Shop, 2.1 and Draw Pro 2.1 are available as an integrated graphics package. The license conditions for Art World 2.1 cover the installation and use of Art Shop 2.1 and Draw Pro 2.1. Art Shop 2.1 and Draw Pro 2.1 are both also available as independent licensed products.

The catalog definition, as illustrated in Figure 2 on page 3, identifies the installable programs for the products Art World 2.1, Art Shop 2.1, and Draw Pro 2.1 as components. The Windows and UNIX Art World components are not shared. If either is detected by an agent its use or presence can only be assigned to a license for Art World 2.1. The components of Art Shop and Draw Pro are shared. Their use or presence could be assigned to a license for Art World 2.1 or to licenses for Art Shop 2.1 and Draw Pro 2.1 respectively. The products Art World 2.1, Art Shop 2.1, and Draw Pro 2.1 are all complex products because they all contain shared components.

A similar structure would be used to describe the relationship between a reference product and its managed product. In this type of license agreement, the license use of the reference product depends on the level of use of the managed product. The product that acts as the managed product under the reference product agreement could however be licensed as a standalone product. The catalog would represent the installable software as a component. The component would be linked to the product structure of the reference product and to the product structure of the standalone product.

When a component is shared, the agent might not be able to identify the product that it belongs to using only the information in the catalog. Additional information about product deployment in your environment might be required. Tivoli License Compliance Manager adopts the following strategy to correctly assign shared components while minimizing the information you must supply:

- The discovery of complex products is disabled by default. If you create a license for a product, discovery is enabled. As long as only one of the products that share a component is enabled, Tivoli License Compliance Manager is able to automatically resolve the ownership of the shared component, mapping any instance of the shared component that is discovered to the enabled product.
- In cases where two or more products that share a component are enabled, you must provide information about the deployment of these products in your environment. For each agent that monitors a computer or partition where the shared component is installed, you must map the component to the appropriate product. Figure 3 on page 5 illustrates this type of scenario.

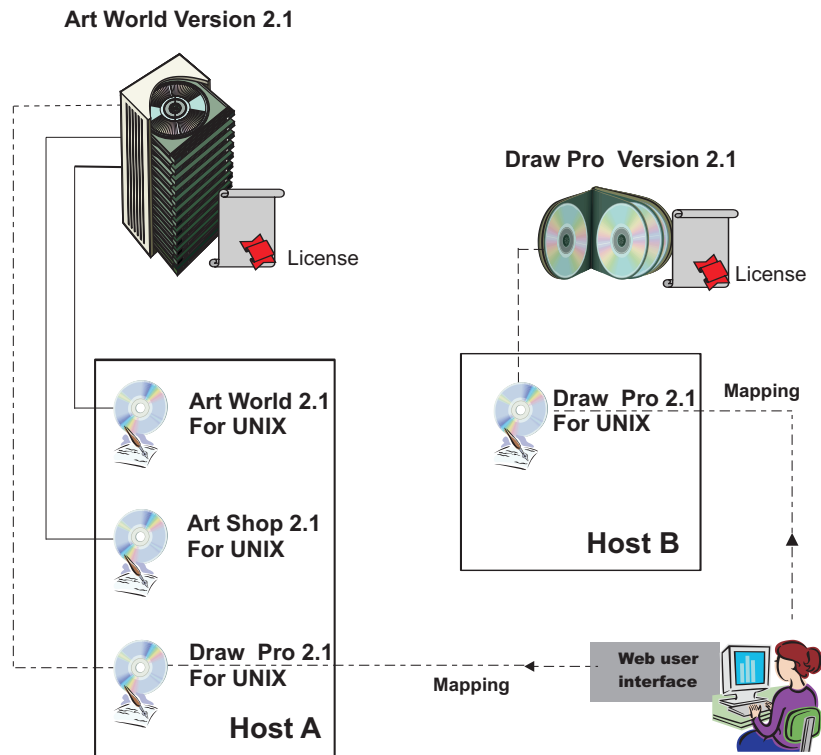


Figure 3. Shared components mapped to different licensed products

In the scenario illustrated by Figure 3, Tivoli License Compliance Manager discovers the presence of Art World 2.1 for UNIX, Art Shop 2.1 for UNIX and Draw Pro 2.1 for UNIX on host A and the presence of Draw Pro 2.1 for UNIX on Host B. The only available license for the Art World and Art Shop components is for Art World 2.1. Therefore all information collected by the agents for these two components is automatically assigned to the Art World product and license. For the two instances of the Draw Pro component there are two possible licenses: Art World 2.1 and Draw Pro 2.1.

Using tasks from the Manage Complex Product task group on the Web user interface, you must define mappings that identify the instance of Draw Pro 2.1 for UNIX installed on Host A as a component of Art World 2.1 and the instance installed on Host B as a component of Draw Pro 2.1.

Licenses

A Tivoli License Compliance Manager license comprises the following parts:

General and business information:

This includes license type, for example sub-capacity, and the licensed quantity.

Products covered by the license

A license can be assigned to one or more of the products that are included in the catalog. Each product in the catalog is organized in a hierarchical structure, formed by the product, versions of the product, and releases of each version. You can assign the license to a product at any of these levels.

License distributions

A license distribution determines the computers or partitions to which the license is applicable. The license can be open to all computers or could be limited to specified computers or partitions.

Careful definition of the license distribution enables you to have different license conditions for different installations of the same product. This is particularly important if you are using a product licensed under sub-capacity rules in the same environment as the same product that is licensed under a different agreement. In such a case, failure to limit the sub-capacity license to the node or partition where the sub-capacity product is running could result in use information originating from the non-sub-capacity installation of the product being included in the IBM report.

The task of creating new licenses eased by support for electronic entitlements. You can request and download electronic entitlements for processor-based licenses from the License Management Support site. The electronic entitlement is imported as part of the license creation task and automates the definition of the license, including assignment of the correct product.

Chapter 2. Migrating licenses

This chapter provides instructions for migrating per-processor licenses, defined using Tivoli License Compliance Manager, version 2.2, to the processor value unit licenses that are introduced with version 2.3.

Converting per-processor licenses to processor value unit licenses

Following upgrade to Tivoli License Compliance Manager, version 2.3, any new electronic entitlements you obtain will be for processor value unit licenses. Before creating a processor value unit license, you must convert all existing per-processor licenses to processor value unit licenses, using the **convertlic** command from the administration server command line interface.

The command converts the license type of each license as shown in

Table 1. License types before and after conversion

License type before conversion	License type after conversion
IPLA Sub-Capacity	IPLA Value Unit Sub-Capacity
IPLA Full Capacity	IPLA Value Unit Full Capacity
Install IPLA Sub-Capacity	Install IPLA Value Unit Sub-Capacity
Install IPLA Full Capacity	Install IPLA Full Capacity Install IPLA Value Unit Full Capacity

To convert all per-processor licenses that you have set up for IBM products, complete the following steps:

1. Open an administration server command line session:

Windows

Open the **Start** menu and click **Tivoli License Compliance Manager >Admin CLI**.

UNIX

- a. Open a shell window and change to the directory:
`<INSTALL_DIR>/admin/cli`
 - b. Enter the command:
`./tlmcli`
2. Launch the command:
`convertlic -a`

Migrating licenses

Chapter 3. Creating a license and resolving shared components

This chapter provides a scenario that describes the creation of a new license for a complex product that is to be installed and the resolution of shared components of the complex product. See “Complex products” on page 3 for information about shared components.

Preparing to install a complex product

A decision has been made to license WebSphere Application Server, version 6.0. The system resources manager determines where the product will be installed and the procurement manager requests an electronic entitlement from the License Management Support web site.

Figure 4 on page 10 shows the planned deployment of the product and the other products that are currently installed in the environment.

Preparing to install a complex product

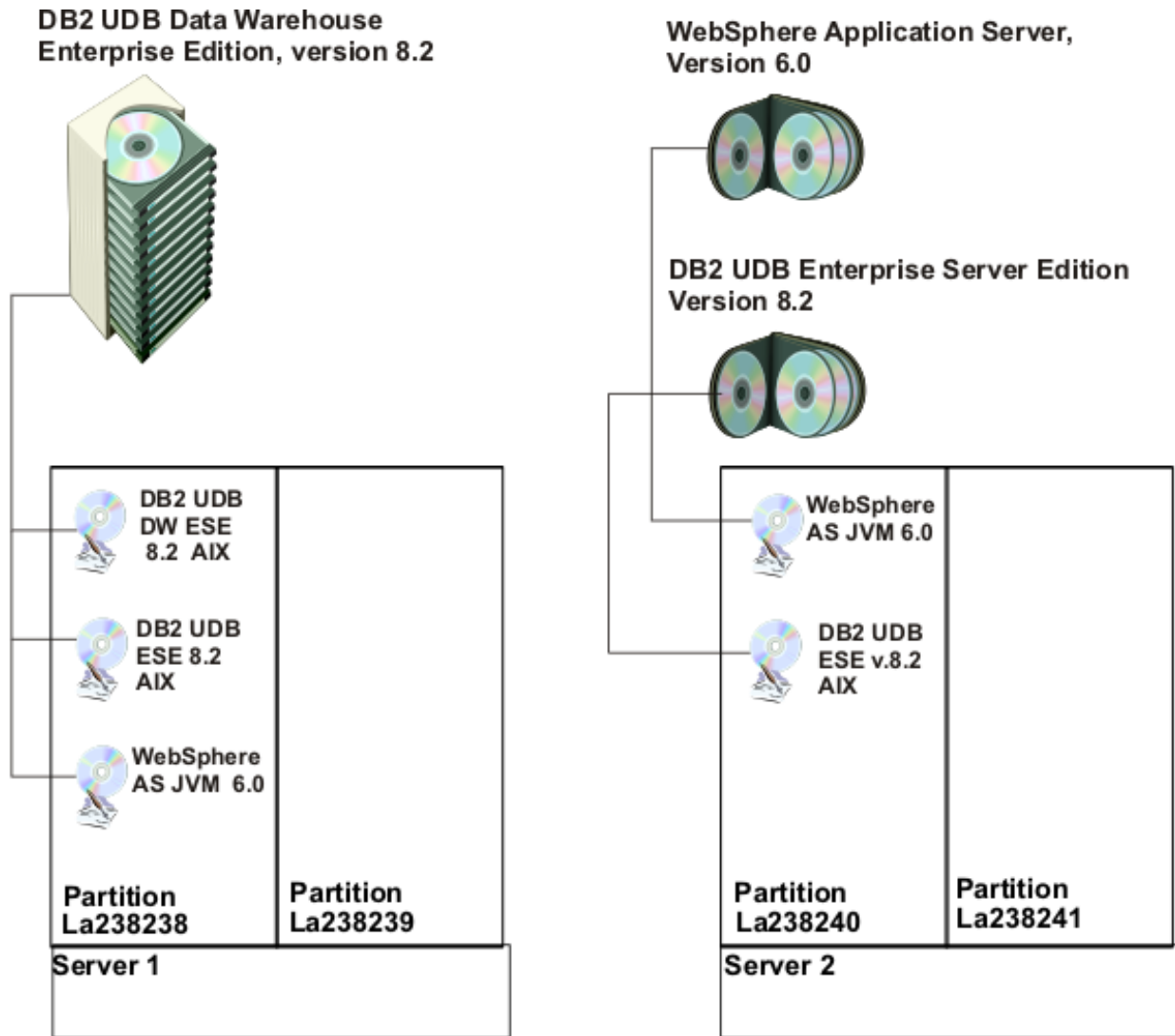


Figure 4. Proposed deployment of WebSphere Application Server 6.0

The WebSphere AS JVM 6.0 component, which will be installed in partition la238240, is already present in partition la238238 as part of the DB2 UDB Data Warehouse product. Currently the only product using this component is Data Warehouse, so the component installed in partition la238238 has been automatically mapped to the Data Warehouse product with no need for user intervention. Definition of the license for WebSphere Application Server 6.0 will enable discovery of the product in the environment with the result that when a new instance of the component is installed, it will not be possible to automatically determine the product to which it should be mapped.

The following tasks are required to ensure correct monitoring of the new and existing products:

- Obtain an electronic entitlement for WebSphere Application Server, version 6.0. See “Generating and downloading electronic entitlements” on page 11.
- Create a license for WebSphere Application Server, version 6.0. See “Creating the license” on page 12.

- Define the mapping to resolve ownership of the planned instance of the WebSphere AS JVM 6.0 component. See “Mapping shared components” on page 14.

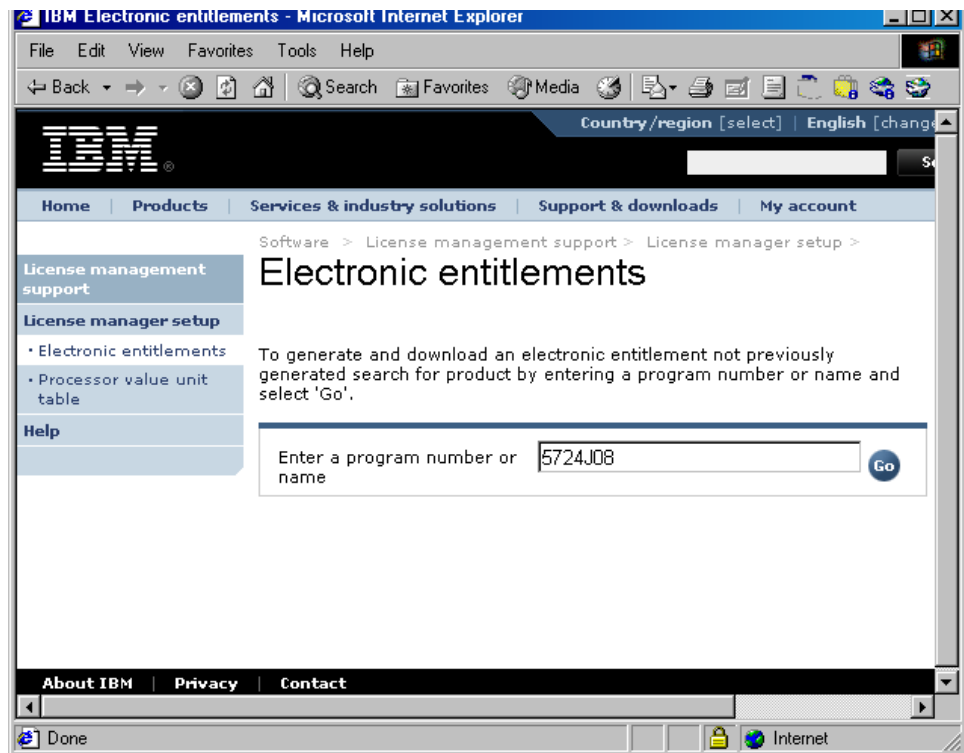
Generating and downloading electronic entitlements

An electronic entitlement is a machine-readable file that contains information about a software license. It can be used to quickly define licenses for IBM products, avoiding errors that might occur when the definition of license information is done manually using the Web UI.

Authorized Passport Advantage Online users can access facilities on the License Management Support site to generate and download electronic entitlements.

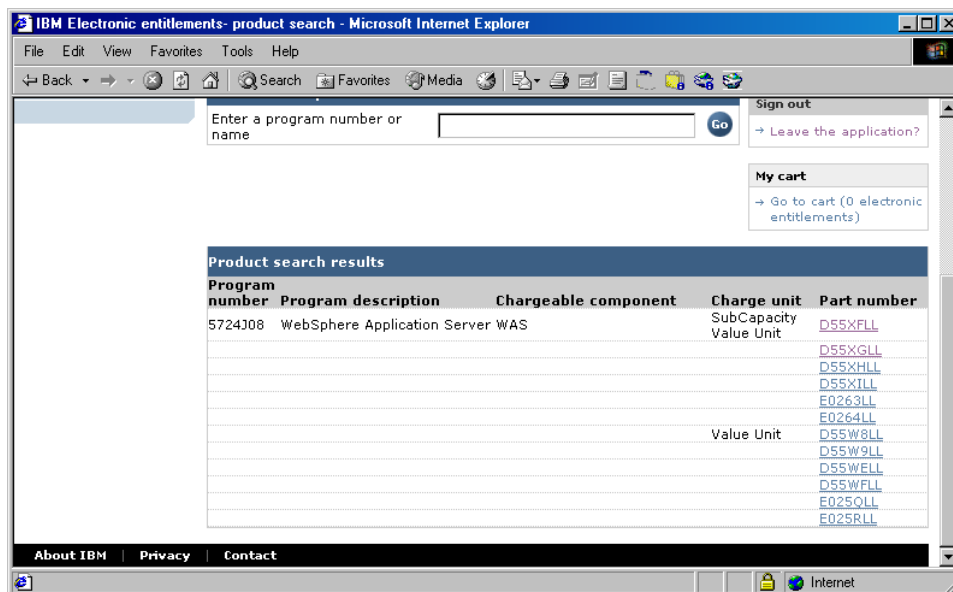
To generate an electronic entitlement and download, complete the following steps:

1. Access the License Management Support site at the following Web address: <http://www.ibm.com/software/lms> and click **Sign in**.
2. Sign in using the IBM ID and password of an authorized Passport Advantage Online user for your organization.
3. Select **License Manager set up** and then **Electronic entitlements**.

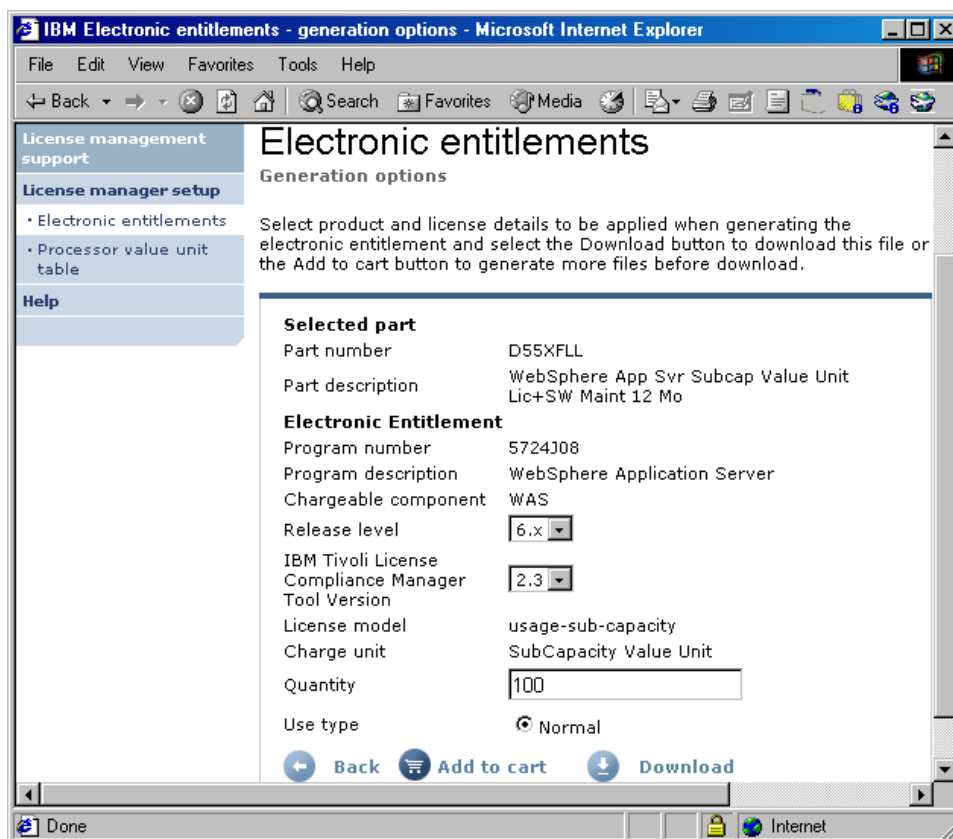


4. Supply the name or program number of the product for which you require an entitlement and click **Go**.

Preparing to install a complex product



5. Click the part number you require.



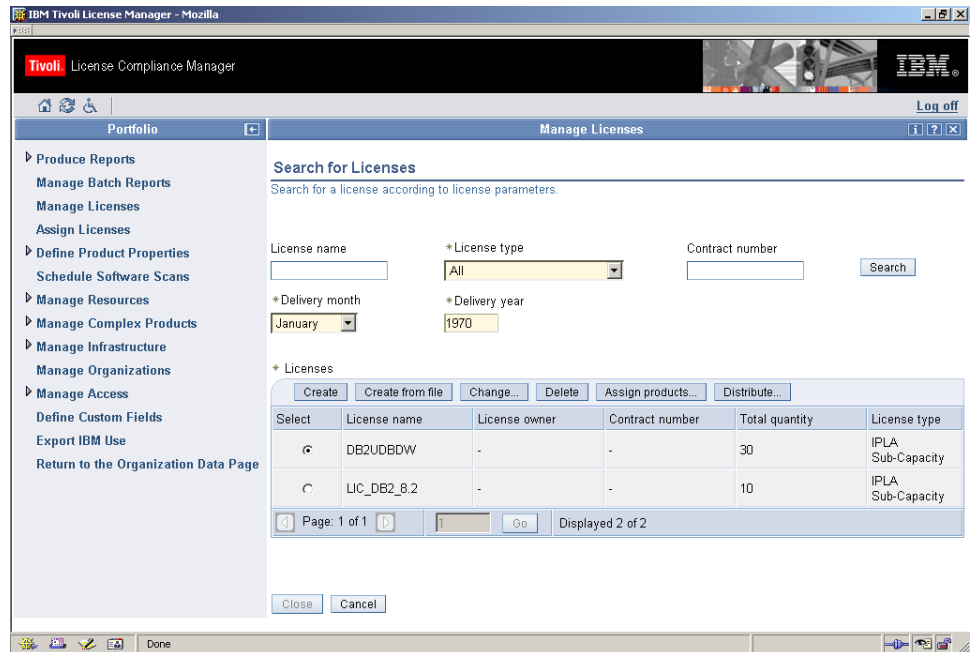
6. Check that this is the entitlement you require and enter the quantity required.
7. Click **Download** to save the electronic entitlement in your environment.

Creating the license

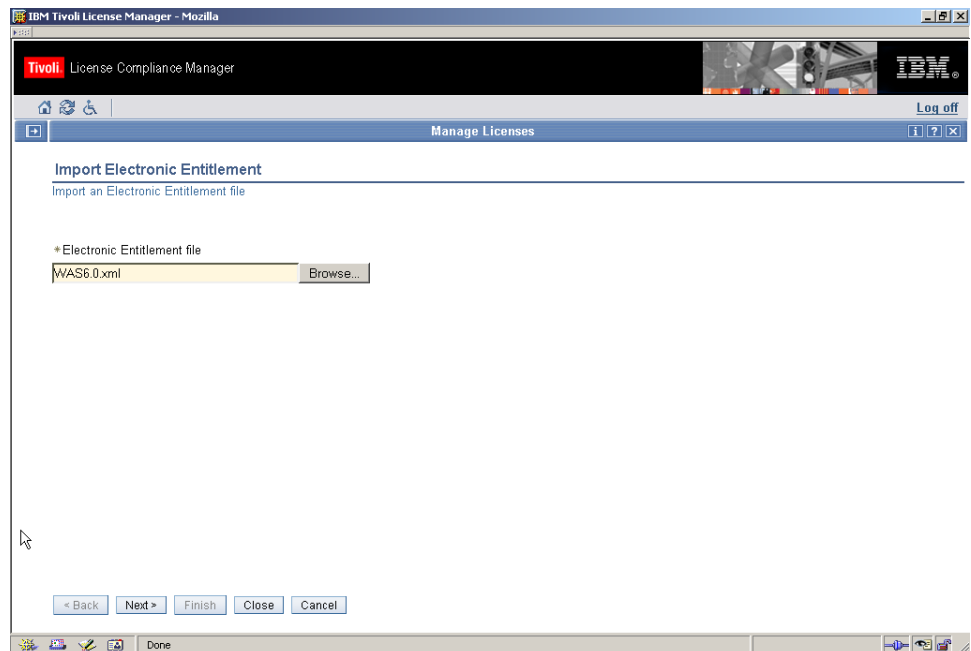
To create a license using the electronic entitlement obtained from the License Management Support Web site, complete the following steps:

Preparing to install a complex product

1. Log on to the Web UI as a procurement manager, license administrator, or administrator.
2. In the portfolio, click **Manage licenses**.

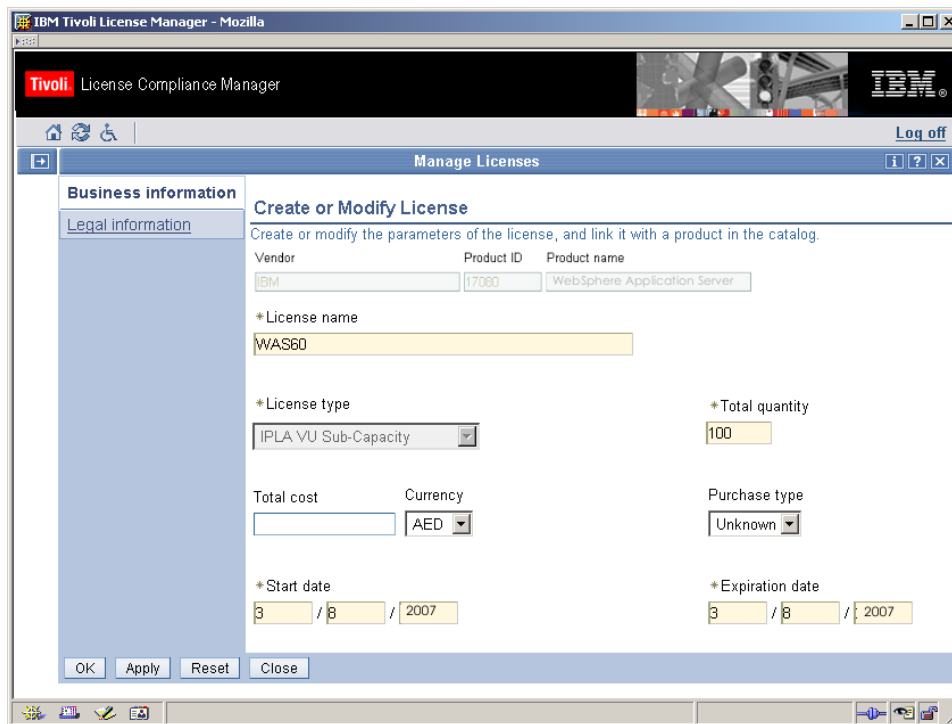


3. Click **Create from file**.



4. Type the path name of the electronic entitlement file or click **Browse** to select the file. Click **Next**.

Preparing to install a complex product



The screenshot shows the IBM Tivoli License Manager web interface in a Mozilla browser. The page title is 'Manage Licenses'. On the left, there are tabs for 'Business information' and 'Legal information'. The main content area is titled 'Create or Modify License' and contains the following fields:

Vendor	Product ID	Product name
IBM	17060	WebSphere Application Server

*License name: WAS60

*License type: IPLA VU Sub-Capacity

*Total quantity: 100

Total cost: [] Currency: AED

Purchase type: Unknown

*Start date: 3 / 8 / 2007

*Expiration date: 3 / 8 / 2007

Buttons at the bottom: OK, Apply, Reset, Close.

The Vendor, Product ID, Product, and License Type are taken from the electronic entitlement and cannot be changed.

5. Complete the remaining information and click **OK**.

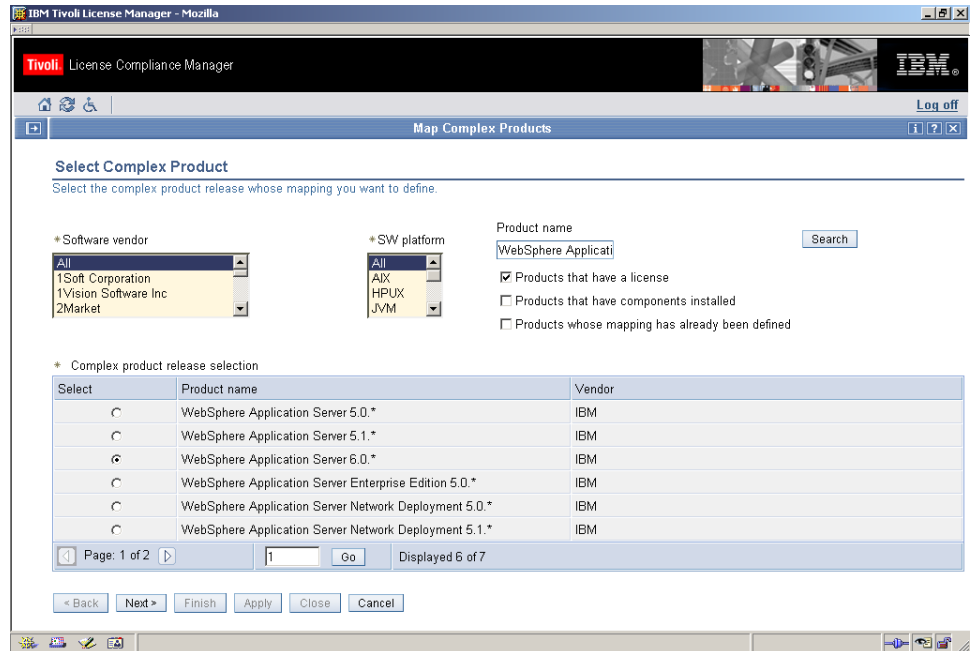
Mapping shared components

Following the creation of the license for WebSphere Application Server, version 6.0, any new instance of the WebSphere AS JVM 6.0 component has two potential owners: WebSphere Application Server, version 6.0 and DB2 UDB Data Warehouse, version 8.2. The currently installed instance of the component was automatically mapped to the DB2 UDB Data Warehouse when the component had only one potential owner and needs no further action. For the planned instance, you must use the Map Complex Products task on the Web UI to provide the information needed to resolve the ownership of the shared component.

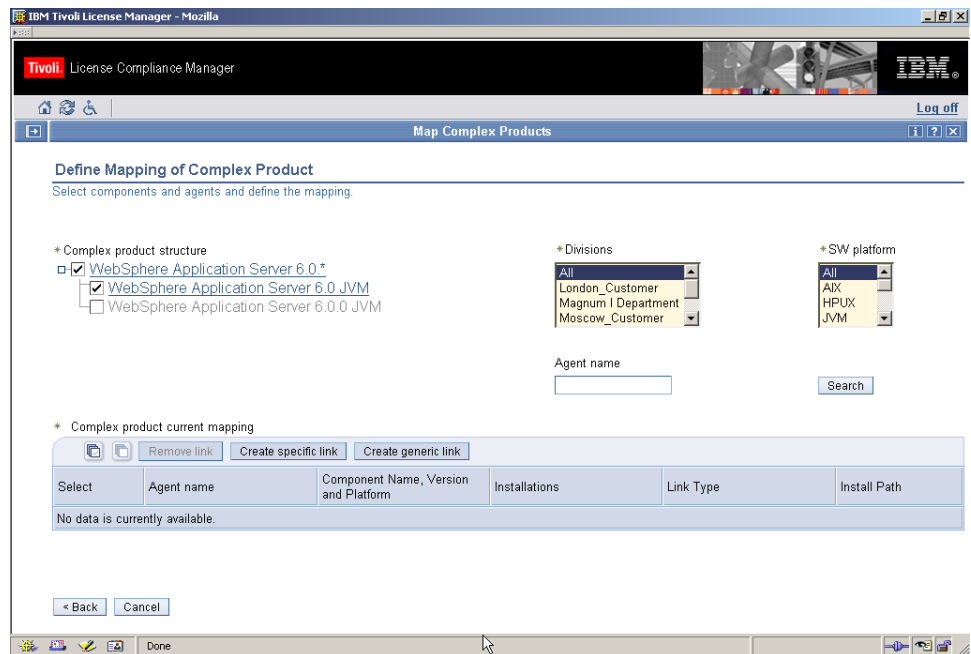
To map the shared component, complete the following steps:

1. Log on to the Web UI as system resources manager or administrator.
2. In the portfolio, click **Manage Complex Products ► Map Complex Products**.

Preparing to install a complex product

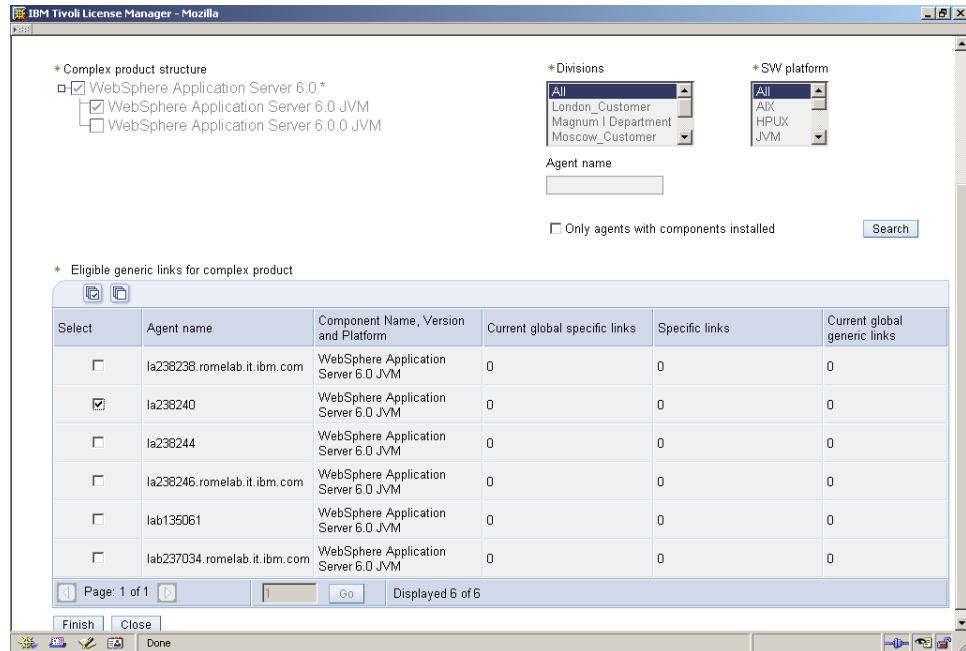


3. Clear the **Products that have components installed** check box and search for the WebSphere Application Server product, select it and click **Next**.



4. Click **Create generic link**.

Preparing to install a complex product



5. Select the WebSphere Application Server 6.0 JVM component on agent la238240.
6. Click **Finish**.

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