

DownStream Installation Guide

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System Requirements

Software

- Windows® 2000, XP, Vista, or Windows 7 (32 and 64 bit)
- Microsoft® Office 2003 or later
- Internet Explorer 5.0 or later
- **Note: DownStream software cannot be licensed to Virtual Servers without the use of a hardlock device (also known as a “dongle” or “hardware key”).**

Hardware

- Processor: 1GHZ or faster
- Memory: 2 GB RAM
- Disk Space: 200MB available

User

- You must have Administrator or Power User privileges under Windows XP to install a DownStream product. If you have Restricted User privileges you may not be able to install the DownStream product. In this case, please contact your network administrator.

About Installation

DownStream's installation program allows you to install the BluePrint-PCB and CAM350 products (“DownStream products”), a license file and a license manager. The license file and a license manager must be installed to run the product.

License Terms	Definition
License file	DownStream products require a license file to run. The license file is named license.dat and defines the product, functionality and number of licenses that can be run. You will receive a license file from DownStream Technologies after you purchase the product.
License Manager	DownStream products require a license manager to run. The license manager reads the license file and services requests to run the DownStream product and to access specified functionality. A license manager can be installed on your local computer to service a single product client or on a network server to manage requests of multiple product licenses from several product clients.

About DownStream Product Licenses

DownStream's licensing requires a license file and a license manager to run the product. The licenses defined in the license file can be locked to a hardware key, to a specific computer network adapter or shared on a network.

License Terms	Definition
Keyless	DownStream products do not require a hardware key (or "dongle"). Instead, DownStream products can use a network adapter physical address as unique identification for licensing.
License file	DownStream products require a license file to run. The license file is named license.dat and defines the product, functionality and number of licenses that can be run. You will receive a license file from DownStream Technologies after you purchase the product.
License Manager	DownStream products require a license manager to run. The license manager reads the license file and services requests to run the product and to access specified functionality. A license manager can be installed on your local computer to service a single product client or on a network server to manage requests of multiple product licenses from several product clients.
Client Computer	The user computer(s) which the DownStream product is installed and will run on.
License Server	The network computer which the DownStream license manager is installed and runs on.
Node-locked license	A DownStream product license which is locked to a specific computer's network adapter physical address. The license can only be used to run the DownStream product on a single computer.
Floating license	A DownStream license which runs one product client at a time, on any computer on your network. In other words, a floating license is a single product license that can be "floated" to any computer on your network. A license manager is needed to "float" a license.
Networked license	A DownStream product license which allows a specified number of product clients to run at the same time and on multiple computers on your network. A license manager is used to control the number of licenses that can be "checked out." You may use any computer on your network as your "License Server."

Getting a License file

A license file is required to run DownStream products.

Purchase or Evaluation

1. The License file contains the ethernet physical address for the computer (license server) that will run the DownStream license manager. We will need that information to create a license file for you. To get the ethernet physical address for the license server:
 - Go to the computer that will run the DownStream license manager and type **IPCONFIG /ALL** from the **Command Prompt** window. The **Command Prompt** window can be accessed from Microsoft Window's **Start - Programs - Accessories** menu.
 - Look for **Physical Address** under **Ethernet Adapter Local Area Connection**. The physical address will be represented by 12 hexadecimal numbers.
2. In most cases, DownStream Technologies requires this ethernet physical address information at the time of sale. E-mail this information to your salesperson. In all other cases, or if you require further assistance, contact us with the information:
 - Call us at 1-800-535-3226
 - Fax us at 1-508-481-0362
 - Email us at licenses@downstreamtech.com
 - Contact Technical Support at 1-408-971-2241 or support@downstreamtech.com
3. You will receive an e-mail response with a license.dat file created for you. Open the license file in a text editor and verify that the ethernet physical address corresponds to your license server and is correct. Use the DownStream installation program to install the license file in the appropriate directory for your license server.

New Release while on Support

If we release a new version of your DownStream product and you are a active support customer then we will include your new license file on the installation media. When you run the DownStream install you will have the option to install the license file from the installation media.

Installing a DownStream Product for a Single User

If you have purchased a floating license (single user license that can be shared) or a node-locked license (single user license that can not be shared), you should follow the instructions below to install a DownStream product:

1. Close all programs.
2. Choose one of the following:
 - If installing from an installable file on your hard drive (you have downloaded the DownStream Installation executable from the DownStream Website) then select and execute that file. Skip steps 3 and 4.
 - If installing from a CD, insert the DownStream CD into your CD-ROM drive. The installation starts automatically and you can skip steps 3 and 4 when Autorun is enabled on your system.
3. If you do not have Autorun enabled, from the **Start** menu, select **Run**.
4. Type **D:\setup** (substitute the appropriate letter of your CD-ROM drive for D).
5. DownStream Technologies Installation Wizard should now be running.
6. Accept the DownStream Technologies License Agreement and select **Next**.
7. Select the **Install License File** button.
8. Enter **Customer Information**, select **Setup Type** and select **Program Folder**. Select **Next** to proceed from each dialog.
9. Select the **License File Installation Option** and select **Next**. The DownStream Install will read the license file, recognize that it is a node-locked or floating license file and install the license file (and license manager for floating) in the appropriate directory.
10. Check the Setup Information and select **Next**.
11. Select **Finish**. You have installed your license file.
12. The Installation Wizard will now ask if you would like to install the DownStream products. Select **YES**.
13. Enter **Customer Information**, select **Setup Type** and select **Program Folder**. Select **Next** to proceed from each dialog.
14. Check the Setup Information and select **Next**.
15. Select **Finish**. You have installed your DownStream product.

Sharing a Single User License

A DownStream floating license is a single user license that can be shared with any computer on your network. You can view your floating license as a single user network license, where your computer can be setup as the network license server for anyone you wish to share your license. When you [Install a DownStream product for a Single User](#) using a Floating License you have already set up your computer as both a product Client and a License Server. To allow another computer to share your Floating License all you need to do is install the DownStream product on that Client computer using your Floating License as the Client License and your computer name as the Licence Server name.

Note: The floating license is a single license. When you are using your DownStream product the license is "checked-out" by the license manager and no one else can use that license. Conversely, if someone else has "checked-out" your floating license you can not use it to run your DownStream product until that user has exited the product and the license is "checked back in" to the license manager.

To Share your Floating License:

The following instructions assume that you have already installed your DownStream product and your Floating License on your computer using the instructions for [Installing a DownStream product for a Single User](#).

1. On the Client computer run the DownStream [Installation Wizard](#).
2. Accept the DownStream Technologies License Agreement and select **Next**.
3. Select the **Install your DownStream product** button.
4. Enter **Customer Information**, select **Setup Type** and select **Program Folder**. Select **Next** to proceed from each dialog.
5. Select the **Browse to find License File** option from the License File Installation Option dialog and select **Next**. Browse to select the DownStream Floating License file from the License Server.
6. In the next dialog, enter the **computer name** of your License Server. If you don't know your License Server computer name you should contact your network administrator. Select **Next**.

Note: The License Server computer name can be found on the License Server computer by selecting **Start - Control Panel - System - Computer Name** tab from Microsoft Windows.

7. Check the Setup Information and select **Next**.
8. Select **Finish**. You have installed your DownStream product and its License file on the Client computer.
9. You can now run your DownStream product on your computer (which is also the license server) or on the Client computer you just set up. Only one of these computers can run the DownStream product at a time.

Installing a DownStream product for a Multiple User License

About Multiple User Licenses

A DownStream Network License allows multiple users to run a DownStream product simultaneously on multiple computers on your network. The license file specifies the number of licenses and product functionality that can be accessed and a license manager is used to service the license requests. When a user runs a DownStream product, the product makes a request to the license manager for a license. If the license is available then it is "checked out" and the product can run. If a license is not available the license request will fail and the product will not run. When the user exits the product the license is "checked in" to the license manager and is available to be requested by another product user. The computer that runs the license manager is considered your "License Server".

You may use any computer on your network as your License Server. The computer that runs the DownStream product in a network configuration is considered a "Client."

Installing the License Manager

A DownStream product requires a license manager to run with a floating or network license. The license manager reads the license file and services requests to run the DownStream product with specified functionality. A license manager can be installed on your local PC to service a single product client or on a network server to manage requests of multiple product licenses from multiple product clients.

The computer that runs the license manager is the "License Server."

1. Run the DownStream [Installation Wizard](#) on the License Server computer.
2. Accept the DownStream Technologies License Agreement and select **Next**.
3. Select the **Install License File** button.
4. Enter **Customer Information**, select **Setup Type** and select **Program Folder**. Select **Next** to proceed from each dialog.
5. Select the **Browse to find License File** option from the License File Installation Option dialog and select **Next**. Browse to select the DownStream Network License file.
6. Check the Setup Information and select **Next**.
7. Select **Finish**. You have installed the License Manager and the Network License file.

Note: The License Manager has been started after installation. The License Manager will automatically start when the License Server is booted.

8. The Installation Wizard will now ask if you would like to install your DownStream product. If the License Server computer will also be used to run a product client then select **YES** and follow the instructions in the topic

["Installing a DownStream product on Multiple User Computers"](#).
Otherwise, select **No**.

Installing a DownStream product on Multiple User computers:

The computer that runs the DownStream product in a Network License configuration is considered a "Client." If you are installing the DownStream product on a Client computer in a Network License configuration then you should follow the instructions below. Repeat these instructions for each Client computer:

1. On the Client computer run the DownStream [Installation Wizard](#).
2. Accept the DownStream Technologies License Agreement and select **Next**.
3. Select the **Install *DownStream product*** button.
4. Enter **Customer Information**, select **Setup Type** and select **Program Folder**. Select **Next** to proceed from each dialog.
5. Select the **Browse to find License File** option from the License File Installation Option dialog and select **Next**. Browse to select the DownStream Network License file from the License Server.

Note: For experienced FLEXIm users only, you can select the **ADVANCED OPTION: Specify License Environment Variable for Client Install**. With this option, you can specify the License Environment variable instead of browsing for the server license file. Select **Next**. If you choose to use the ADVANCED OPTION, skip to step 7 below.

6. In the next dialog, enter the **computer name** of your License Server. If you don't know your License Server computer name you should contact your network administrator. Select **Next**.

Note: The License Server computer name can be found on the License Server computer by selecting **Start - Control Panel - System - Computer Name tab** from Microsoft Windows.

7. Check the Setup Information and select **Next**.
8. Select **Finish**. [You have installed your DownStream product and its License file on the Client computer.](#)

License Borrowing

If you want to use a license on a computer that is intermittently connected to a license server (for instance a laptop), that license can be borrowed from a license server via a special checkout and used later to run a DownStream product on a computer that is no longer connected to the license server.

With license borrowing, you specify the date when to return the borrowed license and run the DownStream product while connected to the network which writes borrowing information on the client computer. The license server keeps the borrowed license checked out. The DownStream product automatically uses the local borrowing data to do checkouts during the borrow period. Upon the expiration of the borrow period, the local borrowing data no longer authorizes checkouts and the license server returns the borrowed license to the pool of available licenses.

Running the LicenseBorrow Utility from DownStream

LicenseBorrow is a DownStream Technologies utility and is installed in the folder d:\DownStreamTech\LicenseManager.

To Borrow a License:

1. Run **LicenseBorrow** on the client PC where you want to borrow licenses.
2. Enter the **Borrow Expiration Date** (dd-mmm-yyyy format)
3. Select the **Set Borrow Expiration** button
4. Start the DownStream product to borrow the license features.
5. You can now disconnect your computer from the network and use the borrowed license to run the DownStream product.
6. Select the **Don't Borrow Anymore Today** button to prevent additional features from being borrowed.

Checking Borrow Status:

1. Run **LicenseBorrow** on the client PC
2. Select the **List Currently Borrowed Features** button

The borrowing system does not have to be connected to the network to determine the status.

Clearing the Borrow Period:

Once you have borrowed all the licenses that you need for the current borrow period you can prevent licenses for any additional features from being borrowed for the rest of that day.

1. Run **LicenseBorrow** on the client PC where the license features were borrowed
2. Select the **Don't Borrow Anymore Today** button

To Return Borrowed Licenses Early:

1. Stop all DownStream product sessions on the client PC where the license features were borrowed
2. You can now connect the client PC to the network
3. Run **LicenseBorrow** on the client PC
4. Type the DownStream License File name or browse to the license file
5. Select the **Return Borrowed Licenses Early** button; all DownStream Technologies borrowed licenses are returned

Redundant License Servers

DownStream products allows customers to deploy redundant licensing systems, enabling them to continue to run applications and check out their full complement of licenses in the event of a prolonged server failure. When a failed server is restored, operation continues as usual without interruptions. A redundant server is physically three interconnected servers operating as one logical server, dispensing from a master pool of licenses.

With three-server redundancy, if any two of the three license servers are up and running (two out of three license servers is referred to as a quorum), the system is functional and serves its total complement of licenses. If you wish to use redundant servers, select stable systems as server machines; in other words, do not pick systems that are frequently rebooted or shut down for one reason or another. The machines that comprise a three-server redundant configuration should:

- Run the same operating system
- Have excellent communications
- Reside on the same subnet

The three servers must be located physically close to each other. This form of redundancy requires that the servers exchange heartbeats periodically, and poor communications can cause poor performance. Avoid configuring redundant servers with slow communications or dial-up links. Three-server redundancy is designed to provide hardware fail-over protection only and does not provide load-balancing.

Installing Redundant License Servers

Perform the following steps on each of the three server computers:

1. Run the DownStream Installation Wizard on the License Server computer.
2. Accept the DownStream Technologies License Agreement and select **Next**.
3. Select the **Install License File** button.
4. Enter **Customer Information**, select **Setup Type** and select **Program Folder**. Select **Next** to proceed from each dialog.
5. Select the **Browse to find License File** option from the License File Installation Option dialog and select **Next**. Browse to select the DownStream Redundant License file.
6. Check the **Setup Information** and select **Next**.
7. Select **Finish**. You have installed the License Manager and the Redundant License file on the Server computer.

Note: DownStream's Installation will attempt to run the License Manager and checkout a license. **This checkout will fail.** Once you have you installed the License Manager and Redundant License file on your three server computers you will run FlexLM's Lmtools utility to start the DownStream license daemon. This is explained in Step 9 below.

8. The Installation Wizard will now ask if you would like to install your DownStream product. If the License Server computer will also be used to run a DownStream product client then select **YES** and follow the instructions in the topic "Installing a DownStream product on Multiple User Computers". Otherwise, select **No**.
9. Now you will start the DownStream license server and daemon on each of the server computers. On each server computer run the **lmtools** utility in the directory c:\DownStreamTech_FLEXlm_10.1.3. Select the **Stop/Start/ReRead** tab on the LMTOOLS dialog. Select the **Start Server** button.
10. Each of your license servers should now be up and running in a redundant license server setup. If you need help with your setup you should reference the FLEXlm End Users Guide at www.macrovision.com or contact technical support at support@downstreamtech.com.

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