



**DRC INSIGHT**™  
ONLINE LEARNING SYSTEM

**TECHNOLOGY USER GUIDE  
NEBRASKA**

**CHECK4LEARNING  
VERSION**

Produced by Data Recognition Corporation (DRC)

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**Notes:**

# **Section One: Introduction**

### ■ DRC INSIGHT Online Learning System

The DRC INSIGHT Technology User Guide describes the components, both required and optional, that make up the DRC INSIGHT Online Learning System—a combination of software and hardware that provides a secure, online testing environment.

The DRC INSIGHT Online Learning System delivers assessments and related resources online for all content areas and grade levels, as it incorporates computerized testing, related resources, dynamic reporting, and a suite of educator tools.

The DRC INSIGHT Online Learning System consists of client software that is available from a secure web browser to be installed on each workstation involved in testing. In addition, a Local Caching Service (LCS) helps manage network traffic, connectivity, and handle bandwidth issues.

DRC INSIGHT also provides:

- Optional, online tutorials, customized for each state.
- Optional testing accommodations.

### ■ About This Guide

This guide is designed primarily for NeSA-Technology Assessment Coordinators (N-TACs) who are responsible for setting up, managing online testing, and ensuring their systems work effectively and securely. We assume that all N-TACs are knowledgeable about the technical details of the Windows, Mac (OS X), and Linux operating systems, and have the necessary security privileges to perform the tasks discussed in this guide.

This guide is also designed to help Test Administrators (TAs), District Assessment Contacts, (DACs), and School Test Coordinators (STCs) use DRC's INSIGHT Online Learning System more effectively. It provides help with configuration and installation. It also helps answer some common questions and provides troubleshooting tips.

This guide is both an introduction and reference for DRC's INSIGHT Online Learning System. It describes its features and user interface, and offers examples of how to configure, install, manage, and troubleshoot.

This guide is organized into an introduction; configuration and installation information for Windows and Mac (OS X) and Linux environments; how to use INSIGHT and its components; tips and techniques for troubleshooting issues; and frequently asked questions (FAQs).

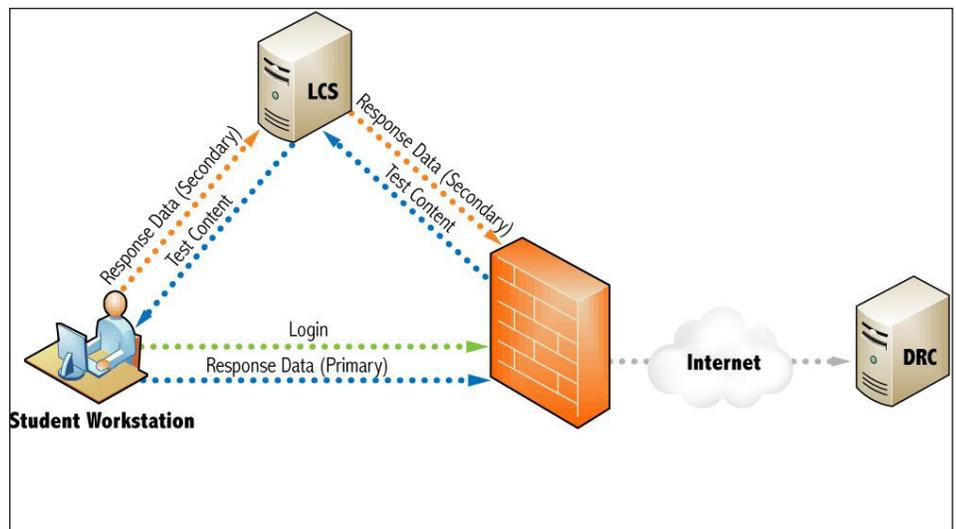
## ■ INSIGHT Client and INSIGHT Server

DRC INSIGHT's main component is the INSIGHT Client, the software that is loaded on the test computer. This software communicates with the DRC INSIGHT server to provide test questions to the test-taker and to send responses to the DRC INSIGHT server, which stores them securely. Throughout this User Guide, we refer to the INSIGHT Client software as simply INSIGHT.

## ■ Local Caching Service (LCS)

INSIGHT provides a Local Caching Service (LCS) that helps manage and streamline the communication process between the test computers and the INSIGHT server. The LCS is usually installed on one or two strategic computers with sufficient bandwidth, and is strongly recommended by DRC for maximum performance.

If the test computers are not able to communicate with the DRC INSIGHT server, the installed LCS server buffers (or caches) the test responses. When the LCS is communicating with DRC, it sends responses to the DRC INSIGHT server in 15-minute intervals.



Even if DRC is not currently communicating with the testing computers, the test responses are still being stored for transmission to DRC, so no responses are lost.

**Note:** The LCS is used during a test session—students cannot start a test session if there is no communication with the INSIGHT server.

**Notes:**

# **Section Two: Configuration**

### ■ What's Covered in This Section

This section describes the specific hardware, software, network, and desktop requirements to configure INSIGHT, the Local Caching Service (LCS), and automatic software updates. This section also discusses miscellaneous tasks NeSA-Technology Assessment Coordinators (N-TACs) perform to configure the INSIGHT software environment.

INSIGHT is a secure online testing software platform from DRC. Students can access INSIGHT from a desktop computer to take Check4Learning tests using a suite of online testing tools.

N-TACs can configure INSIGHT to connect directly to the DRC servers and databases through the Internet. They also can configure INSIGHT to use with LCS systems.

***INSIGHT System Requirements***

The following table lists the minimum hardware and software requirements for INSIGHT on the system platforms—Windows, Linux, and Mac (OS X).

<b>OS</b>	<b>Versions</b>	<b>Processor</b>	<b>Memory</b>	<b>Disk Space</b>	<b>Monitor Size/Resolution</b>	<b>Other</b>
Windows	<ul style="list-style-type: none"> <li>• Windows XP with Service Pack 1 or greater</li> <li>• Windows 7</li> </ul>	700 MHz or faster	256 MB RAM	100 MB	13 inches with a resolution of 1024 x 768	Mouse, keyboard, and updated graphics drivers*
Mac**	<ul style="list-style-type: none"> <li>• OS X 10.6***</li> <li>• OS X 10.7***</li> <li>• OS X 10.8***</li> </ul>	400 MHz or faster**	256 MB RAM	10 MB	13 inches with a resolution of 1024 x 768	Mouse, keyboard, and updated graphics drivers*
Linux	Ubuntu 12.04 and 12.04.1 32-bit and 64-bit Gnome 3.4 with Unity shell kernels 3.0.1 – 3.3	700 MHz or faster	256 MB RAM	100 MB	13 inches with a resolution of 1024 x 768	Mouse, keyboard, and updated graphics drivers*

*Table 2-1: INSIGHT System Requirements*

\*Testing computers with ATI-integrated onboard graphics must have ATI Catalyst drivers, version 9.3 or higher, installed.

\*\*DRC does not recommend using the PowerPC.

\*\*\*The operating system should be using Java version 1.6 for Mac OS X.

### **Windows 7 Desktop Font Size Requirements**

The testing computers' font size settings must match the test settings to guarantee that line breaks and other items display correctly online during testing. The following table shows the correct font size setting for testing and how to specify it for the Windows 7 operating system.

Operating System	Font Size Setting	How to Check or Change
Windows 7	100% (Custom DPI)	Select <b>Control Panel–Appearance and Personalization–Display–Set custom text size (DPI)</b> .  When you click <b>Apply</b> , your new font size setting will be used in your Windows programs.

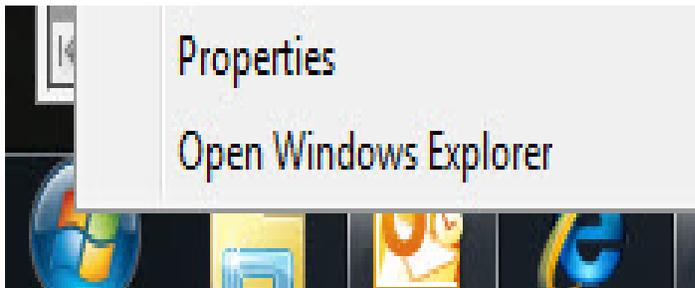
## Windows 7/Windows XP Taskbar Security Requirement

During testing, each testing computer is locked down while INSIGHT is active to prevent the student from having access to outside information. For Windows 7 and Windows XP computers, you must be sure the **Auto-hide the taskbar** setting is turned off to secure the testing computer.

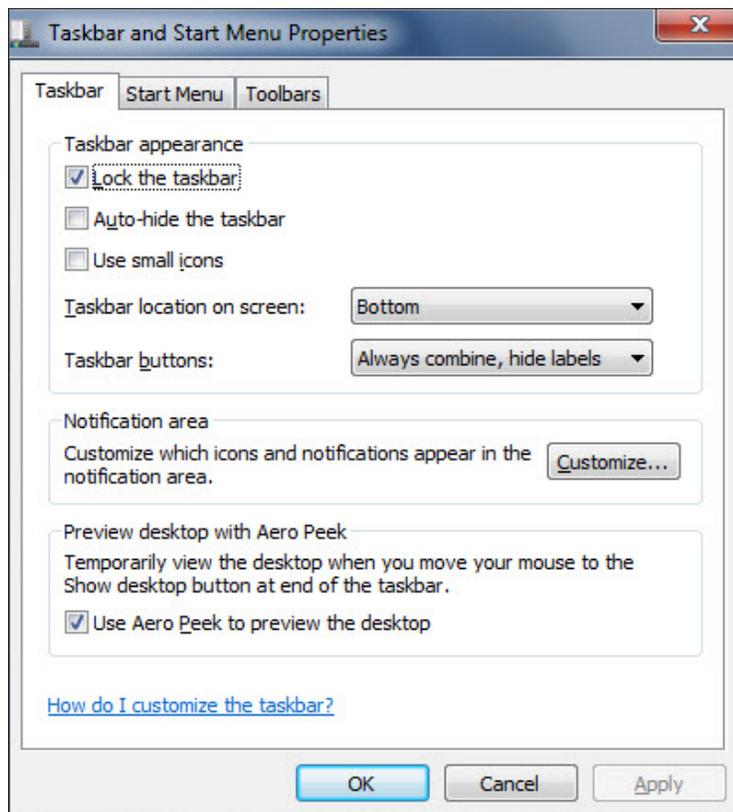
### Windows 7 Computer

To turn off the Auto-hide the taskbar setting on a Windows 7 computer, perform the following steps:

1. Right-click on the Windows logo on the taskbar and select **Properties**.



2. From the Taskbar tab on the Taskbar and Start Menu Properties dialog box, uncheck the **Auto-hide the taskbar** checkbox (if it is checked).

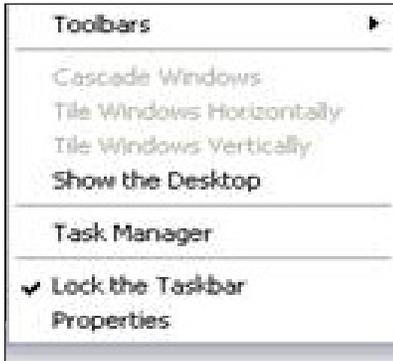


3. Click **Apply** to verify your change and **OK** to save it.

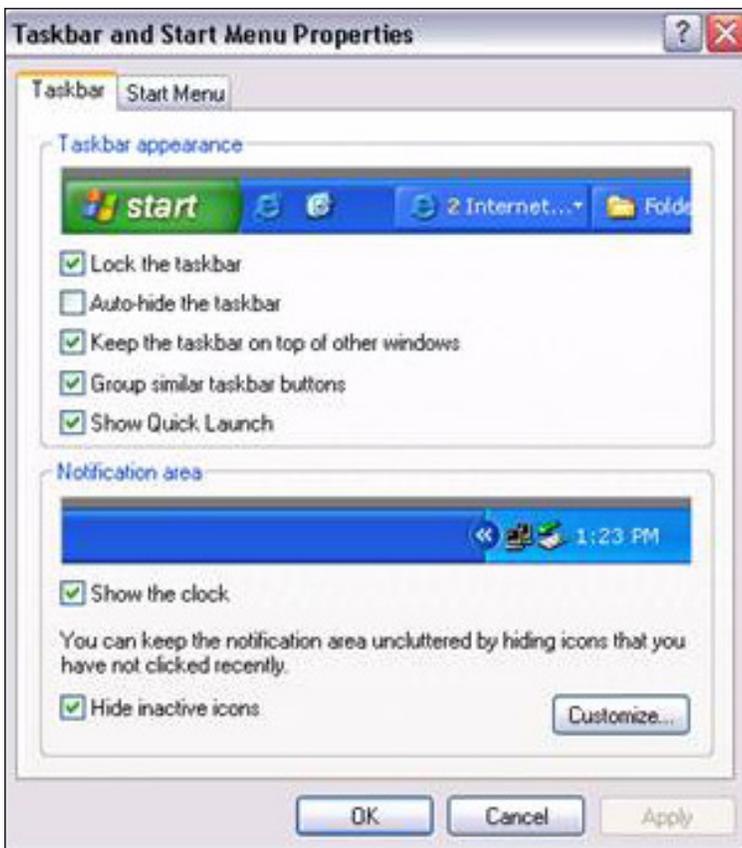
## Windows XP Computer

To turn off the Auto-hide the taskbar setting on a Windows XP computer, perform the following steps:

1. Right-click on the taskbar and select **Properties**.



2. From the Taskbar tab on the Taskbar and Start Menu Properties dialog box, uncheck the **Auto-hide the taskbar** checkbox (if it is checked).



3. Click **Apply** to verify your change and **OK** to save it.

## ***Network Requirements for Testing Computers***

### ***Network Connectivity***

- All testing computers should have access to the Internet and be able to access the DRC servers using HTTP/HTTPS protocols on ports 80 and 443.
- All firewalls at the testing computer and the network level should allow Java connectivity on ports 80 and 443.
- Make sure you whitelist the URLs below on your content filtering systems or other proxy/firewall software that you use locally:
  - http://ne-insight-client.drceirect.com for HTTP
  - https://ne-insight.drceirect.com for HTTPS (secure HTTP)
- If your location uses an Internet connection idle timeout, please verify that the timeout limit is sufficient to allow students to complete testing.
- DRC recommends allowing INSIGHT traffic to bypass your firewalls and proxies if possible.

For more information, see “Question 1: I Don’t Know What to Whitelist, Allow, or Unblock?” on page 105 in Appendix B.

### ***Wireless Networking***

INSIGHT supports wireless networks. However, sites may experience issues on less reliable wireless networks, or if too many students attempt to connect to a single access point.

### ***Desktop Monitoring***

#### **Important**

If your testing location uses remote desktop monitoring software to monitor the computers that will be used for testing, you **should disable the monitoring software on these computers during test times to guarantee adequate security**. The particular steps you need to take vary, depending on the monitoring software you are using and the operating system of the testing computer.

**Note:** If it is not feasible to disable your monitoring software, you must ensure that any staff members that can use the monitoring software refrain from using it during testing periods.

### ***INSIGHT Bandwidth and Connectivity Requirements***

To start a test, INSIGHT contacts DRC to login. After a successful login, INSIGHT downloads the test from DRC (or an LCS if available). INSIGHT sends answers to DRC every time the page is changed (or to the LCS if communication with DRC is lost).

- INSIGHT must maintain connectivity to the Internet or an LCS throughout the test.
- INSIGHT supports wireless networks.

### ■ Local Caching Service (LCS)

A Local Caching Service (LCS) caches student responses if the Internet connection fails and allows students to continue testing. When the LCS is communicating with DRC, it transmits this cached information every 15 minutes.

DRC recommends using an LCS whenever possible.

### ■ Benefits and Features

An LCS offers many benefits and features:

- You can install the LCS using an easy-to-use installation Wizard (requires administrative rights).
- You can populate the LCS with test content by using its powerful LCS Manager interface. After the content is installed, any updates to test content are automatically downloaded.
- An LCS typically reduces bandwidth traffic for schools by about 50% when downloading test content.

### ■ LCS Connection Information

An LCS can help students during exams.

- With no LCS, the testing computers submit answers directly to the DRC servers through the Internet. If that communication stalls because the Internet connection is congested, messages between the testing computers and DRC are delayed. If the delay is too long, the software stops testing and the student loses the connection.
- With an LCS, if the communication stalls because the Internet connection is congested, the testing computer sends its answers to the LCS cache. The LCS automatically submits its collected responses to DRC every 15 minutes, which helps manage message traffic (you also can submit responses manually).

## LCS System Requirements

The following table lists the minimum hardware and software requirements for the LCS on the supported system platforms—Windows, Linux, and Mac (OS X).

OS	Versions	Processor	Memory	Disk Space	Monitor Size/Resolution	Other
Windows	<ul style="list-style-type: none"> <li>Windows XP with Service Pack 1 or greater</li> <li>Windows Vista</li> <li>Windows 7</li> <li>Windows Server 2003</li> <li>Windows Server 2008</li> </ul>	700 MHz or faster	256 MB RAM	1 GB†	13 inches with a resolution of 1024 x 768	Mouse, keyboard, and updated graphics drivers*
Mac**	<ul style="list-style-type: none"> <li>OS X 10.6***</li> <li>OS X 10.7***</li> <li>OS X 10.8***</li> </ul>	400 MHz or faster**	256 MB RAM	1 GB†	13 inches with a resolution of 1024 x 768	Mouse, keyboard, and updated graphics drivers*
Linux	Ubuntu 12.04 and 12.04.1 32-bit and 64-bit Gnome 3.4, with Unity shell kernels 3.01 – 3.3	700 MHz or faster	256 MB RAM	1 GB†	13 inches with a resolution of 1024 x 768	Mouse, keyboard, and updated graphics drivers*

*Table 2-2: LCS System Requirements*

\*Testing computers with ATI-integrated onboard graphics must have ATI Catalyst drivers, version 9.3 or higher, installed.

\*\*DRC does not recommend using the PowerPC in this environment.

\*\*\*The operating system should be using Java version 1.6 for Mac OS X.

†The amount of disk space required is based on the size and number of forms and audio files stored for each assessment.

**Note:** Internet Explorer 7 (IE7) is not supported to run the LCS Manager software—you must use IE8 or higher.

## ***Automatic Software Updates***

You can specify that INSIGHT performs automatic software updates to the testing computers. To do this, check the Enable DRC INSIGHT Auto Update checkbox on the INSIGHT Client System Properties dialog box during the INSIGHT installation process (see the Installation sections). You can modify this setting by using the System Readiness Check software application.

- If the Auto Updates feature is enabled, the software checks the version each time INSIGHT is launched, and downloads and installs updates automatically.
- If the Auto Updates feature is disabled, the software also checks the version when INSIGHT starts.
  - When a student attempts to log into a test, they are notified they do not have the latest version of the software and cannot continue.
  - You must update the software manually by getting the latest version from eDIRECT and reinstalling it.
  - You can run a System Readiness Check at any time to confirm that you have the latest version of INSIGHT software (see “Using the System Readiness Check” on page 85 in the Working with INSIGHT section).
- You should update your software *before* testing begins to avoid delays.

**Note:** Updates do not require administrative rights, but you must have write privileges to the installation folder.

### ***INSIGHT and Virtual or Remote Desktops***

INSIGHT is a desktop-installed Java application that runs natively\* on specific operating systems. To successfully launch and run INSIGHT, you must meet all system requirements—operating system, processor, disk space, memory, Internet connectivity, screen resolution, mouse, and keyboard. As long as your site meets these requirements, you also can run INSIGHT in a virtual or remote desktop environment. Sites using virtual computing technology must implement appropriate security measures to ensure that virtual/remote desktops are not able to access other applications during the administration of an online assessment.

*\*Running natively refers to running without external support, as opposed to running in an emulation.*

### ***Kiosk Mode and Security***

The biggest disadvantage of running INSIGHT in a virtual or remote desktop environment is the loss of built-in security. When INSIGHT runs natively on a device and operating system, it uses “kiosk mode” (built in for all supported operating systems) to “lock down” student access and prevent students from performing inappropriate testing activities—such as accessing the Internet.

INSIGHT’s kiosk mode is not available for unsupported operating systems and devices. Any sites using virtual computing technology must implement their own security measures to ensure that the virtual or remote desktops a student is using cannot access other applications while online assessments are being administered.

### ***Native Operating Systems***

The following table lists the operating systems on which INSIGHT can run natively, as well as unsupported operating systems.

<b>Supported Operating Systems*</b>	<b>Unsupported Operating Systems</b>
<ul style="list-style-type: none"><li>• Windows XP</li><li>• Windows Vista</li><li>• Windows 7</li><li>• Windows Server 2003</li><li>• Windows Server 2008</li><li>• Mac (OS X) 10.5, 10.6, 10.7, 10.8</li><li>• Linux: Ubuntu 12.04</li></ul>	<ul style="list-style-type: none"><li>• Other versions of Microsoft Windows and Mac (OS X) and Linux</li><li>• Apple iOS</li><li>• Google Android</li><li>• Google Chrome OS</li><li>• Other UNIX variants</li></ul>

### Native Devices

INSIGHT also supports many types of computer devices. However, not all devices work with all operating systems and vice-versa. The following table lists the devices that can currently run INSIGHT-supported operating systems natively if they meet the minimum system requirements (see “INSIGHT System Requirements” earlier in this section).

Supported Devices	Unsupported Devices
<ul style="list-style-type: none"> <li>• Desktop Computers</li> <li>• Laptops</li> <li>• Netbooks</li> <li>• Servers</li> </ul>	<ul style="list-style-type: none"> <li>• Tablets</li> <li>• Phones</li> <li>• iPods</li> <li>• Chromebooks</li> </ul>

### Virtual Desktop Operating Systems

Beside the physical devices that host operating systems directly, virtual desktops can indirectly host some supported operating systems for INSIGHT. Typically, users access these virtual desktops from another operating system, on another device, across a network boundary. The following table lists the operating systems that work with virtual or remote desktop sessions.

Supported Operating Systems	Unsupported Operating Systems
<ul style="list-style-type: none"> <li>• Microsoft Windows</li> <li>• Mac (OS X)</li> <li>• Linux</li> <li>• nComputing vSpace</li> </ul>	<ul style="list-style-type: none"> <li>• Apple iOS</li> <li>• Google Android</li> <li>• Google Chrome OS</li> <li>• PCoIP</li> </ul>

### Virtual Desktop Devices

The device a student interacts with is actually a gateway to the virtual or remote desktop. However, the device may or may not be capable of supporting INSIGHT natively, or be able to run an operating system that INSIGHT supports. The following table lists the types of devices that can run the various operating systems.

Supported Devices	Unsupported Devices*
<ul style="list-style-type: none"> <li>• Desktop Computers</li> <li>• Laptops</li> <li>• Netbooks</li> <li>• Servers</li> <li>• Wyse Thin Clients and Wyse Zero Clients</li> <li>• nComputing Devices</li> </ul>	<ul style="list-style-type: none"> <li>• Tablets</li> <li>• Phones</li> <li>• iPods</li> <li>• Other UNIX devices</li> <li>• Chromebooks</li> </ul>

*\*Virtual desktop and remote desktop software can access supported operating systems.*

**Notes:**

# **Section Three: Windows Installation**

### ■ What's Covered in This Section

This section describes the various methods of installing and uninstalling the Local Caching Service (LCS) and INSIGHT in the Windows operating systems. In addition, there are tips and techniques for troubleshooting INSIGHT and LCS installations.

The first part of this section provides basic information about installing and uninstalling an LCS and INSIGHT.

**Note:** Install the LCS *before* you install INSIGHT so that you can specify the path to the LCS and the communication port during the INSIGHT installation.

Then, the section provides more advanced technical information about:

- Managing an LCS: starting, stopping, changing the default communication port, and uninstalling.
- Managing INSIGHT: starting, stopping, and uninstalling.
- Working in a non-graphical (terminal) mode using Windows operating system commands.

## Installation Files

Various INSIGHT and LCS installations are available for Windows and Mac (OS X) operating systems. The following table lists the files for each type of installation and operating system.

Installation	Operating System	File
Standard INSIGHT	Windows	DRC_INSIGHT_Setup.msi
	Mac (OS X)	DRC_INSIGHT_Setup.dmg
	Linux	DRC_INSIGHT_Setup.sh
LCS	Windows	DRC_INSIGHT_LCS_Setup.exe
	Mac (OS X)	DRC_INSIGHT_LCS_Setup.dmg
	Linux	DRC_INSIGHT_LCS_Setup.sh

## Quick Tour 1: Installing an LCS for Windows OS

This Quick Tour describes how to install a Local Caching Service (LCS) for Windows. DRC provides an easy-to-use Wizard to install the LCS software

1. To launch the Wizard and start the installation, sign in to eDIRECT, select **Test Setup–General Information–Downloads**, and click on the Local Caching Service (LCS) installer icon for Windows (after you have downloaded the installation program, you can click on **DRC\_INSIGHT\_LCS\_Setup.exe** to launch the Wizard and start the installation).

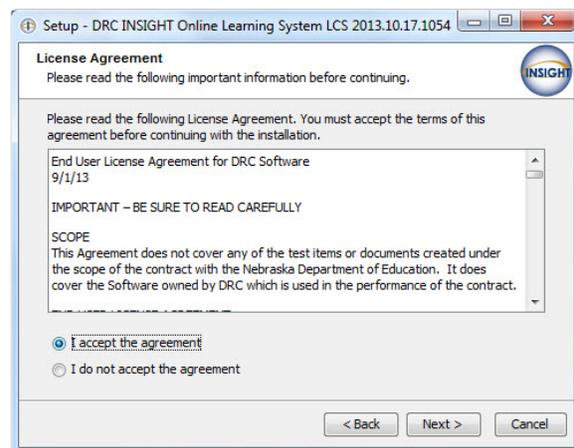
The Welcome screen displays the DRC INSIGHT Online System LCS Setup Wizard.

Click **Next** to continue.



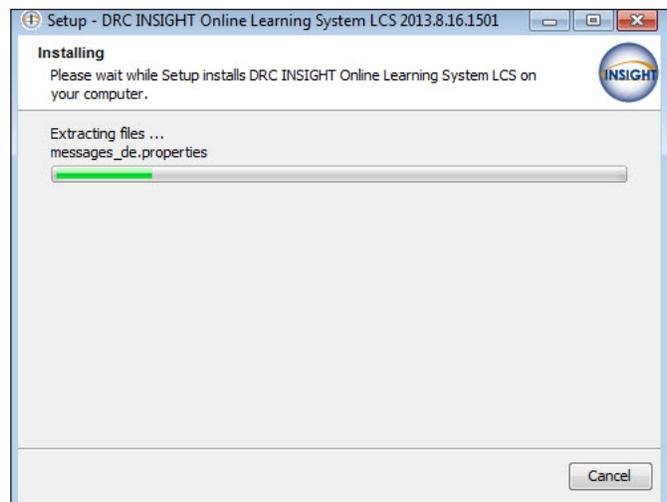
2. The DRC INSIGHT License Agreement window displays. To continue the installation, you should read the agreement and decide whether to select it by choosing the option **I accept the agreement**. (If you do not choose to accept the agreement, the installation ends.)

When the Next button becomes active, click **Next** to continue.



3. During the installation, a window displays to indicate the progress of the installation.

If necessary, click **Cancel** to end the installation process.



## Quick Tour 1: Installing an LCS for Windows OS

- When the setup completes, the Setup Complete window displays.

Record the LCS server name and port number, you will need this information when you install INSIGHT. You can change the port numbers from this window.

**Important:** To avoid potential conflicts, be certain no other device is using either port.

**Note:** The LCS HTTP Port Number is the port number for regular communication. The LCS HTTPS Port Number is currently not being used—it is the port number for encrypted communication and will be used in the future for the web-based version of INSIGHT.

Click **Finish** when you are ready.

- After installation is complete, start the LCS Manager from the Start menu by selecting **Start–Programs–NE Online Assessments LCS–NE Online Assessments LCS Manager**.

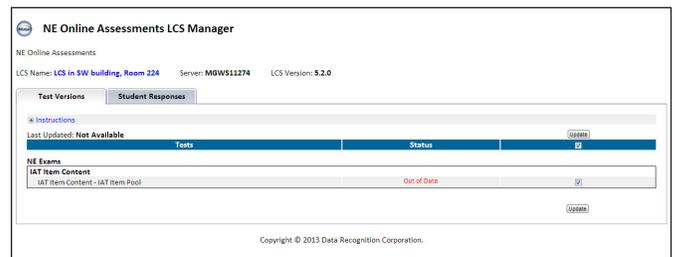
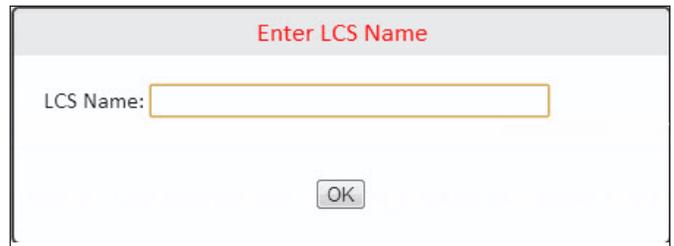
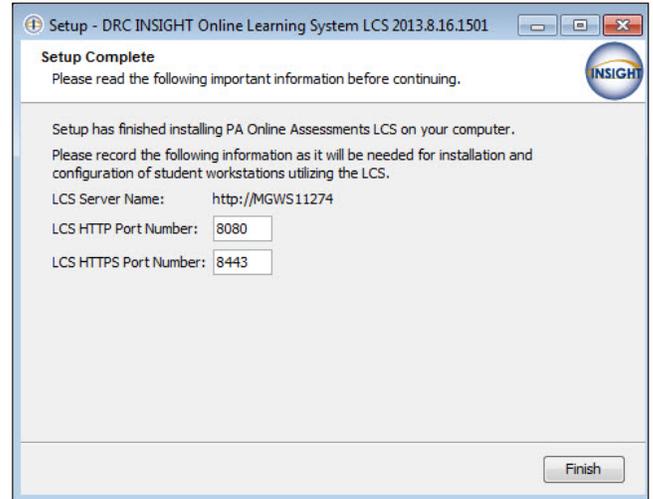
When the Enter LCS Name windows displays, enter a name that will help you remember the location of the LCS machine in the LCS Name field and click **OK**. The name you choose is limited to 40 characters with no special formatting requirements.

**Note:** DRC recommends that you include the district, school, and location (building and/or room number) of the LCS.

- When the LCS Manager displays, click **Update** to load the latest tests (see “Updating Tests” on page 77 in the Working with INSIGHT section).

When the LCS Manager updates the LCS, the Status field changes from Out of Date to Up to Date.

Exit the LCS Manager (for more information, see “Updating Tests” on page 77).



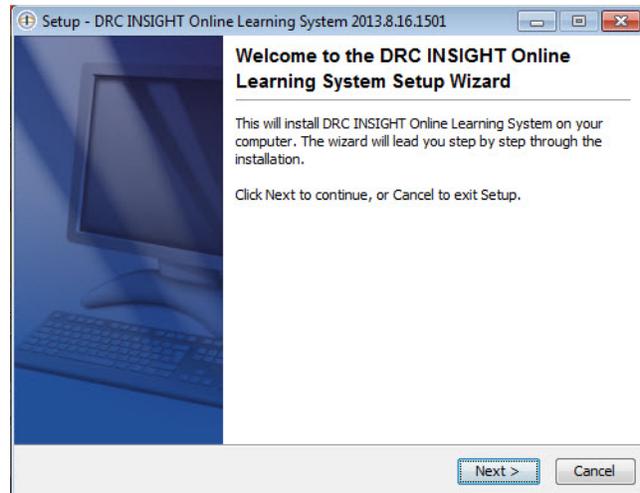
## Quick Tour 2: Installing INSIGHT for Windows OS

This Quick Tour describes how to install the DRC INSIGHT Online Learning System for Windows. DRC provides an easy-to-use Wizard to install the software.

1. To launch the Wizard and start the installation, sign in to eDIRECT, select **Test Setup–General Information–Downloads**, and click on the Windows Installer icon (after you have downloaded the installation program, you can click on **DRC\_INSIGHT\_Setup.msi** from your PC to start an installation).

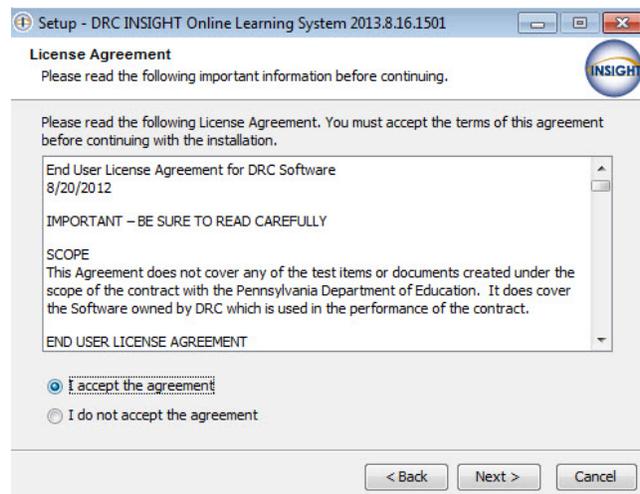
The Welcome screen displays the DRC INSIGHT Online System Setup Wizard.

Click **Next** to continue.



2. The DRC INSIGHT License Agreement window displays. To continue the installation, you should read the agreement and decide whether to select it by choosing the option **I accept the agreement**. (If you do not choose to accept the agreement, the installation ends.)

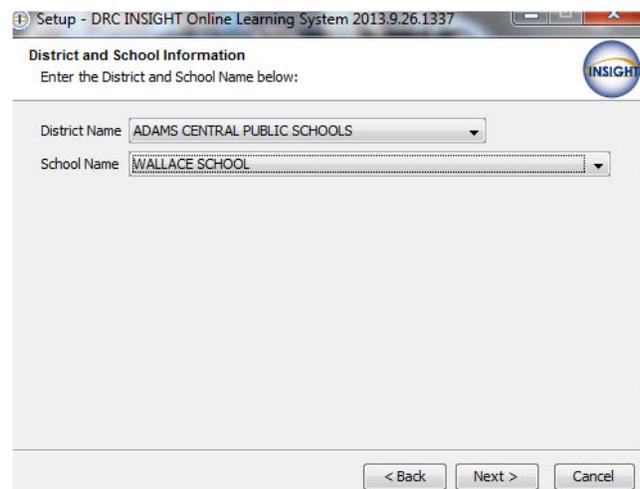
When the Next button becomes active, click **Next** to continue.



3. The District and School Information window displays. To continue the installation, select a district from the District Name drop-down menu and a school from the School Name drop-down menu and click **Next**.

**Note:** Be careful to specify the correct district and school—the testing computer is associated with the school and district you specify.

Click **Next** to continue.



## Quick Tour 2: Installing INSIGHT for Windows OS

4. The Local Caching Service Configuration window displays.

If you plan to use the LCS, check the box **Enable Local Caching Service Configuration**. Specify the LCS server name (not the LCS location name) and the communication port to use for the LCS server (the default is port 8080).

For more information, see “Quick Tour 1: Installing an LCS for Windows OS” on page 28.

Click **Next**.

5. The System Readiness Check runs automatically to determine whether the system meets the requirements to install INSIGHT.

If the system failed the check, the window displays **System Readiness Check - Fail**.

You can select a test that failed for details about the failure. See “Using the System Readiness Check” on page 85 in the Working with INSIGHT section and “Appendix B” for information about troubleshooting installation errors.

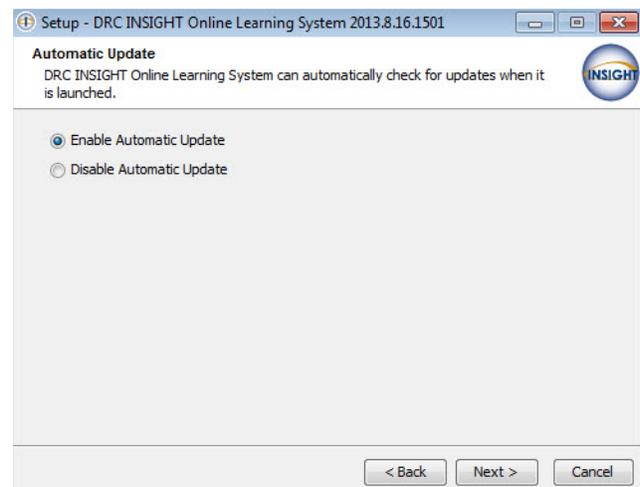
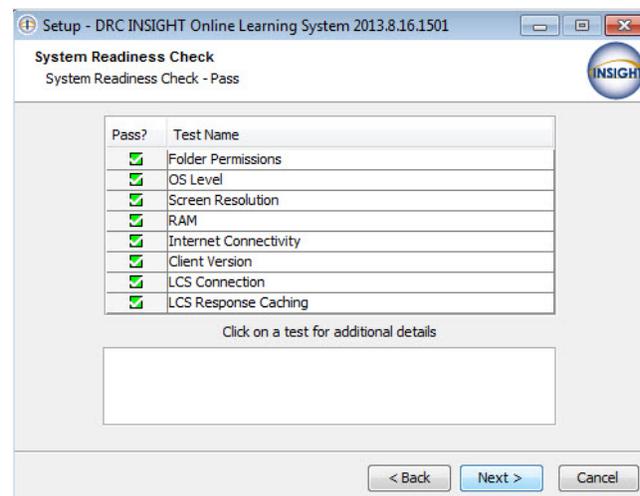
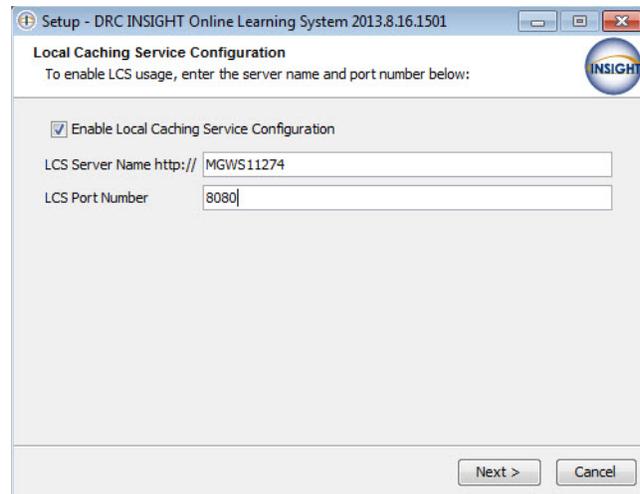
If the system passed the check, the window displays **System Readiness Check - Pass**.

Click **Next** to continue.

6. The Automatic Update window displays. Use this window to indicate whether INSIGHT should automatically check for software updates whenever it starts.

Check **Enable Automatic Updates** (the default value) to turn automatic updates on; **Disable Automatic Updates** to turn automatic updates off (see “Automatic Software Updates” on page 21 in the Configuration section for more information).

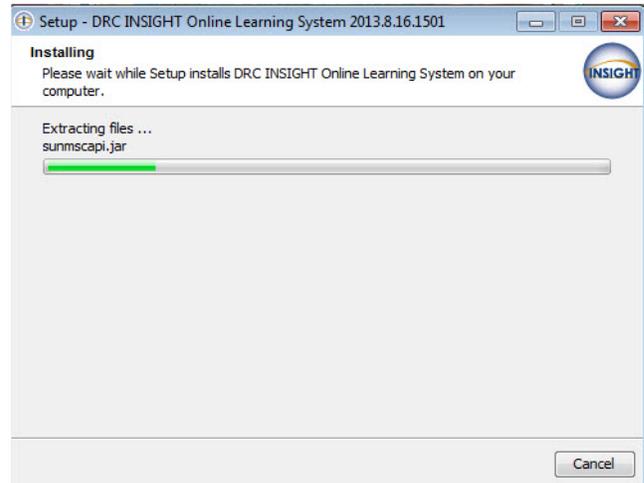
Click **Next** to continue.



## Quick Tour 2: Installing INSIGHT for Windows OS

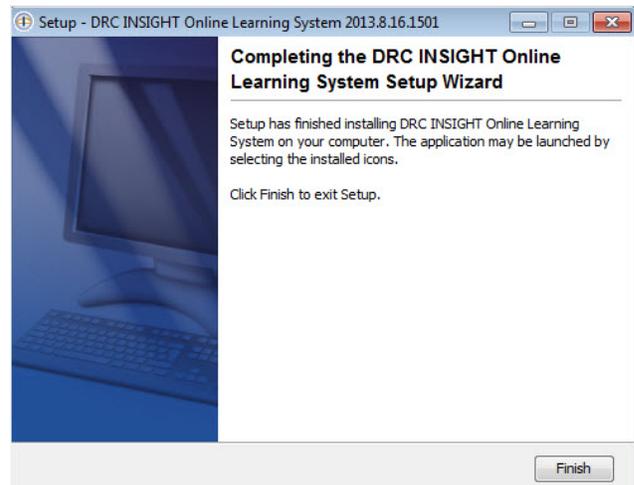
7. While INSIGHT is being installed, a progress window indicates the state of the installation.

If necessary, click **Cancel** to end the installation process.



8. When the installation completes, a window displays indicating that INSIGHT is installed.

Click **Finish** to exit.



9. The installation places executable links in the Windows Start menu and two shortcuts on the computer's desktop.

Use the NE Online Tutorials shortcut to access the online student tutorials.

Use the Check4Learning shortcut to perform an actual online assessment.



## Managing the LCS

This section describes how to start and stop an LCS from a command line, how to install an LCS from the command line, how to change the LCS communication port after installation, and how to remove an LCS.

### Installing an LCS from the Command Line

You can install an LCS in the Windows environment using the command line interface versus a graphical interface. This is useful to install the software in unattended mode or quickly on a number of computers.

To run the LCS installation in unattended mode, execute the INSIGHT Setup command **DRC\_INSIGHT\_LCS\_Setup**, with the appropriate options. To display a list of command line options, run the command with the **-h** (Help) parameter.

Figure 3-1 shows the list of setup options.

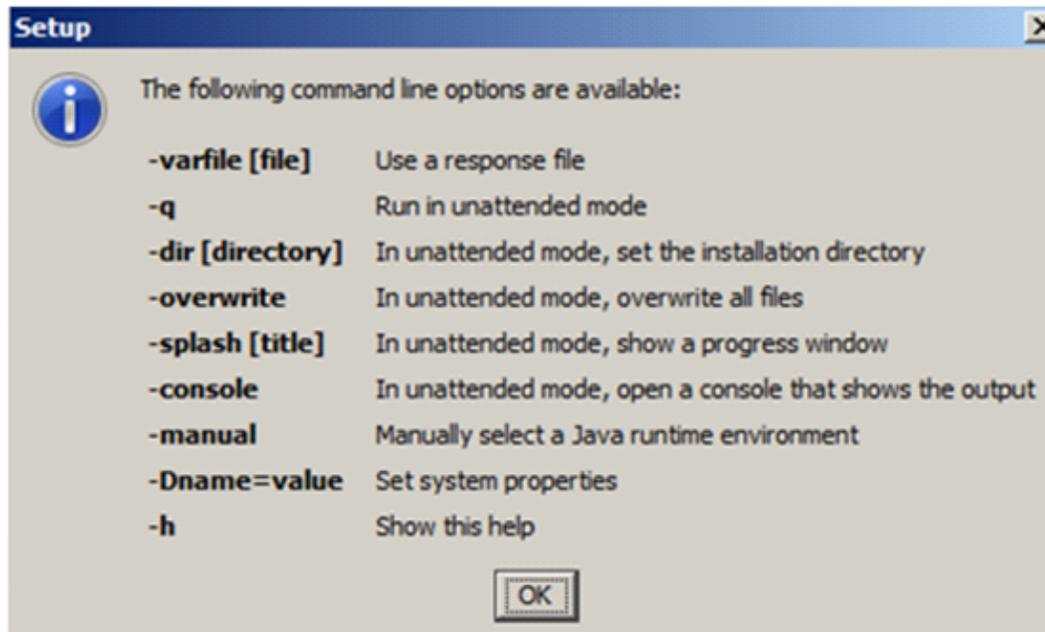
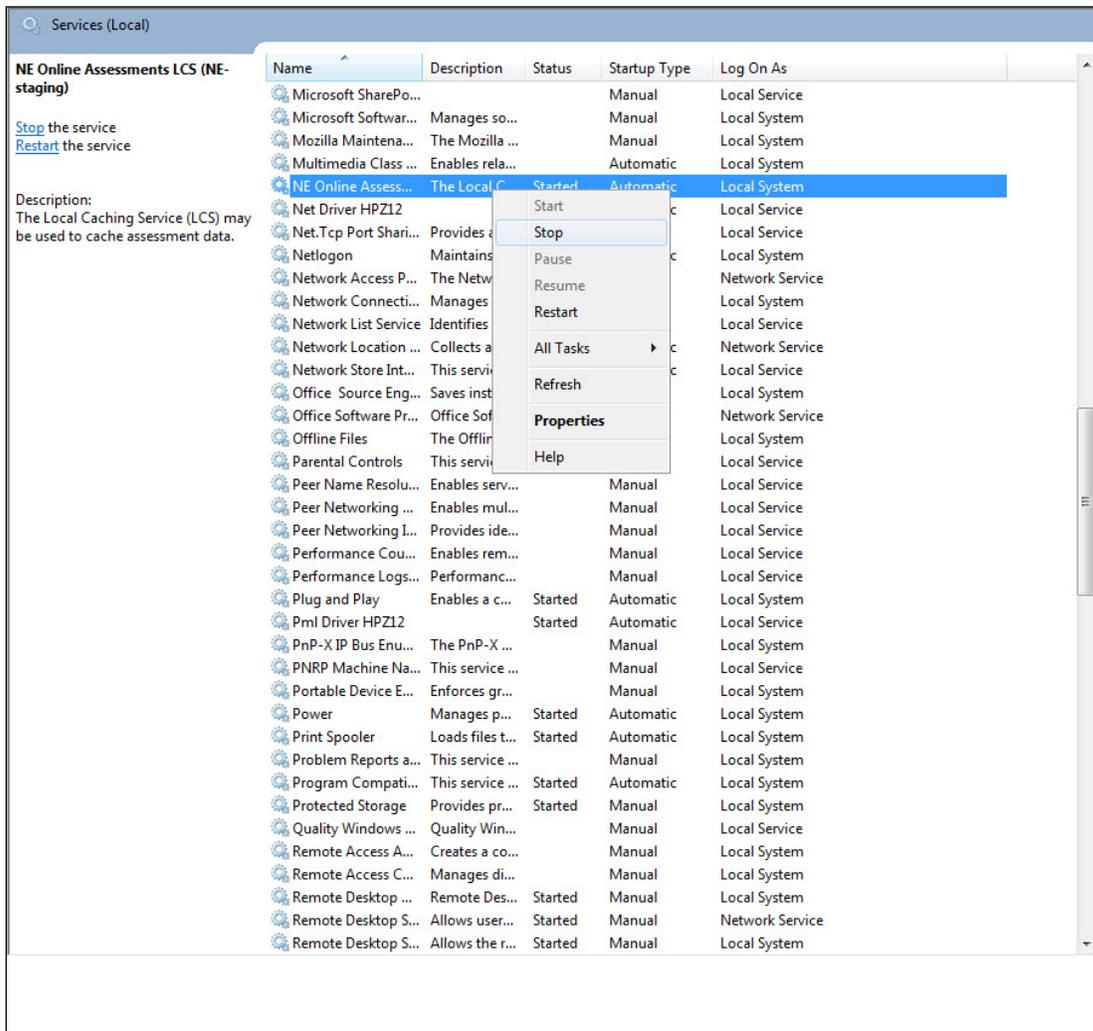


Figure 3-1: Setup Command Options

## Starting and Stopping the LCS

You can start and stop the LCS using the Control Panel.

1. For Windows 7, select **Control Panel–Administrative Tools–Services**.



2. The Services window displays. Select **NE Online Assessments LCS**.
3. To stop the LCS, right-click and select **Stop**. To restart the LCS, right-click and select **Start**.

## Changing the Default LCS Port Number After Installation

The LCS uses port 8080 by default. You can change this port setting dynamically during installation. After the LCS is installed, if this port is already being used or conflicts with firewall settings, you can change the value by reinstalling the LCS or by updating the following file:

**<installation dir>/apache-tomcat-7.0.40/conf/server.xml.**

**Note:** Before you change the port number you must stop the LCS. After you have changed the number, you must restart the LCS (see “Starting and Stopping the LCS” on page 34).

To change the port number without reinstalling the LCS:

1. Use a text editor to open the apache-tomcat-7.0.40/conf/server.xml file.
2. Search for the string, 8080 (see Figure 3-2).
3. Replace the string after **Connector port=** with the appropriate port number and save the file.

```
<!-- Define a non-SSL HTTP/1.1 Connector on port 8080 -->
<Connector port="8080" maxHttpHeaderSize="32768" maxThreads="150" minSpareThreads="25" maxSpareThreads="75" enableLookups="false"
  redirectPort="8443" acceptCount="100" connectionTimeout="20000" disableUploadTimeout="true" />
<!-- Note : To disable connection timeouts, set connectionTimeout value
  to 0 -->
<!-- Note : To use gzip compression you could set the following properties :

      compression="on"
      compressionMinSize="2048"
      noCompressionUserAgents="gozilla, traviata"
      compressableMimeType="text/html,text/xml"

-->
```

Figure 3-2: Editing the Server.xml File

## Uninstalling the LCS

You can uninstall (remove) the LCS by selecting **Start–Control Panel–Add or Remove Programs** and selecting **DRC INSIGHT Online Learning System LCS–NE Online Assessments**, clicking **Change/Remove**, and clicking **Next** when the Uninstall Wizard displays (see Figure 3-3).

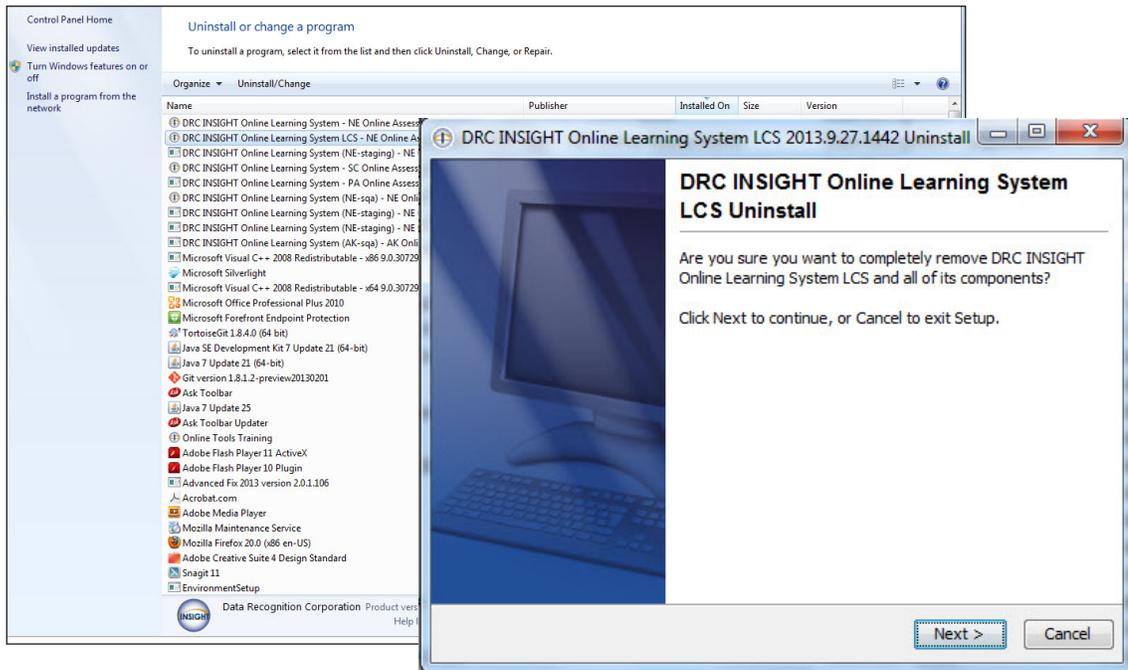


Figure 3-3: Uninstalling the LCS

**Note:** Verify that the uninstallation process removed the LCS installation folder. On a Windows machine, the folder is C:\Program Files (x86)\NE Online Assessments LCS. After you remove the LCS, if this folder still exists, delete it before you reinstall the LCS.

## Managing INSIGHT

This section describes how to install INSIGHT from a command line (sometimes called a “Silent Installation”), how to start and stop INSIGHT and the System Readiness Check, and how to remove INSIGHT.

### Installing INSIGHT from a Command Line

To install INSIGHT from a command line, execute the Setup command **DRC\_INSIGHT\_setup.msi** with the specific options you want. To display a list of the command line options for the installation program, use the **/h** (help) parameter with the Setup command. Figure 3-4 shows a list of the standard options.

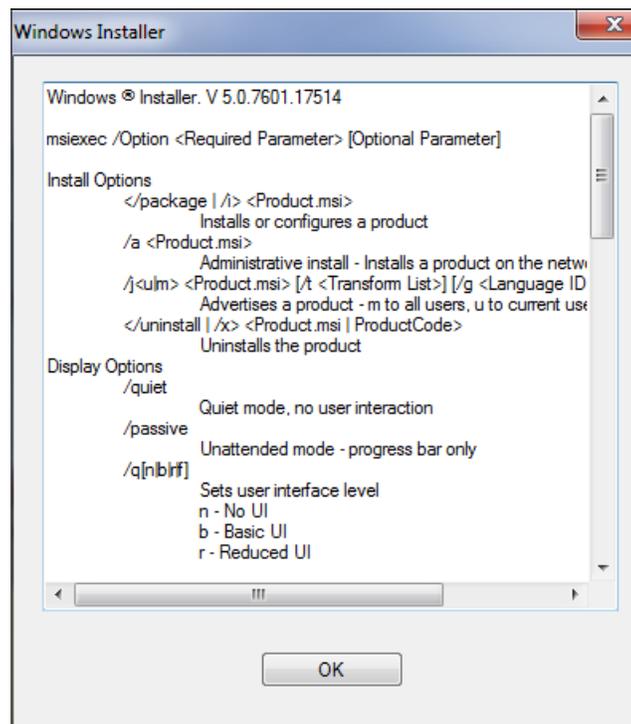


Figure 3-4: INSIGHT Installation Options

Refer to the Windows Installer Software Development Kit (SDK) for detailed information about the command line syntax.

## INSIGHT Installation Program Options

The following table shows the custom properties available for the installation program.

Property/Switch	Description	Default Value
LCS_SERVER_DOMAIN	The IP address of the LCS server or its name. A value of 127.0.0.1 or <i>localhost</i> points to an LCS server on the same computer.	Blank
LCS_SERVER_PORT	The active port for the LCS.	8080
ENABLE_LCS	A true/false value that indicates whether to use the LCS.	False
SKIP_READINESS	A true/false value that indicates whether to suppress the System Readiness Test.  <b>Warning:</b> Setting this value to true allows an installation to complete that might fail the readiness checks.	False
ENABLE_AUTO_UPDATE	A true/false value that indicates whether to perform automatic updates.	True
CONNECTIVITY_AS_WARNING	The setting reduces connectivity test failures to warnings.  <b>Warning:</b> Setting this value to true allows an installation to complete that might otherwise fail a connectivity check.	False
DISTRICT_NAME	The name of the district.  The district name must be in uppercase and must match exactly (including spacing) what's displayed in the new drop-down lists in the Wizard installation (see "Quick Tour 2: Installing INSIGHT on the Testing Computers" on page 30). You must include the actual name within three sets of double quotes (see the Example).	Blank
SCHOOL_NAME	The name of the school.  The school name must be in uppercase and must match exactly (including spacing) what's displayed in the new drop-down lists in the Wizard installation (see "Quick Tour 2: Installing INSIGHT on the Testing Computers" on page 30). You must include the actual name within three sets of double quotes (see the Example).	Blank
/qn	Runs the installation in silent mode.	NA

Table 3-1: INSIGHT Installation Program Options

## Installation Command Syntax and Example

The following is the syntax for the install program command:

```
DRC_INSIGHT_setup.msi <properties> <MSI switches>
```

**Note:** All properties are passed in a *key=value* format (see the Example).

### Example

The following example installs the software in silent mode (the /qn switch). This example specifies a custom LCS domain, indicates an LCS port, uses the LCS, enables auto updates, specifies a sample district name and a sample school name, and makes the connectivity test a warning (this lets you run the readiness check and ignore connection errors).

```
DRC_INSIGHT_setup.msi LCS_SERVER_DOMAIN=192.168.1.123 LCS_SERVER_PORT=8080  
ENABLE_LCS=true ENABLE_AUTO_UPDATE=true DISTRICT_NAME="EXAMPLE DISTRICT"  
SCHOOL_NAME="EXAMPLE SCHOOL" CONNECTIVITY_AS_WARNING=true /qn
```

**Note:** To see the other MSIEXEC properties and switches that you can use with the installation application, go to the Microsoft Command Line options page.

# Windows Installation

## Starting INSIGHT

You can start both INSIGHT and the System Readiness Check from a testing computer, the Windows Start menu or the Windows Explorer.

## Stopping INSIGHT

If INSIGHT becomes unresponsive, the NeSA–Technology Assessment Coordinator (N–TAC) may need to stop it. You can stop INSIGHT by using the Windows Task Manager. To activate the Task Manager, press **Ctrl-Alt-Delete** and select **Task Manager** (see Figure 3-5).

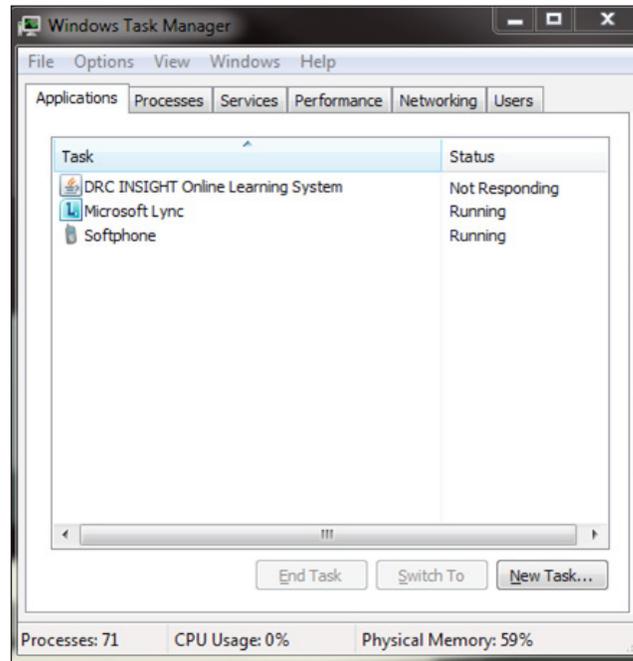
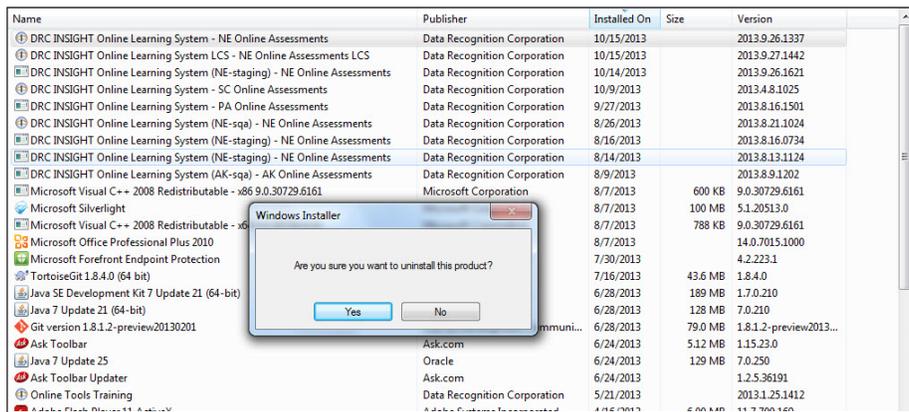


Figure 3-5: Task Manager - Windows 7 Environment

## Uninstalling INSIGHT

You can uninstall (remove) INSIGHT by selecting **Control Panel–Uninstall Programs** and selecting **DRC INSIGHT Online Learning Systems–NE Online Assessments**, right-clicking, selecting **Uninstall**, and clicking **Yes** when the Windows Installer dialog box displays.



**Note:** If you cannot remove the installation by using the Control Panel, contact DRC Nebraska Customer Service at 866-342-6280.

# **Section Four: Mac (OS X) Installation**

### ■ What's Covered in This Section

This section describes the installation process in a Mac (OS X) environment.

First, it provides basic information about installing and uninstalling an LCS and INSIGHT using the standard Mac graphical interface.

**Note:** You should install the LCS *before* you install INSIGHT so that you can specify the path to the LCS and the communication port during the INSIGHT installation.

Then, the section provides more advanced technical information about:

- Managing an LCS: starting, stopping, changing the default communication port, and uninstalling.
- Managing INSIGHT: starting, stopping, and uninstalling.
- Working in a non-graphical (terminal) mode using Mac (OS X) operating system commands.

## Quick Tour 3: Installing an LCS for Mac OS (OS X)

This Quick Tour describes how to install a Local Caching Service (LCS) in the Mac (OS X) environment. DRC provides an easy-to-use Wizard to install the LCS software. The OS X installation follows the standard Mac two-step process of mounting a volume and launching an application.

1. To launch the Wizard and start the installation, sign in to eDIRECT, select **Test Setup–General Information–Downloads**, and click on the Local Caching Service (LCS) installer icon for Mac OS

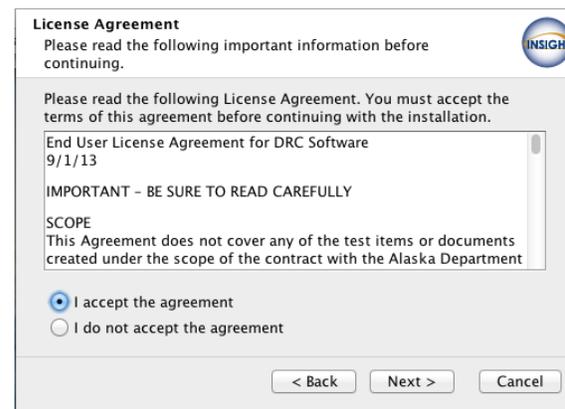
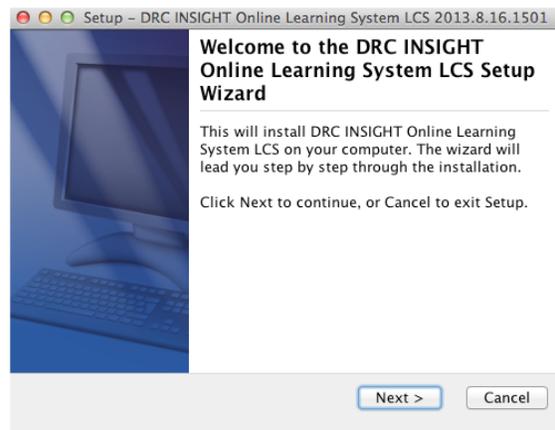
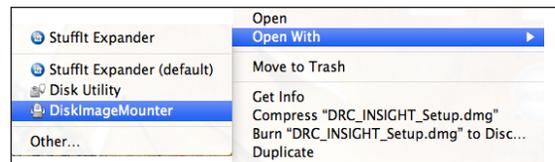
**Note:** You must be a Mac System Administrator to install the LCS from this file.

2. After you have downloaded the installation program, right-click (Ctrl-click) on the **DRC\_INSIGHT\_LCS\_Setup.dmg** file and select **Open With–Disk Image Mounter** to mount the volume.
3. Double-click on the mounted volume **DRC\_LCS** to launch the Wizard and start the installation. The Welcome screen displays for the DRC INSIGHT Online System LCS Setup Wizard.

Click **Next** to continue.

4. The DRC INSIGHT License Agreement windows displays. Read the agreement and select the option **I accept the agreement**.

When the Next button becomes active, click **Next** to continue.



## Quick Tour 3: Installing an LCS for Mac OS (OS X)

5. During the installation, a window displays to indicate the progress of the installation.

If necessary, you can click **Cancel** to end the installation process.

6. When the installation completes, the Setup Complete window displays.

Record the LCS server name and port number, you will need this information when you install INSIGHT. You can change the port numbers from this window.

**Important:** To avoid potential conflicts, be certain no other device is using either port.

**Note:** The LCS HTTP Port Number is the port number for regular communication. The LCS HTTPS Port Number is currently not being used—it is the port number for encrypted communication and will be used in the future for the web-based version of INSIGHT.

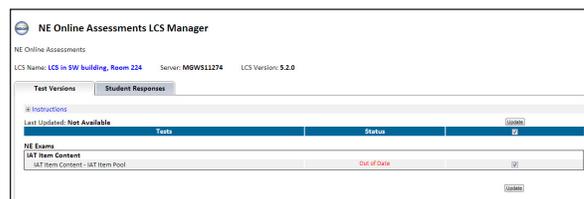
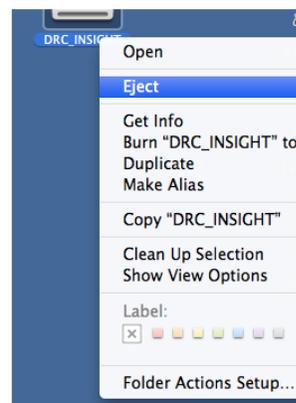
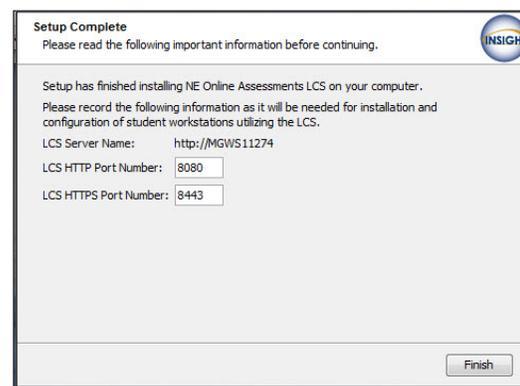
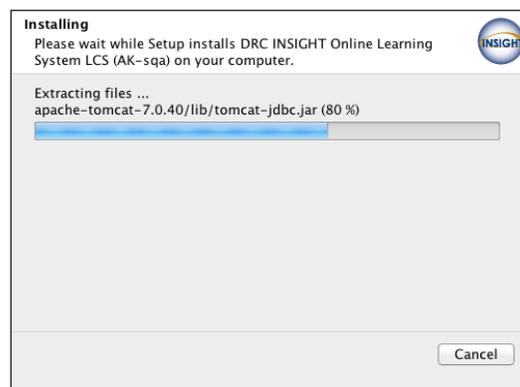
Click **Finish** when you are ready.

7. After installation is complete, select the DRC\_ LCS volume from the desktop, right-click on it (**Ctrl-click**) and select **Eject** to unmount the volume.

Unmounting the volume avoids potential conflicts with automatic updates.

8. Start the LCS Manager by selecting **Applications– Online Assessments LCS– Online Assessments LCS Manager.url**. When the LCS Manager displays, click **Update** to load the latest tests.

When the LCS Manager updates the LCS, the Status field changes from Out of Date to Up to Date. Exit the LCS Manager (for more information, see “Updating Tests” on page 77 in the Working with INSIGHT section).



## Quick Tour 4: Installing INSIGHT for Mac OS (OS X)

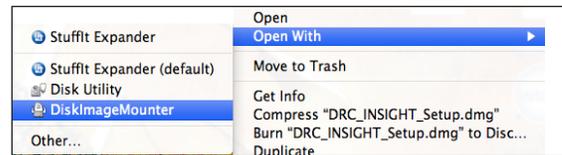
This Quick Tour describes how to install INSIGHT on a Mac. DRC provides an easy-to-use Wizard to install the LCS software. The OS X installation follows the standard Mac two-step process of mounting a volume and launching an application.

1. First, download the dedicated installer for the Mac (OS X) operating system, `DRC_INSIGHT_Setup.dmg`, that DRC created. Sign in to eDIRECT, select **Test Setup–General Information–Downloads**, and click on the Macintosh Installer icon.

**Note:** You must be a Mac System Administrator to install INSIGHT from this file.



2. Next, mount the installer disk image. Right-click (Ctrl-click) on the downloaded `DRC_INSIGHT_Setup.dmg` file and select **Open With–Disk Image Mounter** to mount the volume.



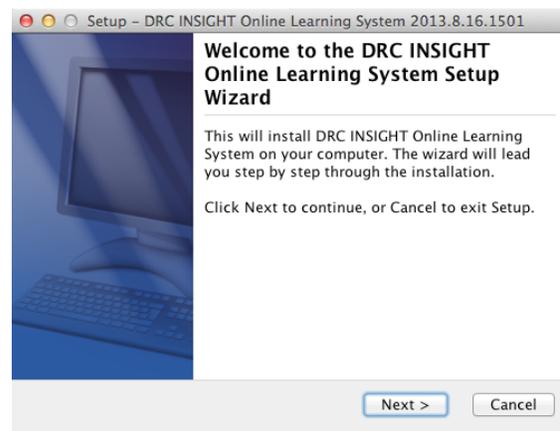
3. A new drive icon labeled `DRC_INSIGHT` should appear on the desktop and the corresponding folder opens in the Finder.

Launch the installer by double-clicking on the **DRC INSIGHT Online Learning System Installer** icon in the mounted volume.



4. The Welcome screen displays for the DRC INSIGHT Online System Setup Wizard.

Click **Next** to continue.



## Quick Tour 4: Installing INSIGHT for Mac OS (OS X)

- The DRC INSIGHT License Agreement window displays. To continue the installation, you should read the agreement and decide whether to select it by choosing the option **I accept the agreement**. (If you do not choose to accept the agreement, the installation ends.)

When the Next button becomes active, click **Next** to continue.

- The District and School Information window displays. To continue the installation, select a district from the District Name drop-down menu and a school from the School Name drop-down menu and click **Next**.

**Note:** Be careful to specify the correct district and school—the testing computer is associated with the school and district you specify.

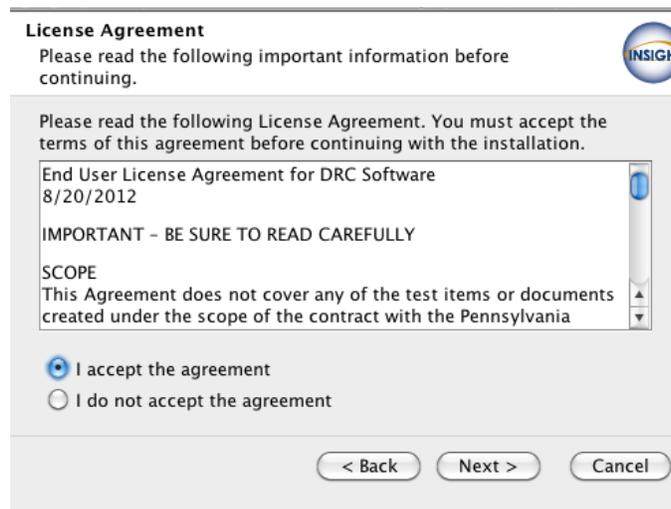
Click **Next** to continue.

- The Local Caching Service Configuration window displays.

If you plan to use the Local Caching Service (LCS), you must check the box Enable Local Caching Service Configuration. Specify the LCS server name (not the LCS location name) and the communication port to use for the LCS server (the default is port 8080).

For more information, see “Quick Tour 3: Installing an LCS for Mac OS (OS X)” on page 43.

Click **Next**.



**License Agreement**  
Please read the following important information before continuing.

Please read the following License Agreement. You must accept the terms of this agreement before continuing with the installation.

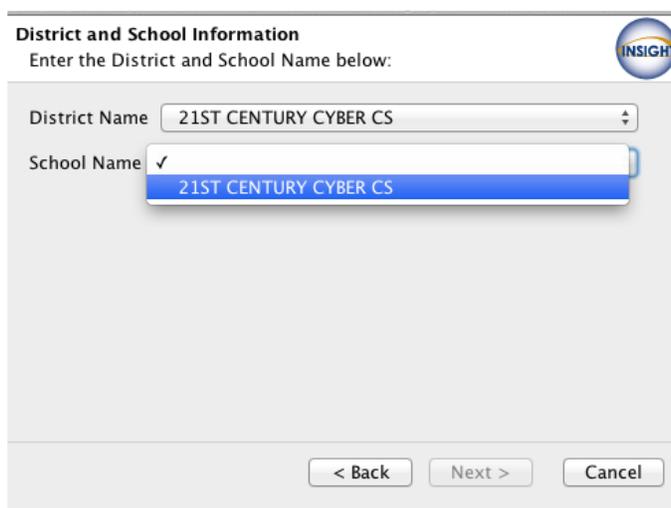
End User License Agreement for DRC Software  
8/20/2012

**IMPORTANT - BE SURE TO READ CAREFULLY**

**SCOPE**  
This Agreement does not cover any of the test items or documents created under the scope of the contract with the Pennsylvania

I accept the agreement  
 I do not accept the agreement

< Back   Next >   Cancel

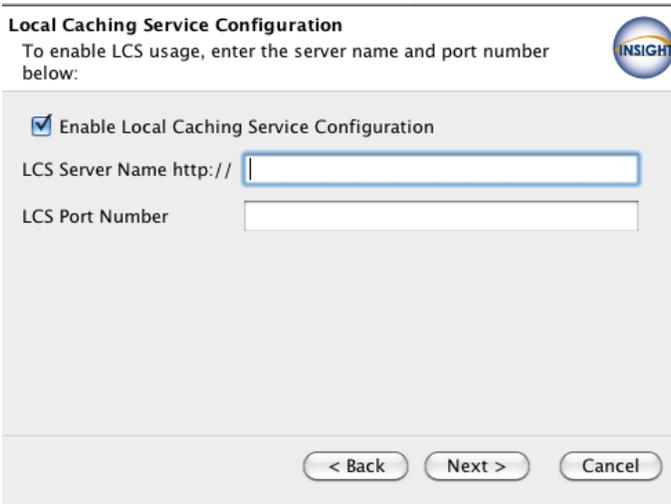


**District and School Information**  
Enter the District and School Name below:

District Name: 21ST CENTURY CYBER CS

School Name: 21ST CENTURY CYBER CS

< Back   Next >   Cancel



**Local Caching Service Configuration**  
To enable LCS usage, enter the server name and port number below:

Enable Local Caching Service Configuration

LCS Server Name http:// [ ]

LCS Port Number [ ]

< Back   Next >   Cancel

## Quick Tour 4: Installing INSIGHT for Mac OS (OS X)

- The System Readiness Check runs automatically to determine whether your system meets the requirements to install INSIGHT.

If your system failed the check, the window displays **System Readiness Check - Fail**.

You can select a test that failed for more details about the reason for the failure.

In your system passed the check, the window displays **System Readiness Check - Pass**.

Click **Next** to continue.

- The Automatic Update window displays. You can use this window to indicate whether you want INSIGHT to automatically check for software updates anytime it starts.

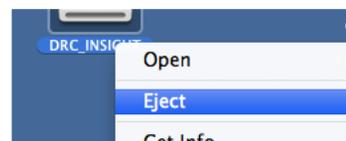
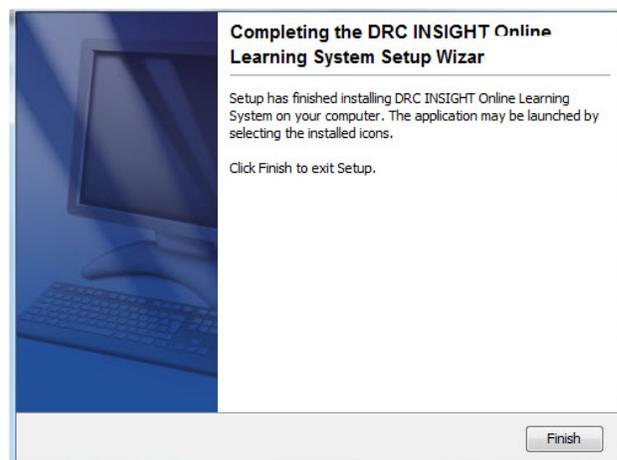
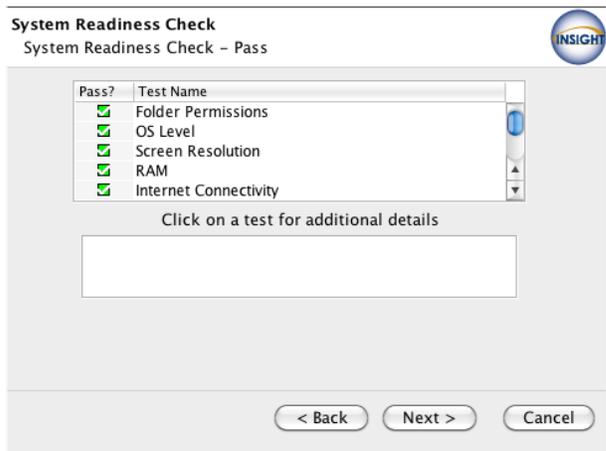
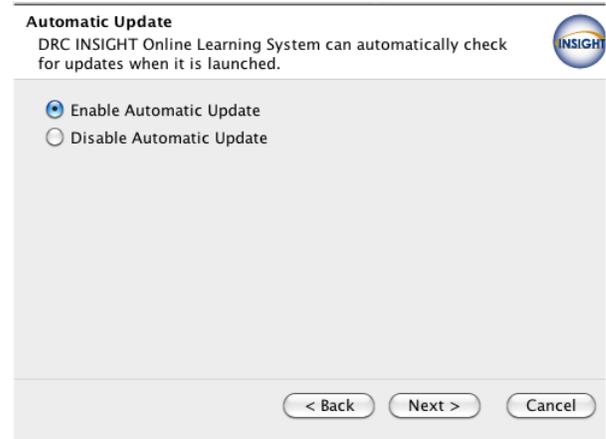
Check **Enable Automatic Updates** (the default value) to turn automatic updates on; **Disable Automatic Updates** to turn automatic updates off (see “Automatic Software Updates” on page 21 in the Configuration section for more information).

Click **Next** to continue.

- After the installation is complete, click **Finish**.

- Select the DRC\_INSIGHT volume from the desktop, right-click on it (**Ctrl-click**) and select **Eject** to unmount the volume.

Unmounting the volume avoids potential conflicts with automatic updates.



### Managing the LCS

This section describes how to start and stop an LCS from a command line, how to install an LCS from the command line, how to change the LCS communication port after installation, and how to remove an LCS.

#### Installing an LCS from the Command Line

This topic describes how to install a Local Caching Service (LCS) for the Mac (OS X) environment using the command line interface versus a graphical interface. This type of installation is useful if you want to install the software in unattended mode, or to install it quickly on a number of computers.

**Note:** These instructions assume that you have downloaded the appropriate installer to the system. You cannot install different versions of the LCS on a single machine.

To install an LCS from a command line, execute the Setup command **DRC\_INSIGHT\_LCS\_Setup.dmg** with the specific options you want to use. To display a list of the command line options for the installation program, use the **/h** (help) parameter with the Setup command.

**Note:** The Open command does not support the install program parameters. To pass arguments, you must go into the contents of the .app directory and call the **Contents/MacOS/JavaApplicationStub** directly from the command line. Figure 4-1 shows a list of the standard options.

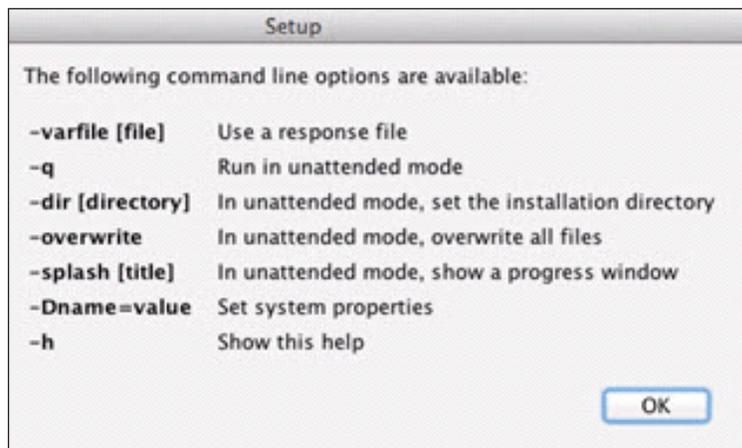


Figure 4-1: INSIGHT Installation Options

## Starting and Stopping the LCS

The LCS is a service that executes in the background without a standard graphical window. NeSA-Technology Coordinators (N-TACs) should be familiar with starting and stopping the LCS with the `DRC_INSIGHT_LCS` script.

You can use the `launchd` and `launchctl` commands to manage services. By default, the LCS is started after installation and launches anytime the computer is booted.

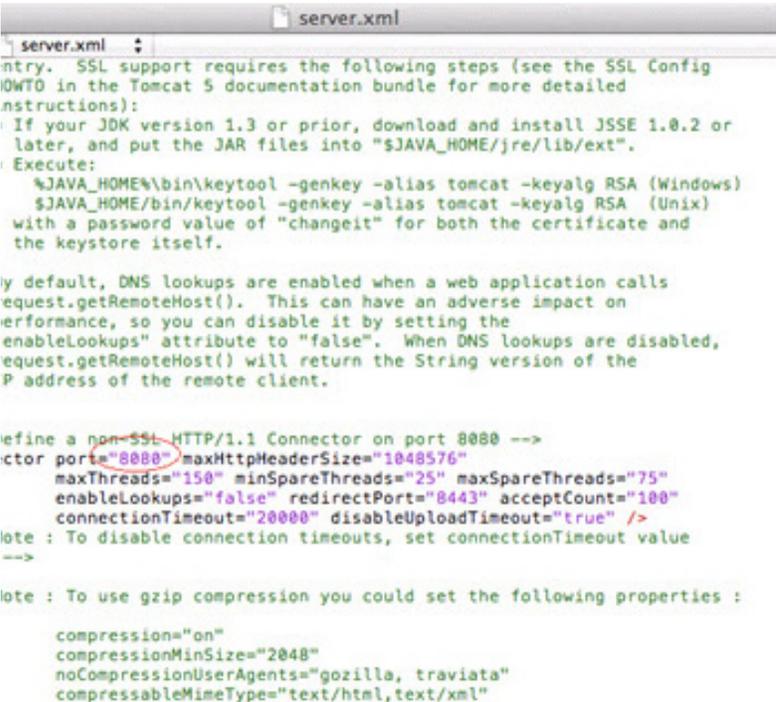
## Changing the Default LCS Port Number After Installation

The LCS uses port 8080 by default. You can change this port setting dynamically during installation. After the LCS is installed, if this port is already being used or conflicts with firewall settings, you can change the value by reinstalling the LCS or by updating the following file:

**`<installation dir>/apache-tomcat-7.0.40/conf/server.xml`.**

To change the port number without reinstalling the LCS:

1. Use a text editor to open the `apache-tomcat-7.0.40/conf/server.xml` file.
2. Search for the string, 8080 (see Figure 4-2).
3. Replace the string after Connector Port with the appropriate port number and save the file.



```

server.xml
server.xml
entry. SSL support requires the following steps (see the SSL Config
HOWTO in the Tomcat 5 documentation bundle for more detailed
instructions):
- If your JDK version 1.3 or prior, download and install JSSE 1.0.2 or
later, and put the JAR files into "$JAVA_HOME/jre/lib/ext".
- Execute:
  %JAVA_HOME%\bin\keytool -genkey -alias tomcat -keyalg RSA (Windows)
  $JAVA_HOME/bin/keytool -genkey -alias tomcat -keyalg RSA (Unix)
  with a password value of "changeit" for both the certificate and
  the keystore itself.

By default, DNS lookups are enabled when a web application calls
request.getRemoteHost(). This can have an adverse impact on
performance, so you can disable it by setting the
enableLookups attribute to "false". When DNS lookups are disabled,
request.getRemoteHost() will return the String version of the
IP address of the remote client.

<!-- Define a non-SSL HTTP/1.1 Connector on port 8080 -->
<connector port="8080" maxHttpHeaderSize="1048576"
  maxThreads="150" minSpareThreads="25" maxSpareThreads="75"
  enableLookups="false" redirectPort="8443" acceptCount="100"
  connectionTimeout="20000" disableUploadTimeout="true" />
<!-- To disable connection timeouts, set connectionTimeout value
-->

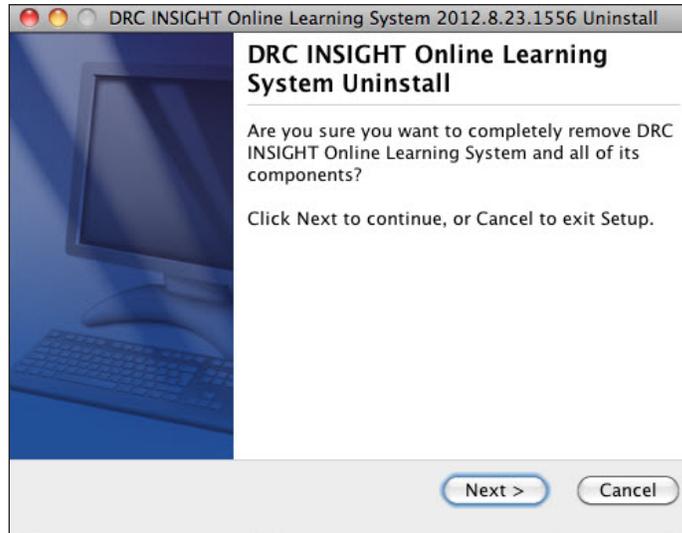
<!-- To use gzip compression you could set the following properties :
compression="on"
compressionMinSize="2048"
noCompressionUserAgents="gozilla, traviata"
compressableMimeType="text/html,text/xml"

```

Figure 4-2: Editing the Server.xml File

### *Uninstalling the LCS*

You can uninstall (remove) the LCS by selecting **Applications–NE Online Assessment–DRC INSIGHT Online Learning System LCS Uninstaller.app** and clicking **Next** when the Uninstall Wizard displays.



*Figure 4-3: Uninstalling the LCS*

## Managing INSIGHT

This section describes how to start and stop INSIGHT and the System Readiness Check, how to install INSIGHT from a command line (sometimes called a “Silent Installation”), and how to remove INSIGHT.

### Installing INSIGHT from a Command Line

To install INSIGHT from a command line, execute the Setup command **DRC\_INSIGHT\_Setup.dmg** with the specific options you want to use. To display a list of the command line options for the installation program, use the **/h** (help) parameter with the Setup command.

**Note:** The Open command does not support the install program parameters. To pass arguments, you must go into the contents of the .app directory and call the **Contents/MacOS/JavaApplicationStub** directly from the command line. Figure 4-4 shows a list of the standard options.

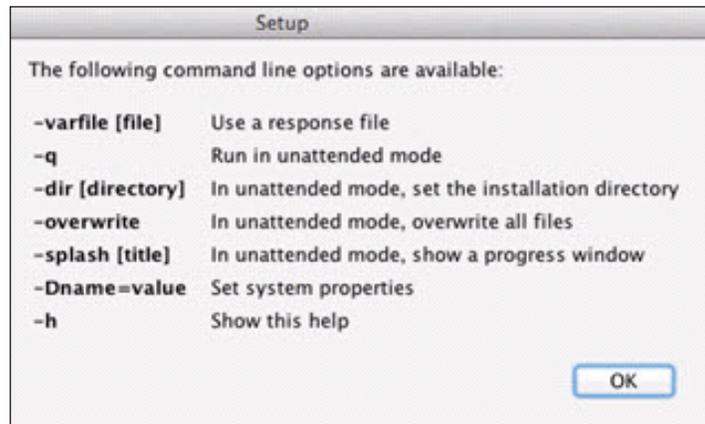


Figure 4-4: INSIGHT Installation Options

## Mac (OS X) Installation

### INSIGHT Installation Program Options

The following table shows the custom properties available for the installation program on the Mac.

**Note:** To install on a Mac, you must first download and mount the installer.

Property/Switch	Description	Default Value
LCS_SERVER_DOMAIN	The IP address of the LCS server or its name (the default value is off). A value of 127.0.0.1 or localhost points to an LCS server on the same computer.	Blank
LCS_SERVER_PORT	The active port for the LCS.	8080
ENABLE_LCS	A true/false value that indicates whether to use the LCS.	False
SKIP_READINESS	A true/false value that indicates whether to suppress the System Readiness Test.  <b>Warning:</b> Setting this value to true allows an installation to complete that might fail the readiness checks.	False
ENABLE_AUTO_UPDATE	A true/false value that indicates whether to perform automatic updates.	True
CONNECTIVITY_AS_WARNING	The setting reduces connectivity test failures to warnings.  <b>Warning:</b> Setting this value to true allows an installation to complete that might otherwise fail a connectivity check.	False
DISTRICT_NAME	The district name must be in uppercase and must match exactly (including spacing) what's displayed in the new drop-down lists in the Wizard installation (see "Quick Tour 4: Installing INSIGHT for Mac OS (OS X)" on page 43). You must include the actual name within a set of double quotes (see the Example).	Blank
SCHOOL_NAME	The school name must be in uppercase and must match exactly (including spacing) what's displayed in the new drop-down lists in the Wizard installation (see "Quick Tour 4: Installing INSIGHT for Mac OS (OS X)" on page 43). You must include the actual name within a set of double quotes (see the Example).	Blank
/q	Runs the installation in silent mode.	NA

*Table 4-1: INSIGHT Mac Installation Program Options*

**Note:** All properties are passed in a `-Vkey=value` format (see the example).

## Installation Command Syntax and Example

The following is the syntax for the install program command:

```
DRC_INSIGHT_setup.dmg <properties> <MSI switches>
```

### Example

The following example installs the software in silent mode (the /q switch). This example specifies a custom LCS domain, indicates an LCS port, uses the LCS, and skips the System Readiness Test:

```
sudo /Volumes/DRC_INSIGHT//DRC\ INSIGHT\ Online\ Learning\ System\ Installer.app/Contents/  
MacOS/JavaApplicationStub -q -VLCS_SERVER_DOMAIN=lcs.wcasd.k12.pa.us -VDISTRICT_  
NAME="EXAMPLE DISTRICT" -VSCHOOL_NAME="EXAMPLE SCHOOL" -VLCS_SERVER_  
PORT=8080 -VENABLE_LCS=true -VSKIP_READINESS=true
```

### Starting INSIGHT

You can start both INSIGHT and the System Readiness Check from a workstation or the desktop shortcut created by the installer.

### Stopping INSIGHT

If INSIGHT becomes unresponsive, the NeSA-Technology Coordinator (N-TAC) may need to stop it using the key combination, **Command–Opt–Esc**.

### Uninstalling INSIGHT

You can uninstall (remove) INSIGHT by selecting **Applications–Online Assessment–DRC INSIGHT Online Learning System–Uninstaller.app** and clicking **Next** when the Uninstall Wizard displays.

### Uninstalling Manually

If the installation becomes corrupt, you must manually remove the desktop shortcuts, the Application folder, and the /Library/Fonts/ArialForDRC.ttf files.

**Notes:**

# **Section Five: Linux Installation**

### ■ What's Covered in This Section

This section describes the installation process in a Linux environment.

First, it provides basic information about installing and uninstalling the LCS and INSIGHT using the standard Linux interface.

**Note:** You should install the LCS *before* you install INSIGHT so that you can specify the path to the LCS and the communication port during the INSIGHT installation.

Then, the section provides more advanced technical information about:

- Managing an LCS: starting, stopping, changing the default communication port, and uninstalling.
- Managing INSIGHT: starting, stopping, and uninstalling.
- Working in a non-graphical (terminal) mode using Linux operating system commands.

## Quick Tour 5: Installing an LCS for Linux

This Quick Tour describes how to install a Local Caching Service (LCS) for Linux. DRC provides an easy-to-use Wizard to install the LCS software. In a Linux environment, you need to enter a few commands before you can run the Wizard.

1. To launch the Wizard and start the installation, sign in to eDIRECT, select **Test Setup—General Information—Downloads**, and click on the Local Caching Service (LCS) installer icon for Linux to download the LCS setup shell file—**DRC\_INSIGHT\_LCS\_Setup.sh**—to your testing computer.
2. Select **Applications—Accessories—Terminal** and navigate to your Downloads directory.
3. Use the **ls** command to verify that the **DRC\_INSIGHT\_LCS\_Setup.sh** file is in the Downloads directory. If it is not there, download it again.
4. Enter the following command to start the installation. Remember—all Linux commands are case-sensitive.

- **sudo sh DRC\_INSIGHT\_LCS\_Setup.sh**

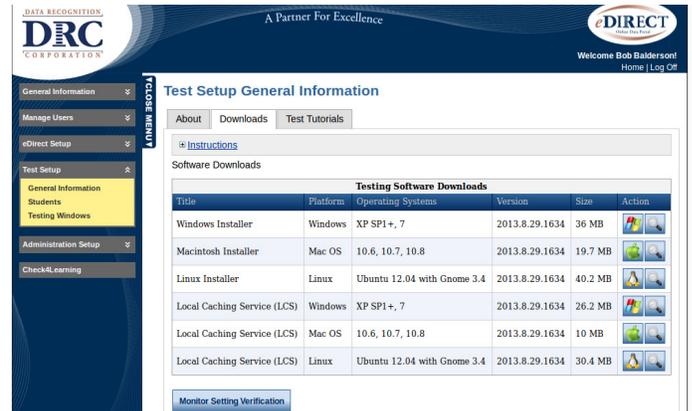
The **sudo** command gives you temporary administrator privileges and allows you to run the shell file.

- If prompted, enter your **sudo** password at the prompt. Linux unpacks the shell file and launches the Wizard to start the installation.

**Note:** On some 64-bit systems, you must install 32-bit Java libraries for the installation program to run correctly. If you need to install these libraries, enter the following command:

```
sudo apt-get install ia32-libs
```

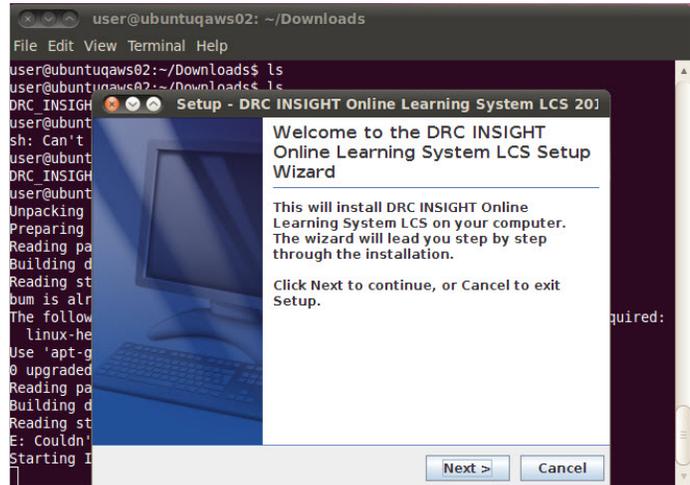
The installation program creates an application folder in the **/opt** or **/usr/local** directory (see the topic, “Linux: Installation Command Syntax and Example” on page 69).



```
user@ubuntuqaws02: ~/Downloads
File Edit View Terminal Help
user@ubuntuqaws02:~$ ls
Desktop Downloads insight Pictures Templates
Documents examples.desktop Music Public Videos
user@ubuntuqaws02:~$ cd Downloads
user@ubuntuqaws02:~/Downloads$ ls
DRC INSIGHT LCS Setup.sh DRC INSIGHT Setup(2).sh DRC_INSIGHT_Se
user@ubuntuqaws02:~/Downloads$ sudo sh DRC_INSIGHT_LCS_Setup.sh
Unpacking JRE ...
Preparing JRE ...
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following extra packages will be installed:
 menu
The following NEW packages will be installed:
 bum menu
0 upgraded, 2 newly installed, 0 to remove and 190 not upgraded.
```

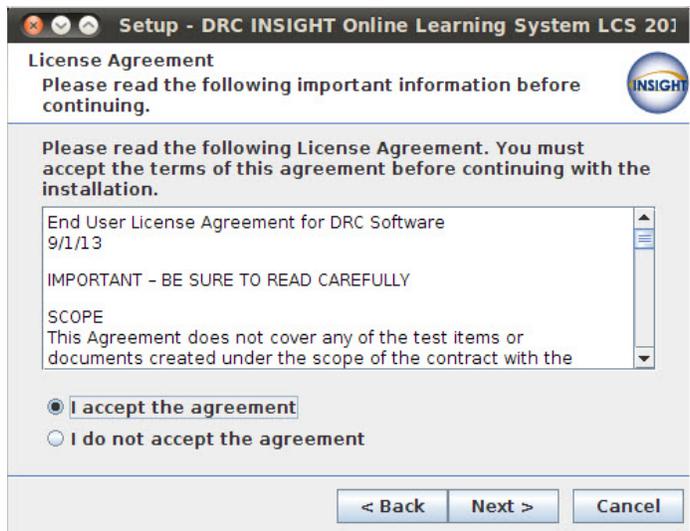
## Quick Tour 5: Installing an LCS for Linux

5. The Welcome screen displays for the DRC INSIGHT Online System LCS Setup Wizard. Click **Next** to continue.



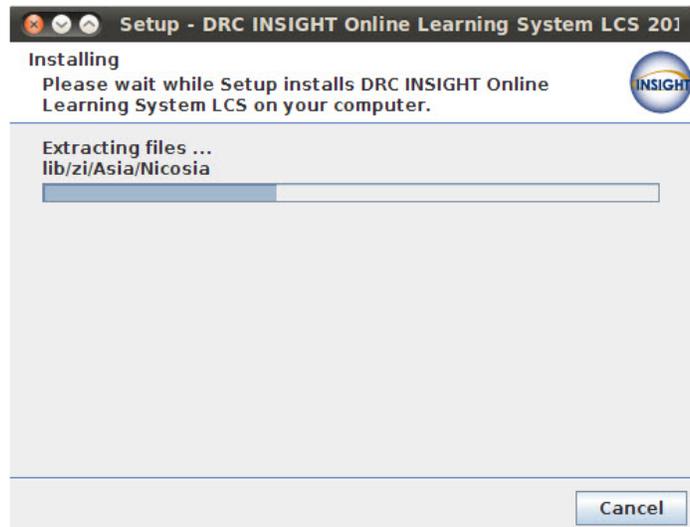
6. The DRC INSIGHT License Agreement window displays. To continue the installation, you should read the agreement and decide whether to select it by choosing the option **I accept the agreement**. (If you do not choose to accept the agreement, the installation ends.)

When the Next button becomes active, click **Next** to continue.



7. During the installation, a window displays to indicate the progress of the installation.

If necessary, you can click **Cancel** to end the installation process.



## Quick Tour 5: Installing an LCS for Linux

8. When the installation completes, the Setup Complete window displays.

Record the LCS server name and port number, you will need this information when you install INSIGHT. You can change the port numbers from this window.

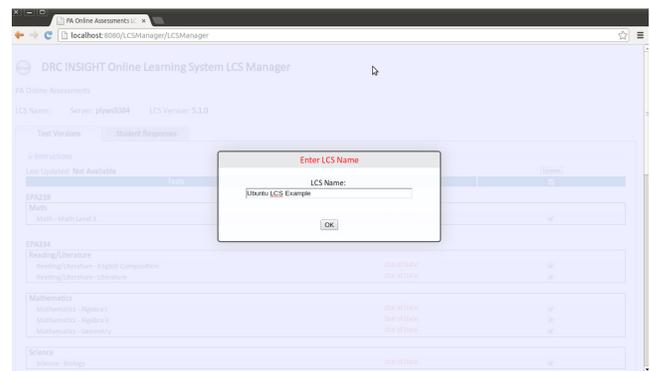
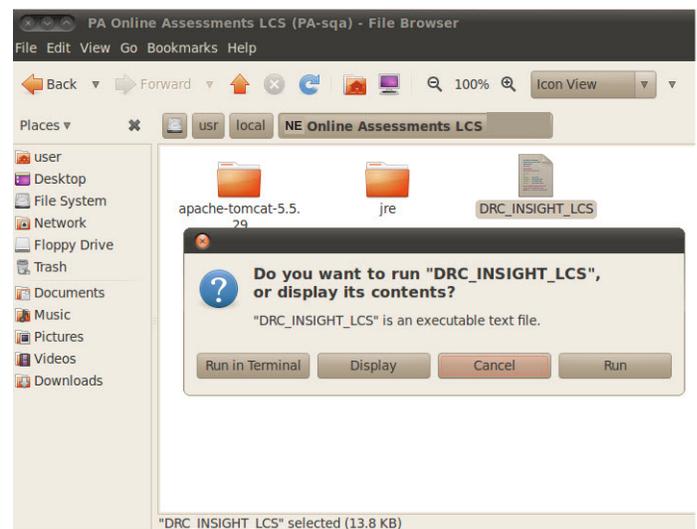
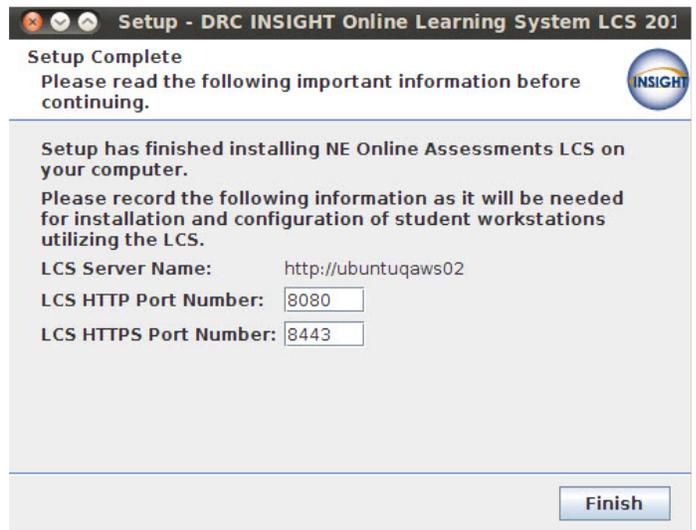
**Important:** To avoid potential conflicts, be certain no other device is using either port.

**Note:** The LCS HTTP Port Number is the port number for regular communication. The LCS HTTPS Port Number is currently not being used—it is the port number for encrypted communication and will be used in the future for the web-based version of INSIGHT.

Click **Finish** when you are ready.

9. Use the Linux graphical interface to select the `DRC_INSIGHT_LCS` file from `/opt/NE Online Assessments LCS`, right-click on it, select **Open**, and select **Run in Terminal** to start the LCS.

10. When the Enter LCS Name windows displays, enter a name that will help you remember the location of the LCS machine in the LCS Name field and click **OK**. The name you choose is limited to 40 characters, and there are no special formatting requirements.



## Quick Tour 6: Installing INSIGHT for Linux

This Quick Tour describes how to install the DRC INSIGHT Online Learning System for Linux. DRC provides an easy-to-use Wizard to install the LCS software. In a Linux environment, you need to enter a few commands before you can run the Wizard.

1. To launch the Wizard and start the installation, sign in to eDirect, select **Test Setup–General Information–Downloads**, and click on the Linux Installer icon to download the INSIGHT setup shell file—**DRC\_INSIGHT\_Setup.sh**—to your testing computer.
2. Select **Applications–Accessories–Terminal** and navigate to your Downloads directory.
3. Use the **ls** command to verify that the **DRC\_INSIGHT\_Setup.sh** file is in the Downloads directory. If it is not there, download it again.
4. Enter the following command to start the installation. Remember—all Linux commands are case-sensitive.

- **sudo sh DRC\_INSIGHT\_Setup.sh**

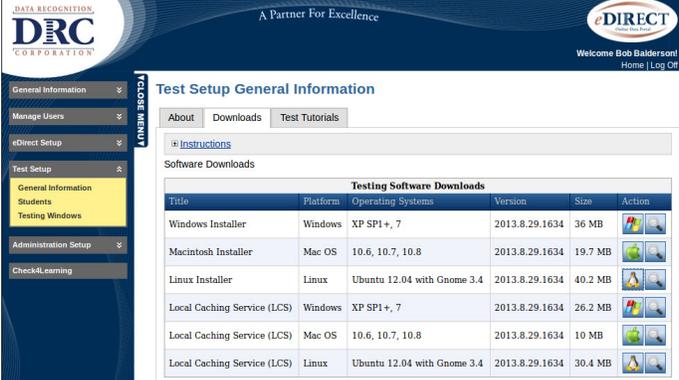
The **sudo** command gives you temporary administrator privileges and allows you to unpack the shell file.

- If prompted, enter your **sudo** password at the prompt. Linux unpacks the shell file and launches the Wizard to start the installation.

**Note:** On some 64-bit systems, you must install 32-bit Java libraries for the installation program to run correctly. If you need to install these libraries, enter the following command:

```
sudo apt-get install ia32-libs
```

The installation program creates an application folder in the **/opt** or **/usr/local** directory (see the topic, “Linux: Installation Command Syntax and Example” on page 69).

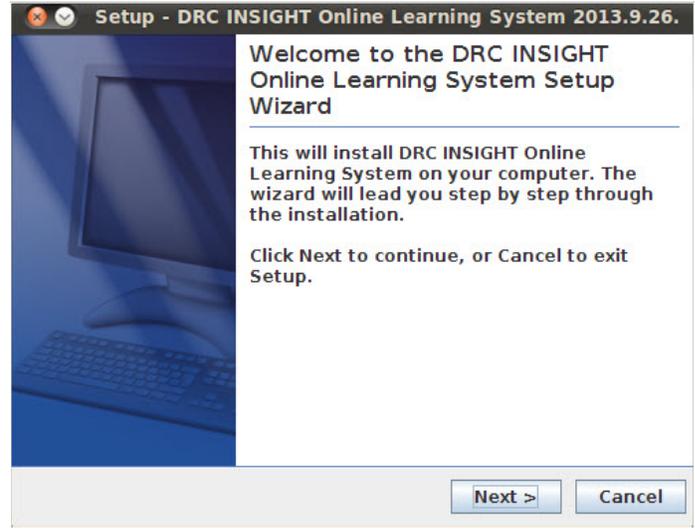


Title	Platform	Operating Systems	Version	Size	Action
Windows Installer	Windows	XP SP1+, 7	2013.8.29.1634	36 MB	
Macintosh Installer	Mac OS	10.6, 10.7, 10.8	2013.8.29.1634	19.7 MB	
Linux Installer	Linux	Ubuntu 12.04 with Gnome 3.4	2013.8.29.1634	40.2 MB	
Local Caching Service (LCS)	Windows	XP SP1+, 7	2013.8.29.1634	26.2 MB	
Local Caching Service (LCS)	Mac OS	10.6, 10.7, 10.8	2013.8.29.1634	10 MB	
Local Caching Service (LCS)	Linux	Ubuntu 12.04 with Gnome 3.4	2013.8.29.1634	30.4 MB	

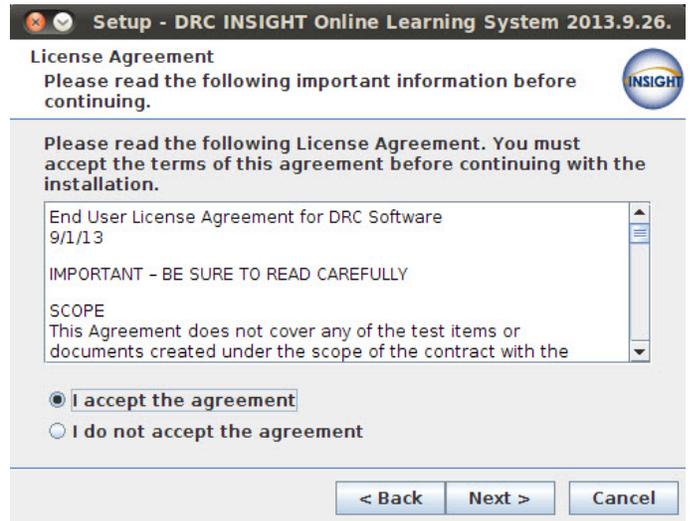
```
user@ubuntuqaws02: ~/Downloads
File Edit View Terminal Help
Desktop Downloads insight Pictures Templates
Documents examples.desktop Music Public Videos
user@ubuntuqaws02:~$ cd Downloads
user@ubuntuqaws02:~/Downloads$ ls
DRC_INSIGHT LCS Setup.sh DRC INSIGHT Setup(2).sh DRC_INSIGHT_Setup.sh
user@ubuntuqaws02:~/Downloads$ sudo sh DRC_INSIGHT_Setup.sh
Unpacking JRE ...
Preparing JRE ...
Reading package lists... Done
Building dependency tree
Reading state information... Done
E: Couldn't find package ia32-libs
Starting Installer ...
Nov 20, 2012 9:07:31 AM com.datarecognitioncorp.insight.client.to
peechSynthesizer
INFO: None : Load TTS library
Nov 20, 2012 9:07:31 AM com.datarecognitioncorp.insight.client.to
peechSynthesizer
INFO: None : Could not load dependent library...disabling SPEECH
Nov 20, 2012 9:07:31 AM com.datarecognitioncorp.insight.client.to
```

## Quick Tour 6: Installing INSIGHT for Linux

- The Welcome screen displays for the DRC INSIGHT Online System Setup Wizard. Click **Next** to continue.



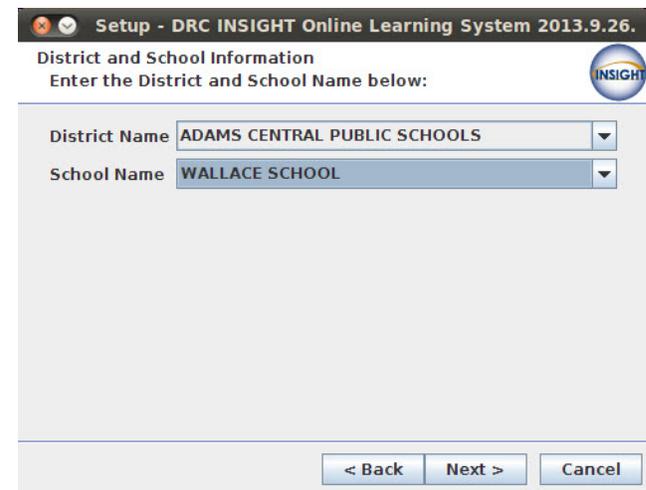
- The DRC INSIGHT License Agreement window displays. Read the agreement and select the option **I accept the agreement**. When the **Next** button becomes active, click it to continue.



- The District and School Information window displays. To continue the installation, select a district from the District Name drop-down menu and a school from the School Name drop-down menu and click **Next**.

**Note:** Be careful to specify the correct district and school—the testing computer is associated with the school and district you specify.

Click **Next** to continue.

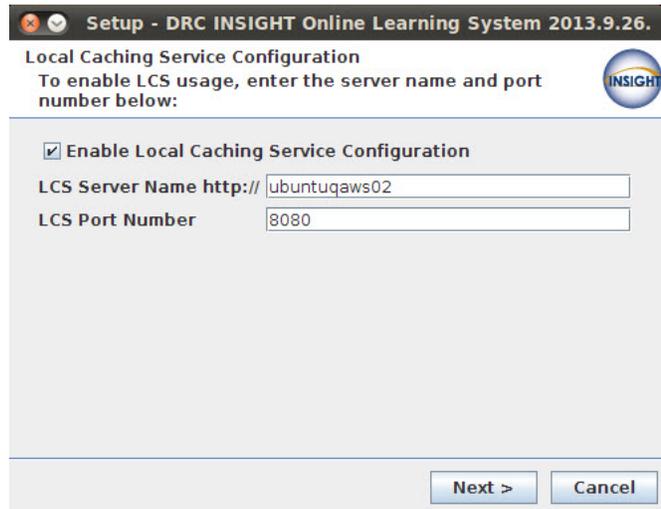


## Quick Tour 6: Installing INSIGHT for Linux

8. The Local Caching Service Configuration window displays.

If you plan to use the Local Caching Service (LCS), you must check the box **Enable Local Caching Service Configuration** and specify the path to the LCS server and the communication port to use for the LCS server (the default is port 8080). For more information, see “Quick Tour 5: Installing an LCS for Linux” on page 57.

Click **Next**.



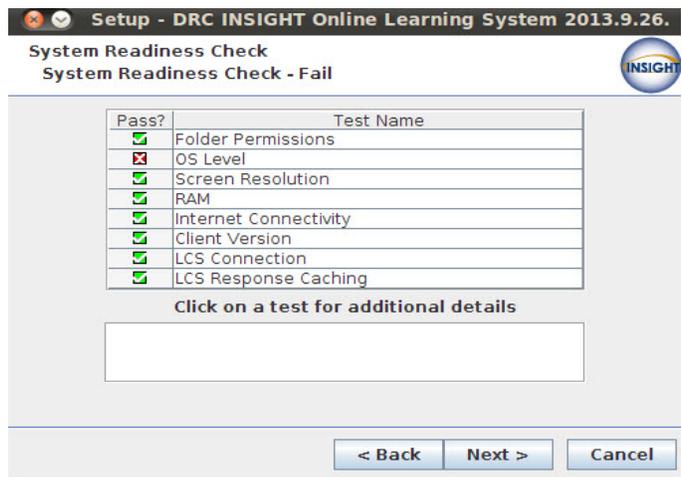
9. The System Readiness Check runs automatically to determine whether your system meets the requirements to install INSIGHT.

If your system failed the check, the window displays **System Readiness Check - Fail**.

You can select a test that failed for more details about the reason for the failure.

In your system passed the check, the window displays **System Readiness Check - Pass**.

Click **Next** to continue.

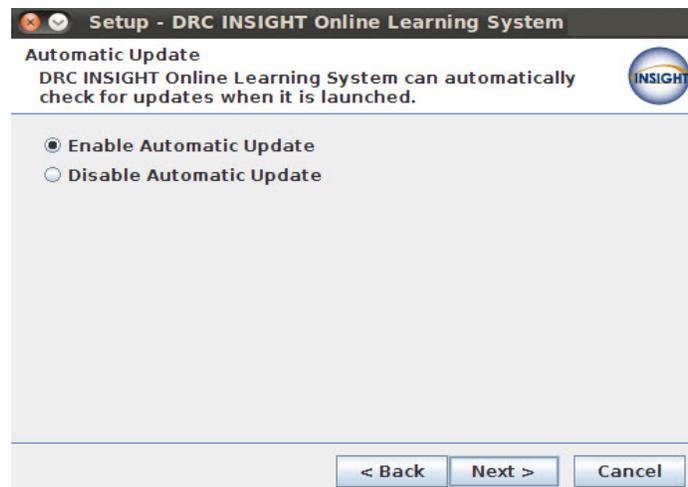


10. The Automatic Update window displays.

You can use this window to indicate whether you want INSIGHT to automatically check for software updates anytime it starts.

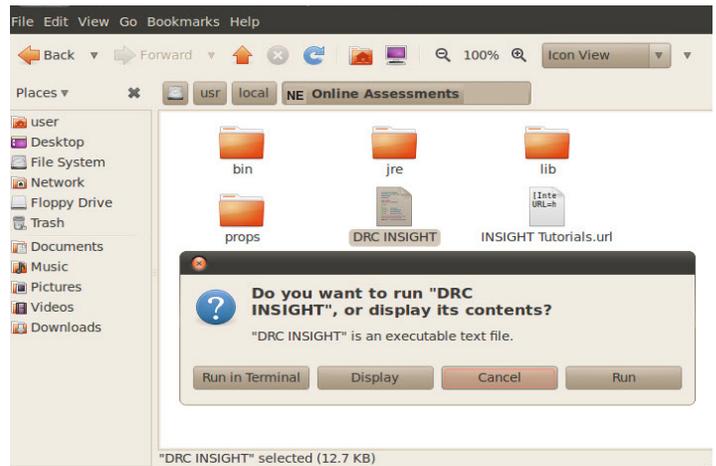
Check **Enable Automatic Updates** (the default value) to turn automatic updates on; **Disable Automatic Updates** to turn automatic updates off (see the topic, “Automatic Software Updates” on page 21 in the Configuration section for more information).

Click **Next** to continue.



## Quick Tour 6: Installing INSIGHT for Linux

11. After the installation is complete, click **Finish**.
12. Use the Linux graphical interface to select the DRC\_INSIGHT file from /usr/local/NE Online Assessments, right-click on it, select **Open**, and select **Run in Terminal** to start INSIGHT.



### ***Managing the LCS***

This section describes how to start and stop an LCS from a command line, how to change the LCS communication port after installation, and how to remove an LCS.

#### ***Starting and Stopping the LCS from the Terminal***

After the LCS Manager software is installed, the Linux Administrator must start the associated service. The Administrator can start or stop the LCS services from the terminal by using the start and stop arguments as shown in the following example:

```
"/usr/local/drc_insight/NE Online Assessments LCS/DRC_INSIGHT_LCS" start
```

#### ***Starting and Stopping the LCS Using the BootUp Manager Software***

An Administrator also can start or stop the LCS services by using the BootUp Manager software. Select **System–Administration–BootUp-Manager**.

**Note:** The BootUp Manager software is installed automatically with the LCS Manager. If not, you can install it from the Ubuntu Software Center, or by using the **apt-get install bum** command.

An Administrator can use the BootUp Manager to stop or start a service, and to define whether to launch a service automatically on startup. To launch the LCS service automatically, select **DRC\_INSIGHT\_LCS** and check the **Activate** checkbox.

## Changing the Default LCS Port Number After Installation

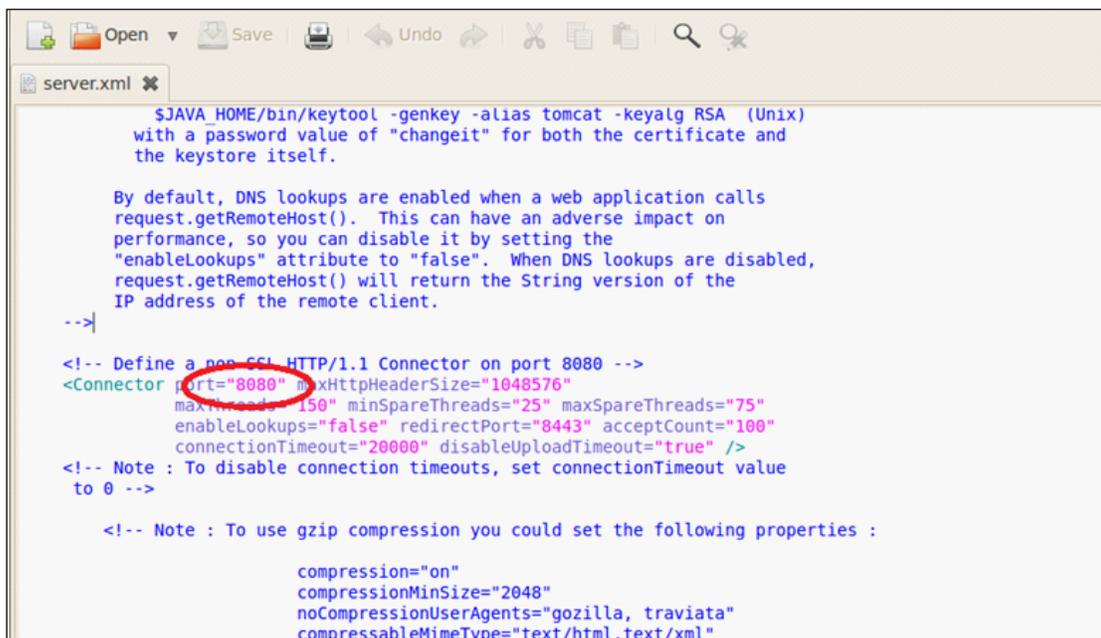
The LCS uses port 8080 by default. After the LCS is installed, if this port is already being used or conflicts with firewall settings, you can change the value by updating the following file:

**<installation dir>/apache-tomcat-7.0.40/conf/server.xml**

**Note:** Before you change the port number you must stop the LCS. After you have change the number, you must restart the LCS (see the topic, “Starting and Stopping the LCS from the Terminal” on page 64).

To change the port number without reinstalling the LCS:

1. Use a text editor to open the apache-tomcat-7.0.40/conf/server.xml file.
2. Search for the string, 8080 (see Figure 5-1).
3. Replace the string 8080 with the appropriate port number and save the file.



```
server.xml x
  SJAVA_HOME/bin/keytool -genkey -alias tomcat -keyalg RSA (Unix)
  with a password value of "changeit" for both the certificate and
  the keystore itself.

  By default, DNS lookups are enabled when a web application calls
  request.getRemoteHost(). This can have an adverse impact on
  performance, so you can disable it by setting the
  "enableLookups" attribute to "false". When DNS lookups are disabled,
  request.getRemoteHost() will return the String version of the
  IP address of the remote client.
  -->

  <!-- Define a non-SSL HTTP/1.1 Connector on port 8080 -->
  <Connector port="8080" maxHttpHeaderSize="1048576"
    maxThreads="150" minSpareThreads="25" maxSpareThreads="75"
    enableLookups="false" redirectPort="8443" acceptCount="100"
    connectionTimeout="20000" disableUploadTimeout="true" />
  <!-- Note : To disable connection timeouts, set connectionTimeout value
  to 0 -->

  <!-- Note : To use gzip compression you could set the following properties :

    compression="on"
    compressionMinSize="2048"
    noCompressionUserAgents="gozilla, traviata"
    compressableMimeType="text/html,text/xml"
```

Figure 5-1: Editing the Server.xml File

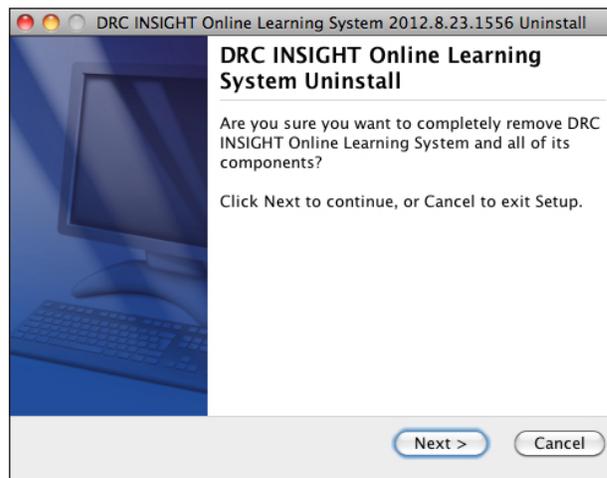
### *Uninstalling the LCS*

DRC provides an uninstaller script you can run to start an Uninstall Wizard that removes the LCS.

To remove the LCS Manager, navigate to the uninstall script and start it by entering the following command and clicking **Next** when the Uninstall Wizard displays (see Figure 5-2):

```
sudo uninstall DRC_INSIGHT_LCS
```

**Note:** The uninstallation process may leave log or configuration files in the installation directory or the user home folder. You can ignore these files, or delete them using the `rm` command.



*Figure 5-2: Uninstalling the LCS*

### **Uninstalling Manually**

If necessary, you also can remove the LCS files manually (without a script or Wizard) by using the `rm` command as shown in the examples below:

```
sudo rm -r "/usr/local/<client> Online Assessments LCS (<client>-<env>)"  
sudo rm /etc/init.d/DRC_INSIGHT_LCS
```

## ***Managing INSIGHT***

This section describes how to start and stop INSIGHT and the System Readiness Test, how to install INSIGHT from a command line (sometimes called a “Silent Installation”), and how to remove INSIGHT.

### ***Installing INSIGHT from a Command Line***

To install INSIGHT from a Linux command line, execute the Setup command **DRC\_INSIGHT\_Setup.sh** with the specific options you want to use. To display a list of the command line options for the installation program, use the **/h** (help) parameter with the Setup command, as shown below.

```
sudo -h DRC_INSIGHT_Setup.sh
```

## INSIGHT Installation Program Options

This topic shows an example of the syntax of the Setup command in a Linux environment and describes the various properties. The following table shows the custom properties available for the installation program on a Linux machine.

Property/Switch	Description	Default Value
LCS_SERVER_DOMAIN	The IP address of the LCS server or its name. A value of 127.0.0.1 or <i>localhost</i> points to an LCS server on the same computer.	Blank
LCS_SERVER_PORT	The active port for the LCS.	8080
ENABLE_LCS	A true/false value that indicates whether to use the LCS.	False
SKIP_READINESS	A true/false value that indicates whether to suppress the System Readiness Test.  <b>Warning:</b> Setting this value to true allows an installation to complete that might fail the readiness checks.	False
ENABLE_AUTO_UPDATE	A true/false value that indicates whether to perform automatic updates.	True
CONNECTIVITY_AS_WARNING	The setting reduces connectivity test failures to warnings.  <b>Warning:</b> Setting this value to true allows an installation to complete that might otherwise fail a connectivity check.	False
DISTRICT_NAME	The district name must be in uppercase and must match exactly (including spacing) what's displayed in the new drop-down lists in the Wizard installation (see "Quick Tour 5: Installing an LCS for Linux" on page 57). You must include the actual name within three sets of double quotes (see the Example on the next page).	Blank
SCHOOL_NAME	The school name must be in uppercase and must match exactly (including spacing) what's displayed in the new drop-down lists in the Wizard installation (see "Quick Tour 5: Installing an LCS for Linux" on page 57). You must include the actual name within three sets of double quotes (see the Example on the next page).	Blank
/qn	Runs the installation in silent mode.	NA

Table 5-1: INSIGHT Linux Installation Program Options

**Note:** All properties are passed in a *-Vkey=value* format (see the example on the following page).

## Installation Command Syntax and Example

The following is the syntax for executing the install program commands:

```
DRC_INSIGHT_setup.sh <properties> <MSI switches>
```

### Example

The following example installs the software in silent mode (the /qn switch). This example specifies a custom LCS domain, indicates an LCS port, uses the LCS, enables auto updates, specifies a sample district name and a sample school name, and makes the connectivity test a warning (this lets you run the readiness check and ignore connection errors).

```
sudo sh DRC_INSIGHT_Setup.sh -q -VLCS_SERVER_DOMAIN=127.0.0.1 -VLCS_SERVER_PORT=8080 -VENABLE_LCS=true -VDISTRICT_NAME="EXAMPLE DISTRICT" -VSCHOOL_NAME="EXAMPLE SCHOOL" -VLCS_SERVER_PORT=8080 -VSKIP_READINESS=true
```

## Starting INSIGHT and the System Readiness Check

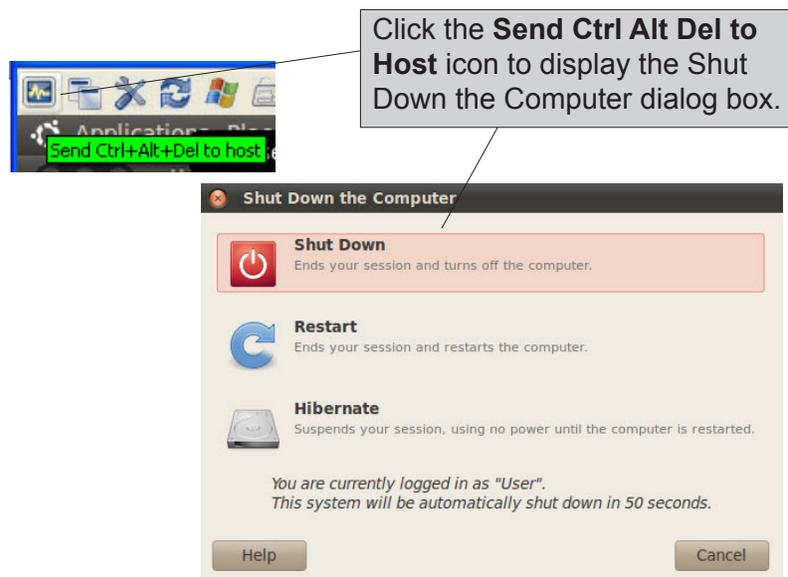
A Linux Administrator can start INSIGHT from the terminal or the GUI:

- To launch INSIGHT from the terminal, select **/usr/local/DRC INSIGHT**.
- To launch INSIGHT from the GUI, select **Applications–Other–NE Online Assessments**.

The Linux Administrator must start the System Readiness Check from the terminal. To launch the System Readiness Check from the terminal, select **/usr/local/Readiness**.

## Stopping INSIGHT

If INSIGHT or the testing computer becomes unresponsive, you can shut the computer down by clicking the **Send Ctrl-Alt-Delete** icon from the toolbar and selecting **Shut Down** or **Restart** from the Shut Down the Computer dialog box.



**Note:** You also can end INSIGHT from a different Linux session.

### Uninstalling INSIGHT

DRC provides an uninstaller script you can run to start an Uninstall Wizard that removes INSIGHT.

To remove INSIGHT, start the uninstall script by entering the following command and clicking **Next** when the Uninstall Wizard displays (see Figure 5-3).

```
sudo uninstall DRC_INSIGHT
```

**Note:** The uninstallation process may leave log or configuration files in the installation directory or the user home folder. You can ignore these files, or delete them by using the `rm` command.

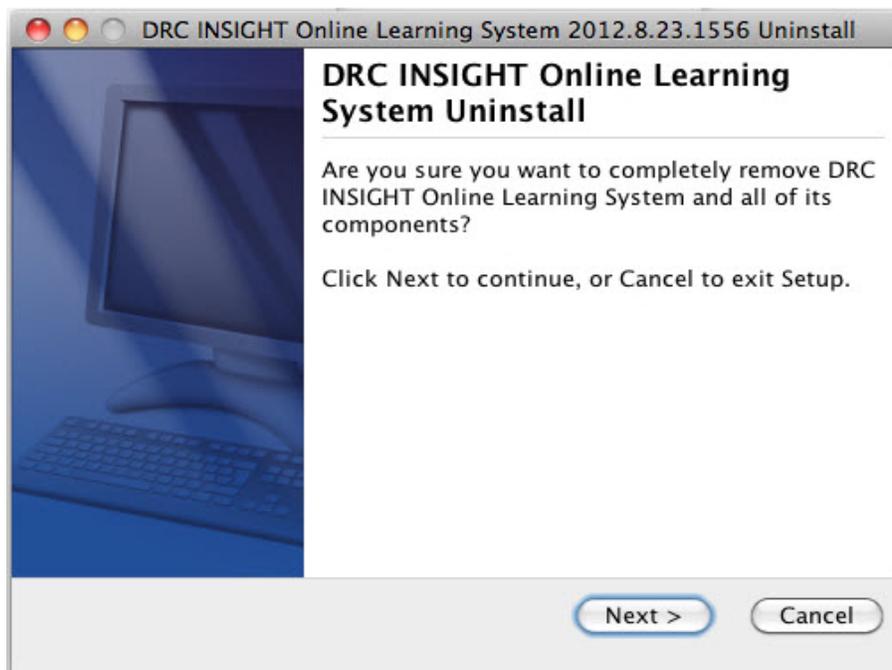


Figure 5-3: Uninstalling INSIGHT

### Uninstalling Manually

If necessary, you can remove INSIGHT files manually using the `rm` command as shown in the examples below:

```
sudo rm -r "/opt/drc_insight (<client>-<env>)"  
sudo rm -r "/usr/local/drc_insight (<client>-<env>)"  
sudo rm "/etc/profile.d/restore-metacity (<client>-<env>).sh"  
sudo rm "/usr/share/applications/INSIGHT (<client>-<env>).desktop"  
sudo rm "/usr/share/pixmaps/DRC INSIGHT (<client>-<env>).svg"
```

# **Section Six: Working with INSIGHT**

### ■ What's Covered in This Section

This section discusses some of the tools and components of the DRC INSIGHT Online Learning System. These include Online Tools Training (OTT) and the LCS Manager, which includes the System Readiness Check.

This section also offers some tips and techniques you can use to implement your INSIGHT configuration for maximum efficiency.

### ■ Monitor Verification Test

The Monitor Verification test helps you determine whether the current monitor settings for each testing computer is configured for optimal testing. This test is available as an option in eDIRECT.

### ■ Using the LCS Manager

This topic describes how to use the LCS Manager software to work with an LCS to manage test and response communication between DRC and your students efficiently.

### ■ System Readiness Check

This topic describes how to use the System Readiness Check to verify that your system is ready to use the INSIGHT software and to review the results of your previous checks.

## The Monitor Verification Test

You can run the Monitor Setting Verification test using eDIRECT by selecting **Test Setup-General Information-Downloads** and clicking on the **Monitor Setting Verification** button (see the Figure below).

Click the **Monitor Setting Verification** button on the Downloads tab to display the Monitor Setting Verification screen.

The screenshot shows the 'Test Setup General Information' page with the 'Downloads' tab selected. A modal dialog titled 'Monitor Setting Verification' is displayed in the center. The dialog contains the following text:

Use the image below to check if the computer screen is set up correctly. You should see three circles. If you do not clearly see three circles, please contact your district technology coordinator or reference the Monitor Settings section of the Technical User Guide.

Below the text are three shaded circles. At the bottom of the dialog is a 'Close' button.

The background interface shows a table of software downloads with columns for Title, Version, Size, and Action. The table includes entries for Windows Installer, Macintosh Installer, Linux Installer, and three instances of Local Caching Service (LCS).

At the bottom of the page, there is a copyright notice: Copyright © 2008-2013 Data Recognition Corporation. Patents Pending. and a 'Home' link.

If you do not see three shaded circles on the monitor display, you will have difficulty answering some the online questions. To resolve the problem, you must modify the brightness and/or contrast settings for the testing computer's monitor until three circles display clearly.

### ***Changing the Monitor's Contrast or Brightness***

There are many ways to change the contrast or brightness of your display according to the operating system, the computer, the graphics card, and the type of monitor you are using. The following are some ideas to try to change the contrast and/or brightness. For a specific hardware configuration, you also can try searching the Internet for “changing the contrast for operating system *x* or monitor *y*”.

#### **Windows Operating System**

- On a laptop, look for a half-white/half-black circle on the keyboard. That is the function key that changes contrast.
- On a desktop computer, look for an option on the monitor, or monitor menu, to change the contrast and brightness.
- Identify the type of graphics card—NVIDIA, Intel, or ATI, and locate options for your graphics card from the Control Panel: **Control Panel–System Properties**–graphic cards tab.
- Locate a menu called Monitor Settings, Color, or Graphic Settings and change the contrast (be sure to check Advanced Settings). If you can't find a Contrast option, look for Gamma, Saturation, or Hue.
- Right-click on the Desktop to bring up menu options for Intel and ATI cards.

**Note:** ATI's menu option is called Catalyst Control Center; Intel's option is called Intel Graphics Media Accelerator Driver.

- Select the folder **c:\Program Files\<graphics card>**  
where: *graphics card* is Intel, NVIDIA, or ATI.

#### **Mac (OS X)**

- To change the brightness, use the keyboard buttons, or select Apple button–**System Preferences–Displays** (Mac 10.6) or **System Preferences–Accessibility–Monitor** (Mac 10.8) and use the Change the Brightness slider.
- To increase the contrast, use the key combination: Command key + Option key + Ctrl key + . (period)
- To decrease the contrast, use the key combination: Command key + Option key + Ctrl key + , (comma)

**Note:** You also can change the contrast by selecting **System Preference–Universal Access** (Mac 10.6) or **System Preferences–Accessibility–Monitor** (Mac OS 10.8) and use the Change the Contrast slider.

## Using the LCS Manager

Use the LCS Manager software to manage your LCS. The LCS Manager software helps you keep your test forms current, and submit completed responses for scoring. To start the LCS manager, select **Start–All Programs– Online Assessments LCS–NE Online Assessments LCS Manager**.

The first time you start the LCS Manager the Enter LCS Name windows displays. Enter a name that will help you remember the location of the LCS machine in the LCS Name field and click OK. The name you choose is limited to 40 characters, and there are no special formatting requirements.

You can click on the name of the LCS Manager to edit it (this is the name you entered when you started the LCS manager for the first time).

The **Test Versions** tab displays tests available to download to the DRC INSIGHT Online Learning System LCS.

Click **Instructions** to display online help.

The **NE Exams** column lists all of the IAT test items currently available to download to the LCS.

## Using the LCS Manager (cont.)

NE Online Assessments LCS Manager

NE Online Assessments

LCS Name: **LCS in SW building, Room 224** Server: **MGWS11274** LCS Version: **5.2.0**

Test Versions Student Responses

Instructions

Last Updated: **Not Available**

Tests	Status	<input checked="" type="checkbox"/>
NE Exams		
IAT Item Content		
IAT Item Content - IAT Item Pool	Out of Date	<input checked="" type="checkbox"/>

The **Status column** indicates whether an item is current (up to date).

- If the current version of an item is on the LCS, the Status column displays **Up to Date** in green text.
- If the current version of an item is not on the LCS, the Status column displays **Out of Date** in red text.

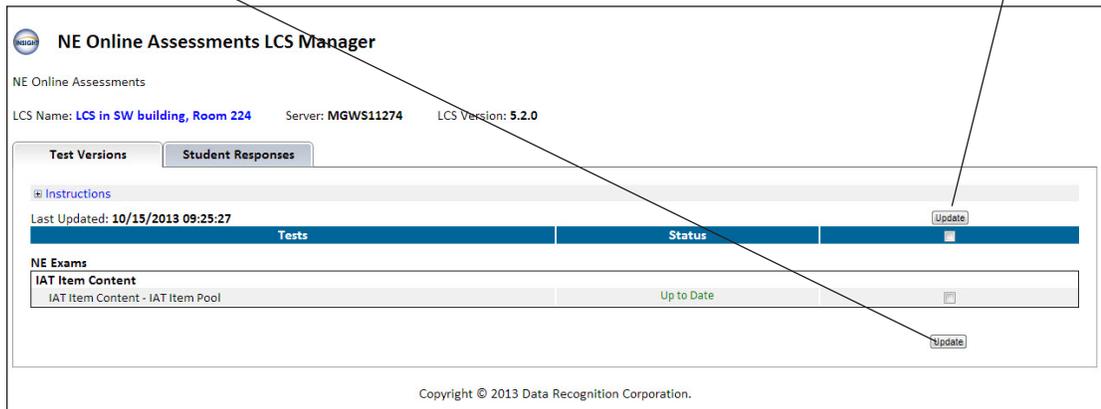
**Note:** A test must have a status of Up to Date before it is administered. Otherwise, the student receives an error message when they log in and are unable to test.

## Updating Tests

To update the LCS manually, check the Update box for each test that needs to be updated and click the **Update** button at the bottom or top of the window. When you click **Update**, the latest version of the test downloads and its status changes from Out of Date to Up to Date.

Check the Update checkbox for each item that needs to be updated.

Click **Update** to update the LCS with the latest test version(s).



LCS Name: LCS in SW Building, Room 224 Server: MGWS11274 LCS Version: 5.1.0

Test Versions Student Responses

Last Updated: Not Available

Tests	Status	Update
<b>EPA279</b>		
<b>Literacy</b>		
Literacy - Reading/Literature		<input type="checkbox"/>
Literacy - Writing/English Composition		<input type="checkbox"/>
<b>Science</b>		
Science - Science		<input type="checkbox"/>
Science - Biology		<input type="checkbox"/>
Science - Chemistry		<input type="checkbox"/>
<b>Mathematics</b>		
Mathematics - Mathematics		<input type="checkbox"/>
Mathematics - Algebra I		<input type="checkbox"/>
Mathematics - Algebra II		<input type="checkbox"/>
Mathematics - Geometry		<input type="checkbox"/>
<b>EPA285</b>		
<b>Reading/Literature</b>		
Reading/Literature - English Composition		<input type="checkbox"/>
Reading/Literature - Literature	<div style="width: 100%; height: 10px; background-color: green;"></div>	<input type="checkbox"/>
<b>Mathematics</b>		
Mathematics - Algebra I	<div style="width: 100%; height: 10px; background-color: green;"></div>	<input type="checkbox"/>
Mathematics - Algebra II	<div style="width: 100%; height: 10px; background-color: green;"></div>	<input type="checkbox"/>
Mathematics - Geometry	<div style="width: 100%; height: 10px; background-color: green;"></div>	<input type="checkbox"/>

The **Status column** indicates whether a test is current (up to date). The LCS is ready for testing when all available tests have a status of Up to Date.

When you click **Update**, the Status column uses a green progress bar to dynamically indicate the progress for each test being updated.

## Transmitting Student Responses

To check whether student test responses have been transmitted to DRC and for detailed information about those responses, click on the **Student Responses** tab.

**Note:** If an Internet connection with DRC is lost while testing, student responses are saved to the LCS. When the LCS is communicating with DRC, these stored responses are transmitted automatically every 15 minutes.

**Unsent Tests** indicates the number of tests that have not been sent to DRC.

**Note:** Verify that this number is 0 (zero) at the end of each testing day and at the end of the entire testing period. If it is not zero, click the **Transmit Responses** button.

The screenshot displays the 'NE Online Assessments LCS Manager' interface. At the top, it shows the 'NE Online Assessments' logo and title. Below this, it identifies the 'LCS Name' as 'LCS in SW building, Room 224', the 'Server' as 'MGWS11274', and the 'LCS Version' as '5.2.0'. The interface has two main tabs: 'Test Versions' and 'Student Responses', with the latter being the active tab. Under the 'Student Responses' tab, there is an 'Instructions' section. The main content area shows 'Unsent Tests: 0', 'Last Transmission Attempt: 10/15/2013 09:21:47', and 'Next Transmission Attempt: 10/15/2013 09:36:47'. A 'Transmit Responses' button is visible next to the last transmission attempt. Below this, there is a 'Show Details' button. A note explains that test responses are stored on the LCS if a student's workstation cannot connect to DRC, and that the 'Unsent Test' counts are representative of a student's unique test. Another note states that the LCS will attempt to send stored responses every 15 minutes when it can connect to DRC. At the bottom of the interface, there is a copyright notice: 'Copyright © 2013 Data Recognition Corporation.'

Click **Show Details** to see information about student responses currently stored on the LCS for transmission to DRC, or historical data about student responses that have been transmitted to DRC.

**Transmitting Student Responses (cont.)**

You can send saved student responses manually by clicking the **Transmit Responses** button.

The screenshot displays the 'NE Online Assessments LCS Manager' interface. At the top, it shows 'NE Online Assessments' and system details: 'LCS Name: LCS in SW building, Room 224', 'Server: MGWS11274', and 'LCS Version: 5.2.0'. Below this are two tabs: 'Test Versions' and 'Student Responses'. The 'Student Responses' tab is active, showing an 'Instructions' section, 'Unsent Tests: 0', 'Last Transmission Attempt: 10/15/2013 09:21:47', and 'Next Transmission Attempt: 10/15/2013 09:36:47'. A 'Transmit Responses' button is located next to the last transmission attempt. A 'Show Details' link is also present. A note explains that test responses are stored on the LCS if a student's workstation cannot connect to DRC. A copyright notice for Data Recognition Corporation is at the bottom.

**Next Transmission Attempt** indicates the date and time the next automatic transmission is scheduled.

**Last Transmission Attempt** indicates the date and time of the last attempt to transmit student responses.

## Viewing Unsent Responses

When you click **Show Details** to see information about student responses, the **Unsent Responses** tab displays information about student responses stored in the LCS that are waiting to be transmitted to DRC.

Click **Hide Details** to hide the Unsent Responses and Historical Data tabs.

The screenshot displays the 'NE Online Assessments LCS Manager' interface. At the top, it shows the 'NE Online Assessments' logo and title. Below this, it lists the 'LCS Name: LCS in SW building, Room 224', 'Server: MGWS11274', and 'LCS Version: 5.2.0'. The main content area has two tabs: 'Test Versions' and 'Student Responses'. The 'Student Responses' tab is active and contains an 'Instructions' section with the following information: 'Unsent Tests: 0', 'Last Transmission Attempt: 10/15/2013 09:21:47', and 'Next Transmission Attempt: 10/15/2013 09:36:47'. There are buttons for 'Transmit Responses' and 'Hide Details'. Below this, there are two sub-tabs: 'Unsent Responses' and 'Historical Data'. The 'Unsent Responses' sub-tab is active and contains a search form with the following fields: 'Site: (All)', 'Test Session: (All)', and 'Student Name:'. There are also 'Search', 'Clear', and 'Refresh' buttons. Below the search form, a message states: 'No unsent responses exist for search criteria.'

By default, the Unsent Responses tab displays all of the information that is available. To filter the display, you can use the **Site** and **Test Session** drop-down menus to select a school and/or test session, or you can enter the name of a student in the **Student Name** field.

Viewing Unsent Responses (cont.)

Click **Search** to search for data that matches your filter selections.

Click **Refresh** to refresh the data displayed and the lists within filters.

The screenshot displays the 'NE Online Assessments LCS Manager' interface. At the top, it shows the 'NE Online Assessments' logo and title. Below this, it lists 'LCS Name: LCS in SW building, Room 224', 'Server: MGWS11274', and 'LCS Version: 5.2.0'. There are two main tabs: 'Test Versions' and 'Student Responses'. The 'Student Responses' tab is active, showing a sub-section for 'Unsent Responses'. This section includes a 'Transmit Responses' button, a 'Hide Details' button, and a 'Historical Data' tab. Below these are filter options: 'Site: (All)', 'Test Session: (All)', and a 'Student Name' text input field. At the bottom of the filter section are three buttons: 'Search', 'Clear', and 'Refresh'. A message box at the bottom of the interface states: 'No unsent responses exist for search criteria.'

Click **Clear** to clear the school, test session, and student filter selections.

# Using the LCS Manager

## Viewing Historical Data

Click the **Historical Data** tab to display information about student responses that have been transmitted to DRC.

Click **Hide Details** to hide the Unsent Responses and Historical Data tabs.

You can specify a date range for the data you want to display.

The screenshot displays the 'NE Online Assessments LCS Manager' interface. At the top, it shows 'NE Online Assessments' and system details: 'LCS Name: LCS in SW building, Room 224', 'Server: MGWS11274', and 'LCS Version: 5.2.0'. There are two main tabs: 'Test Versions' and 'Student Responses'. Under 'Student Responses', there are sub-tabs for 'Unsent Responses' and 'Historical Data'. The 'Historical Data' tab is active, showing a search area with 'Site: (All)', 'Test Session: (All)', 'Student Name: [input field]', and 'Date Range: [calendar] to [input field]'. Below the search area, there is a 'Hide Details' button and a calendar widget for selecting a date range. The calendar shows October 2013, with the 15th highlighted. At the bottom of the interface, there is a copyright notice: 'Copyright © 2013 Data Recognition Corporation.'

You can use the Historical Data tab to display information about the student test responses that the LCS has sent to DRC. You use the **Site** and **Test Session** drop-down menus to display information about a specific school and/or test session, or you can display information about a specific student by entering their name in the **Student Name** field.

Viewing Historical Data (cont.)

Click **Search** to search for data that matches your filter selections.

Click **Refresh** to refresh the data displayed, your filters, and the lists in each filter.

The screenshot displays the 'NE Online Assessments LCS Manager' interface. At the top, it shows the 'NE Online Assessments' header and system information: 'LCS Name: LCS in SW building, Room 224', 'Server: MGWS11274', and 'LCS Version: 5.2.0'. Below this are two tabs: 'Test Versions' and 'Student Responses'. The 'Student Responses' tab is active, showing an 'Instructions' section with 'Unsent Tests: 0', 'Last Transmission Attempt: 10/15/2013 09:21:47', and 'Next Transmission Attempt: 10/15/2013 09:36:47'. A 'Transmit Responses' button is visible. Below the instructions is the 'Unsent Responses' and 'Historical Data' section. The 'Historical Data' section contains filter controls: 'Site: (All)', 'Test Session: (All)', 'Student Name: [text input]', and 'Date Range: [start date] to [end date]'. Below these filters are 'Search', 'Clear', and 'Refresh' buttons. A calendar pop-up is shown over the date range, displaying 'October 2013' with the 15th highlighted. A note at the bottom explains that test responses are stored on the LCS only in the case of a workstation connection issue. Copyright © 2013 Data Recognition Corporation.

Click **Clear** to clear the school, test session, and student filter selections.

### ■ What is the System Readiness Check?

The System Readiness Check is a software application that is designed to help you troubleshoot issues that might occur during INSIGHT installation or when INSIGHT is running. The application starts when you install INSIGHT and runs anytime INSIGHT starts. It runs a series of tests that you can use to diagnose and correct most errors easily.

The System Readiness Check application is installed on all computers that have the INSIGHT installed. It is located in different places, depending on the computer's operating system and the state:

#### Windows Systems

For Nebraska, the program is located at C:\Program Files\NE Online Assessments\Readiness.exe. For 64-bit computers, the program is located at C:\Program Files (x86)\NE Online Assessments\Readiness.exe.

To run the program, click on the Readiness.exe file. From the **Start** menu, select **NE Online Assessments–System Readiness Check**.

#### Mac (OS X) Systems

For Nebraska, the program is located at /Applications/NE Online Assessments/Readiness.

To run the System Readiness Check program, select /**Applications/NE Online Assessments** and double-click on **Readiness**.

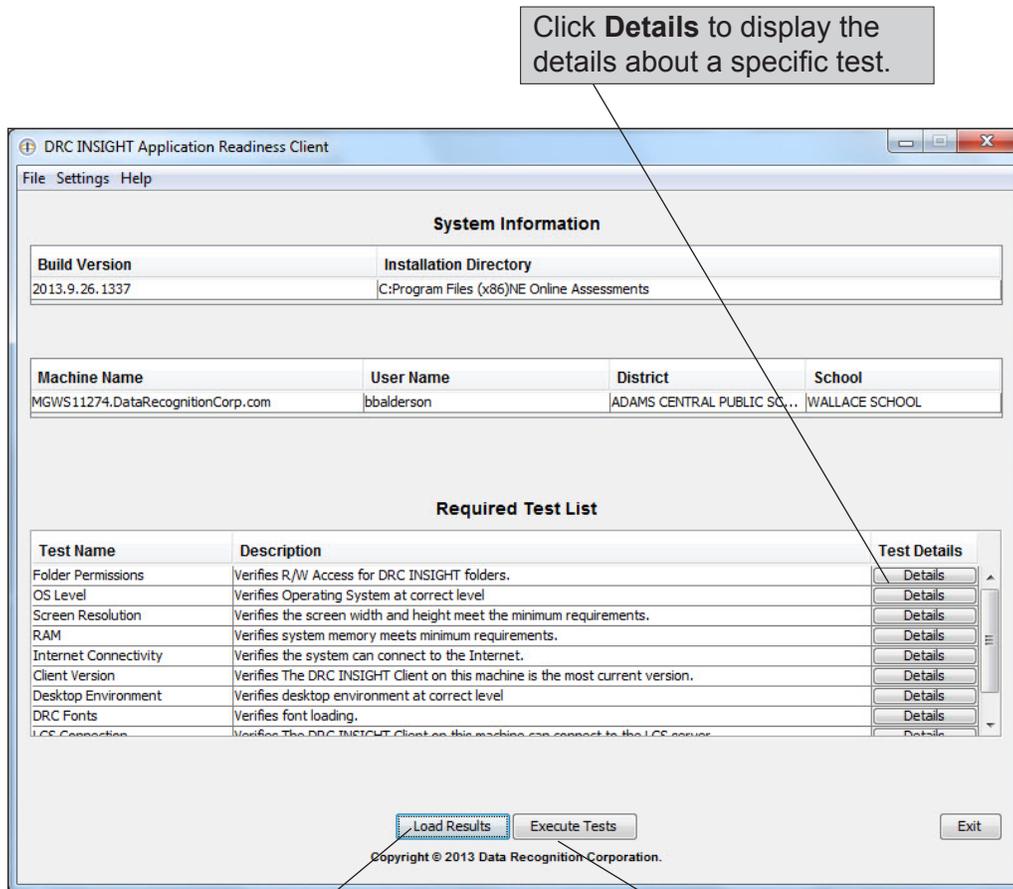
#### Linux Systems

For Nebraska, the program is located at /usr/local/NE Online Assessments\Readiness.

To run the program, right-click on the Readiness file, select **Open**, and select **Run in Terminal**.

## Using the System Readiness Check

After installing INSIGHT, use the System Readiness Check to determine whether your testing computers still meet system requirements and to troubleshoot issues.



Click **Details** to display the details about a specific test.

Click **Load Results** to display a dialog box containing a list of log files available for the test results for this workstation. From the dialog box you can display log files to help troubleshoot issues.

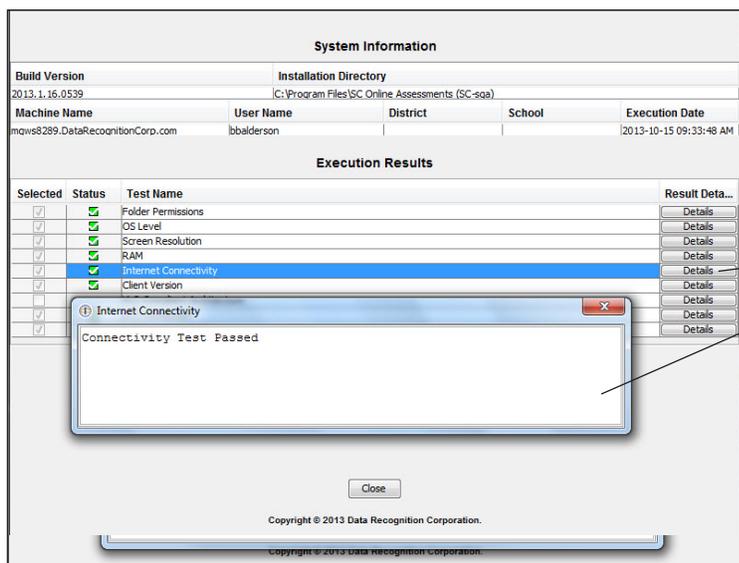
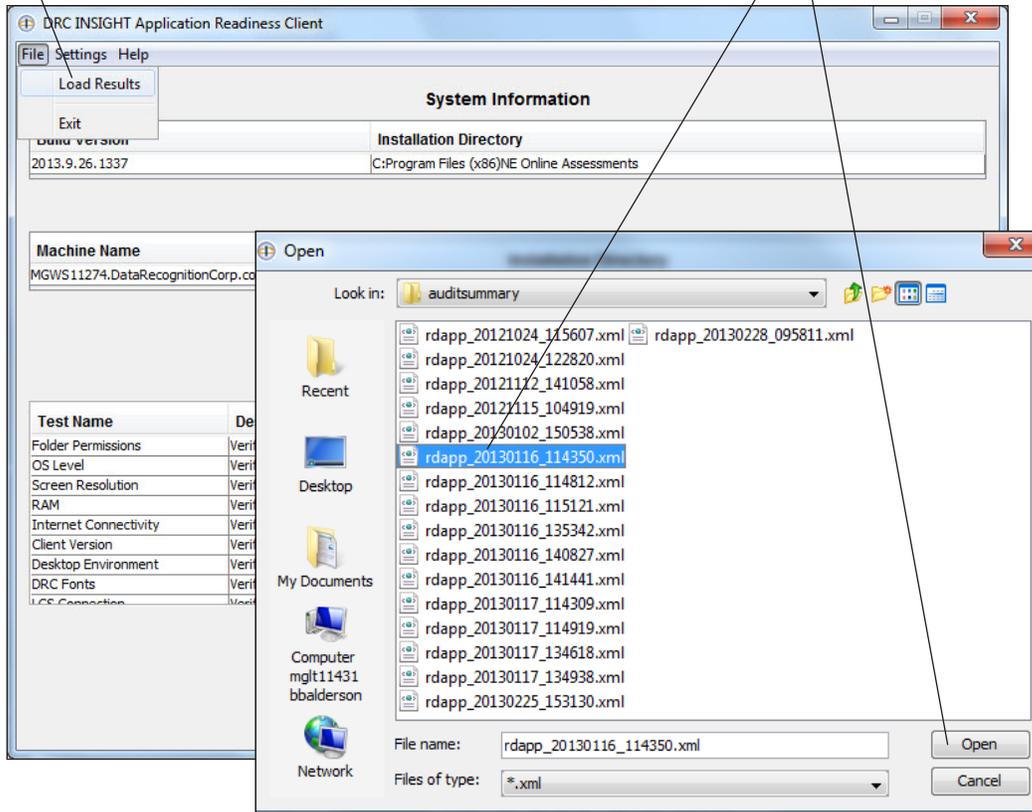
Click **Execute Tests** to rerun tests.

# System Readiness Check

## Using the System Readiness Check (cont.)

Select **File—Load Results** to display the results of your system readiness tests.

From the Open window, select the test results file to display and click **Open**. Files are displayed by the date of the test.



The Readiness Test Results window displays for the file selected. Click **Details** for information about the results of a specific test.

## ■ DRC INSIGHT Properties

The DRC INSIGHT properties are a group of parameters you use to specify certain system properties for your testing computers (the client systems), your LCS server, and other testing servers. You can use these properties to do the following:

- Turn automatic software updates on or off
- Override the default Java proxy server settings and specify proxy settings and port numbers for both your unsecured (http) and secured (https) host servers, as well as which host servers can bypass these settings

You specify these properties by using the DRC INSIGHT Application Readiness Client dialog box (see “Setting Client System Properties” on page 88).

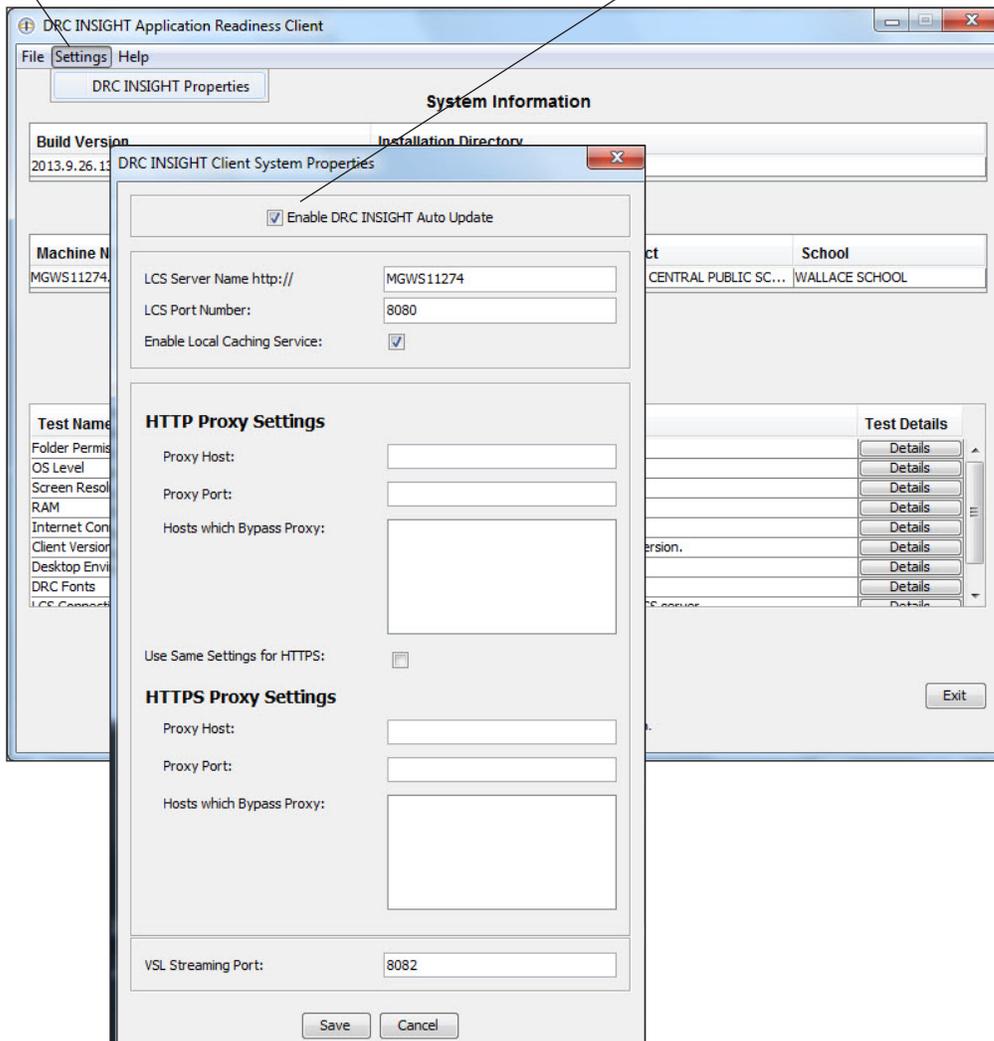
## Setting Client System Properties

You can use the Settings option to set system properties for the client system, the LCS server, and your other testing servers.

From the Client System Properties dialog you can enable or disable automatic software updates; specify the server and port for the LCS server; and override the default proxy settings and port numbers for both your unsecured (http) and secured (https) host servers, as well as specifying which hosts can bypass these settings. INSIGHT uses your changes to update the Insight.properties file (see “Question 2: How Do I Set Proxy Configurations Manually?” on page 110 in Appendix B).

Click **Settings–DRC INSIGHT Properties** to display the DRC INSIGHT Client System Properties dialog box.

You can enable or disable Auto Updates (see “Automatic Software Updates” on page 21 in the Configuration section).



Setting Client System Properties (cont.)

You can enable or disable your LCS.

You can specify a different LCS server location, as well as a port number for the LCS server to use for communication.

DRC INSIGHT Client System Properties

Enable DRC INSIGHT Auto Update

LCS Server Name http:// MGWS11274

LCS Port Number: 8080

Enable Local Caching Service:

**HTTP Proxy Settings**

Proxy Host: [ ]

Proxy Port: [ ]

Hosts which Bypass Proxy: [ ]

Use Same Settings for HTTPS:

**HTTPS Proxy Settings**

Proxy Host: [ ]

Proxy Port: [ ]

Hosts which Bypass Proxy: [ ]

VSL Streaming Port: 8082

Save Cancel

You can specify a proxy http (unsecured) Host and port. Enter the IP address of the proxy Host in the Proxy Host field and the port number in the Proxy Port field. If you want to set up multiple test computers, see "Question 2: How Do I Set Proxy Configurations Manually?" on page 110 in Appendix B.

**Note:** If you use a vmoptions file, the settings on the Client System Properties dialog will override any settings in that file.

You can specify one or more hosts to bypass the proxy host. If you specify multiple hosts, separate each host name with a semicolon (;).

# System Readiness Check

## Setting Client System Properties (cont.)

Check **Use Same Settings for HTTPS** to use the same proxy settings for your secured (https) host(s).

DRC INSIGHT Client System Properties

Enable DRC INSIGHT Auto Update

LCS Server Name http://

LCS Port Number:

Enable Local Caching Service:

**HTTP Proxy Settings**

Proxy Host:

Proxy Port:

Hosts which Bypass Proxy:

Use Same Settings for HTTPS:

**HTTPS Proxy Settings**

Proxy Host:

Proxy Port:

Hosts which Bypass Proxy:

VSL Streaming Port:

You can specify a proxy https (secured) Host and port.

You also can specify which hosts will bypass the https proxy host. If you specify multiple hosts, separate each host name with a semicolon (;).

Click **Save** to save your changes; **Cancel** to cancel them.

## ***System Readiness Check Tests***

This topic describes various issues you may experience when you run the System Readiness Check tests. It also describes the steps to take to resolve these issues.

---

### ***Issue 1: Folder Permission Error***

For information about folder permission errors, see “Question 8: How Do I Change Folder Permissions?” on page 117 in Appendix B.

---

### ***Issue 2: OS Level Error***

This test verifies that INSIGHT is running on a supported operating system. If the machine is running a supported operating system, check to make sure that you meet the minimum system requirements.

---

### ***Issue 3. Screen Resolution Error***

This test verifies that the screen width and height settings meet the minimum system requirements. If it fails, the machine’s resolution is not high enough to meet the minimum system requirements. You must change the screen resolution (see “INSIGHT System Requirements” on page 13 in the Configuration section for the supported resolution).

---

### ***Issue 4. RAM Error***

This test verifies that the system’s memory meets the minimum system requirements. If this test fails, you must upgrade the amount of memory in the computer to meet the minimum system requirements.

---

### ***Issue 5. Internet Connectivity Error***

The testing workstation cannot reach the DRC servers through the Internet. This is usually a firewall or proxy issue. Make sure that everything is whitelisted (see “Question 1: I Don’t Know What to Whitelist, Allow, or Unblock?” on page 108).

## **Starting or Running the System Readiness Application**

If the error occurs when you are starting or running the System Readiness Application, do the following:

1. Verify that you have no bandwidth issues and that you can reach the DRC servers.
2. The Windows environment does not always capture proxy settings correctly. Usually, Windows uses the Internet Explorer Internet settings. Try setting your proxy server settings manually. See “Question 2: How Do I Set Proxy Configurations Manually?” on page 110 to create a file to manually set the proxy settings that INSIGHT uses. You also can set them using the System Readiness software (see “Setting Client System Properties” on page 88 of the Working with INSIGHT section).
3. Contact your Internet Service Provider (ISP) and verify that they are not filtering or throttling your connection with DRC.
4. Use the whitelisting document to verify that you have all of the DRC addresses whitelisted.

## Installing INSIGHT

If the error occurs when you are installing INSIGHT, install the client (workstation) software, but skip the Internet connectivity check. You cannot run INSIGHT if it can't find the DRC servers. Some filtering/proxy solution can cause an issue with installation and causes an Internet connectivity error.

Try skipping the Internet connectivity check by modifying the installation using the following argument:

**DRC\_INSIGHT\_Setup.msi CONNECTIVITY\_AS\_WARNING=true**

You can make this a silent installation. See “Question 3: How Do I Run the Installation Program From a Command Line?” on page 111 for the different arguments you can use during installation.

---

### ***Issue 6. Client Version Error***

The DRC INSIGHT client (workstation) software is not the most recent version. If a red X displays, update to the most recent version of the INSIGHT client (workstation) software.

---

### ***Issue 7. Desktop Environment Error***

The desktop manager being used is not supported. This test verifies that you are running an appropriate version of the GNOME desktop environment for the Linux version of INSIGHT. If the desktop environment isn't correct, DRC cannot be sure that the computer will be secure enough for testing.

---

### ***Issue 8: DRC Fonts Error***

If this test fails, uninstalling and reinstalling the software should resolve the issue because the fonts are packaged with the installation. This readiness check also executes when INSIGHT is launched. If there is an issue with the fonts, an error message displays.

---

### ***Issue 9. LCS Connection Error***

The testing client (workstation) is configured to use the LCS, but it cannot connect to it. All of the computers that use the LCS server must be able to connect to the LCS.

#### **If you are not using an LCS:**

Turn off the LCS in INSIGHT and do one of the following:

- Launch the System Readiness Check application. Go to **Settings–DRC Insight Properties** and uncheck **Enable Local Caching Service Configuration**.
- Edit the properties file, `<DRC INSIGHT Install Folder>\props\Insight.properties`, and change `enableLcs=true` to `enableLcs=false`.
- Reinstall INSIGHT and do not use an LCS.

**If you are using an LCS:**

1. From the System Readiness Application, verify that the LCS server settings are correct in **Settings–DRC Insight Properties**.
2. Verify that the LCS service is running.
3. Verify that the LCS is reachable. Open the LCS Manager on both the computer where the LCS is installed and on some of the machines that are receiving the error.
4. Make sure that any Antivirus/Firewall/Proxy between, or on, the client and server is open. And make sure that the testing client and the LCS are whitelisted.

**Note:** See “Question 1: I Don’t Know What to Whitelist, Allow, or Unblock?” on page 108 to verify what should be allowed, whitelisted, and unblocked.

5. Try manually setting proxy settings (see “Question 2: How Do I Set Proxy Configurations Manually?” on page 110).
6. Check the log files in the installation directory of the LCS for other errors. The path is:

**<LCS Install Directory>\apache-tomcat-7.0.40\logs**

7. Make sure that no other web servers are running. The Catalina log file from Step 6 indicates if another server on the computer is using the same port. Check to see whether a Virtual Machine (VM) is being used to host the LCS. Make sure no other VMs on the server are running a web server on port 8080.

***Issue 10. LCS Response Caching Error***

---

The LCS server has not transmitted all of its stored responses. This test fails if there are stored student responses that have not transmitted.

1. Display the LCS Manager.
2. Click on the **Student Responses** tab.
3. Check to see whether there are any unsent tests and click **Transmit Responses**.

**Note:** If these steps do not work, see “Question 5: How Do I Resolve a Software Loading Error?” on page 113.

**Notes:**

# **Appendix A: Troubleshooting**

### ■ What's Covered in This Appendix

This Appendix describes some of the more common error messages you may encounter while installing, configuring, and using DRC INSIGHT, and provides recommendations to resolve them.

Many of the messages are shown with their corresponding screen images. For some messages, there are references to a more detailed description of how to resolve the error.

## Common Error Messages

This topic describes common INSIGHT error messages and methods to resolve them.

### Message: LCS Connection Error

**Description:** The testing software is configured to use the Local Caching Service(LCS), but cannot connect to it.

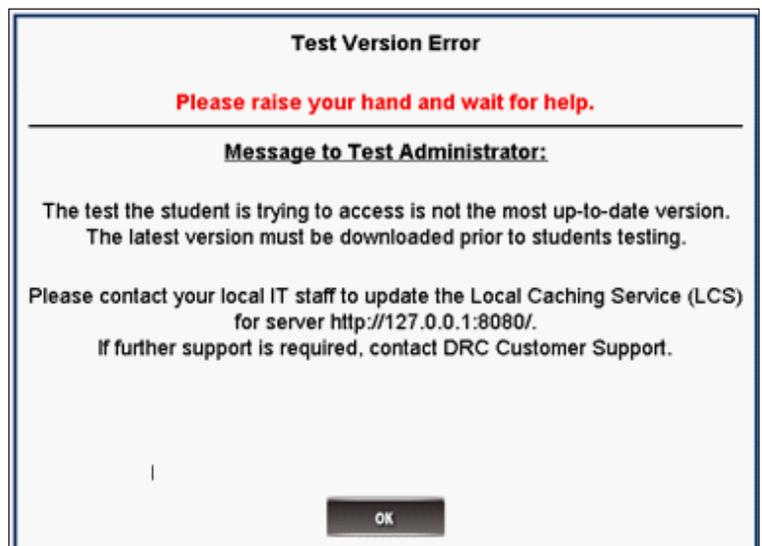
**What Should I Do?** See “Issue 9. LCS Connection Error” on page 92 in the Working with INSIGHT section.



### Message: Test Version Error

**Description:** The LCS does not have the most recent version of the test the student is trying to download. The version of the test on the LCS needs to be updated.

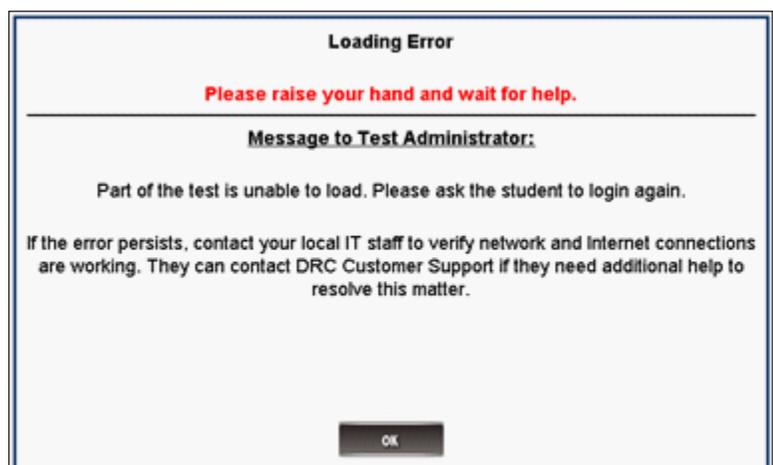
**What Should I Do?** See “Question 4: How Do I Update Test Forms in an LCS?” on page 112 in Appendix B.



### Message: Loading Error

**Description:** The student was able to login but was unable to download the test.

**What Should I Do?** See “Question 5: How Do I Resolve a Software Loading Error?” on page 113 in Appendix B.

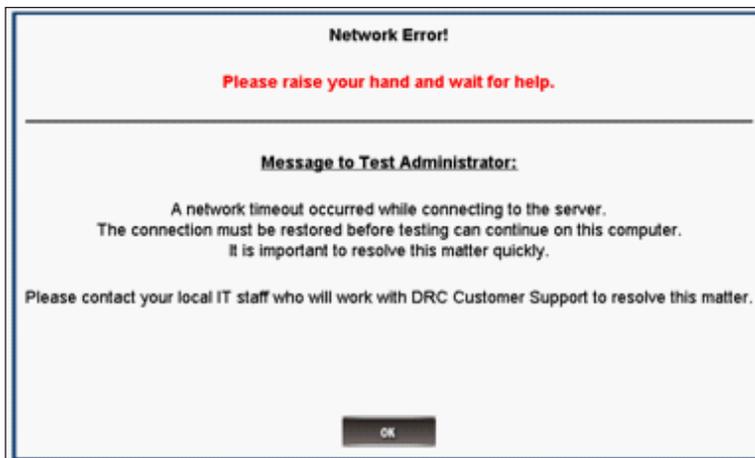


## Common Error Messages

### Message: *Network Error*

**Description:** There was an interruption in the Internet connection and the client workstation is not configured to use an LCS.

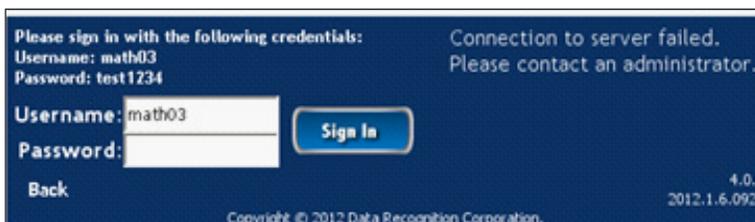
**What Should I Do?** See “Issue 5. Internet Connectivity Error” on page 91 in the Working with INSIGHT section.



### Message: *Connection to server failed.* *Please contact an administrator*

**Description:** Cannot contact the DRC login servers. This is usually an issue with the client’s Internet connection.

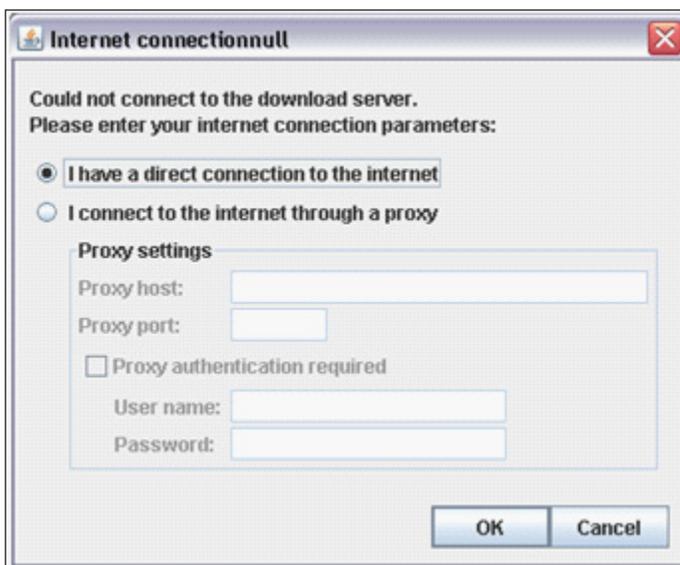
**What Should I Do?** See “Issue 5. Internet Connectivity Error” on page 91 in the Working with INSIGHT section.



### Message: *Internet connection null*

**Description:** INSIGHT cannot connect with the DRC servers. It is asking whether you use a proxy server to connect to the Internet.

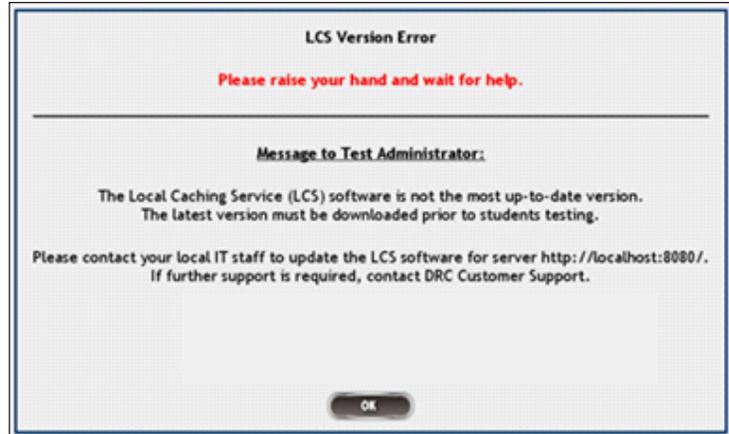
**What Should I Do?** See “Issue 5. Internet Connectivity Error” on page 91 in the Working with INSIGHT section.



## Message: *LCS Version Error*

**Description:** The LCS is not the most recent version.

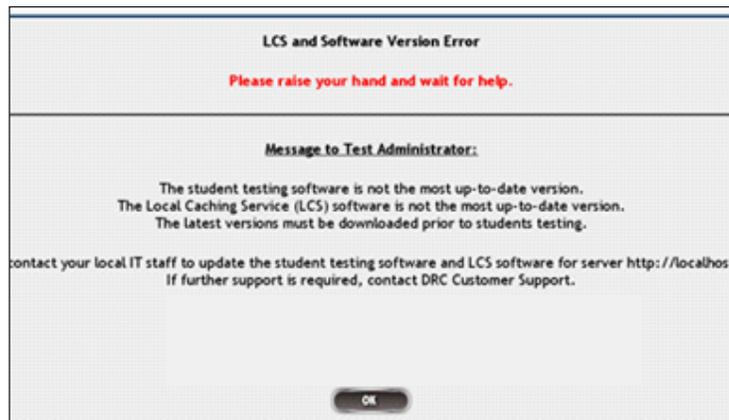
**What Should I Do?** Uninstall the current version of the LCS and reinstall the new version.



## Message: *LCS and Software Version Error*

**Description:** The LCS and the testing computer software are both out of date.

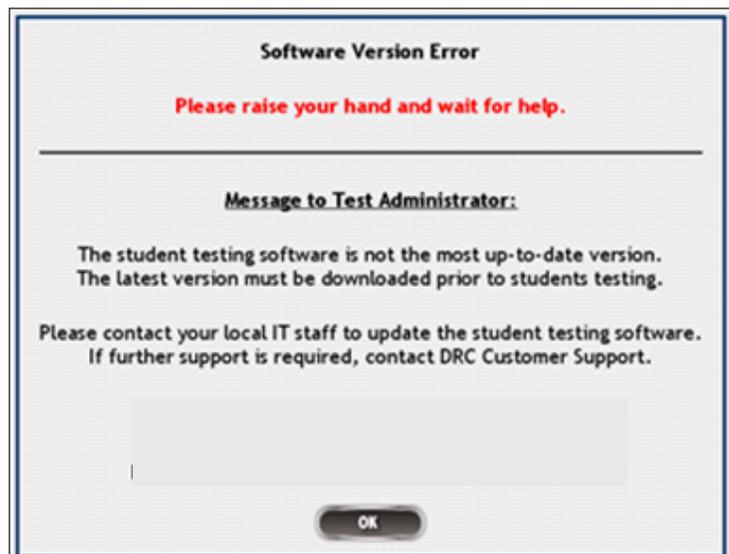
**What Should I Do?** Uninstall the current version of the LCS, reinstall the new version, and update the testing computer software.



## Message: *Software Version Error*

**Description:** The testing software is not current.

**What Should I Do?** Update the testing computer software. See "Automatic Software Updates" on page 21 in the Configuration section.



## Common Error Messages

**Message:** *Previous Login May Have Unsent Responses*

**Description:** The student has information on the LCS that has not been transmitted.

**What Should I Do?** Open the LCS Manager, go to the Responses tab, and click **Transmit Responses**. If that doesn't work, see "Issue 10. LCS Response Caching Error" on page 93 in the Working with INSIGHT section.



**Message:** *Testing Complete! Responses Stored on LCS*

**Description:** Sometime during testing, the Internet connection to DRC failed. As a result, the test responses were saved to the LCS. The responses will be transmitted once the connection is resolved.

**Note:** The LCS either transmits responses immediately, or every 15 minutes from a holding queue.

**What Should I Do?** Make sure that the LCS Manager Response tab displays 0 (zero) unsent responses.

If it doesn't display 0, click **Transmit Responses**. If that doesn't work, contact your System Administrator, or see "Issue 5. Internet Connectivity Error" on page 91 and "Issue 10. LCS Response Caching Error" on page 93 of the Working with INSIGHT section.

**Message:** *Test Exit! Responses Stored on LCS*

**Description:** Sometime during testing, the Internet connection to DRC failed. As a result, the responses were saved to the LCS. This student cannot start testing again until these responses have been transmitted.

**Note:** The LCS either transmits responses immediately, or every 15 minutes from a holding queue.

**What Should I Do?** Make sure the LCS Manager Response tab shows 0 (zero) unsent responses. If it doesn't, click **Transmit Responses**. If that doesn't work, contact your System Administrator, or see "Issue 5. Internet Connectivity Error" on page 91 and "Issue 10. LCS Response Caching Error" on page 93 of the Working with INSIGHT section.

**Message:** *LCS Connection Error - Responses Stored*

**Description:** The testing computer has lost its connection with the LCS. All responses prior to the loss of the connection are stored on the LCS. The connection must be re-established before testing can continue.

**What Should I Do?** Restart the LCS. If that doesn't work, contact your System Administrator or see "Issue 9. LCS Connection Error" on page 92 in the Working with INSIGHT section.

**Notes:**

# **Appendix B: FAQs**

### ■ What's Covered in This Appendix

This Appendix contains a list of frequently asked questions and answers about configuring, installing, and using DRC INSIGHT and LCS software.

All of the questions are technical in nature, but they are divided into two categories: General Questions and Common Technical Questions and Answers. The second category of questions covers common technical support issues you may encounter, and provides tips, techniques, and workarounds to resolve them.

## ■ General Questions

**Q: Is the LCS in the Mac environment a true service that runs when no one is logged into the server? It used to be an application that we had to launch whenever we had to restart the server.**

A: Now it is a true service—it runs using the “Launched” capability of OS X.

**Q: I noticed that LCS is an Apache service that uses the 8080 port. Can we switch the port if another service uses that port?**

A: Yes. However, we currently do not have a simple configuration option. Because the LCS is an Apache Tomcat web server, you can reconfigure the port by editing the server.xml file (see the topics, “Windows: Changing the Default LCS Port Number After Installation” on page 35, and “Mac: Changing the Default LCS Port Number After Installation” on page 49 in the Installation sections).

**Q: If our LCS “goes down” or is unavailable, will a test automatically bypass the LCS, or are we stuck until the LCS is running again?**

A: If the LCS goes down, testing stops. If the computers are configured to use an LCS, the LCS must be available.

**Q: Is there a way to provide failover LCS service? Or, a quick way to redirect service if a server fails during the testing window?**

A: There is nothing built into the software.

**Q: Do we use a .msi file for installation?**

A: The installation file type varies by operating system:

- The Windows version uses a .msi file.
- The Mac (OS X) version uses a .dmg file.
- The Linux version uses a .sh file.

**Q: To enable automatic updates, do we need to go to each student’s computer?**

A: No. The default setting when you install the LCS software enables automatic updates. After installation, the LCS automatically checks for updates and installs them whenever it is launched.

**Q: I tried removing the LCS and reinstalling it, but now I can't seem to use it?**

A: Verify that the uninstallation process removed the LCS installation folder. On a Windows machine, the folder is C:\Program Files (x86)\NE Online Assessments LCS. After you remove the LCS, if this folder still exists, delete it before you reinstall the LCS.

**Q: Do we have to have an LCS server in each school, or can it be on a shared district server? If so, which approach do you recommend?**

A: It depends on your network's capacity and reliability—with a dedicated LCS server you can offload about 50% of the traffic from the Internet to your LCS.

Because student computers need uninterrupted connectivity to the LCS, we recommend one LCS per school. But, you may be able to share an LCS if you have enough network capacity.

**Q: Does INSIGHT support a single installation for all students to test with?**

No, DRC has found that this can cause issues.

**Q: How are test responses received?**

A: It depends. If you have an LCS installed, the student logs in first. INSIGHT always contacts DRC to login. After the student is logged in, they download the exam from the LCS and send test responses directly to DRC.

If there is an interruption in internet connectivity, the student's testing computer starts sending the test responses to the LCS. The LCS tries to submit them to DRC every 15 minutes. The student continues sending responses to the LCS until they complete the test, pause, or exit and log back in.

**Note:** A student cannot log back in while their responses are still on the LCS.

If you do not have an LCS installed, the student logs in by connecting with DRC and responses are sent directly to DRC. If there is an Internet connectivity problem, the student is dropped from the exam.

**Q: How do I test that the LCS is working?**

A: Open the System Readiness Check application on a testing computer.

This software is in the install directory of the testing client. For example, on a Windows machine, the software is located at C:\Program Files\NE Online Assessments\Readiness.exe. If you go to **Settings–DRC INSIGHT Properties**, a popup window displays with the LCS settings.

To confirm that the LCS is being used, do the following:

1. Verify that the LCS setting is showing up in the System Readiness Check application.
2. Click **Execute Tests** in the System Readiness Check application.
3. Check the results for LCS Connection and LCS Response Caching. These results tell you whether the testing client is set up correctly to work with the LCS. Remember, the tests pass if you have no LCS specified, so verify that the settings confirm that an LCS is being used, and check the test details for more information.

Generally speaking, if your system passes the System Readiness Check, everything is set up correctly.

## Common Technical Questions and Answers

This topic describes detailed resolutions to common technical support issues you may encounter, as well as tips, techniques, and workarounds to resolve them.

### Question 1: I Don't Know What to Whitelist, Allow, or Unblock?

Here is a list of the items to include (for more information see the topic, "Network Requirements for Testing Computers" on page 17 in the Configuration section):

- Allow or enable HTTP/ HTTPS protocols on ports 80 and 443.
- Allow or enable Java connectivity on ports 80 and 443.
- Whitelist the following file types, both internally and externally:  
enc   html   gif   xml   jpeg   jar   exe (for updates)
- Prioritize and whitelist INSIGHT traffic on your:
  - Firewalls
  - Internet packet shaper
  - Routers
  - Switches
  - Proxies
  - Any other network device you use
- Allow whitelist access for content. Try these links in a browser window to see if you have access.

Link	Displays a blank page with a label similar to...
<a href="http://ne-insight-client.drccedirect.com/">http://ne-insight-client.drccedirect.com/</a>	insightwebdl01
<a href="https://ne-insight.drccedirect.com/">https://ne-insight.drccedirect.com/</a>	insightwebapp06

#### Notes:

- When you are whitelisting, you may need to use \*.drccedirect.com instead of ne-insight.drccedirect.com.
- Besides whitelisting these sites, you may need to allow sites to pass through the proxy server without requiring authentication credentials to be passed by INSIGHT.

- Each state uses its own URLs and IP addresses to communicate from the INSIGHT client (workstation) software to DRC servers, or from the LCS server to DRC servers:

State	URL	IP Address	Port	Protocol
Nebraska	http://ne-insight-client.drccdirect.com	50.58.190.64	80	http
	https://ne-insight.drccdirect.com	50.58.190.63	443	https

- The LCS uses the following link to check for updates:

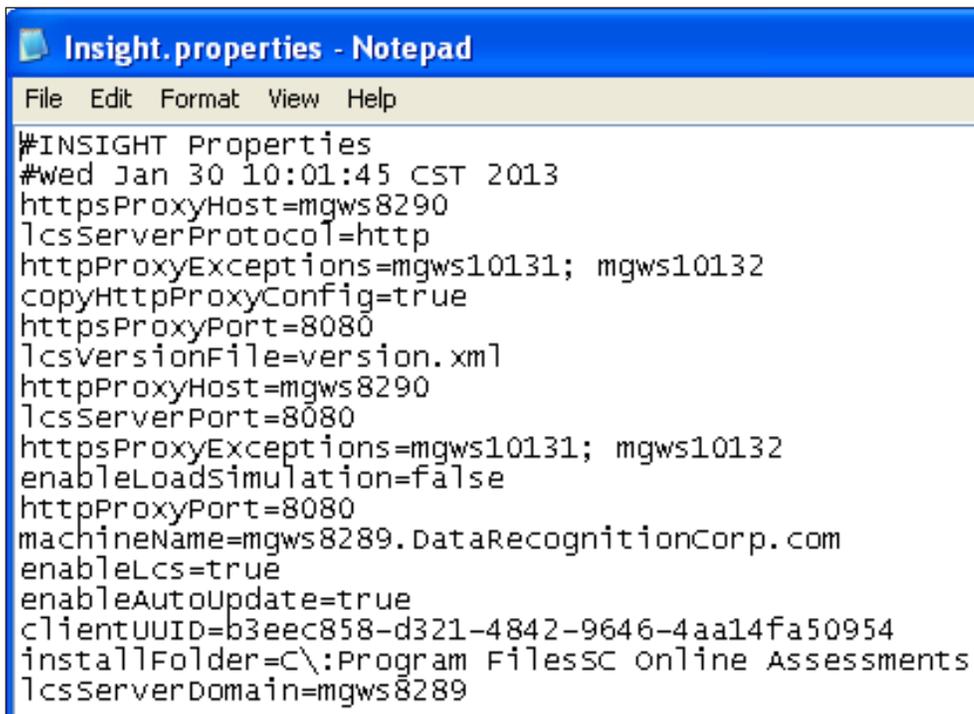
State	URL	IP Address	Port	Protocol
Nebraska	http://ne-insight-client.drccdirect.com/ Resources/version.xml	50.58.190.64	80	http

### Question 2: How Do I Set Proxy Configurations Manually?

Sometimes JAVA doesn't get the correct proxy settings. It usually takes the Internet settings for Internet Explorer, which forces INSIGHT to use these proxy settings.

When you install INSIGHT, or specify client system properties using the System Readiness Application, INSIGHT uses the values you specified to create (or update) the `Insight.properties` file (`C:\Program Files\NE Online Assessments\props\Insight properties`). This file contains system information about auto updates, the LCS, the installation folder, and your HTTP and HTTPS proxy server settings.

After you install INSIGHT, you can edit this file indirectly by using the System Readiness Check (see the topic, "Setting Client System Properties" on page 88 in the Working with INSIGHT section) to specify your proxy server settings and other items. After you have updated the file, you can copy it to each workstation where you want to use the updated settings (you also can update the file directly by opening and editing it with a text editor such as Notepad). Figure B-1 below shows a sample INSIGHT properties file.



```
Insight.properties - Notepad
File Edit Format View Help
#INSIGHT Properties
#wed Jan 30 10:01:45 CST 2013
httpsProxyHost=mgws8290
lcsServerProtocol=http
httpProxyExceptions=mgws10131; mgws10132
copyHttpProxyConfig=true
httpsProxyPort=8080
lcsVersionFile=version.xml
httpProxyHost=mgws8290
lcsServerPort=8080
httpsProxyExceptions=mgws10131; mgws10132
enableLoadSimulation=false
httpProxyPort=8080
machineName=mgws8289.DataRecognitionCorp.com
enableLcs=true
enableAutoUpdate=true
clientUUID=b3eec858-d321-4842-9646-4aa14fa50954
installFolder=C:\Program Files\SC Online Assessments
lcsServerDomain=mgws8289
```

Figure B-1: Figure: Sample Insight Properties File

***Question 3: How Do I Run the Installation Program From a Command Line?***

---

You can execute the installation program from a command line or workstation with administrative privileges for unattended execution.

For examples of the installation command syntax for each environment, see the topics “Windows INSIGHT Installation Program Options” on page 38, and “Mac INSIGHT Installation Program Options” on page 52 , and “Linux INSIGHT Installation Program Options” on page 68 in the Installation sections of this User Guide.

---

### ***Question 4: How Do I Update Test Forms in an LCS?***

---

To update your test forms, do the following:

1. Open the LCS Manager at **<http://localhost:8080/LCSManager/LCSManager>**.

**Note:** Localhost only works in this URL if you are using a browser on the computer where the LCS is installed.

2. Change **localhost** to the IP address or server name of the computer where the LCS is installed.
3. Select all of the tests that need to be updated.
4. Click the **Update** button.

**Note:** It takes a while for the LCS to update. Wait for the screen to refresh and all of the tests to display the status **Up to Date**.

---

---

***Question 5: How Do I Resolve a Software Loading Error?***

---

How you resolve a software loading error depends on whether you are using an LCS.

**If you are using an LCS**

1. Use the System Readiness Check application to look for errors.
2. Check the log files for both the LCS and the testing computer.
  - LCS log files: C:\Program Files\NE Online Assessments LCS\apache-tomcat-7.0.40\logs
  - Testing computer log files: <user's home directory>/insight/logs
3. Try updating all of the forms on the LCS Manager page (see “Question 4: How Do I Update Test Forms in an LCS?” on page 112).
4. Verify that everything is whitelisted (see “Question 1: I Don’t Know What to Whitelist, Allow, or Unblock?” on page 108).
5. If only one computer is having the issue, try moving the student and reinstalling the testing application.
6. Reinstall the LCS when no one is testing and the LCS Manager displays 0 (zero) unsent responses.

**If you are not using an LCS**

The most likely scenario is that the client is trying to connect and read the form content, but instead of connecting to DRC, it’s getting an error page from a proxy server or other network device.

- Check the log files for the testing computer. The testing computer log files are located at: <users home directory>/insight/logs
  - See “Question 1: I Don’t Know What to Whitelist, Allow, or Unblock?” on page 108.
  - Reinstall the INSIGHT testing application.
-

## Question 6: Can We Mass Deploy the Test Software to All of the Student Computers?

Yes, but the details vary depending on which technology you use for deployment and the operating system to which you deploy.

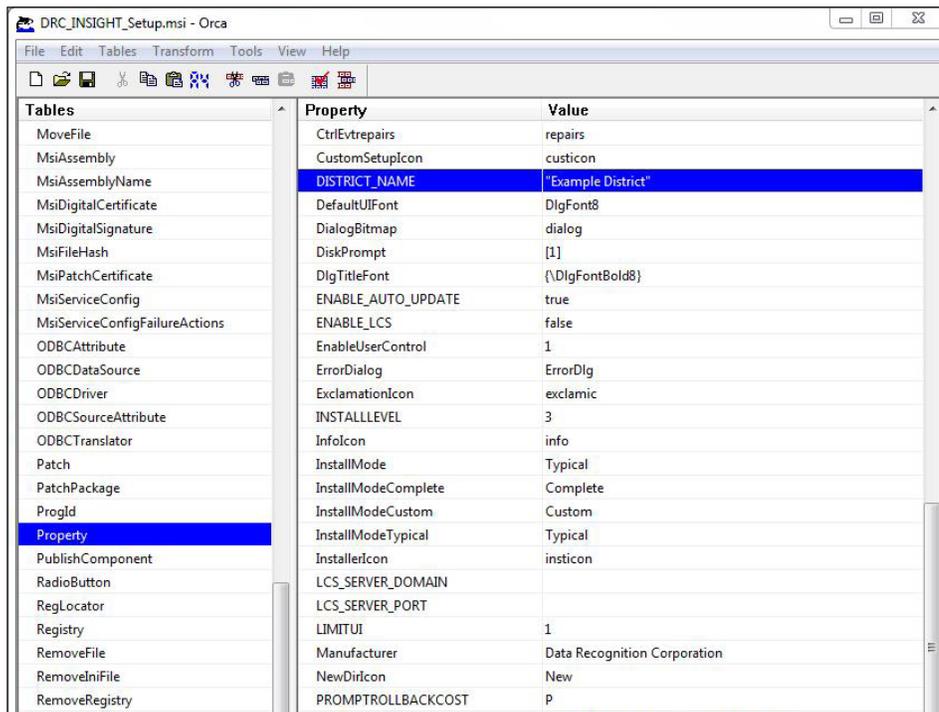
Basically, you can configure the installer using arguments when you deploy it in a non-interactive or silent mode. For technical details, see the topic “Creating a Transform File”.

### Creating a Transform File

You can use a transform file to install your software on many machines using different installation settings. To create a transform file, you need the ORCA installer package from the Windows SDK for Windows Installer Developers, available at <http://www.microsoft.com/download/en/details.aspx?displaylang=en&id=3138>. After installing the Windows SDK Components for Windows Installer Developers, you must double-click Orca.msi to install the Orca.exe file.

To create a transform file, do the following:

1. Start Orca.
2. Select **File–Open** and open the MSI installer.
3. Select **Transform–New Transform**.
4. Select **Property–Table** to open the Property table (see Figure B-2). You make all of your changes in this table.



Property	Value
CtrlEvtrepairs	repairs
CustomSetupIcon	custicon
<b>DISTRICT_NAME</b>	<b>"Example District"</b>
DefaultUIFont	DlgFont8
DialogBitmap	dialog
DiskPrompt	[1]
DlgTitleFont	{\DlgFontBold8}
ENABLE_AUTO_UPDATE	true
ENABLE_LCS	false
EnableUserControl	1
ErrorDialog	ErrorDlg
ExclamationIcon	exclamc
INSTALLLEVEL	3
InfoIcon	info
InstallMode	Typical
InstallModeComplete	Complete
InstallModeCustom	Custom
InstallModeTypical	Typical
InstallerIcon	insticon
LCS_SERVER_DOMAIN	
LCS_SERVER_PORT	
LIMITUI	1
Manufacturer	Data Recognition Corporation
NewDirIcon	New
PROMPTROLLBACKCOST	P

Figure B-2: Property Table

5. Steps 5a–5h list some different properties you may want to change. To make a change, double-click on the value of the property, enter your value, and click **Enter**.
- Note:** Ensure that there are no spaces before your input—do not put spaces in front of any attribute that you modify.
- a. `LCS_SERVER_DOMAIN` is the domain name, network name, or the IP address.
  - b. `LCS_SERVER_PORT` is the port the LCS will be listening on. The default value is 8080.
  - c. `ENABLE_LCS` tells INSIGHT whether you are using an LCS.
  - d. `SKIP_READINESS` tells the installer whether to run the system readiness check. This allows you to install even if there are errors.
  - e. `ENABLE_AUTO_UPDATE` turns automatic updates on or off.
  - f. `DISTRICT_NAME` is the name of the school district. The name must be enclosed in double quotes (“Example District”).
  - g. `SCHOOL_NAME` is the name of the school. The name must be enclosed in double quotes (“Example School”).
  - h. `CONNECTIVITY_AS_WARNING` makes the connectivity test a warning. This lets you run the readiness check and ignore connection errors.
6. After you have made all your changes, select **Transform–Generate Transform**. Name the transform file and save it as an .mst file.

**Example**

The following example shows the syntax you would use to use a transform file with an INSIGHT setup (install) command. The transform file in the example is `Insight.mst`.

```
msiexec /I DRC_INSIGHT_setup.msi Transforms="Insight.mst" /qn
```

**Note:** Instead of creating a transform file, you also can save your changes to the installer. To do that, skip Steps 3 and 5, and save your changes directly to the installer by specifying **File–Save As**.

### **Question 7: Do Users Have Their Own Separate Home Directory, or Is It Combined Into One?**

INSIGHT saves log files and stored responses in the user's home directory. If each computer has its own directory, there should be no problem. Issues may occur if multiple students are using the same directory at the same time.

For technical details about how to change the directory that INSIGHT writes to, see "Question 8: How Do I Change Folder Permissions?" on page 117.

---

### ***Question 8: How Do I Change Folder Permissions?***

---

A folder permission error occurs if INSIGHT is unable to read and write to the following directories:

Audit Summary: `<user home>\insight\auditsummary`

Stored Responses: `<user home>\insight\storedresponse`

Client Logging: `<user home>\insight\logs`

*Where:* `<user home>` is the current users home directory. The System Readiness Check tells you which folders need Read and Write permissions. On a Windows system, this information is located at:

Windows XP: `C:\Documents and Settings\<username>`

Windows 7: `C:\Users\<username>`

Java sets the user's home directory using a concatenation of the variables HOMEDRIVE and HOMEPATH. Method 1 and Method 2 are two ways you can force INSIGHT to read and write to a new directory.

**Note:** Environment variables, such as %USERPROFILE%, do not work with Method 1. To use environment variables, use Method 2.

#### ***Method 1***

1. In the installation folder, C:\Program Files\NE Online Assessments), create a new text file.
2. Open the file and add the following line:  
`-Duser.home=(New Path)`
3. Change *(New Path)* to the correct path for the person testing—the person testing must have Read and Write permissions to the directory this path points to.
4. Save and close the file.
5. Create two copies of the text file using the following names:

Readiness.voptions

DRC INSIGHT.voptions

### **Method 2**

Edit the Online Assessments desktop shortcut (or create another shortcut).

1. Right-click on the NE Online Assessments shortcut and select **Properties**.
2. From the Shortcuts tab, modify the Target field by adding a space and the information below at the end (after the last quote, not inside it):

`-J-Duser.home=""New Path"`

Where: *New Path* is the new path to the home directory.

3. The Target field should look like the following:

`"C:\Program Files\NE Online Assessments\DRC INSIGHT.exe" -J-Duser.home="%USERPROFILE%\Online Testing"`

4. Click **OK** to save your changes.
  5. Create a shortcut to the System Readiness Check and make the same changes.
  6. Use your edited shortcuts to launch INSIGHT and the System Readiness Check.
-

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