



# **TECHNOLOGY USER GUIDE**

## **Wisconsin**

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**■ Introduction**

DRC INSIGHT Online Learning System .....10  
 About This Guide.....10  
 INSIGHT Web Browser and INSIGHT Server.....11  
 System Readiness Check .....11  
 The eDIRECT System .....11  
 Testing Site Manager (TSM) .....12  
 Online Tools Training (OTT).....13  
 Tutorials .....13  
 Testing Accommodations.....13  
     Text-To-Speech (TTS) .....13  
     Video Sign Language (VSL).....13  
 Software Installation and Update Rights .....13

**■ System Requirements and Testing Information**

What’s Covered in This Chapter .....16  
 Wisconsin Configuration Information .....16  
 Testing Checklist.....17  
 Pre-Testing Checklist for Non-Desktop Devices .....19  
 Installation Files.....20  
 INSIGHT System Requirements.....21  
     INSIGHT Requirements for Desktop, Laptop, and Tablet Computers .....21  
     INSIGHT Requirements for iPad Devices.....24  
     INSIGHT Requirements for Chromebook Devices .....25  
     INSIGHT Requirements for Android Devices.....26  
 The Testing Site Manager (TSM) .....27  
     TSM Requirements .....29  
 Automatic Software Updates .....31  
 Network Requirements for Testing Computers .....33  
     INSIGHT Bandwidth and Connectivity Requirements .....35  
 Video Sign Language (VSL) Configuration .....36  
     Changing the Monitor Display for VSL.....37  
 Text-To-Speech (TTS) Configuration (Audio) .....38  
 INSIGHT and Virtual or Remote Desktops .....39  
     Kiosk Mode and Security.....39  
     Virtual Desktop Operating Systems.....40  
 Windows 7 Desktop Font Size Requirements.....41  
 Windows 7 Taskbar Security Requirement.....42

## ■ Configuring Devices for Testing

What's Covered in This Chapter .....	44
DRC INSIGHT Device Toolkit.....	45
Device Toolkit ORG Units.....	45
Google Organizational Units .....	45
Configuring and Installing INSIGHT .....	46
Device Toolkit Configuration Files.....	46
Web Browsers and the Device Toolkit.....	47
Setting Up INSIGHT on PCs and Macs, and Linux Machines.....	47
Setting Up INSIGHT on iPad Devices .....	47
Setting Up INSIGHT on Chromebook Devices.....	48
Setting Up INSIGHT on Android Devices .....	48
Configuring and Installing INSIGHT with a TSM .....	49
TSM Considerations .....	49
Installing Multiple TSMs and INSIGHT .....	50
Starting the Device Toolkit and Displaying an ORG Unit.....	51
Creating and Deleting ORG Units .....	53
Configuring an ORG Unit TSM and Specifying INSIGHT	
Software Updates.....	54
Creating a Configuration File.....	57
Creating Configuration Files for Multiple Testing Programs .....	58
Configuration Files, ORG Units, and the TSM.....	58
Adding an ORG Unit Configuration to a Configuration File.....	59
An Alternate Method of Adding Testing Programs to a Device .....	61
Adding Devices.....	63
Adding Devices—Configuration Page Device Fields.....	64
Moving Devices .....	65
Removing Devices .....	66
Using Log Files.....	67

## ■ Windows Installation

What's Covered in This Chapter .....	70
Installing a TSM .....	70
Installing Multiple TSMs and INSIGHT .....	70
Quick Tour 1: Installing a TSM for Windows OS .....	71
Quick Tour 2: Installing INSIGHT for Windows OS .....	74
Managing the TSM .....	78
Installing a TSM from the Command Line.....	78
Starting and Stopping the TSM.....	79
Uninstalling the TSM.....	80
Managing INSIGHT .....	81
Installing INSIGHT from a Command Line.....	81
Installation Command Syntax and Example.....	82
Installing INSIGHT Silently .....	83
Installing INSIGHT Silently Using ORCA.....	84
Starting INSIGHT.....	85
Stopping INSIGHT .....	85
Uninstalling INSIGHT.....	86

■ **Mac (OS X)  
Installation**

What’s Covered in This Chapter ..... 88

Installing a TSM ..... 88

Installing Multiple TSMs and INSIGHT ..... 88

Quick Tour 3: Installing a TSM for Mac OS X ..... 89

Quick Tour 4: Installing INSIGHT for Mac OS X ..... 92

Managing the TSM ..... 97

    Starting and Stopping the TSM ..... 97

    Uninstalling the TSM ..... 97

Managing INSIGHT ..... 98

    Installing INSIGHT Using a Software Deployment Tool ..... 98

    Starting INSIGHT ..... 100

    Stopping INSIGHT ..... 100

    Uninstalling INSIGHT ..... 100

■ **Linux  
Installation**

What’s Covered in This Chapter ..... 102

Installing a TSM ..... 102

Installing Multiple TSMs and INSIGHT ..... 102

Quick Tour 5: Installing a TSM for Linux ..... 103

Quick Tour 6: Installing INSIGHT for Linux ..... 108

Managing the TSM ..... 112

    Starting and Stopping the TSM from the Terminal ..... 112

    Starting and Stopping the TSM Using the Boot-Up  
    Manager Software ..... 112

    Uninstalling the TSM ..... 113

Managing INSIGHT ..... 114

    Installing INSIGHT Using the Terminal ..... 114

    Installing INSIGHT from a Command Line ..... 115

        Installation Command Syntax and Example ..... 115

    Uninstalling INSIGHT Using the Synaptic Package Manager ..... 115

    Uninstalling INSIGHT Manually ..... 118

■ **Installing  
INSIGHT on  
iPad Devices**

What’s Covered in This Chapter ..... 120

Distributing and Registering INSIGHT ..... 120

iPads, the TSM, and INSIGHT ..... 120

Multiple Testing Programs ..... 120

DRC INSIGHT and the Apple App Store ..... 121

Installing and Registering INSIGHT Using an MDM Solution ..... 121

    Autonomous Single App Mode (ASAM) ..... 122

Installing INSIGHT Using an MDM Solution and  
Registering It Manually ..... 123

    Autonomous Single App Mode (ASAM) ..... 124

Working with Guided Access ..... 125

    Enabling Guided Access ..... 125

iOS 8—Predictive Text and the Emoji Keyboard ..... 126

    Disabling Predictive Text ..... 126

    Deleting the Emoji Keyboard ..... 127

    Viewing the DRC INSIGHT Configuration on an iPad ..... 128

## ■ Installing INSIGHT on Chromebook Devices

What's Covered in This Chapter.....	132
Setting Up INSIGHT on Chromebooks.....	132
INSIGHT Deployment Overview.....	132
INSIGHT Installation Overview.....	132
Chromebooks, the TSM, and INSIGHT.....	133
Multiple Testing Programs.....	133
Example of Chromebook Setup and Configuration for INSIGHT.....	134
Quick Tour 7: Installing INSIGHT for Chrome.....	135
Using the System Readiness Check on a Chromebook.....	141

## ■ Installing INSIGHT on Android Devices

What's Covered in This Chapter.....	144
Google Play for Education.....	144
Web Browsers and the Device Toolkit.....	144
Android Devices, the TSM, and INSIGHT.....	144
Multiple Testing Programs.....	144
Summary of Configuring a TSM and Installing INSIGHT for Android Devices.....	145
Quick Tour 8: Installing INSIGHT for Android Devices.....	147
Using the System Readiness Check on an Android Device.....	150

## ■ Working with INSIGHT

What's Covered in This Chapter.....	152
Online Tools Training (OTT).....	153
The Monitor Verification Test.....	154
Changing the Monitor's Contrast or Brightness.....	155
The Testing Site Manager (TSM).....	156
Using the TSM.....	157
Using Caching.....	159
Content Caching.....	161
Response Caching—Viewing Unsent Student Test Responses.....	164
Response Caching—Viewing Historical Test Responses.....	167
Ping Activity.....	169
Graphing Ping Activity.....	170
Load Simulation Testing.....	174
Performing a Load Simulation.....	175
Analyzing Load Simulation Results.....	179
Viewing Historical Simulation Data.....	181
The Capacity Estimator.....	184
Using the Capacity Estimator.....	185

	The System Readiness Check .....	190
	Using the System Readiness Check .....	191
	The System Readiness Required Tests.....	196
	Resolving System Readiness Required Tests.....	197
	Issue 1. Screen Resolution Error.....	197
	Issue 2. Internet Connectivity Error.....	197
	Issue 3. RAM Error.....	197
	Issue 4. Audio Capability Error .....	197
	Issue 5. OS Level Error.....	197
	Issue 6. User Agent Error.....	198
	Issue 7. TSM Connection Error .....	198
	Issue 8. TSM Response Caching Error .....	199
	Issue 9. TSM Version Error.....	199
	Issue 10. Client Version Error.....	199
<b>■ Appendix A:</b>	What’s Covered in This Appendix .....	202
<b>    Error Messages</b>	INSIGHT, TSM, and Device Toolkit Error Messages .....	203
<b>■ Appendix B:</b>	What’s Covered in This Appendix .....	216
<b>    FAQs, Hints</b>	General Questions.....	217
<b>    and Tips</b>	Capacity Estimator Questions.....	220
	Load Simulation Testing Questions .....	224
	iPad Questions .....	226
	Chromebook Questions.....	227
	Android Questions .....	231
	General Hints and Tips.....	232
	iPad Hints and Tips .....	232
	Chromebook Hints and Tips .....	233
	Android Hints and Tips.....	234
	Common Technical Questions and Answers.....	235
	Question 1: What Should I Whitelist, Allow, or Unblock?.....	235
	Question 2: How Do I Update Test Forms in a TSM? .....	236
	Question 3: Can We Mass Deploy Test Software to	
	All Student Computers? .....	237
<b>■ Glossary</b>	Glossary .....	240
<b>■ Index</b>	Index .....	244

# Notes

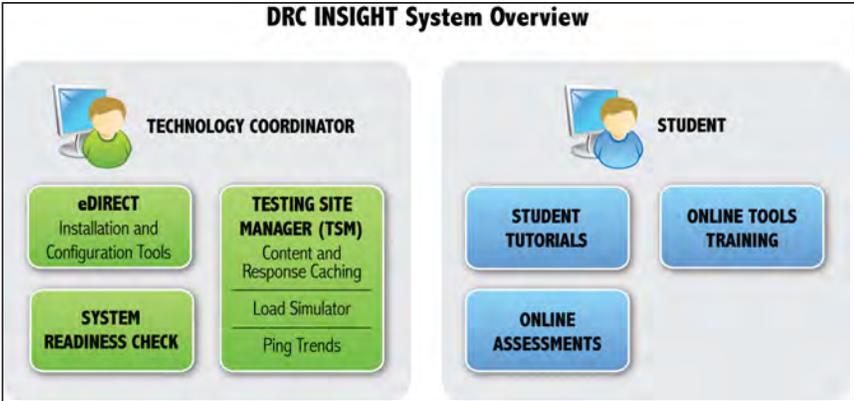
# Introduction



## ■ DRC INSIGHT Online Learning System

The *DRC INSIGHT Technology User Guide* describes the components that make up the DRC INSIGHT Online Learning System, or DRC INSIGHT. DRC INSIGHT is a web-based, online interface that is used with a combination of software and hardware to provide a secure, online testing environment. It is a proven online testing system that successfully delivers secure statewide assessments.

DRC INSIGHT delivers assessments and related resources online for all content areas and grade levels by incorporating computerized testing, related resources, dynamic reporting, and a suite of tools. It consists of a secure web browser software interface and the Testing Site Manager (TSM) to help manage network traffic, maintain connectivity, and handle bandwidth issues.



## ■ About This Guide

This user guide describes how to configure, install, manage, and troubleshoot DRC INSIGHT. It contains configuration and installation information for various environments, describes how to use DRC INSIGHT and its components, and provides tips and techniques for troubleshooting issues, as well as frequently asked questions (FAQs).

### ❑ Important Information

**Important:** Throughout this user guide, the Information icon (ⓘ) indicates important information or crucial tips.

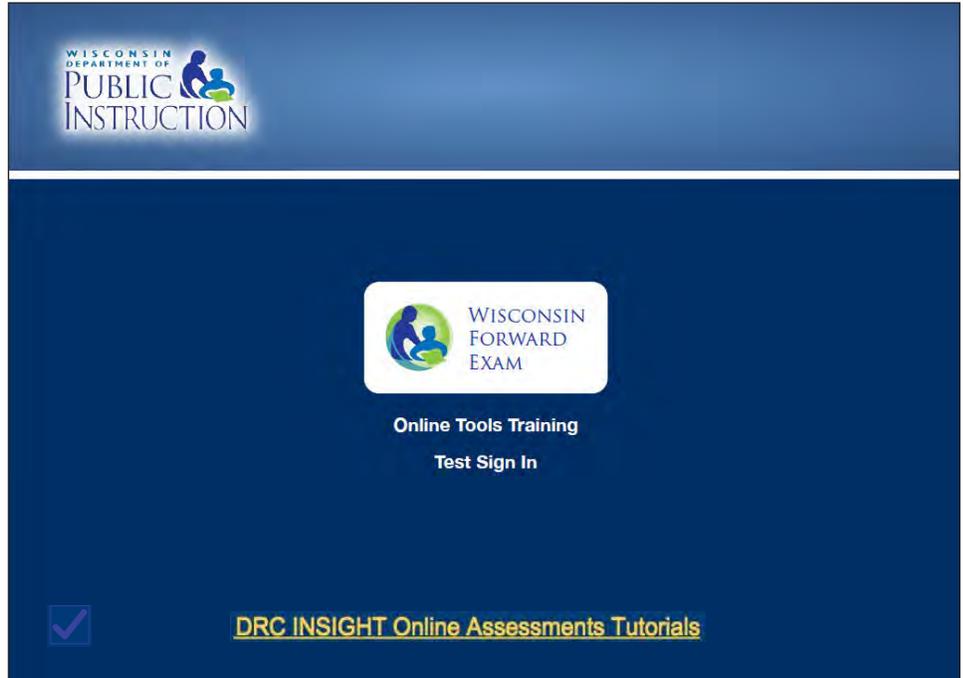
### ❑ Audience and Prerequisites

This guide is designed primarily for the District Technology Coordinators (DTCs) who are responsible for setting up and managing online testing and ensuring that their systems work effectively and securely. DTCs should be knowledgeable about the technical details of the various operating systems and have the necessary security privileges to perform the tasks discussed in this guide (see “Software Installation and Update Rights” on page 13).

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

## ■ INSIGHT Web Browser and INSIGHT Server

The main component of DRC INSIGHT is the secure web browser testing interface installed on each testing device. This software communicates with the DRC INSIGHT server to provide online tools training and 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 secure web browser interface as simply INSIGHT.



## ■ System Readiness Check

The System Readiness Check runs when INSIGHT is installed or starts. It helps you verify that the testing device is configured correctly and ready for testing.

## ■ The eDIRECT System

The eDIRECT system provides distribution and administrative functions for the DRC INSIGHT Online Learning System.

- Technical users download INSIGHT, the TSM, and other software and links from the eDIRECT system to set up their testing environment.
- Administrative users use the eDIRECT system to create student records, test sessions, and test groups to help manage or monitor their testing environment and report the results.

Details of the eDIRECT system are covered in the eDIRECT user guides.

## ■ Testing Site Manager (TSM)

### □ Content and Response Caching

INSIGHT also provides the Testing Site Manager (TSM), a powerful, web-based application that provides caching and a software toolbox to help you plan, configure, and manage your online testing environment. Usually, you install the TSM caching software on one or more strategic computers with sufficient bandwidth to help manage and streamline communication between the test devices and the DRC INSIGHT server.

The TSM offers two types of caching—content caching for test content and response caching for student test responses. At test time, the TSM content caching software sends its cached test items to the testing devices. This content must be current in order for students to test.

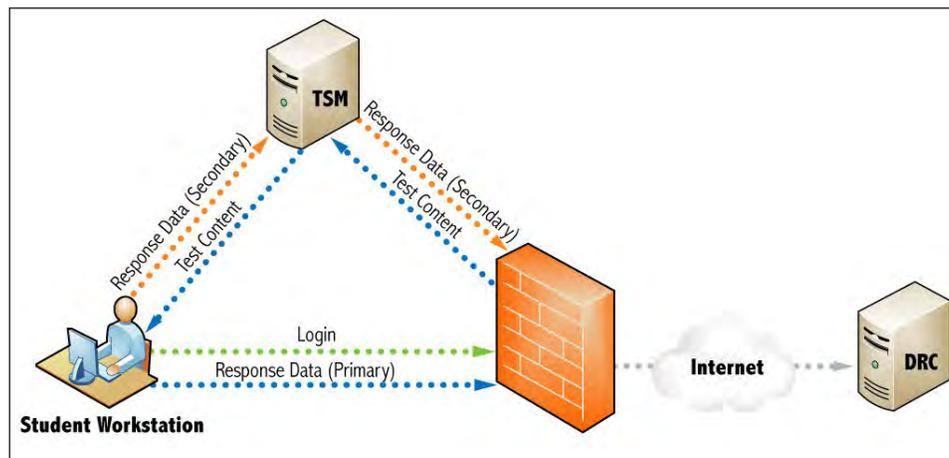


Figure: TSM Content and Response Caching

During testing, if the test computers can communicate with the DRC INSIGHT server, responses go directly to the server. If test computers cannot communicate with the server, the response caching software buffers and stores their test responses. When the response caching software is communicating with DRC, it sends test responses to the DRC INSIGHT server every fifteen minutes. Even if DRC is not currently communicating with the testing computers, the test responses are still being stored on the TSM for transmission to DRC, so no responses are lost.

**! Important:** TSM response caching is used *during* a test session—students cannot start a test session if there is no communication between the INSIGHT server and the testing device, or if there are unsent responses on the TSM.

### □ TSM Diagnostic Tools

In addition to content and response caching, the TSM offers powerful diagnostic software tools, including Load Simulation Tests and Ping Trend Graphs, to help sites prepare and manage their test environment.

■ Online Tools Training (OTT)

DRC INSIGHT’s Online Tools Training (OTT) simulate online testing and allow students to practice using the testing interface’s online tools.

- The OTT allows students to become familiar with the online test environment and the suite of online testing tools, such as the Line Guide tool and the Highlighting tool.
- The OTT contains sample test questions to help students become familiar with the tools and features available during online testing.

**Note:** Install INSIGHT on the testing computers as early as possible to give students time to familiarize themselves with the INSIGHT test environment and the testing tools.

■ Tutorials

DRC offers online tutorials to help students become familiar with all aspects of online testing. Students can access the tutorials from the DRC INSIGHT Online Assessments Tutorials link from the INSIGHT portal page.

■ Testing Accommodations

DRC INSIGHT also offers many accommodations, including optional audio and video testing accommodations, to help students test successfully.

.....  
**Important:** A TSM is required for audio or video accommodations.  
.....

□ Text-To-Speech (TTS)

Text-To-Speech (TTS) is an audio accommodation that allows a student to hear the test recorded by a computer-simulated voice.

□ Video Sign Language (VSL)

Video Sign Language (VSL) is a video accommodation that allows a student to see the test content signed visually through an online video. This accommodation is available in American Sign Language (ASL).

.....  
**!** **Important:** Throughout this user guide, all references to VSL refer to the ASL version.  
.....

■ Software Installation and Update Rights

Certain software rights are required to install and/or automatically update INSIGHT and the TSM software.

.....  
**!** **Important:** INSIGHT requires Administrator rights to install it and Write access to perform the software Auto Update function. The TSM software requires Administrator rights to install it and to perform the software Auto Update function.  
.....

# Notes

# System Requirements and Testing Information



## ■ What's Covered in This Chapter

This chapter describes the specific hardware, software, network, and desktop requirements to configure INSIGHT, the Testing Site Manager (TSM), and automatic software updates.

This chapter also discusses tasks District Technology Coordinators (DTCs) perform to configure the INSIGHT software environment. DTCs must configure INSIGHT to use with TSM systems and to connect directly to the DRC servers and databases through the Internet.

This user guide includes information about the operating systems, software, devices, and accommodations that work with INSIGHT and the TSM.

The specific technical information covered in this user guide for Wisconsin is shown below. Use this information as reference throughout the user guide.

## ■ Wisconsin Configuration Information

### Operating Systems

- Windows
- Mac (OS X)
- Linux
- Apple iOS
- Chrome OS
- Android OS

### TSM and Other Options

- Response Caching
- Content Caching
- Capacity Estimator
- Load Simulation Testing
- Ping Trends

### Accommodation/Other

- Text-To-Speech (TTS)
- Video Sign Language (VSL)\*

\*Throughout this user guide, VSL refers to the American Sign Language (ASL) version.

## Testing Checklist

The following is a checklist of the tasks TCs must successfully complete, in order, before and during testing to use INSIGHT and the TSM.

### Before Testing

---

- Review this user guide.
- Whitelist the necessary URL and IP addresses (see “Network Requirements for Testing Computers” on page 33).
- Verify that you have the latest version of the TSM software. If necessary, uninstall old TSM software and install new TSM software (see the Windows and Mac and Linux Installation chapters).

---

**! Important:** If you installed one or more TSMs for ACCESS for ELLs testing, you need to install different TSMs for your state testing.

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- Start the TSM and, if necessary, ‘name’ it using following naming convention: *district, school, building, location in the building* (see “Using the TSM” on page 157).

- Start the Device Toolkit.

If you tested previously using the Device Toolkit, review your ORG Unit configurations and make any changes necessary.

If you did not test previously using the Device Toolkit, set up and configure your ORG Units and group your testing devices in the ORG Units (see “DRC INSIGHT Device Toolkit” on page 43).

- Install INSIGHT.

To install INSIGHT using a software tool, download and deploy your configuration file(s) from the Device Toolkit and install INSIGHT (see “Creating a Configuration File” on page 55 and the appropriate Installation chapters).

To install INSIGHT manually, record the Device Toolkit ORG Unit ID for each device and install INSIGHT (see “Creating and Deleting ORG Units” on page 51 and the appropriate Installation chapters).

- Complete a System Readiness Check on each testing computer (see “Using the System Readiness Check” on page 191).
- Use INSIGHT to run at least one Online Tools Training (OTT) test at each testing location (see “Student Directions and Practice Items” on page 153).
- If you have students who will test using audio (TTS), review “Text-To-Speech (TTS) Configuration (Audio)” on page 38.
- If you have students who will test using VSL, review “Video Sign Language (VSL) Configuration” on page 36 .

### ***Testing Checklist (cont.)***

#### ***During Testing***

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- On the first day of testing, verify that all content displays a status of **Up to Date** in the TSM (see “Using the TSM” on page 157).
- On the first day of testing and after each test session, verify that there are no unsent test responses. Monitor student responses on the TSM (see “Response Caching-Viewing Unsent Student Test Responses” on page 155 to ensure that the value for Unsent Tests is 0 [zero]).

#### ***At the End of the Test Administration***

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- Work with the correct technical or testing contacts to verify that all tests are completed.
- Verify that the value for Unsent Tests on each TSM is 0 (zero)—see “Response Caching-Viewing Unsent Student Test Responses” on page 155.

### ***Pre-Testing Checklist for Non-Desktop Devices***

The following is a checklist of items District Technology Coordinators must verify and complete before testing with non-desktop devices, such as iPad, Chromebook, Android or Windows devices.

- Ensure that the device is connected to the correct Wi-Fi network.
- Ensure that the latest version of the DRC INSIGHT App is installed on each device.
- Ensure that all devices are fully charged or plugged in.

#### ***iPad Devices***

- Ensure that the iPad device's soft keyboard is set to English and that the Emoji keyboard is deleted.
- Manually pair one keyboard with one iPad device if you are using external Bluetooth keyboards. Remember to pair the keyboards as you configure each iPad to avoid confusion about which keyboard is associated with the iPad.
- Ensure that Check Spelling, Predictive Text, Auto-Correction, and Auto-Capitalization are turned off on each iPad device.\*
- Enable and activate Guided Access on each iPad device.\* For an alternative to Guided Access, see "Autonomous Single App Mode (ASAM)" on page 122.

\*Many Mobile Device Management (MDM) solutions can perform this task. If you must perform this task manually, see the following topics: "Installing INSIGHT Using an MDM Solution and Configuring It Manually" on page 123, "Working with Guided Access" on page 125, and "iOS 8-Predictive Text and the Emoji Keyboard" on page 126.

## ■ Installation Files

Different INSIGHT and TSM installations are available for each operating system. The following table lists the file(s) or URL for each type of installation and operating system.

*Table: INSIGHT and TSM Installation Files and Links*

<b>Installation</b>	<b>Operating System</b>	<b>File(s)/URL</b>
<b><u>INSIGHT</u></b>	<b>Windows</b>	DRC_INSIGHT_Setup.msi
	<b>Mac (OS X)</b>	DRC_INSIGHT_Setup.pkg
	<b>Linux</b>	DRC_INSIGHT_Setup_amd64.deb (64-bit) DRC_INSIGHT_Setup_i386.deb (32-bit)
	<b>Chrome OS</b>	The INSIGHT App ID and URL is contained in the following text (.txt) file:  ChromeAppIDInfo.txt
	<b>iOS</b>	SecureBrowser/INSIGHT.ipa
	<b>Lollipop (Android)</b>	INSIGHT.apk
<b><u>TSM</u></b>	<b>Windows</b>	TESTING_SITE_MANAGER_Setup.exe
	<b>Mac (OS X)</b>	TESTING_SITE_MANAGER_Setup.dmg
	<b>Linux</b>	TESTING_SITE_MANAGER_Setup.sh

## ***INSIGHT System Requirements***

This section covers the minimum and recommended requirements for INSIGHT on testing computers, including desktops, laptops, netbooks, and other devices, using the supported operating system platforms. The system requirements for testing with accommodations are higher than for standard testing. Refer to the detailed specifications in this section.

---

**! Important:** The minimum level is a low compliance threshold—at this level, the software and/or hardware may not deliver an optimal student testing experience. Devices may struggle with memory and processing power, which can reduce responsiveness and increase response times during testing. DRC advises using the recommended level.

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## ***INSIGHT Requirements for Desktop, Laptop, and Tablet Computers***

The table on the following page describes the minimum and recommended system requirements for desktop, laptop, and tablet computers. The following are some general notes about INSIGHT system requirements.

### **Windows**

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- For Windows users, DRC recommends Windows 7.
- For Windows 7 and 8, only non-touch-screen devices are supported.
- For Windows 8.1, the following touch devices are supported: Lenovo Yoga – Netbook/Tablet, Dell Latitude – Laptop, and Microsoft Surface Pro – Tablet.
- INSIGHT supports both 32-bit and 64-bit versions of Windows.

### **Mac (OX S)**

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- For Mac installations, Mac Server software is not supported.

### **Linux**

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- For Linux installations, Ubuntu Server software is not supported.

### **Other**

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- Smart Board interfaces, which function as a touch-screen device, are not supported. If you are using a Smart Board, you may need to disable or uninstall it.
- The input device for testing must allow students to select/deselect; drag; highlight text, objects, and areas; enter letters, numbers, and symbols; and use the Shift, Tab, Enter, Delete, and Backspace keys.
- INSIGHT must be installed on each device you plan to test with (see “Can we install INSIGHT on one central server/computer and use shortcuts, or other links, to share it” on page 219).
- INSIGHT requires Administrator rights to install and Write access to perform the software Auto Update function. The TSM software requires Administrator rights to both install and to perform the software Auto Update function.

## INSIGHT Requirements for Desktop, Laptop, and Tablet Computers (cont.)

Table: INSIGHT Requirements for Desktop, Laptop, and Tablet Computers

Operating System	Minimum	Recommended	Devices
<p><b>Windows</b> INSIGHT supports the following versions of Windows and Windows Server with the most recent Service Pack:</p> <ul style="list-style-type: none"> <li>Windows Vista</li> <li>Windows 7 non-touch-screen versions</li> <li>Windows 8 non-touch-screen versions</li> <li>Windows 8.1 (see Devices for touch-screen devices)</li> <li>Windows 10</li> </ul>	Windows Vista with the most-recent Service Pack (Windows 7 for TTS)	Windows 7 or newer	<p>Non-touch-screen devices plus the following touch-screen devices for Windows 8.1:</p> <ul style="list-style-type: none"> <li>Lenovo Yoga – Netbook/Tablet</li> <li>Dell Latitude – Laptop</li> <li>Microsoft Surface Pro – Tablet</li> </ul>
<p><b>Windows Server</b></p> <ul style="list-style-type: none"> <li>Windows Server 2008</li> <li>Windows Server 2012</li> </ul>	Windows Server 2008	Windows Server 2008 or newer	
<p><b>Mac OS</b> INSIGHT supports these versions of Mac OS X with the most recent software update:</p> <ul style="list-style-type: none"> <li>OS X 10.7</li> <li>OS X 10.8</li> <li>OS X 10.9</li> <li>OS X 10.10</li> </ul> <p><b>Note:</b> Currently, DRC is testing OS X 10.11.</p>	Mac OS 10.7	Mac OS 10.7 or newer	Non-touch-screen devices
<p><b>Linux</b> Ubuntu 12.04.1 LTS and 14.04 LTS 32-bit and 64-bit with Gnome 3.4, Unity shell</p>	Ubuntu 12.04.1 LTS	Ubuntu 14.04.1 LTS	Non-touch-screen devices

## ***INSIGHT Requirements for Desktop, Laptop, and Netbook Computers (cont.)***

*Table: INSIGHT Requirements for Desktop, Laptop, and Tablet Computers (cont.)*

<b>Other</b>	<b>Minimum</b>	<b>Recommended</b>
<b>Memory</b>	512 MB RAM	1 GB RAM or greater
<b>Processor</b>	1 GHz	1 GHz or faster
<b>Disk Space</b>	100 MB available	100 MB or more available
<b>Screen Size</b>	9.5 inches	13 inches or larger
<b>Screen Resolution</b>	1024 x 768	1024 x 768 or higher
<b>Internet Connectivity</b>	Computers must be able to connect to the Internet.	Computers connected to the Internet via wired networks.
<b>Input Device Requirements</b>	Keyboard, wired or wireless, including Bluetooth. To meet secure testing requirements, each Bluetooth or wireless keyboard must be configured to pair with only a single computer during testing.	
<b>Interface Devices</b>	Standard interface devices such as mice, touchpads, headphones, earphones, and earbuds are supported.	

## INSIGHT Requirements for iPad Devices

This section covers the minimum and recommended requirements for INSIGHT on iPad testing devices using the supported operating system.

Table: INSIGHT Requirements for iPad Devices

Operating System	Minimum	Supported/Recommended
<b>Apple iOS</b>	<p>iOS 8.1.3</p> <p>Requires an iPad 2 device or newer. iPad Air devices are supported. iPad mini devices are not supported.</p> <p><b>! Important:</b></p> <ul style="list-style-type: none"> <li>To distribute the INSIGHT App to iPad devices, you must use an MDM solution.</li> <li>To mass configure the INSIGHT App for iPad devices, you must use an MDM solution that supports the Managed App Configuration feature.</li> <li>You also can manually configure the INSIGHT App on each iPad.</li> </ul> <p>For more information, see “Distributing and Registering INSIGHT” on page 120.</p>	<p>iOS 8.1.3</p> <p>iOS 8.2</p> <p>iOS 8.3</p> <p>iOS 8.4</p> <p>iOS 9.0</p> <p>iOS 9.1</p> <p>iOS 9.2</p>
<b>Screen Size</b>	A standard iPad 9.7" screen	A standard iPad 9.7" screen
<b>Battery</b>	A fully charged battery with a two-hour life	A device connected to a plugged-in power supply
<b>Internet Connectivity</b>	iPad devices must be able to connect to the Internet.	
<b>Input Device Requirements</b>	<p><b><u>Bluetooth Keyboard</u></b> To meet secure testing requirements, each Bluetooth keyboard must be configured to pair with only a single device during testing.</p> <p><b><u>External Keyboard</u></b> External keyboards are required for all assessments.</p>	
<b>Devices Supported</b>	<p>iPad 2 or newer</p> <p>iPad Air and iPad Air 2 devices</p> <p>iPad mini devices are not supported</p>	
<b>Interface Devices Supported</b>	Earphones, ear buds, stylus	

**INSIGHT Requirements for Chromebook Devices**

This section covers the minimum and recommended requirements for INSIGHT on Chromebook testing devices using the supported operating system.

*Table: INSIGHT Requirements for Chromebook Devices*

<b>Operating System</b>	<b>Minimum</b>	<b>Recommended</b>
<b>Chrome OS</b>	<p>The latest stable channel version of Chrome OS.</p> <p> <b>Important:</b></p> <ul style="list-style-type: none"> <li>To lock down the Chromebook device for test security, the Chromebooks must run on a level of Chrome that supports Single App Kiosk Mode. The DRC INSIGHT Chrome App requires Single App Kiosk Mode to launch and ensure a secure testing environment on Chromebook devices. See “Q1: Of the three secure testing scenarios provided by Google, which one did DRC select and why?” on page 227.</li> <li>To distribute the INSIGHT App to Chromebook devices, you must have Google Apps for Education set up and have your devices enrolled in Chrome device management (allows you to manage multiple Chrome devices from a central console). See “Q3: Why does DRC require Google Apps for Education and the Google Administrator accounts?” on page 229 and “Example of Chromebook Setup and Configuration for INSIGHT” on page 134.</li> </ul>	The latest stable channel version of Chrome OS.
<b>Memory</b>	512 MB RAM	1 GB RAM or greater
<b>Processor</b>	1 GHz	1 GHz or faster
<b>Disk Space</b>	100 MB available	100 MB or more available
<b>Screen Size</b>	9.5 inches or larger	13 inches or larger
<b>Battery</b>	A fully charged battery with a two-hour life	A device connected to a plugged-in power supply
<b>Screen Resolution</b>	1024 x 768	1024 x 768 or higher
<b>Internet Connectivity</b>	Chromebook devices must be able to connect to the Internet.	
<b>Input Device Requirements</b>	The built-in Chromebook keyboard and a mouse (recommended) or touchpad. The input device must allow students to select/deselect; drag; highlight text, objects, and areas; enter letters, numbers, and symbols, and press the Shift, Tab, Return, Delete, and Backspace keys.	
<b>Devices Supported</b>	Non-touch-screen devices plus the following touch-screen devices:  Acer C720P Lenovo N20P Dell Chromebook 11 HP Chromebook 14 G3	
<b>Interface Devices Supported</b>	Earphones, microphone, mouse	

## ***INSIGHT Requirements for Android Devices***

This section covers the minimum and recommended requirements for INSIGHT on Android testing devices using the supported operating system.

*Table: INSIGHT Requirements for Android Devices*

<b>Operating System</b>	<b>Minimum</b>	<b>Recommended</b>
<b>Android OS</b>	Lollipop 5.0 or higher	Lollipop 5.0 or higher
<b>Screen Size</b>	10 inches or larger	10 inches or larger
<b>Battery</b>	A fully charged battery with a two-hour life	A device connected to a plugged-in power supply
<b>Internet Connectivity</b>	Android devices must be able to connect to the Internet.	
<b>Input Device Requirements</b>	The input device must allow students to select/deselect; drag; highlight text, objects, and areas; enter letters, numbers, and symbols, and press the Shift, Tab, Return, Delete, and Backspace keys.	
<b>Devices Supported</b>	All Android devices must be supported by and enrolled in Google Play for Education, and must meet DRC's minimum system requirements. Currently, two devices meet these requirements: <ul style="list-style-type: none"> <li>• ASUS Transformer Pad TF103CE (also known as the K010E)</li> <li>• Dell Venue 10, model 5050</li> </ul>	
<b>Interface Devices Supported</b>	Earphones, microphone, stylus, external keyboard, mouse	

## ■ The Testing Site Manager (TSM)

The TSM offers two types of caching: content caching for tests and test items, and response caching for student responses (see “Testing Site Manager (TSM)” on page 12).

With response caching, if the Internet connection to DRC fails, students can continue testing. When the TSM is communicating with DRC, it transmits its cached response information every fifteen minutes (see “Testing With TSM Caching” on page 160).

If the TSM is not currently communicating with the testing computers, testing is halted until communication with the TSM is re-established.

DRC recommends using a TSM.

## □ Benefits and Features

A TSM offers many benefits and features, including a typical reduction in bandwidth traffic of about 50% when downloading test content.

- You can install the TSM using an easy-to-use installation wizard (requires administrative rights).
- You can populate the TSM with test content using its content caching option. After the content is installed, updates to test content are automatically downloaded.

## □ Connection Information

A TSM can help students during exams. During testing, if the test computers can communicate with the DRC INSIGHT server, responses go directly to the server.

- With no TSM, 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 a TSM, if the communication stalls because the Internet connection is congested, the testing computer sends its answers to the TSM response cache. Every fifteen minutes, the TSM attempts to automatically submit its collected test responses to DRC, which helps manage message traffic. You also can submit test responses manually.

### ❑ TSM Installation and the Number of Students Testing

As a general guideline, you can install the TSM software once for every 150 students that are testing at the same time (concurrently). This guideline is based on the following assumptions:

- The TSM software is configured for content and response caching.
- The TSM software is installed on a dedicated device.
- The TSM device and network meet the following specifications:
  - 4 GB of RAM
  - 2 x 2.4 GHz processors
  - 64-bit Windows operating system
  - 100 Mbps WAN or LAN data speed

**!** **Important:** This is only a guideline. The number of TSMs required may differ based on the actual hardware and software specifications of the TSM device, the network speed, and the TSM caching options selected.

### ❑ Tablet Devices and the TSM

A TSM is used primarily to cache and manage test content and responses. For various reasons, iPad, Chromebook, and other tablet devices do not provide a suitable environment for a TSM. As a result, you should install the TSM software on a Windows PC, Mac (OS X) computer, or Linux machine, and connect to the TSM when you install INSIGHT on the tablet device.

**Note:** For maximum testing performance, install the TSM software on a dedicated computer.

For specific TSM installation instructions, refer to the appropriate installation chapter.

## TSM Requirements

This section covers the minimum and recommended requirements for the TSM using the supported operating system platforms. The following table describes these requirements.

**Note:** A TSM is required for audio (TTS) and VSL (ASL), and there is no separate installation.

*Table: System Requirements for the TSM*

Operating System	Minimum	Recommended
<p><b>Windows</b></p> <p>The TSM supports the following versions of Windows and Windows Server with the most recent Service Pack:</p> <ul style="list-style-type: none"> <li>Windows Vista (TTS is not supported for Windows Vista)</li> <li>Windows 7 non-touch-screen versions</li> <li>Windows 8 non-touch-screen versions</li> <li>Windows 8.1 (see Devices for touch-screen devices)</li> <li>Windows 10</li> </ul> <p><b>Windows Server</b></p> <ul style="list-style-type: none"> <li>Windows Server 2008</li> <li>Windows Server 2012</li> </ul> <p><b>Note:</b> The TSM supports both 32-bit and 64-bit versions of Windows.</p> <p><b>Mac OS</b></p> <p>For Mac installations, Mac Server software is not supported. The TSM supports these versions of Mac OS X with the most recent software update.</p> <ul style="list-style-type: none"> <li>OS X 10.7</li> <li>OS X 10.8</li> <li>OS X 10.9</li> <li>OS X 10.10</li> </ul> <p><b>Note:</b> Currently, DRC is testing OS X 10.11.</p> <p><b>Linux</b></p> <p>For Linux installations, Ubuntu Server software is not supported.</p> <p>Ubuntu 12.04.1 LTS and 14.04 LTS 32-bit and 64-bit with Gnome 3.4, Unity shell</p>	<p>Windows Vista with the most-recent Service Pack (Windows 7 for TTS)</p> <p>Windows Server 2008</p> <p>Mac OS 10.7</p> <p>Ubuntu 12.04.1 LTS</p>	<p>Windows 7 or newer</p> <p>Windows Server 2008 or newer</p> <p>Mac OS 10.7 or newer</p> <p>Ubuntu 14.04.1 LTS</p>

# System Requirements and Testing Information

## TSM Requirements (cont.)

Item	Minimum	Recommended
<b>Memory</b>	1 GB	4 GB or more
<b>Processor</b>	1 GHz	2 x 2.4 GHz or faster
<b>Disk Space</b>	10 GB	10 GB or more
<b>Screen Size</b>	9.5 inches or larger	13 inches or larger
<b>Screen Resolution</b>	1024 x 768	1024 x 768 or higher
<b>Internet Connectivity</b>	Computers must be able to connect to the Internet.	Computers connected to the Internet via wired networks.
<b>Accommodation</b>		
<b><u>TTS</u></b>		
<b>Memory</b>	1 GB RAM	1 GB RAM or greater
<b>Processor</b>	1 GHz	1 GHz or faster
<b>Disk Space</b>	10 GB available	10 GB or more available
	These TSM disk space requirements assume an average fixed-form item size of 2 MB.	
<b><u>VSL (ASL)</u></b>		
<b>Memory</b>	1 GB RAM	1 GB RAM or greater
<b>Processor</b>	1 GHz	1 GHz or faster
<b>Disk Space</b>	20 GB available	20 GB or more available
	Because of the size of video files, VSL (ASL) can increase storage needs an additional 10 GB. These TSM disk space requirements assume an average fixed-form item size of 2 MB.	

## ***Automatic Software Updates***

For online testing, both the INSIGHT software and the TSM software must be up to date. You can perform this task manually or automatically. You can use the System Readiness Check to confirm that you have the latest version of the INSIGHT and/or TSM software (see “Using the System Readiness Check” on page 191).

**!** **Important:** INSIGHT software updates and TSM software updates are different than operating system updates. On testing days, testing devices should not be set to automatically update the operating system.

### ***INSIGHT Software Updates***

To specify that the INSIGHT software automatically updates the testing devices, use the Device Toolkit to select **Enable Auto Update** during the configuration process (see “Configuring an ORG Unit TSM and Specifying INSIGHT Software Updates” on page 54).

- If the Auto Updates feature is enabled, the software checks the version each time INSIGHT is launched, and provides the option to install any software updates.
- If the Auto Updates feature is not enabled, the software also checks the version when INSIGHT starts.
  - When a student attempts to log in to a test, the student is notified that they do not have the latest version of the software and cannot continue.
  - You must update the software manually by downloading the latest version from eDIRECT and reinstalling.

Update your software *before* testing begins to avoid delays.

**Important:** INSIGHT requires Administrator rights to install, and Write access to the installation folder to perform the Auto Update function.

### *TSM Software Updates*

For a TSM machine, you can specify whether to have TSM software updates performed automatically, or to be notified when updates are available and install them manually.

.....  
**Important:** The TSM software requires Administrator rights to install and to perform Auto Updates.  
.....

When you install a TSM, on the Automatic Update window you specify whether to enable notification of TSM software updates.

- If you select **Enable Automatic Update** (the default value), DRC updates the TSM software automatically.
- If you select **Disable Automatic Update**, DRC notifies you whenever an update to the TSM software is available and you must update the TSM software manually.

.....  
**!** **Important:** On the day of testing, confirm that the TSM software is up to date to ensure that students can test. For example, if the machine where the TSM is installed was turned off recently, it is possible that the TSM software is out of date.  
.....

## **Network Requirements for Testing Computers**

This section describes various network considerations for online testing.

### **Network Connectivity**

To ensure proper network connectivity for testing, keep the following information in mind. Refer to “Question 1: What Should I Whitelist, Allow, or Unblock?” on page 235 for more details.

- 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 connectivity on ports 80 and 443.
- Make sure that you whitelist the URLs below on the content filtering systems or other proxy/firewall software that you use locally:

<http://wi-insight-client.drccedirect.com>

<https://wi-insight.drccedirect.com>

<https://wbte.drccedirect.com>

<https://dtk.drccedirect.com> (Device Toolkit)

- Allow whitelist access for content. Try these links in a browser window to see if you have access:

<b>Link</b>	<b>Displays a blank page with a label similar to...</b>
<a href="http://wi-insight-client.drccedirect.com/">http:// wi-insight-client.drccedirect.com/</a>	insightwebdl01
<a href="https://wi-insight.drccedirect.com/">https://wi-insight.drccedirect.com/</a>	INSIGHTAPPWEB10
<a href="https://wbte.drccedirect.com">https://wbte.drccedirect.com</a>	no label

#### **Notes:**

- When whitelisting, you may need to use \*.drccedirect.com instead of wi-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 testing program uses its own URLs and IP addresses to communicate from the INSIGHT client (workstation) software to DRC servers, or from the TSM server to DRC servers.

<b>Program</b>	<b>URL</b>	<b>IP Address</b>	<b>Port/Protocol</b>
Wisconsin	<a href="http://wi-insight-client.drccedirect.com">http://wi-insight-client.drccedirect.com</a>	50.58.190.77	80/http; 443/https
	<a href="https://wi-insight.drccedirect.com">https://wi-insight.drccedirect.com</a>	50.58.190.46	80/http; 443/https
	<a href="https://wbte.drccedirect.com">https://wbte.drccedirect.com</a>	50.58.190.53	80/http; 443/https
	<a href="https://dtk.drccedirect.com">https://dtk.drccedirect.com</a>	50.58.190.22	80/http; 443/https

## ***Network Connectivity (cont.)***

- If your location uses an Internet connection idle timeout, please verify that the timeout limit is sufficient to allow students to complete testing.
- If your location uses screensavers, 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: What Should I Whitelist, Allow, or Unblock?” on page 235 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. When you test load capacity in a wireless network, verify that your access points and network can handle the number of simultaneous users that will be testing. DRC recommends performing load testing in a wireless network (see “Load Simulation Testing” on page 174).

## ***Desktop Monitoring***

If your testing location uses remote desktop monitoring software to monitor the computers that will be used for testing, that software may interfere with the testing software.

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**!** **Important:** If possible, disable the monitoring software on testing 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. If it is not feasible to disable your monitoring software, ensure that any staff members who can use the monitoring software refrain from using it during testing periods.

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

To start a test, INSIGHT contacts DRC to log in. After a successful login, INSIGHT downloads the test from the DRC server (or the TSM if available). INSIGHT sends answers to DRC every time the page is changed (or to the TSM if communication with DRC is interrupted\*).

- INSIGHT must maintain connectivity to the Internet or a TSM throughout the test.
- INSIGHT supports wireless networks.

\*If a testing computer cannot communicate with DRC, the student cannot log on to start a test.

### **Bandwidth Calculation Guidelines**

Bandwidth requirements and recommendations are based on the *actual amount of bandwidth available*. Even with a high-speed communication line, only part of the connection may be available for online testing due to Internet traffic. The greatest amount of bandwidth is required when students download tests.

### **Calculating Bandwidths**

You can estimate bandwidth requirements by dividing the size of the test by your target wait time (the amount of time it should take the test to load).

The bandwidth calculations that follow are based on the following assumptions:

- A T1 line transfers data at 1.54 Mbps.
- The average test size is 2 MB (16 Mb).
- **Note:** TTS tests contain audio files. These files make the test size larger and the download time longer.
- Your target wait time to load a 2 MB test is 20 seconds.
- Approximately 80% of your total bandwidth is available for testing.
- All of your students load the test at the same time, instead of staggering log in attempts.
- **Note:** You can increase your capacity by increasing the wait time and staggering your log in attempts.

### **Bandwidth Required with no TSM**

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Each student requires 16 Mb/20 seconds, or .8 Mbps, so approximately two students at a time can load the test in 20 seconds (2 x .8 is just slightly more than 1.54). To have 12 students load their tests simultaneously within 20 seconds, you would need a total bandwidth of approximately 12 x .8 Mbps, or 9.6 Mbps.

### **Bandwidth Required with a TSM**

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With a TSM, many more students can load the test at a time. A TSM decreases your Internet bandwidth requirements because you can load the test from the TSM rather than from the DRC server, which greatly increases your capacity.

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**⚠ Important:** Bandwidth calculations are estimates. There are many variables, including network traffic, that can impact actual network performance. For more information about bandwidth calculations, see “The Capacity Estimator” on page 184.

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### ***Video Sign Language (VSL) Configuration***

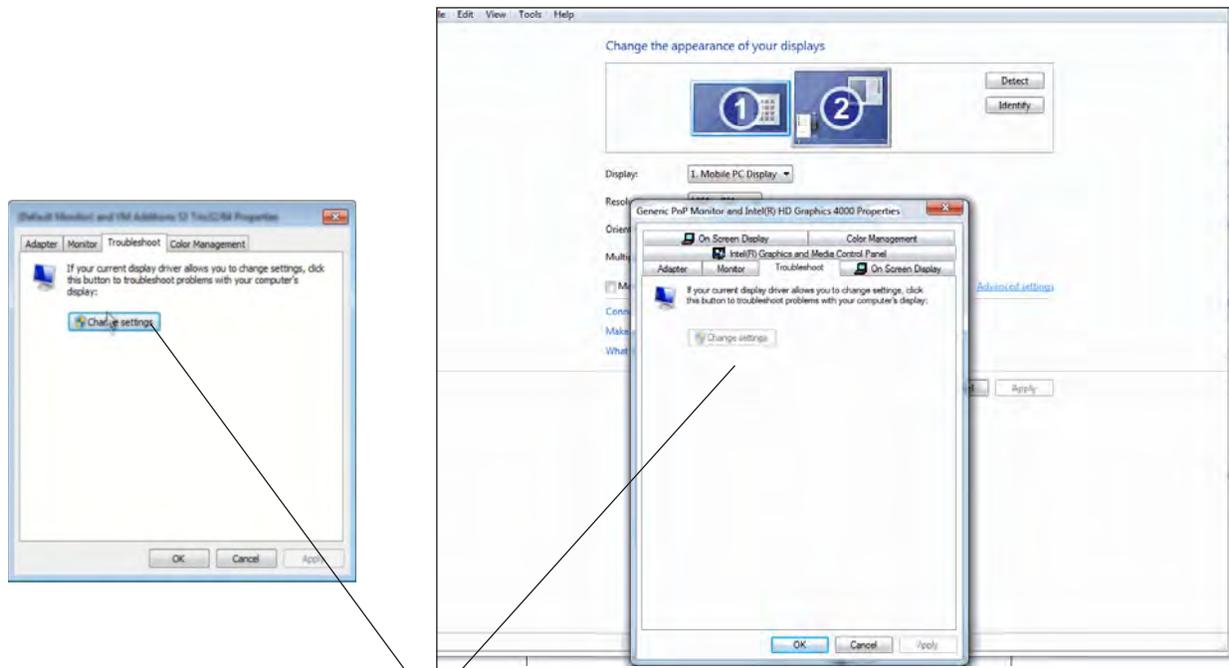
The hardware and software requirements differ for VSL.

- You can download the VSL content on any machine whose hardware meets the minimum VSL system requirements.
- VSL requires a TSM.
- VSL does not run on remote or virtual configurations.
- VSL runs on Windows XP, Windows 7, Windows 8 (non-touch-screen versions), and Mac OS X.
- VSL requires more memory for INSIGHT.
- VSL requires more disk space for the TSM than a standard configuration.

## Changing the Monitor Display for VSL

After you have installed VSL, if the video looks pixelated or there is a semi-transparent grid or halo displaying over the video, you may need to change the testing computer's hardware acceleration setting from **None** to **Full**. Hardware acceleration uses the computer's hardware to perform certain tasks faster than is possible with software. This can cause smoother rendering of graphics and better application performance. The hardware accelerator is often described as either a graphics card or a video card.

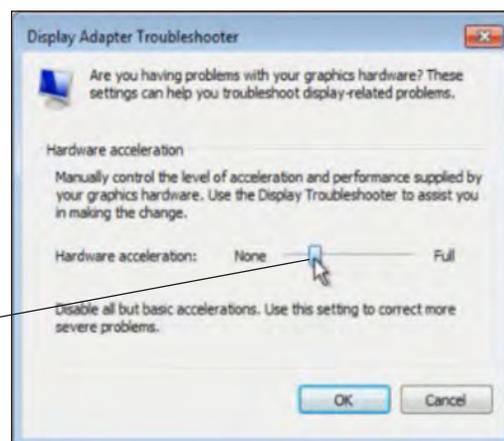
### Windows 7



1. To reset this setting on a Windows 7 computer, select **Control Panel–Display–Change Display Settings–Advanced settings–Troubleshoot** and click the **Change Settings** button.

**Note:** If the Change Settings button is greyed out, you do not have the necessary permissions to change the setting.

2. The Display Adaptor Troubleshooter window displays. Move the Hardware acceleration slider to **Full** and click **OK**.



### ***Text-To-Speech (TTS) Configuration (Audio)***

The hardware and software requirements differ for TTS.

- Schools are responsible for supplying the headphones required for TTS.
- TTS does not run on remote or virtual configurations.
- TTS does not run on Windows Vista.
- TTS requires a TSM with content caching and response caching.
- To download the TTS test content to the TSM for testing, after you install the TSM you must check the **Download TTS** checkbox and click **Update Content** (see “Content Caching” on page 161).

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

INSIGHT is a desktop-installed application that runs natively\* on specific operating systems. To successfully launch and run INSIGHT, you must meet system requirements, such as operating system level, processor, disk space, memory, Internet connectivity, and screen resolution.

As long as your site meets these requirements, you can run INSIGHT in a virtual or remote desktop environment. However, if your site uses virtual computing technology and runs INSIGHT on unsupported operating systems and/or devices, you must implement appropriate security measures to ensure that these virtual/remote desktops cannot 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.*

**! Important:** Virtual and remote desktop software does not work with audio accommodations such as Text-To-Speech (TTS).

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

The risk of running INSIGHT on unsupported operating systems and devices in a virtual or remote desktop environment is the loss of built-in security. When INSIGHT runs on a supported device and operating system, it uses Kiosk Mode 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. Sites using virtual computing technology for unsupported operating systems and devices must implement security measures to ensure that any 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 supported operating systems on which INSIGHT runs 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 Vista</li> <li>• Windows 7</li> <li>• Windows 8 (including 8.1)</li> <li>• Windows 10</li> <li>• Windows Server 2008</li> <li>• Windows Server 2012</li> <li>• Mac (OS X) 10.7, 10.8, 10.9, 10.10</li> <li>• Apple iOS</li> <li>• Google Chrome OS</li> <li>• Google Android</li> <li>• Linux: Ubuntu 12.04 and 14.04</li> </ul>	<ul style="list-style-type: none"> <li>• Other versions of Microsoft Windows, Mac (OS X), and Linux</li> <li>• Other UNIX variants</li> </ul>

# System Requirements and Testing Information

## 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 as well as unsupported devices.

Supported Devices	Unsupported Devices
<ul style="list-style-type: none"><li>• Desktop computers</li><li>• Laptops</li><li>• Netbooks/tablets</li><li>• Servers</li><li>• Chromebooks</li><li>• iPads</li><li>• Android devices</li><li>• Windows tablets</li></ul>	<ul style="list-style-type: none"><li>• Phones</li><li>• iPods</li><li>• Other tablet devices</li></ul>

## Virtual Desktop Operating Systems

Besides 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 supported and unsupported operating systems for 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>• Google Chrome OS</li><li>• Apple iOS</li><li>• Google Android</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 that INSIGHT supports.

Supported Devices	Unsupported Devices*
<ul style="list-style-type: none"><li>• Desktop Computers</li><li>• Laptops</li><li>• Netbooks/tablets</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>• Chromebooks</li><li>• Tablets</li><li>• Convertible devices and hybrid devices</li><li>• Phones</li><li>• iPods</li><li>• Other UNIX devices</li></ul>

**!** **Important:** \*Virtual and remote desktop software can access supported operating systems. If you test using unsupported devices, ensure that students cannot access the Internet and other resources.

## ***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 during testing. The following table shows the correct font size setting for testing and how to specify it for the Windows 7 operating system.

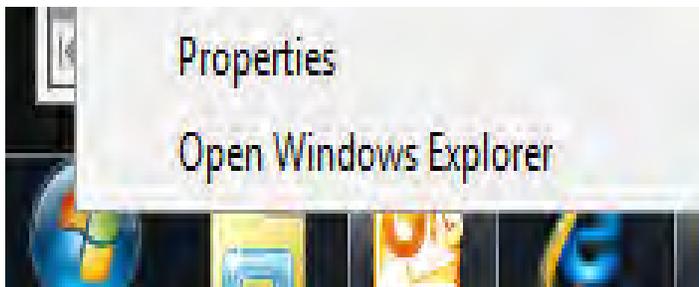
<b>Operating System</b>	<b>Font Size Setting</b>	<b>How to Check or Change</b>
Windows 7	100% (Custom DPI)	Select <b>Control Panel–Appearance and Personalization–Display–Set custom text size (DPI)</b> .  When you click <b>Apply</b> , your new font size setting will be used in your Windows programs.

## Windows 7 Taskbar Security Requirement

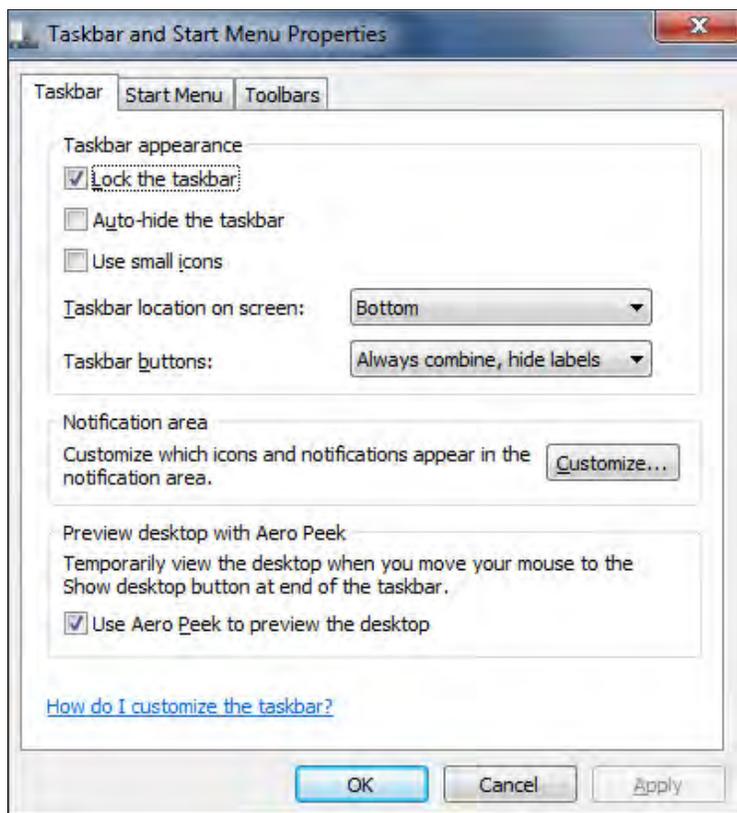
During testing, each testing computer is locked down while INSIGHT is active to prevent the student from having access to outside information. For Windows 7 computers, you must be sure the **Auto-hide the taskbar** setting is turned off to secure the testing computer.

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.

# Configuring Devices for Testing



### ■ What's Covered in This Chapter

This chapter describes the process for configuring INSIGHT for testing devices. It provides detailed information about configuring devices using the DRC Device Toolkit.

DRC provides software called the Device Toolkit that you can use to configure the TSM with the devices in your environment. Basically, you perform the following tasks:

1. Install one or more TSMs (for details, see the Windows and Mac and Linux Installation chapters).
2. Set up organization units (ORG Units) using the Device Toolkit.
3. Configure each ORG Unit with the appropriate TSM.
4. Organize your testing devices by ORG Unit.
5. Deploy the configurations to your devices.
6. Install and start INSIGHT on the device to register the device's configuration with INSIGHT.

### ■ DRC INSIGHT Device Toolkit

This section describes how to use the DRC INSIGHT Device Toolkit (referred to as the Device Toolkit) to organize, configure, manage, and install your devices for testing with DRC INSIGHT.

You use the Device Toolkit to create and delete ORG Units, add devices to ORG Units, move devices between ORG Units, remove devices from ORG Units, and create ORG Unit configuration files.

#### □ Device Toolkit ORG Units

The Device Toolkit uses the concept of ORG Units to organize and manage devices. A Device Toolkit ORG Unit is a logical method of grouping your devices for testing with DRC INSIGHT that makes sense for your environment. For example, if you use more than one TSM, you might base your ORG Units on your TSMs. If you have two TSMs, I and II, you could create two ORG Units—one for TSM I and one for TSM II. Or, you might structure your ORG Units based on the location of a set of specific devices.

Each device can belong to only one ORG Unit within a testing program. The Device Toolkit tracks and manages devices by using a unique DRC Device ID that the Device Toolkit creates. You can use the Device Toolkit to move a device from one ORG Unit to another or delete a device from the Device Toolkit. If you delete a device and later add it back in to the Device Toolkit, a new Device ID is generated.

You create each ORG Unit and decide which devices are part of the ORG Unit. At the time you configure the TSM, you specify the configuration once for an entire ORG Unit and every device associated with that ORG Unit is configured to the same TSM. You can perform the following tasks:

- Specify the content caching and/or load simulation server and the port used for communication.
- Specify the response caching server and the port used for communication.
- Select the district and school name associated with the testing computer (required).

#### □ Google Organizational Units

Device Toolkit ORG Units are different than Google *organizational units*. You use Google organizational units with Chrome device management to give users in an organization access to different features or services, and to tailor the settings for various Chrome devices, such as Chromebooks and Android devices (see <https://support.google.com/a/answer/182433>).

## ■ Configuring and Installing INSIGHT

### □ Device Toolkit Configuration Files

The process of configuring and installing INSIGHT on devices, consists of two parts:

- I. Create ORG Units using the Device Toolkit, configure the ORG Units, and assign devices to them.

**! Important:** You can use Device Toolkit ORG Units for a combination of testing devices.

- II. Create a configuration file using the Device Toolkit, download it, and use it to when you deploy and install INSIGHT on the devices you configured.

You can use the Device Toolkit to create a configuration file (.zip file) containing configuration information for each device type (see below).

#### Chromeos.json

Contains a silent installation command for Chromebook devices (see the example below).

```
{"ouIds":{"Value":["WkyutvmVGI"]}}
```

#### DRCCconfiguration.json

Contains a silent installation command for machines (see the example below).

```
{
  "config": {
    "httpsProxy": ""
  },
  "ouIds": [
    "WkyutvmVGI"
  ],
  "toolkitUrl": "https://dtk-sqa.drccdirect.com/v2/registrations/"
}
```

#### ios.plist

Contains a silent installation command for iPad devices (see the example below).

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE plist PUBLIC "-//Apple/DTD PLIST 1.0//EN" "http://www.apple.com/DTDs/PropertyList-1.0.dtd">
<plist version="1.0">
<dict>
  <key>ouIds</key>
  <array>
    <string>WkyutvmVGI</string>
  </array>
</dict>
```

### ❑ Device Toolkit Configuration Files (cont.)

To install INSIGHT on your devices silently, download the configuration .zip file, extract the specific file(s) you need to install INSIGHT based on the devices you configured, and deploy the file(s) to these devices.

### ❑ Web Browsers and the Device Toolkit

The Device Toolkit is available from a link under Test Setup and is supported for the following web browser versions.

<u>Browser</u>	<u>Version</u>
Internet Explorer	Version 10 or newer*
Chrome	The most recent Google Chrome stable channel release
Mozilla Firefox	Version 31 or newer

\*If you attempt to access the Device Toolkit using an unsupported version of Internet Explorer, you receive a Flash error.

### ❑ Setting Up INSIGHT on PCs and Macs, and Linux Machines

The following overviews the process of configuring, installing, deploying, and registering INSIGHT on PCs and Mac (OS X), and Linux devices.

1. Use the DRC Device Toolkit to create ORG Units and configuration files and organize your devices in the ORG Units.
2. Use a silent installation (many devices) or an interactive installation (one device) to install INSIGHT on one or more machines.
3. If you installed INSIGHT interactively, start INSIGHT and enter the Device Toolkit ORG Unit ID to register the device. If you installed INSIGHT using a silent installation, when you start INSIGHT the device is registered automatically. To test using INSIGHT, you can connect to a Testing Site Manager (TSM) for content caching, response caching, load simulation testing, and other functions.

### ❑ Setting Up INSIGHT on iPad Devices

The following overviews the process of configuring, installing, deploying, and registering INSIGHT on iPad devices.

1. Use the DRC Device Toolkit to create ORG Units and configuration files and organize your devices in the ORG Units.
2. Use an MDM solution to install INSIGHT on each machine. To *deploy and register* your DRC INSIGHT iPad software automatically, your MDM software must support the Managed App Configuration feature (first introduced in iOS 7).
3. If you installed and registered INSIGHT using an MDM solution, when you start INSIGHT, the iPad device is registered automatically. If you installed INSIGHT using an MDM without the Managed App Configuration feature, start INSIGHT and enter the Device Toolkit ORG Unit ID to register the device.

### ❑ Setting Up INSIGHT on Chromebook Devices

The following overviews the process of configuring, installing, deploying, and registering INSIGHT on Chromebook devices. This overview assumes that you have registered your Chromebook devices in your Google domain account (see <https://support.google.com/a/answer/182433>).

1. Use the DRC Device Toolkit to create ORG Units and configuration files and organize your devices in the ORG Units.
2. Use Chrome device management to install and deploy INSIGHT and the configuration files to your Chromebook devices. The INSIGHT App is installed as a Kiosk application the next time the policy is reloaded, which takes place once every three hours. To deploy the INSIGHT App immediately, enter **chrome://policy** in the address bar of the Chromebook and click **Reload policies**
3. After INSIGHT is deployed, without logging into your Chromebook, start it on each Chromebook device to register the device with INSIGHT.

### ❑ Setting Up INSIGHT on Android Devices

The following overviews the process of configuring, installing, deploying, and registering INSIGHT on Android devices. This overview assumes that you have registered your Android devices in your Google Play for Education domain account.

1. Use the DRC Device Toolkit to create ORG Units and configuration files and organize your devices in the ORG Units.
2. Using the Android device, navigate to the eDIRECT site and select **Test Setup–Downloads** to display the Downloads page.
3. From the eDIRECT Downloads page, download the INSIGHT.apk file (the INSIGHT executable file for Android devices) and install the INSIGHT.apk file from the Android's download folder.
4. After INSIGHT is installed, start it on the Android device to register the device with INSIGHT.

### ■ Configuring and Installing INSIGHT with a TSM

The following overviews the process of configuring a device and installing INSIGHT with the TSM.

**Note:** In earlier testing cycles, this process only applied to Chromebooks. Now, and for future testing, it applies to all testing devices: desktop, laptop, and tablets.

1. To use a TSM, install one or more TSMs on desktop or laptop computers that have static IP addresses (if you use the machine's IP address to connect to the TSM) and will be available around the clock.
2. Sign on to using a supported browser (see “Web Browsers and the Device Toolkit” on page 47) and use the Device Toolkit link to start the DRC INSIGHT Device Toolkit.
3. Use the Device Toolkit to organize and configure your devices by performing the following tasks:
  - Create ORG Units based on your testing setup and needs, group the devices into ORG Units, and configure the ORG Unit by specifying the district, school, and TSM connection information for the devices in the ORG Unit.
  - Check the contents of the log files during testing to monitor testing and device activity and make any configuration changes.
4. Install the DRC INSIGHT App on your devices and launch INSIGHT to register the device.
5. Run the System Readiness Check to verify that the device can connect to the TSM and is ready for testing. If necessary, use the Device Toolkit to reconfigure the device Unit and redeploy the configuration software.
6. Test the configurations and monitor the log files for issues.

Because of the role that the TSM plays in testing, there are some special considerations regarding TSM software configuration and installation (see “Configuring an ORG Unit TSM and Specifying INSIGHT Software Updates” on page 54).

- Install TSMs *before* you install INSIGHT and specify the path to the TSMs and the communication port using the Device Toolkit.
- The computer on which you install the TSM software should have a static IP address (an address that does not change when the computer is restarted or rebooted). If the IP address of a TSM machine changes, you must use the Device Toolkit to update the TSM configuration.
- To change or remove a TSM configuration after a device is configured, you use the Device Toolkit. When you restart INSIGHT, it automatically updates the device's configuration to reflect your changes.

### □ TSM Considerations

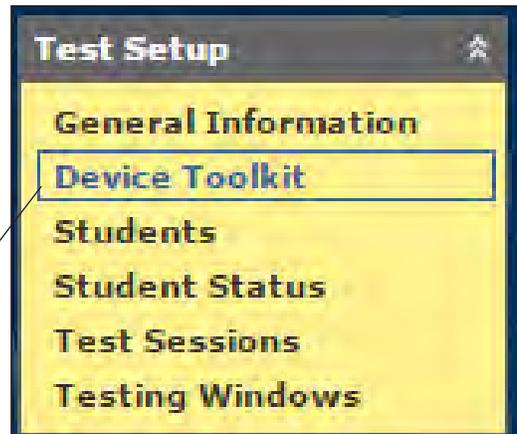
### ❑ Installing Multiple TSMs and INSIGHT

If you plan to perform multiple types of assessments using the same testing computers, you may need to install more than one TSM and more than one version of INSIGHT.

- You cannot install more than one TSM on the same computer—each TSM must be installed on a dedicated computer.
- You can use INSIGHT to access multiple testing programs (for example, ACCESS for ELLs and your state-specific testing program) from the same device. You access these testing programs using the same DRC INSIGHT desktop shortcut. When you start INSIGHT, a page displays listing the different testing programs from which you can select.
- You can install a TSM and INSIGHT on the same computer (see “INSIGHT System Requirements” on page 21 and “TSM Requirements” on page 29).

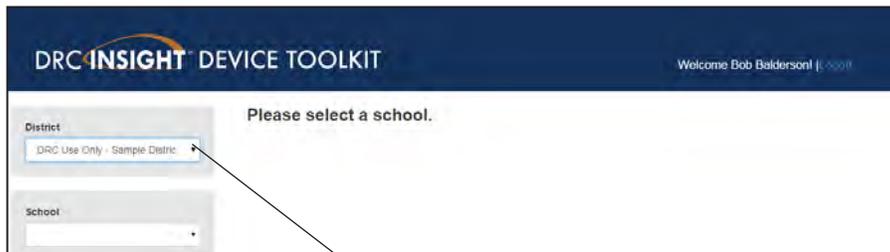
## Starting the Device Toolkit and Displaying an ORG Unit

To start working with the Device Toolkit , you use the Device Toolkit link in eDIRECT.



1. To start the Device Toolkit, sign on to eDIRECT and click the **Test Setup–Device Toolkit** link.

**Note:** You must have the Test Setup–Device Toolkit permission in eDIRECT to access this link.



2. When the DRC INSIGHT Device Toolkit page displays, select a school district from the District drop-down menu.

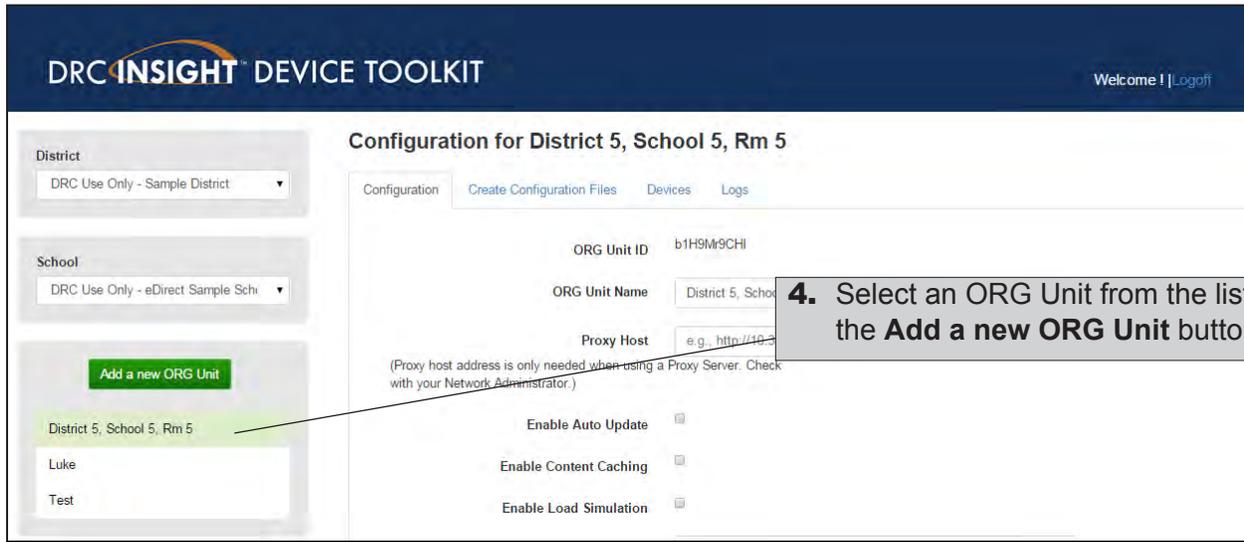
**Note:** You only see the districts you can access.



3. Select a school from the School drop-down menu.

**Note:** You only see the schools you can access.

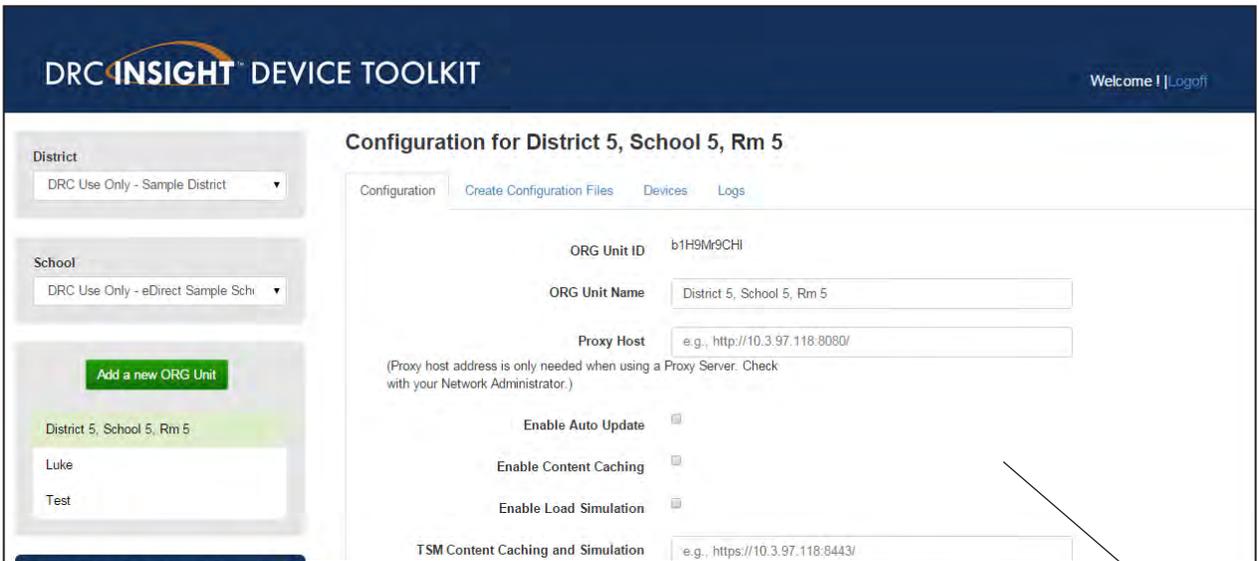
## Starting the Device Toolkit and Displaying an ORG Unit (cont.)



4. Select an ORG Unit from the list below the **Add a new ORG Unit** button.

**System Readiness Check**  
Access Code: **7745**

**! Important:** In the Device Toolkit, the System Readiness Check Access Code displays at the bottom of the list of ORG Units. Remember this code—you must enter it to access the System Readiness Check from a device and display the ORG Unit configuration properties for the device.



The configuration page for the ORG Unit you selected displays. From this page you can perform the following tasks:

- Create and configure a new ORG Unit
- Select another ORG Unit
- Update the configuration of the ORG Unit
- Delete the ORG Unit
- Download a configuration file
- Add, move, or remove devices
- View the log files for the ORG Unit
- Enable or disable automatic updates of the INSIGHT software

## Creating and Deleting ORG Units

You can use the Device Toolkit to create or delete ORG Units to organize your devices for testing.

District  
SAMPLE DISTRICT

School  
SAMPLE SCHOOL OTT

Add a new ORG Unit

1. From the Device Toolkit, click **Add a new ORG Unit** to create a new unit.

Add New ORG Unit

ORG Unit Name Dist 5, School 5, Rm 5

Close Save Changes

2. When the **Add New ORG Unit** dialog box displays, enter a meaningful name for the ORG Unit that will help you categorize and organize your devices for testing, and click **Save Changes**.

DRC INSIGHT DEVICE TOOLKIT

Welcome | Logout

District DRC User Only - Sample District

School DRC User Only - aDirect Sample Sch

Add a new ORG Unit

District 5, School 5, Rm 5

Luke

Test

System Readiness Check/Access Code 7765

Configuration for District 5, School 5, Rm 5

Configuration Create Configuration File Device Logs

ORG Unit ID 5195AK504

ORG Unit Name District 5, School 5, Rm 5

Proxy Host (Proxy host address is only needed when using a Proxy Server. Check with your Network Administrator.)

Enable Auto Update

Enable Content Caching

Enable Load Simulation

TSM Content Caching and Simulation Server Name

Enable Response Caching

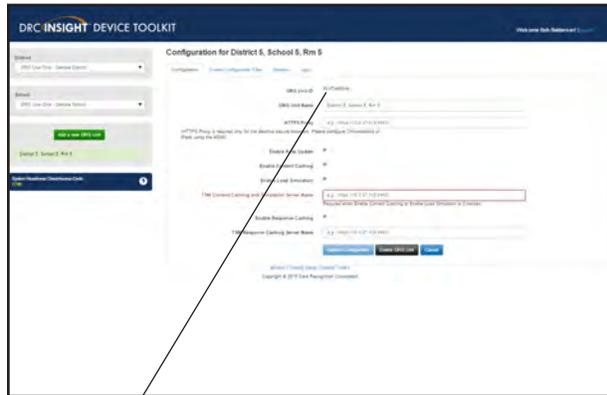
Update Configuration Delete ORG Unit Cancel

aDirect | Testing Setup | Device Toolkit  
Copyright © 2015 Data Recognition Corporation

3. The configuration page for the ORG Unit you created displays. To delete the ORG Unit, click **Delete ORG Unit**. A dialog box displays to confirm the deletion.

## Configuring an ORG Unit TSM and Specifying INSIGHT Software Updates

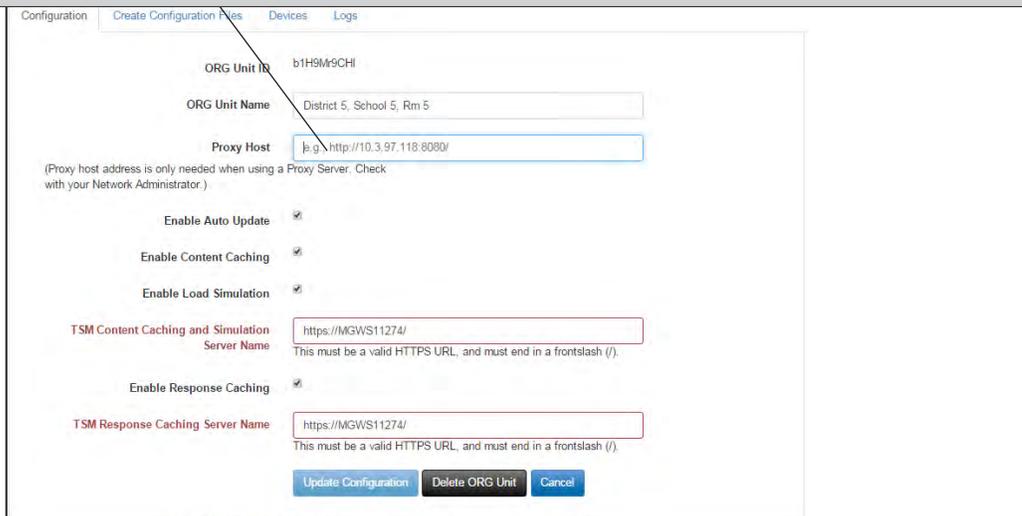
This section describes how to use the Device Toolkit to configure one or more TSMs for an ORG Unit, as well as how to specify automatic updates of the INSIGHT software (see Step 5).



1. From the Device Toolkit, select an ORG Unit. The configuration page for the ORG Unit you opened or created displays with a unique, alphanumeric ORG Unit ID number.

2. To specify a proxy server, enter the server name (or IP address) and port number (separated by a colon), followed by a forward slash (/), in the Proxy Host field.

**Note:** Many sites do not use a proxy server. If you are unsure whether your site uses one, contact your network administrator.



## Configuring an ORG Unit TSM and Specifying INSIGHT Software Updates (cont.)

- 3.** To specify a server to use for test content caching and/or load simulation testing, check **Enable Content Caching** and/or **Enable Load Simulation**. In the TSM Content Caching and Simulation Server Name field, enter the server name (or IP address\*) and port number, separated by a colon and followed by a forward slash (/).

Configuration for District 5, School 5, Rm 5

Configuration | Create Configuration Files | Devices | Logs

ORG Unit ID: b1H9M9SCH

ORG Unit Name: District 5, School 5, Rm 5

Proxy Host: https://10.3.97.118:8080/

(Proxy host address is only needed when using a Proxy Server. Check with your Network Administrator.)

Enable Auto Update:

Enable Content Caching:

Enable Load Simulation:

TSM Content Caching and Simulation Server Name: https://MGWS11274/  
This must be a valid HTTPS URL, and must end in a forward slash (/).

Enable Response Caching:

TSM Response Caching Server Name: https://MGWS11274/  
This must be a valid HTTPS URL, and must end in a forward slash (/).

Update Configuration | Delete ORG Unit | Cancel

Configuration for District 5, School 5, Rm 5

Configuration | Create Configuration Files | Devices | Logs

ORG Unit ID: b1H9M9SCH

ORG Unit Name: District 5, School 5, Rm 5

Proxy Host: https://10.3.97.118:8080/

(Proxy host address is only needed when using a Proxy Server. Check with your Network Administrator.)

Enable Auto Update:

Enable Content Caching:

Enable Load Simulation:

TSM Content Caching and Simulation Server Name: https://MGWS11274/  
This must be a valid HTTPS URL, and must end in a forward slash (/).

Enable Response Caching:

TSM Response Caching Server Name: https://MGWS11274/  
This must be a valid HTTPS URL, and must end in a forward slash (/).

Update Configuration | Delete ORG Unit | Cancel

- 4.** To specify a server to use for test content caching, check **Enable Response Caching TSM** and enter the server name (or IP address) and port number (separated by a colon), followed by a forward slash (/), in the TSM Response Caching Server Name field.

**! Important:** \*A TSM server should have a static IP address (an IP address that does not change when the computer is restarted or rebooted). If the IP address of a TSM machine changes, you must change the address here. When INSIGHT is restarted, it automatically updates the device's TSM configuration to reflect the change. Remember to include the forward slash (/) at the end of the path to the TSM server—without it your TSM may not be configured correctly.

## Configuring an ORG Unit TSM and Specifying INSIGHT Software Updates (cont.)

- 5.** Check **Enable Auto Update** to enable automatic INSIGHT software updates.
- If you select Enable Auto Update, DRC updates the INSIGHT software automatically.
  - If you do not select Enable Auto Update, DRC notifies you whenever an update to the INSIGHT software is available and you must update the software manually.

The screenshot displays the configuration page for 'District 5, School 5, Rm 5'. On the left, there are dropdown menus for 'District' (DRC Use Only - Sample District) and 'School' (DRC Use Only - eDIRECT Sample S), along with a list of ORG Units including 'District 5, School 5, Rm 5' and 'Idaho test'. The main configuration area includes fields for 'ORG Unit ID' (-1rfv7nqDl), 'ORG Unit Name' (District 5, School 5, Rm 5), and 'Proxy Host' (e.g., http://10.3.97.118:8080/). Below these are several checkboxes: 'Enable Auto Update' (checked), 'Enable Content Caching' (checked), 'Enable Load Simulation' (checked), and 'Enable Response Caching' (checked). There are also input fields for 'TSM Content Caching and Simulation Server Name' and 'TSM Response Caching Server Name', both containing the URL 'https://MGWS11274.8443/'. At the bottom, there are three buttons: 'Update Configuration' (highlighted), 'Delete ORG Unit', and 'Cancel'.

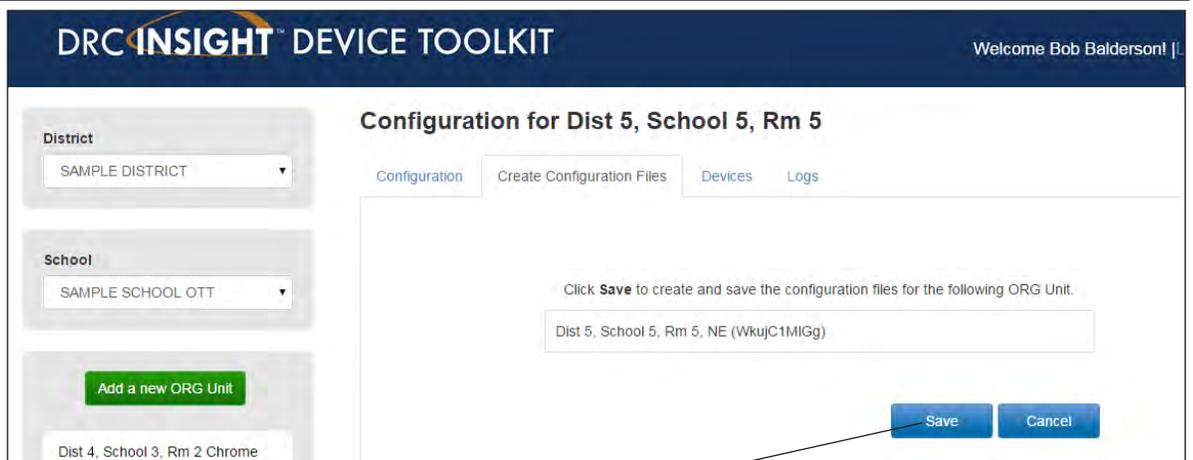
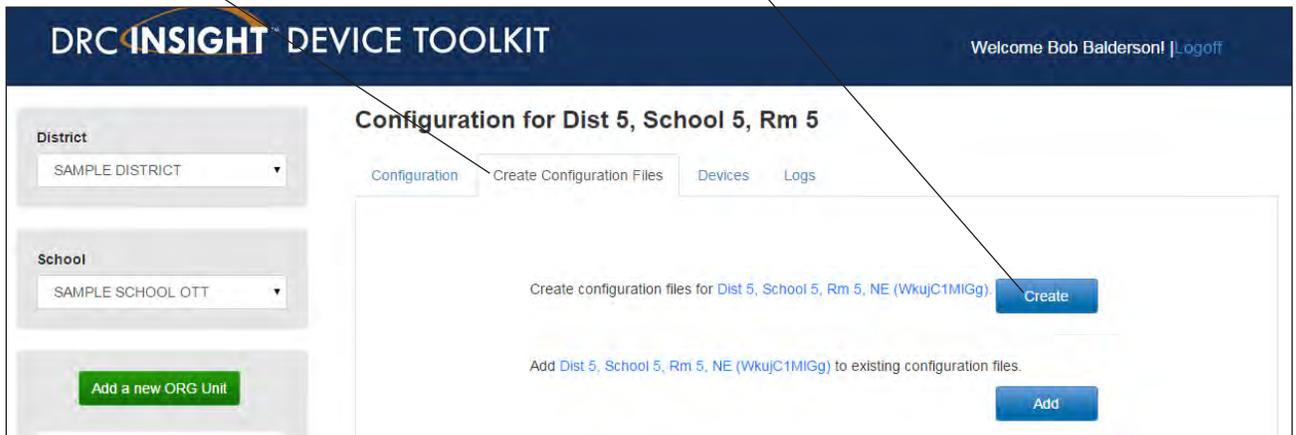
- 6.** Click **Update Configuration** to save your changes or **Cancel** to cancel them. A message displays indicating whether the configuration was updated successfully.

## Creating a Configuration File

You can use the Device Toolkit to create a configuration file using an existing ORG Unit. You use this file to configure your devices when you install INSIGHT.

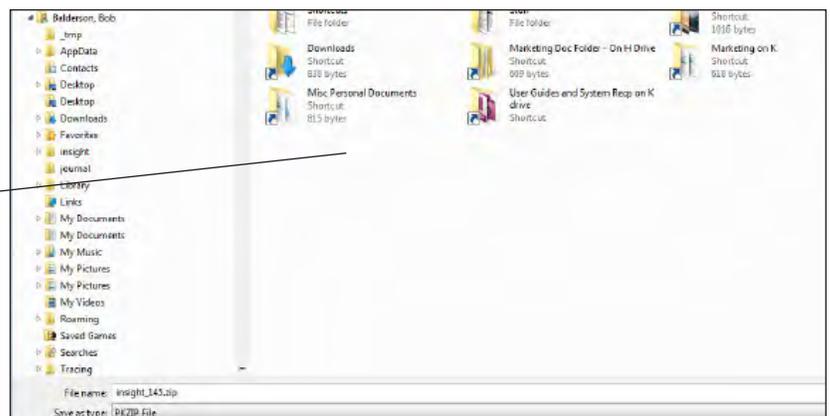
1. Select an ORG Unit from the Device Toolkit and select the **Create Configuration Files** tab.

2. To create a configuration file from the ORG Unit, click **Create**.



3. Click **Save** to create a configuration file or **Cancel** to cancel the process.

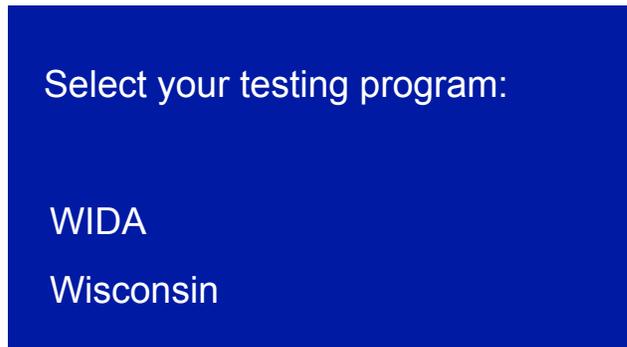
4. When you click Save, a dialog displays that you can use to download the .zip configuration file. Remember the name and location of the file, you need to use the contents of this file to configure your devices when you install INSIGHT. (For a description of the content of this file, see “Device Toolkit Configuration Files” on page 46.)



## ■ Creating Configuration Files for Multiple Testing Programs

You can use one testing device for more than one type of testing program (for example, state testing and ACCESS for ELLs). First, you select the Device Toolkit from the state’s eDIRECT site. Next, you use each Device Toolkit to create ORG Unit configuration files. Then, you combine the ORG Unit’s configuration with another ORG Unit configuration file to group the configurations (see “Adding an ORG Unit Configuration to a Configuration File” on page 59).

After the combined configuration file is distributed to the device, when INSIGHT is started the user can select a testing program (see the image).



## □ Configuration Files, ORG Units, and the TSM

Each TSM you use must be identified in the Device Toolkit.

**!** **Important:** To prevent potential issues and avoid overloading a TSM during testing, DRC recommends that each ORG Unit should be configured to use a unique TSM (see the scenario).

### **Scenario: Potential TSM Overload**

Even if you limit the number of devices per ORG Unit to 150 or less, the possibility exists to overload the TSM. Assume the following:

1. You configure ORG Unit A with a TSM for testing, create a configuration file, and use this configuration for testing devices 1-100.
2. You configure ORG Unit B with the same TSM, create a configuration file, and use this configuration for devices 101-200.
3. You use the two configurations to perform testing.

Because two hundred testing devices could simultaneously access the same TSM, the potential exists to overload the TSM.

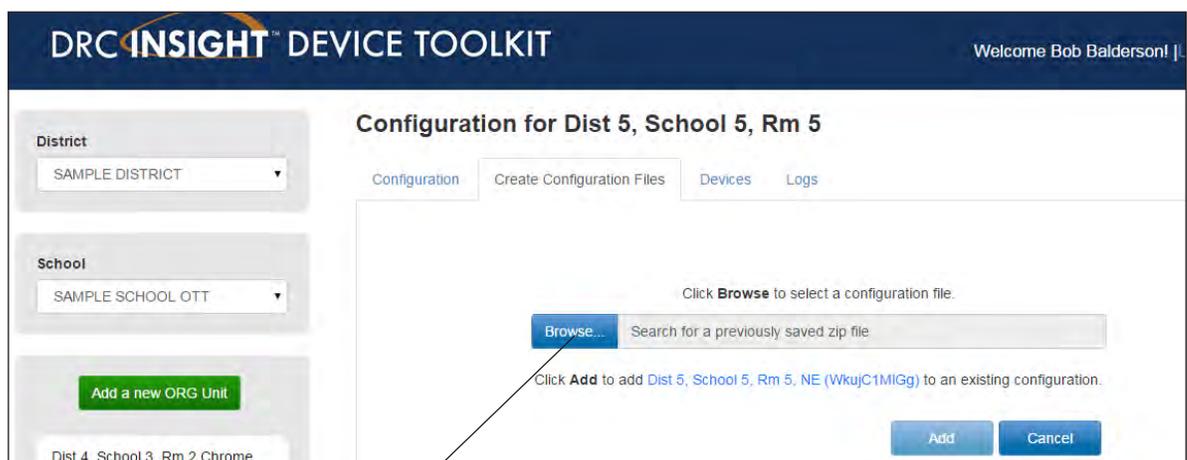
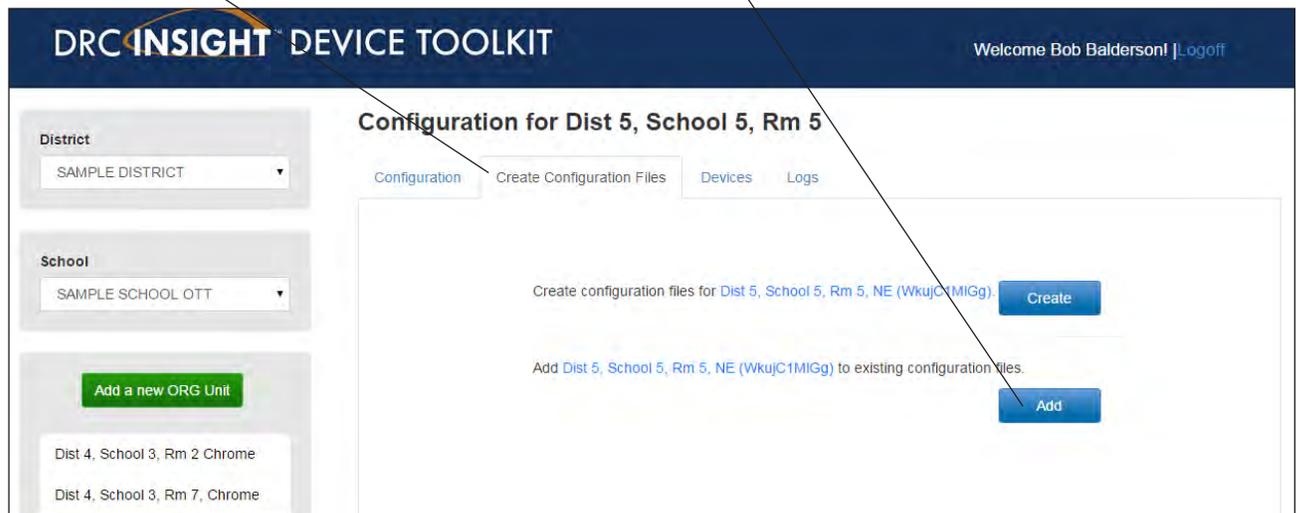
## Adding an ORG Unit Configuration to a Configuration File

Some testing devices will be used for more than one type of assessment (for example, state testing and ACCESS for ELLs). You can use the Device Toolkit to add an ORG Unit's configuration to an existing configuration file to create a configuration file containing multiple testing programs.

**Note:** You cannot add Device Toolkit ORG Units together that are part of the same testing program. You also cannot add two instances of the same test to a single configuration.

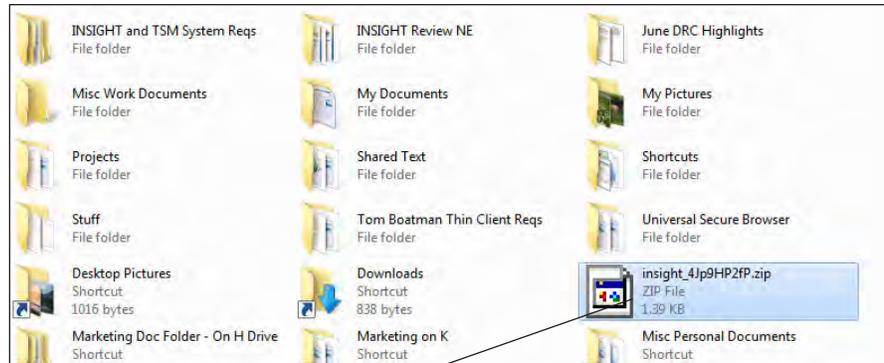
1. Select the ORG Unit you want to add from the Device Toolkit and select the **Create Configuration Files** tab.

2. To add this ORG Unit to an existing configuration file, click **Add**.

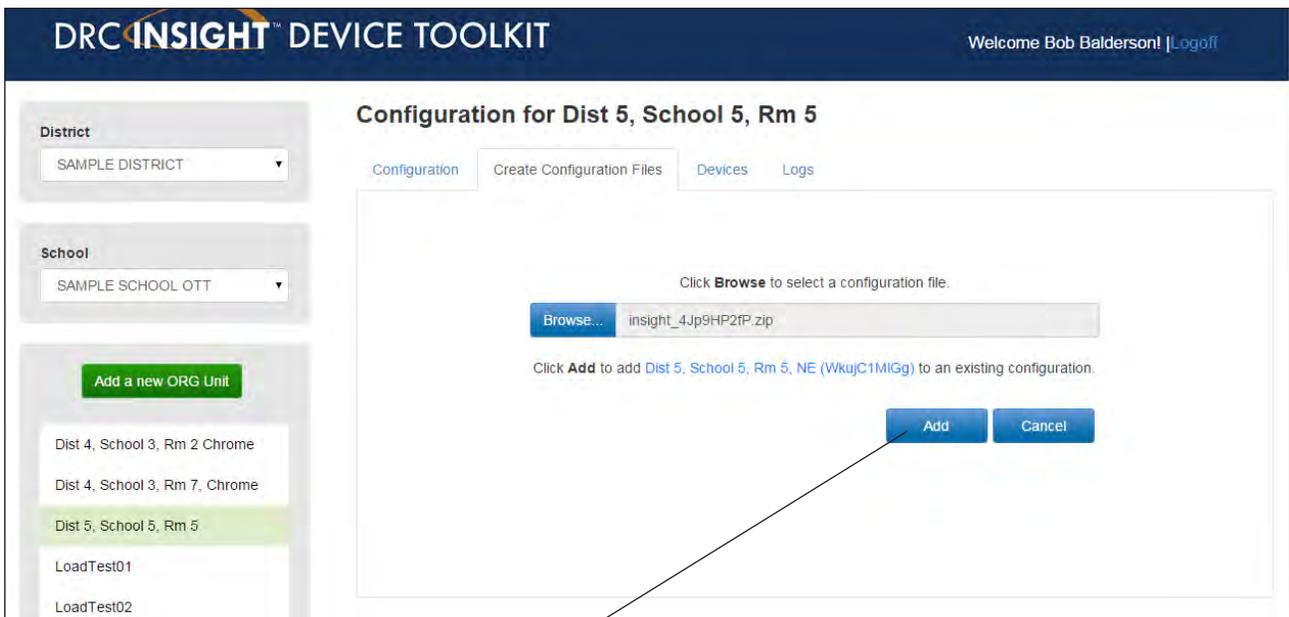


3. Click **Browse** to search for an existing configuration file.

## Adding an ORG Unit Configuration to a Configuration File (cont.)



4. A dialog displays you can use to search for and select the .zip configuration file to add the configuration to.



5. Click **Add** when you are ready to add the configuration or click **Cancel** to cancel the process.

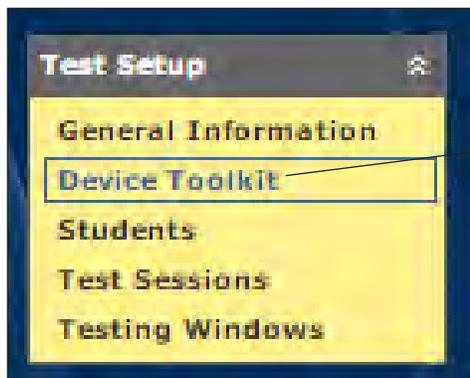
## An Alternate Method of Adding Testing Programs to a Device

For testing devices that will be used for an additional testing program (for example, state testing and ACCESS for ELLs) but are currently only configured for one testing program, instead of re-deploying a multiple-client configuration file to the device, there is an alternate method.

1. Launch INSIGHT on the device and start the System Readiness Check.

System Information				
Client Version	Configuration Source		Installation Directory	
6.0.0	Device Toolkit		C:\Program Files (x86)\DRC INSIGHT Online Assessments	
Machine Name	User Name	OS Level		OS Version
MGWS11274	BBalderson	Microsoft Windows 7 Enterprise Edition Service Pack 1 (build 7601), 64-bit		6.1
Response Caching TSM Connection		Response Caching TSM Configuration		Content Caching TSM Configuration
https://MGWS11274:8080/		Yes		https://MGWS11274:8080/ Yes
HTTPS Proxy	Device ID	Device Toolkit Organizational Unit and ID	District	School
	7y8QZdxUI	District 5, School 5, Rm 5 (5612)	DRC Use Only - Sample District	DRC Use Only - OTT Sample School

2. Locate the Device ID on the System Readiness Check page, write it down, and exit INSIGHT.



3. Log on to the other eDIRECT testing program site that you want the device to use and launch the Device Toolkit.



## An Alternate Method of Adding Testing Programs to a Device (cont.)



4. Create or select a Device Toolkit ORG Unit for the device(s), select the **Devices** tab, click **Add Device by ID**, enter (or paste) the Device ID in the Device ID field, and click **Save Changes**. Repeat this step for each device you want to use for the additional testing program.

Select your testing program:

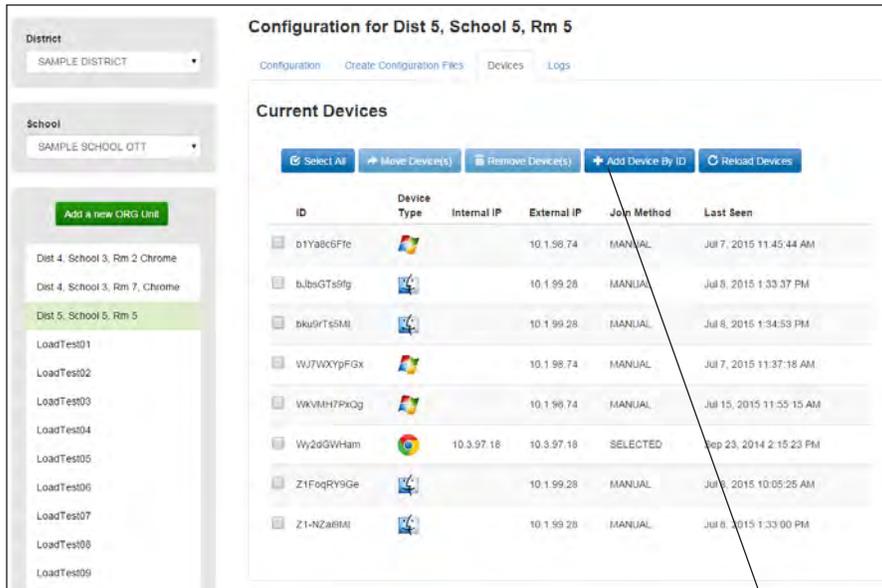
WIDA

Wisconsin

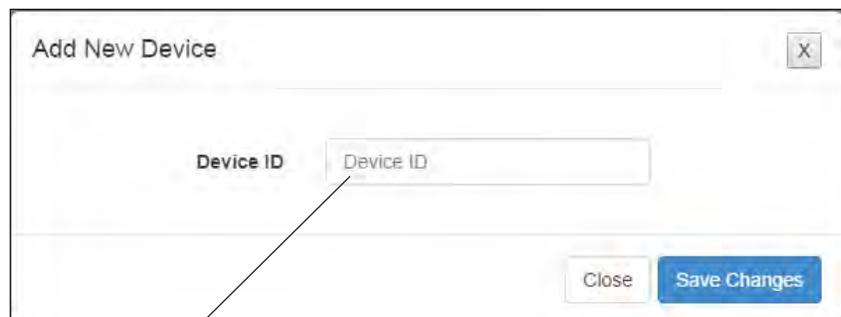
5. Launch INSIGHT on the device. Both testing programs will display on the device. Click on the testing program you want to use.

## Adding Devices

You can use the Device Toolkit to add devices to an ORG Unit to organize your devices for testing. To add a device, you must know the Device ID (see “An Alternate Method of Adding Testing Programs to a Device” on page 61).



1. After you have selected an ORG Unit from the Device Toolkit, select the **Devices** tab and click **Add Device By ID** to add a device to the unit.



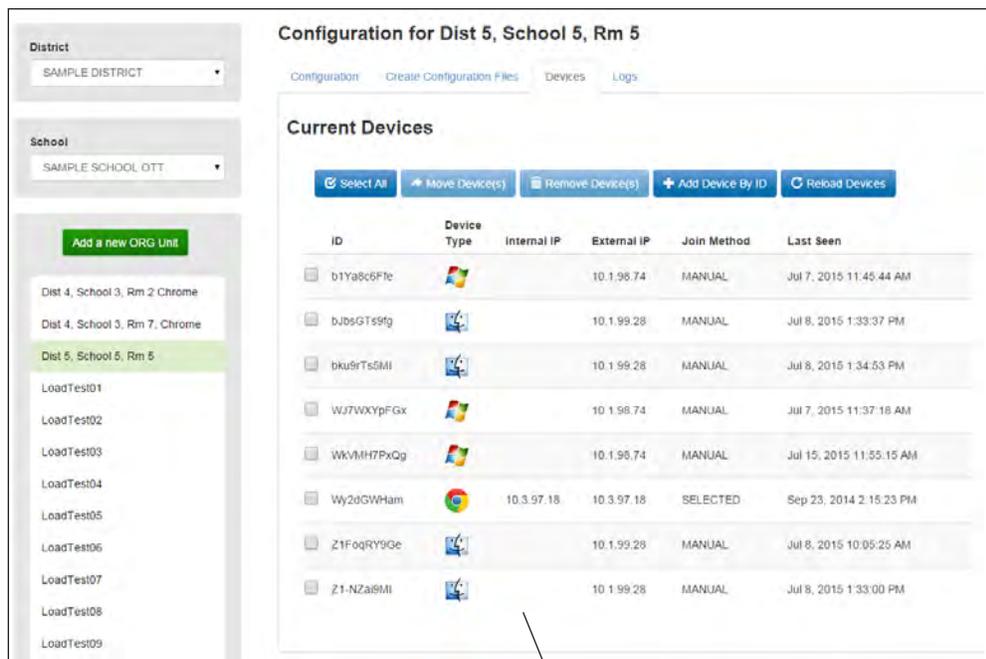
2. When the Add New Device dialog box, displays, enter the ID of the device in the Device ID field and click **Save Changes**. Click **OK** to add the device to the ORG Unit. The Devices tab redisplay with the device added.

**Note:** The Device ID is not the device’s serial number.

# Configuring Devices for Testing

## Adding Devices—Configuration Page Device Fields

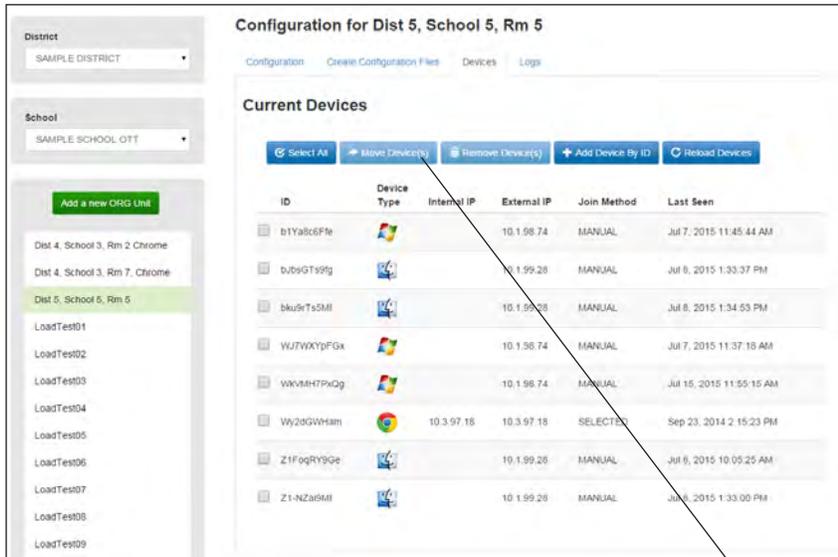
The fields on the Device Toolkit Configuration page provide details about the devices listed in the ORG Unit (see the table below).



Field	Description
ID	The unique, 10-digit, alphanumeric Device ID that the Device Toolkit created for the device
Device Type	An icon representing the device type. The icons and their device type or operating system are shown below. Android device              Chromebook device              iPad              Mac (OS X)              Windows
Internal IP	The internal IP address of the device
External IP	The external IP address of the device
Join Method	The method used to register the device. The possible values are:  <b>MANUAL</b> Displays if a user entered the Device Toolkit ORG Unit ID, either by using the <b>Device by ID</b> button or in response to a <i>Configuration Not Found</i> error message.  <b>SELECTED</b> Displays if the device was registered using the drop-down list from an earlier version of the Device Toolkit.  <b>AUTOMATIC</b> Displays if the device was registered using the current configuration file process.
Last Seen	Date and time (CT) that device was last used for INSIGHT testing

## Moving Devices

You can use the Device Toolkit to move one or more devices between ORG Units to organize your devices for testing.



1. Select an ORG Unit you want to move devices from (the source unit), select the **Devices** tab, check each device you want to move from the source ORG Unit, and click **Move Devices** (or click **Select All** to move all of the devices).



2. When the Change ORG Unit dialog box displays, select the name of the target ORG Unit from the drop-down menu in the ORG Unit Name field and click **Save Changes**. Each device you selected is moved to the target ORG Unit.

## Removing Devices

You can use the Device Toolkit to remove one or more devices from an ORG Unit.

**Configuration for Dist 5, School 5, Rm 5**

Configuration | Create Configuration Files | **Devices** | Logs

**Current Devices**

Select All | Move Device(s) | **Remove Device(s)** | Add Device By ID | Reload Devices

ID	Device Type	Internal IP	External IP	Join Method	Last Seen
b1Ya8cFfe	Windows		10.1.98.74	MANUAL	Jul 7, 2015 11:45:44 AM
bJbsGTs9fg	Chrome		10.1.99.28	MANUAL	Jul 8, 2015 1:33:37 PM
bku9rTs5MI	Chrome		10.1.99.28	MANUAL	Jul 8, 2015 1:34:53 PM
WJ7WXYpFGx	Windows		10.1.98.74	MANUAL	Jul 7, 2015 11:37:18 AM
WkVMH7PxQg	Windows		10.1.98.74	MANUAL	Jul 15, 2015 11:55:15 AM
Wy2dGWHam	Chrome	10.3.97.18	10.3.97.18	SELECTED	Sep 23, 2014 2:15:23 PM
Z1FqRY9Ge	Chrome		10.1.99.28	MANUAL	Jul 8, 2015 10:05:25 AM

**1.** Select an ORG Unit and select the **Devices** tab. Check each device you want to remove from the ORG Unit.

**2.** Click **Remove Devices**. A dialog box displays to confirm the process. Click **Yes** to continue or **No** to cancel the process.

Are You Sure?

Removing selected device(s) will not impact any test results previously submitted by this device, nor the results if the device is actively being used in a test session.

Do you want to continue to remove the selected devices from this ORG unit?

No Yes

If you click **Yes**, each device you selected is removed from the ORG Unit and no longer displays in the Device Toolkit.

## Using Log Files

You can use the Device Toolkit log files to review system information about the devices assigned to an ORG Unit.

1. Select an ORG Unit and select the **Logs** tab. System information about devices assigned to that ORG Unit displays.

The screenshot displays the DRC INSIGHT DEVICE TOOLKIT interface. The top navigation bar includes the logo and a user greeting: 'Welcome Bob Balderson | Logout'. The main content area is titled 'Configuration for Dist 5, School 5, Rm 5' and features four tabs: 'Configuration', 'Create Configuration Files', 'Devices', and 'Logs'. The 'Logs' tab is active, showing a table of system events. On the left side, there are dropdown menus for 'District' (SAMPLE DISTRICT) and 'School' (SAMPLE SCHOOL OTT), along with a list of ORG Units. 'Dist 5, School 5, Rm 5' is selected and highlighted in green. Below the ORG Unit list are various test device names like 'LoadTest01' through 'LoadTest10' and 'MadisonDA'.

Time	Device ID	Message
Jul 15, 2015 11:57:34 AM	WkVMHTPvGg	Device registered and automatically joined Dist 5, School 5, Rm 5 group (145).
Jul 8, 2015 1:30:22 PM	bk60T5MI	Device registered and automatically joined Dist 5, School 5, Rm 5 group (145).
Jul 8, 2015 1:30:22 PM	bk60T5MI	Device registered and automatically joined Dist 4, School 3, Rm 7, Chrome group (22).
Jul 8, 2015 1:35:06 PM	uJbsGT5fG	Device registered and automatically joined Dist 5, School 5, Rm 5 group (145).
Jul 8, 2015 1:34:29 PM	Z1-NZa6MI	Device registered and automatically joined Dist 5, School 5, Rm 5 group (145).
Jul 8, 2015 1:34:29 PM	Z1-NZa6MI	Device registered and automatically joined Dist 4, School 3, Rm 7, Chrome group (22).
Jul 8, 2015 10:00:55 AM	Z1FqRYfGe	Device registered and automatically joined Dist 5, School 5, Rm 5 group (145).
Jul 7, 2015 11:47:15 AM	s1Yabc8FFe	Device registered and automatically joined Dist 5, School 5, Rm 5 group (145).
Jul 7, 2015 11:38:49 AM	WU7VXkyfGx	Device registered and automatically joined Dist 5, School 5, Rm 5 group (145).
Sep 23, 2014 2:15:30 PM	Wy2sGWHam	Device checked in and retrieved configuration.
Sep 23, 2014 2:14:33 PM	Wy2sGWHam	Device checked in and retrieved configuration.
Sep 23, 2014 2:02:11 PM	Wy2sGWHam	Device checked in and retrieved configuration.
Sep 23, 2014 1:55:08 PM	Wy2sGWHam	Device checked in and retrieved configuration.
Sep 23, 2014 1:57:29 PM	Wy2sGWHam	Device checked in and retrieved configuration.
Sep 23, 2014 1:50:34 PM	Wy2sGWHam	Device checked in and retrieved configuration.
Sep 23, 2014 1:49:24 PM	Wy2sGWHam	Device checked in and retrieved configuration.
Sep 23, 2014 12:34:44 PM	Wy2sGWHam	Device checked in and retrieved configuration.
Sep 23, 2014 12:34:22 PM	Wy2sGWHam	Device checked in and retrieved configuration.
Sep 23, 2014 12:32:03 PM	Wy2sGWHam	Device checked in and retrieved configuration.
Sep 23, 2014 12:28:35 PM	Wy2sGWHam	Device checked in and retrieved configuration.
Sep 23, 2014 11:15:01 AM	Wy2sGWHam	Device checked in and retrieved configuration.
Sep 23, 2014 11:05:25 AM	Wy2sGWHam	Device checked in and retrieved configuration.
Sep 23, 2014 10:10:06 AM	Wy2sGWHam	Device switched to group ID: [22] name: [Dist 4, School 3, Rm 7, Chrome]
Sep 23, 2014 10:08:53 AM	Wy2sGWHam	Device registered.

2. You can view the time an incident was logged, the Device ID, and the message.

# Notes

# Windows Installation



## ■ What's Covered in This Chapter

This chapter describes the installation process in a Windows environment.

.....  
**!** **Important:** To make the installation process easier, DRC recommends that you install the TSM before you use the Device Toolkit to create ORG Units and before you install INSIGHT.  
.....

The first part of this chapter provides basic information about installing and uninstalling a TSM and INSIGHT. Then, the chapter provides more advanced technical information about:

- Managing a TSM—starting, stopping, and uninstalling.
- Working with the TSM in a non-graphical (terminal) mode using Windows operating system commands.
- Installing INSIGHT silently.
- Uninstalling INSIGHT.

## ■ Installing a TSM

Because of the role that the TSM plays in testing, there are some special considerations regarding TSM software installation.

- The computer on which you install the TSM software should have a static IP address (if you use the machine's IP address to connect to the TSM versus the machine's name). If the IP address of a TSM machine changes, you must reconfigure the testing computers that connect to that TSM.
- If you need to change the configuration of a TSM after it is installed, you must uninstall the TSM and install a new version. If you reinstall a TSM, you may need to reconfigure the testing devices that connect to it.

## ■ Installing Multiple TSMs and INSIGHT

If you plan to perform multiple types of assessments using the same testing computers, you may need to install more than one TSM and use INSIGHT to access more than one testing program.

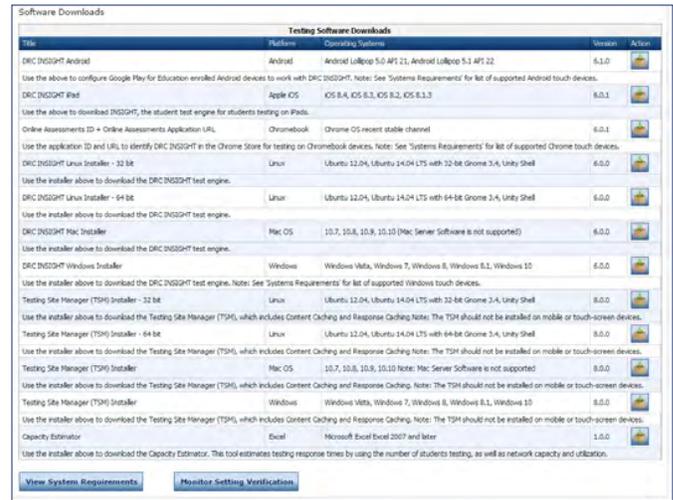
- You cannot install more than one TSM on the same computer.
- You can install a TSM and INSIGHT on the same computer.
- You can use INSIGHT to access multiple testing programs (for example, ACCESS for ELLs and your state-specific testing program) from the same device. You access these testing programs using the same DRC INSIGHT desktop shortcut. When you start INSIGHT, a page displays listing the different testing programs from which you can select.

## Quick Tour 1: Installing a TSM for Windows OS

This Quick Tour describes how to install a TSM for Windows. DRC provides an easy-to-use wizard to install the TSM software.

1. To launch the wizard and start the installation, sign in to eDIRECT, select **Test Setup–General Information–Downloads**, and click on the **Testing Site Manager (TSM) installer** icon (📄) for Windows.

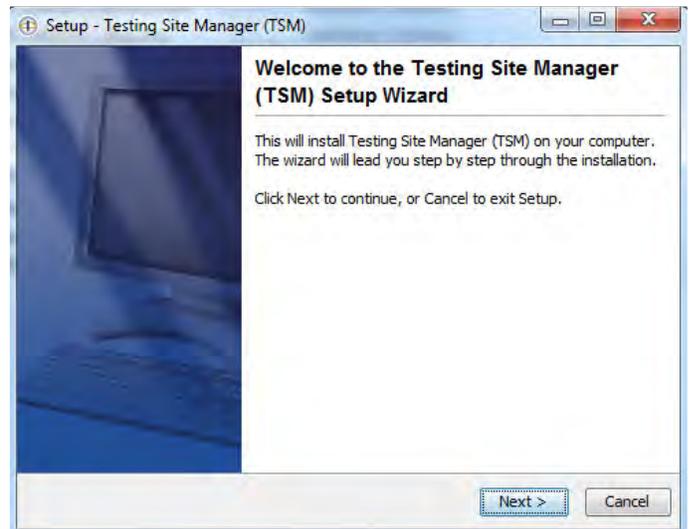
At this time, you also may want to download the INSIGHT Secure Browser Installer for Windows.



2. After you download the installation program, click on **TESTING\_SITE\_MANAGER\_Setup.exe** to launch the wizard and start the installation.

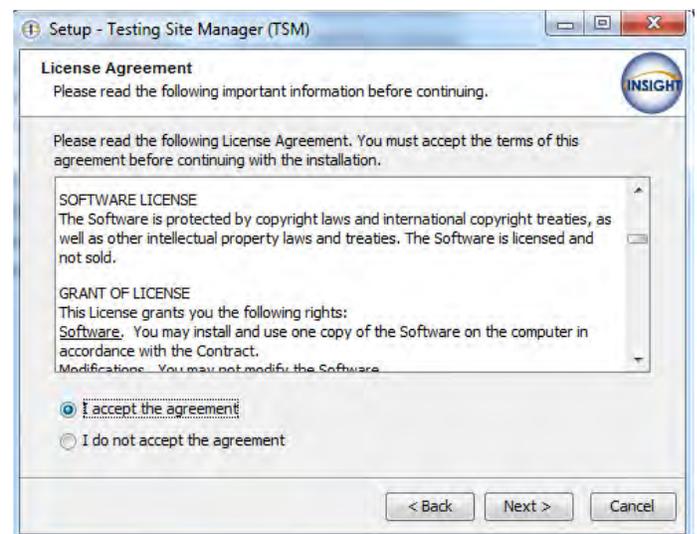
The Welcome screen displays the Testing Site Manager (TSM) Setup Wizard. Click **Next** to continue.

**Note:** On most installation windows, you have the option of clicking **Back** to return to the previous window or **Next** to proceed to the next window. Some windows display other options.



3. The DRC INSIGHT License Agreement window displays. To continue the installation, you should read the agreement and select the option **I accept the agreement**. (If you do not accept the agreement, the installation ends.)

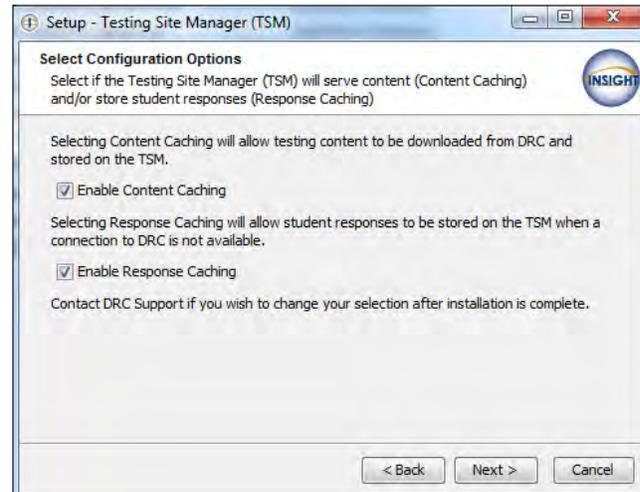
When the Next button becomes active, click **Next** to continue.



## Quick Tour 1: Installing a TSM for Windows OS (cont.)

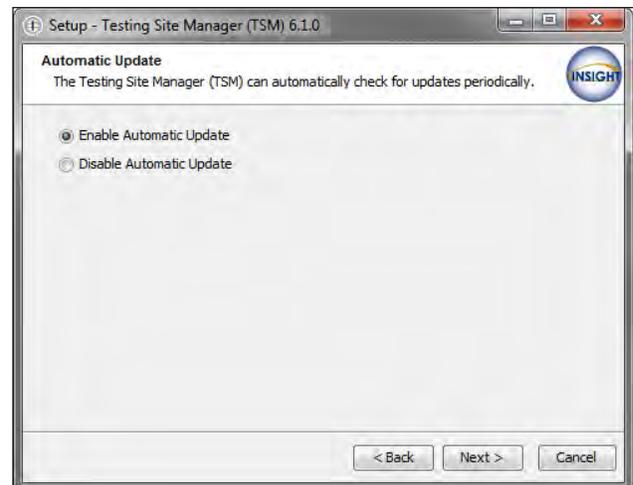
4. The Select Configuration Options window displays. On this window you specify whether to enable content caching and response caching. The default values are to enable both types of caching. After you make your selections, click **Next** to continue.

**!** **Important:** Install the TSM software on a computer that will be powered on when test content is automatically updated. If the computer is not on or is unavailable, it will not be updated. Whenever you restart a computer that has the TSM software installed, or anytime you plan to use the TSM for testing, verify that the TSM software and test content are up to date before you attempt to test (see “Content Caching” on page 161).



5. The Automatic Update window displays. On this window, specify whether to enable automatic TSM software updates.

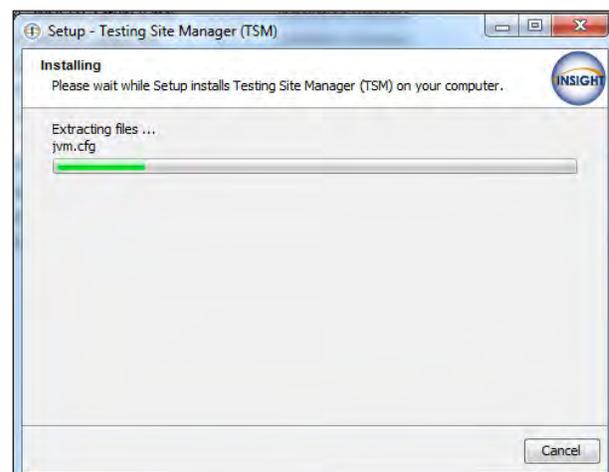
- If you select **Enable Automatic Update** (the default value), DRC updates the TSM software automatically.
- If you select **Disable Automatic Update**, DRC notifies you whenever an update to the TSM software is available and you must update the software manually.



**!** **Important:** You use the Device Toolkit to change the TSM configuration of a testing device. If you update a device’s TSM configuration, the next time you start INSIGHT, it automatically updates the configuration of the testing device to reflect the changes.

Click **Next** to continue.

6. During the installation, a window displays to indicate the progress of the installation. If necessary, click **Cancel** to end the process.



## Quick Tour 1: Installing a TSM for Windows OS (cont.)

7. The Setup Complete window displays.

**! Important:** Record the TSM server name and port numbers—you need this information when you install INSIGHT. You can change the port numbers from this window.

- The TSM HTTP Port Number is the port number for regular communication.
- **The TSM HTTPS Port Number is the port number for encrypted communication that the INSIGHT secure web browser uses.**

**! Important:** To avoid conflicts, verify that no other device is using either port. For Windows 7, you can enter the command **netstat -a** from a command prompt to display the list of ports currently being used.

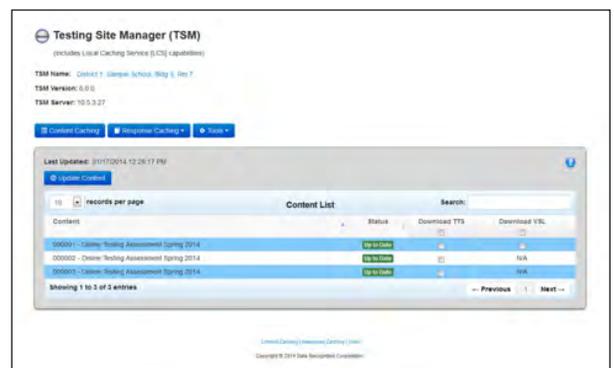
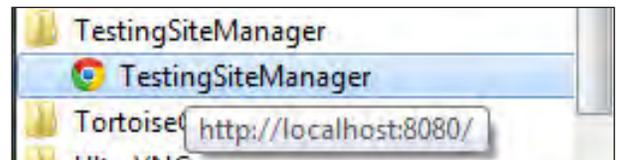
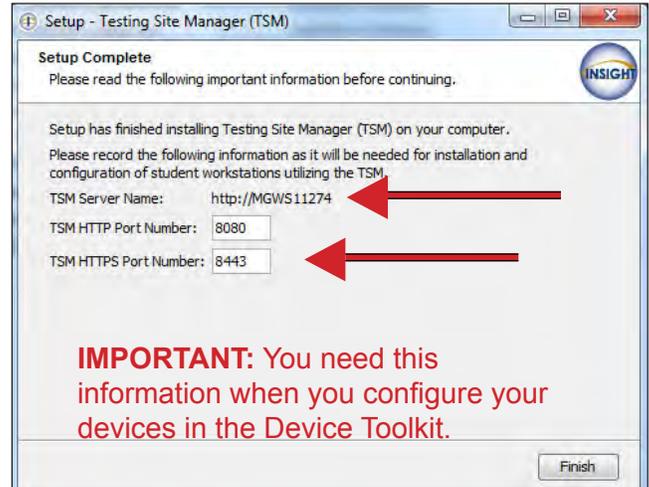
Click **Finish** when you are ready.

8. After the installation is complete, start the TSM from the Start menu by selecting **All Programs—TestingSiteManager—TestingSiteManager**.

**Note:** If you specified Content Caching (Step 4), your standard test forms and items are downloaded automatically with the TSM installation (see “Content Caching” on page 161).

9. When the Enter Testing Site Manager Name window displays, enter a name (up to 40 characters) that will help you remember the location of the TSM machine in the TSM Name field and click **Save**. DRC recommends that you include some combination of the district, school, and location (building and/or room number) of the TSM. Click **Save**.

10. The TSM displays. If you are using an accommodation, check the checkboxes to select the media content you need (for example, Download TTS and Download VSL) and click **Update Content** to load the latest test versions.



## Quick Tour 2: Installing INSIGHT for Windows OS

This Quick Tour describes how to install INSIGHT 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 DRC INSIGHT Windows Installer icon (📄).

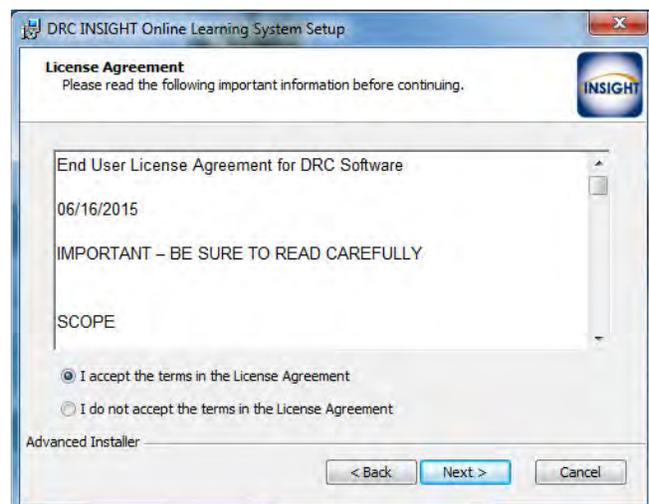
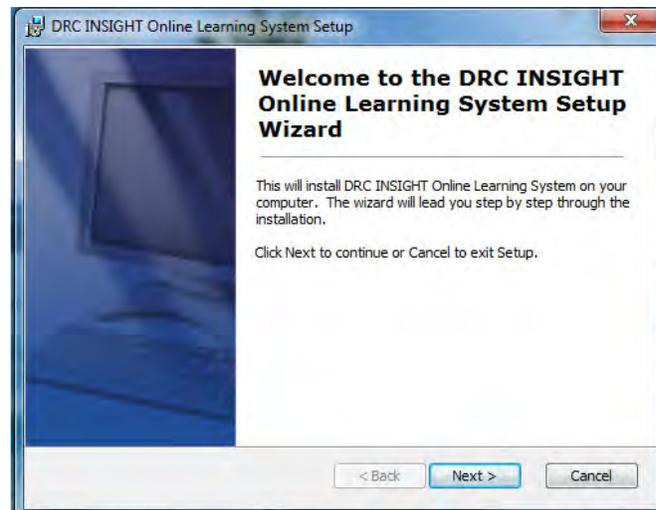
2. After you have downloaded the installation program, click on the **DRC\_INSIGHT\_Setup.msi** icon to start an installation.

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

**Note:** On most installation windows, you can click **Back** to return to the previous window or **Next** to proceed to the next window. Some windows display other options.

3. The DRC INSIGHT License Agreement window displays. To continue the installation, read the agreement and select the option **I accept the agreement**. (If you do not accept the agreement, the installation ends.)

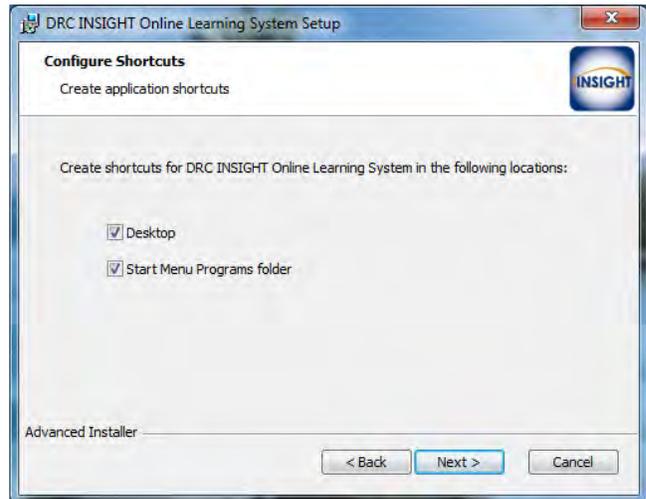
Click **Next** to continue when the Next button is active.



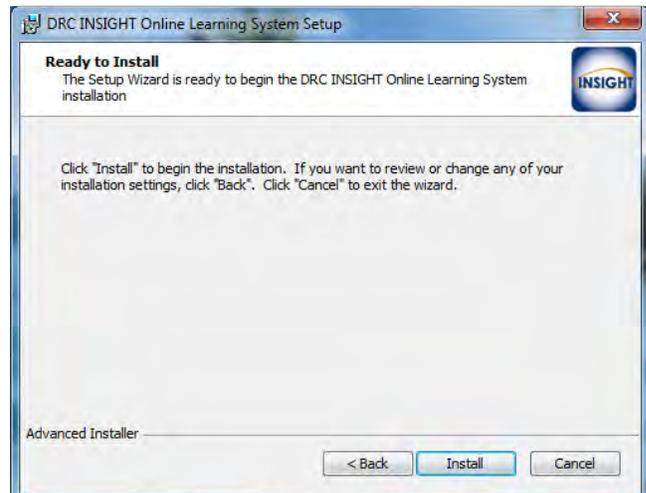
## Quick Tour 2: Installing INSIGHT for Windows OS (cont.)

4. The Configure Shortcuts window displays. Use this window to indicate which shortcuts the installation process should create. DRC recommends that you select both shortcuts.

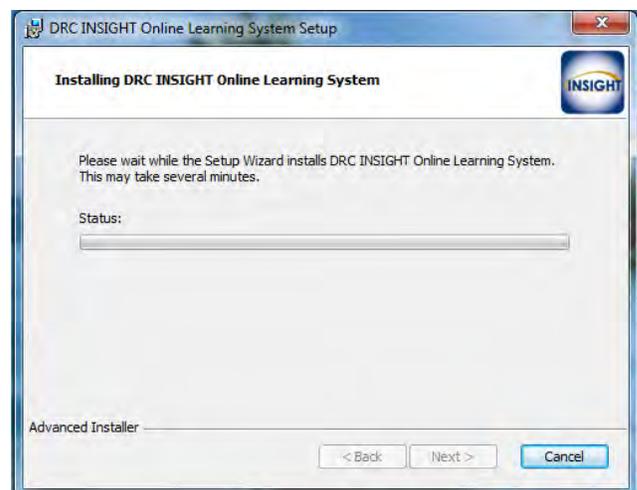
After you have made your selections, click **Next** to continue.



5. The Ready to Install window displays. Click **Back** to review or change your settings, **Install** to start the installation, or **Cancel** to cancel the process.



6. While INSIGHT is being installed, a progress window indicates the state of the installation. If necessary, you can click **Cancel** to end the installation process.



## Quick Tour 2: Installing INSIGHT for Windows OS (cont.)

- When the installation nears completion, the DRC INSIGHT Online Learning System Setup window displays indicating that INSIGHT is almost installed.

You can specify whether to run the System Readiness Check (the default value).

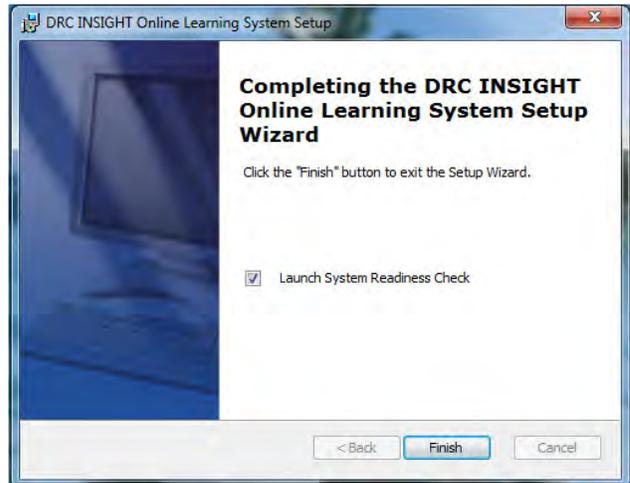
The System Readiness Check verifies that the testing computer has sufficient screen resolution, Internet connectivity, memory (RAM), and other technical specifications needed to perform online testing (see “The System Readiness Check” on page 190).

Make your selections and click **Finish** to register the device with INSIGHT.

- The Configuration Not Found page displays. To successfully register the device with INSIGHT, you need to locate the device’s ORG Unit ID from the Device Toolkit. When you have it (you can copy and paste it from the Device Toolkit), click **Assign Device to ORG Unit**.
- When the Device Registration page displays, enter the device’s ORG Unit ID from the Device Toolkit (or copy and paste it from the Device Toolkit), click **Add**.

When you have added the ORG Units(s), click **Register**.

- If you added one ORG Unit, when the device registers, the System Readiness check will display for that ORG Unit’s testing program.
- If you added more than one ORG Unit, a page displays you can use to select your testing program. When the device registers, the System Readiness check will display for the testing program you selected.



## Quick Tour 2: Installing INSIGHT for Windows OS (cont.)

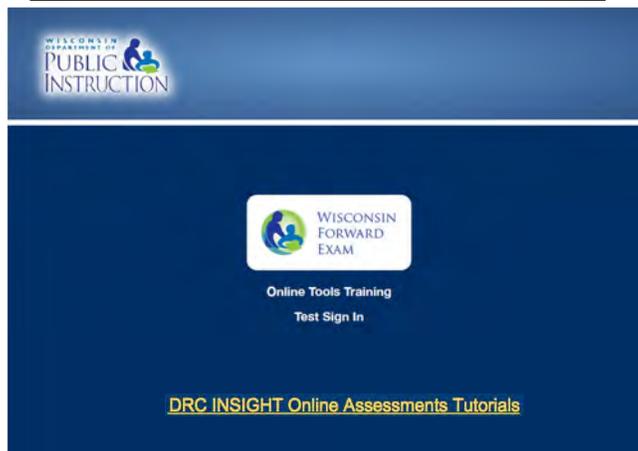
10. When the System Readiness Check launches, the System Information screen displays. You can see details about each System Readiness Check test, execute the tests, and view the results.

Click **Execute Tests** to verify that the testing computer and any TSM(s) are configured correctly. Click **Details** next to any test you need more information about (see “The System Readiness Required Tests” on page 196). When ready, click **Exit**.

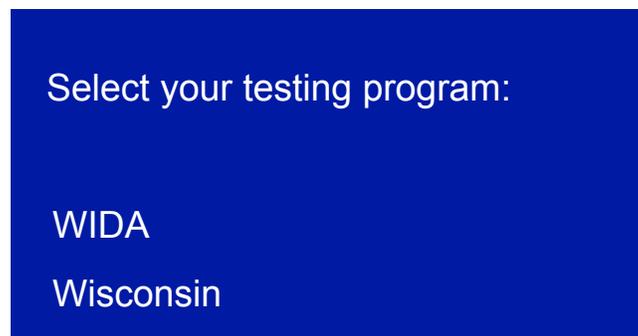


11. When the device is successfully registered with INSIGHT, one of two pages displays:

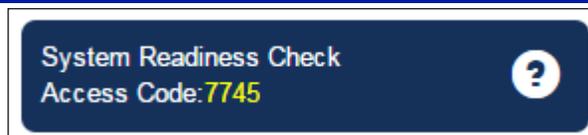
If you configured a single testing program, the main testing page displays.



If you configured more than one testing program, a page displays that you can use to select the testing program. After you make your selection, the main testing page displays.



You can try Online Tools Training (OTT) using your INSIGHT log-in information, or sign in to the System Readiness Check by clicking the checkmark in the lower left side  and entering the System Readiness Check Access Code.



12. The installation adds a single shortcut to your desktop. Use the shortcut to sign in to the Online Tools Training (OTT), or to test using your INSIGHT log-in information.



## Managing the TSM

This section describes how to install a TSM from the command line, how to start and stop a TSM from a command line, and how to remove a TSM.

### Installing a TSM from the Command Line

You can install a TSM in the Windows environment using the command line interface instead of the graphical interface. This type of installation is useful to install the software in unattended mode, or to install it quickly on a number of computers.

To run the TSM installation in unattended mode, do the following:

1. Download the TSM setup command file, TESTING\_SITE\_MANAGER\_Setup.exe, from eDIRECT to a directory or location that you specify.
2. Start a command prompt (**Start–Run–Cmd**), navigate to the directory or location where the file was downloaded, and execute the TESTING\_SITE\_MANAGER\_Setup command with the appropriate options (see below).

#### TESTING\_SITE\_MANAGER\_Setup -q

The following figure shows the list of setup options.

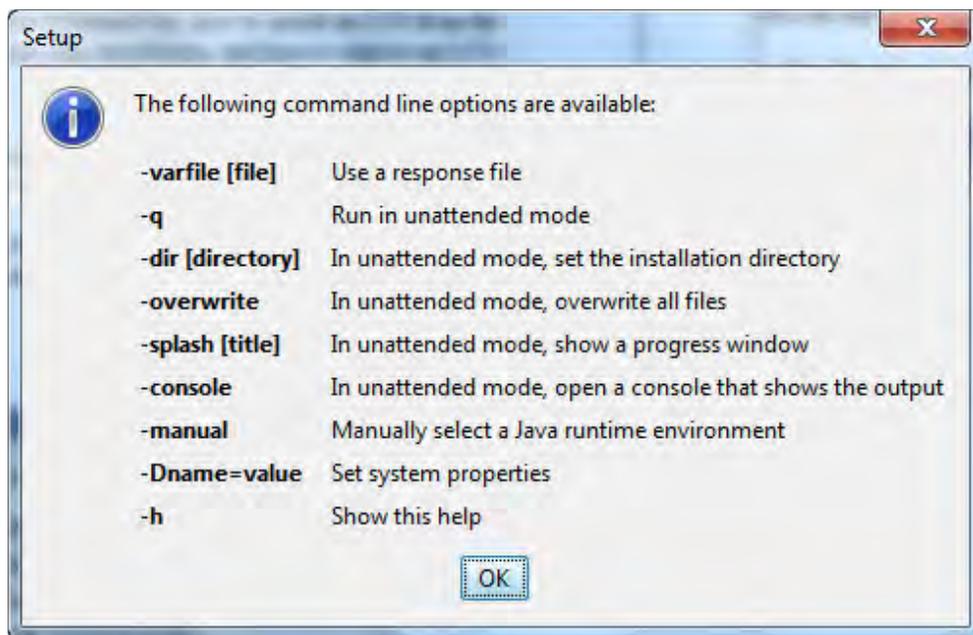
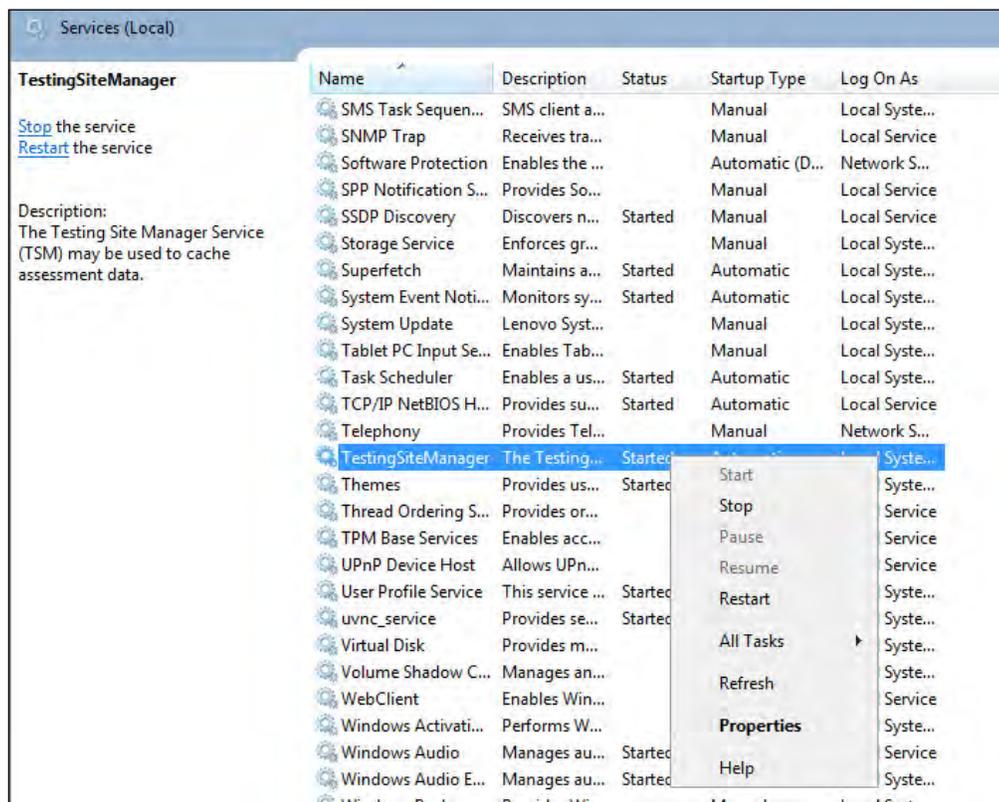


Figure: TSM Setup Command Options

## Starting and Stopping the TSM

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

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



2. The Services window displays. Select **TestingSiteManager**.
3. To stop the TSM, right-click and select **Stop**. To restart the TSM, right-click and select **Start**.

## Uninstalling the TSM

You can uninstall (remove) the TSM using the Control Panel. If you want to uninstall the TSM, verify that there are no unsent responses. If there are, transmit them manually first. If the TSM has unsent stored responses, the uninstall won't finish (see "Response Caching-Viewing Unsent Student Test Responses" on page 164).

**Note:** If you are unable to remove a TSM, please contact DRC Technical Support.

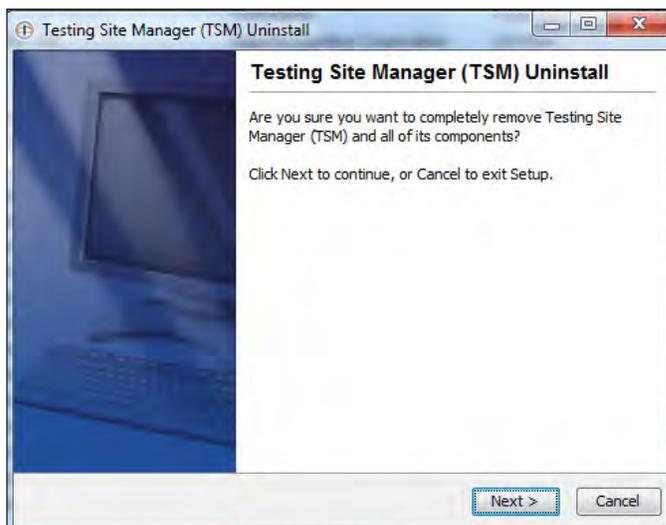
### Using the Control Panel

To uninstall the TSM using the Control Panel, do the following:

1. Select **Uninstall a Program** and select **Testing Site Manager (TSM) – WI**.
2. Right-click and select **Uninstall/Change**.



3. Click **Next** when the Testing Site Manager (TSM) Uninstall wizard displays. The wizard walks you through the process.



## Managing INSIGHT

This section describes how to install INSIGHT from a command line, how to start and stop INSIGHT and the System Readiness Check, and how to uninstall INSIGHT.

**! Important:** After installing INSIGHT, start INSIGHT to register the device with its Device Toolkit ORG Unit configuration. (You can do this manually, by using a script, or by device management software.) Remember to register the device before applying any desktop protection software (such as Deep Freeze) to avoid having the device re-register with the Device Toolkit every time INSIGHT is launched.

### Installing INSIGHT from a Command Line

To install INSIGHT from a command line, execute the INSIGHT setup command—**DRC\_INSIGHT\_Setup.msi**—using the specific options you want to use.

To display a list of the command line options, use the **/h** (help) parameter with the setup command by selecting **Run...** and specifying **DRC\_INSIGHT\_Setup.msi -h**.

The following figure shows a list of the standard options.

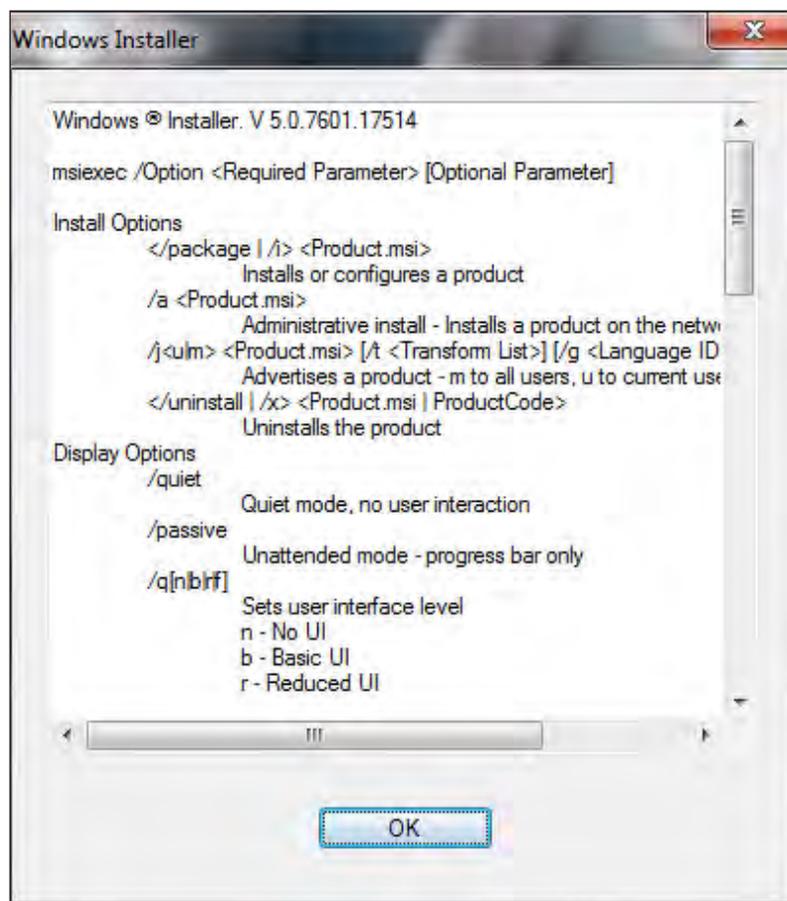


Figure: INSIGHT Setup Command Options

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

## 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 examples install INSIGHT using an ORG Unit ID of Z1\_GWJVNGg, with and without a proxy host.

---

**!** **Important:** Do not copy and paste this information—it is meant for example only.

---

```
msiexec.exe /i DRC_INSIGHT_Setup.msi /qr https_proxy="https://10.1.1.1:8080" ou_ids="Z1_GWJVNGg"
```

```
msiexec.exe /i DRC_INSIGHT_Setup.msi /qr ou_ids="Z1_GWJVNGg"
```

*Where:*

**ou\_ids** is the ORG Unit ID number to which the device is assigned. This parameter points to the specific configuration information for TSM content and response caching; district, and school ID; proxy server information; and auto update information. It is used to register the device with INSIGHT.

**https\_proxy** is the path to the proxy host (if specified)

**Note:** For more information about the MSIEXEC properties and switches that you can use with the installation application, refer to the Microsoft Command Line options page.

## Installing INSIGHT Silently

To install INSIGHT perform the following steps:

1. From eDIRECT, download the Windows INSIGHT installation file, DRC\_INSIGHT\_Setup.msi, to the C: drive.



2. Change to the directory where you installed the INSIGHT file and enter the following command.

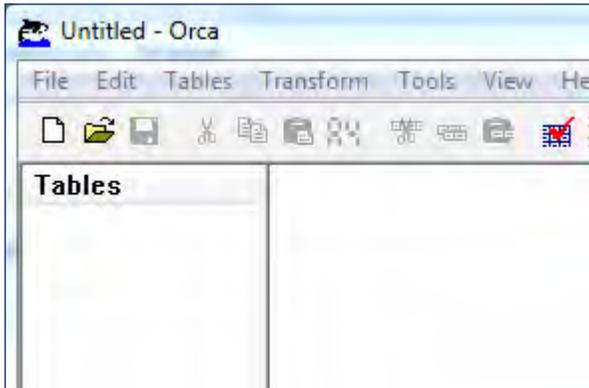
**Note:** If you use a proxy host, specify the path to the proxy host between the quote marks (otherwise, remove the HTTPS\_PROXY parameter).

```
msiexec.exe /i DRC_INSIGHT_Setup.msi /qn https_proxy="https://10.1.1.1:8080" ou_ids="Z1_GWJVNg"
```

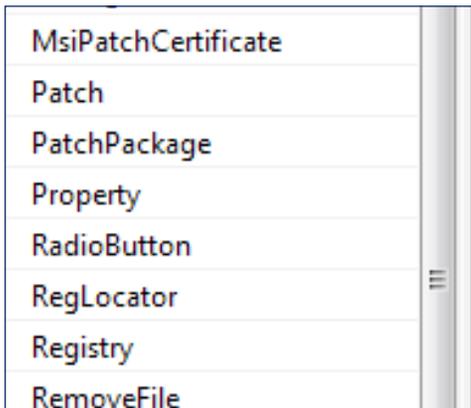
## Installing INSIGHT Silently Using ORCA

To install INSIGHT silently using ORCA, perform the following steps:

1. Download the Windows INSIGHT installation file, DRC\_INSIGHT\_Setup.msi.
2. Download a copy of ORCA to your Program Files folder.
3. Double-click on Orca.exe and select **Open**.



4. Browse to the DRC\_INSIGHT\_Setup.msi file and open it.
5. Select **Property**.



6. Sort the display using the Property column.

Property	Value
----------	-------

7. Locate the **OU\_IDS** field and enter the ORG ID with no quotes or spaces (see the example below).

OU\_IDS            Z1\_GWJVNGg

8. If you are using a proxy host, locate the **HTTPS\_PROXY** field and enter the full proxy address with no spaces (see the example below).

HTTPS\_PROXY    https://10.1.1.1.:8080

## Installing INSIGHT Silently Using ORCA (cont.)

9. Save the file and exit Orca.

**!** **Important:** Save the file using Save, not Save As.

10. Use the following command to run the updated installer with the new embedded switches:

```
msiexec.exe /i DRC_INSIGHT_Setup.msi /qn
```

**Note:** Use qb instead of qn for Windows 8.

## Starting INSIGHT

You can start INSIGHT from a testing computer using the desktop shortcut, the Windows Start menu, or the Windows Explorer. For Windows 7 64-bit, start the Explorer and select the installation drive–**Program Files (x86)–DRC INSIGHT Online Assessments–DRCInsight.exe** for INSIGHT.

## Stopping INSIGHT

If INSIGHT becomes unresponsive, you can stop it by using the Windows Task Manager. To start the Task Manager, press **Ctrl-Alt-Delete** and select **Task Manager** (see the figure).

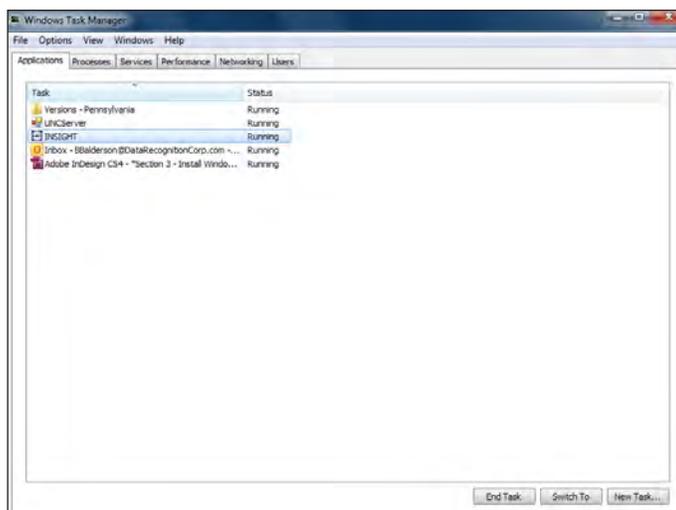


Figure: Task Manager – Windows 7 Environment

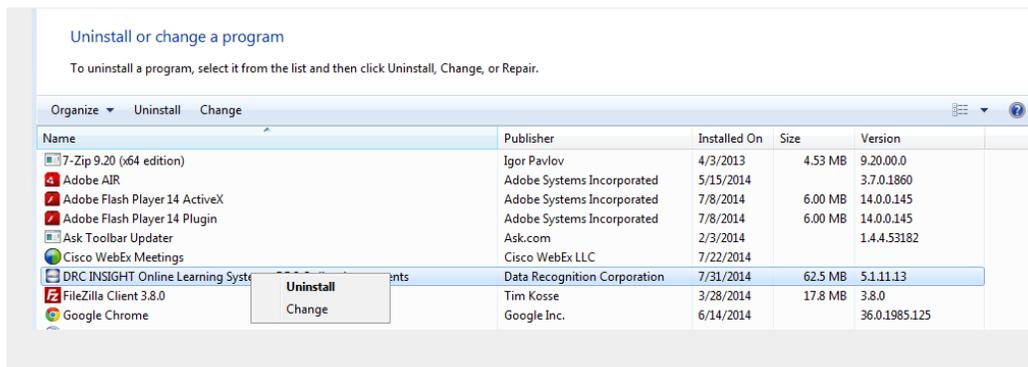
## Uninstalling INSIGHT

You can uninstall (remove) INSIGHT from a Windows machine by using the Control Panel, the Start menu, or silently using a command.

**Note:** If you cannot remove INSIGHT, please contact DRC Technical Support.

### Using the Control Panel

To uninstall INSIGHT using the Control Panel, select **Uninstall a Program** and select **DRC INSIGHT Online Learning System–DRC Online Assessments**, right-click and select **Uninstall**.



### Using the Start Menu

To uninstall INSIGHT using the Start Menu, select **All Programs–DRC INSIGHT Online Assessments–DRC INSIGHT Uninstaller** and click **Yes** when the Windows Installer dialog box displays.

### Using a Command

To uninstall INSIGHT silently, use the following command:

```
msiexec.exe /x DRC_INSIGHT_Setup.msi /qn
```

**Note:** Use qb instead of qn for Windows 8.

# Mac (OS X) Installation



### ■ What's Covered in This Chapter

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

**!** **Important:** To make the installation process easier, DRC recommends that you install the TSM before you use the Device Toolkit to create ORG Units and before you install INSIGHT.

The first part of this chapter provides basic information about installing and uninstalling a Testing Site Manager (TSM) and INSIGHT using the standard Mac graphical interface. Then, the chapter provides more advanced technical information about:

- Managing a TSM: starting, stopping, and uninstalling.
- Working with a TSM in a non-graphical (terminal) mode using Mac (OS X) operating system commands.
- Installing INSIGHT silently.
- Uninstalling INSIGHT.

### ■ Installing a TSM

Because of the role that the TSM plays in testing, there are some special considerations regarding TSM software installation.

- The computer on which you install the TSM software should have a static IP address (if you use the machine's IP address to connect to the TSM versus the machine's name). If the IP address of a TSM machine changes, you must reconfigure the testing computers that connect to that TSM.
- If you need to change the configuration of a TSM after it is installed, you must uninstall the TSM and install a new version. If you reinstall a TSM, you may need to reconfigure the testing devices that connect to it.

### ■ Installing Multiple TSMs and INSIGHT

If you plan to perform multiple types of assessments using the same testing computers, you may need to install more than one TSM and use INSIGHT to access more than one testing program.

- You cannot install more than one TSM on the same computer.
- You can install a TSM and INSIGHT on the same computer.
- You can use INSIGHT to access multiple testing programs (for example, ACCESS for ELLs and your state-specific testing program) from the same device. You access these testing programs using the same DRC INSIGHT desktop shortcut. When you start INSIGHT, a page displays listing the different testing programs from which you can select.

## Quick Tour 3: Installing a TSM for Mac OS X

This Quick Tour describes how to install a TSM in the Mac (OS X) environment. DRC provides an easy-to-use wizard to install the TSM software.

1. To launch the wizard and start the installation, sign in to eDIRECT, select **Test Setup—General Information—Downloads**, and click on the **Testing Site Manager (TSM) installer icon** (📦) for Mac OS. At this time, you also may want to download the Macintosh Installer for INSIGHT.
2. After you have downloaded the installation program, double-click on the **TESTING\_SITE\_MANAGER\_Setup.dmg** file and double-click on the **Testing Site Manager (TSM) Installer** to start the installation.

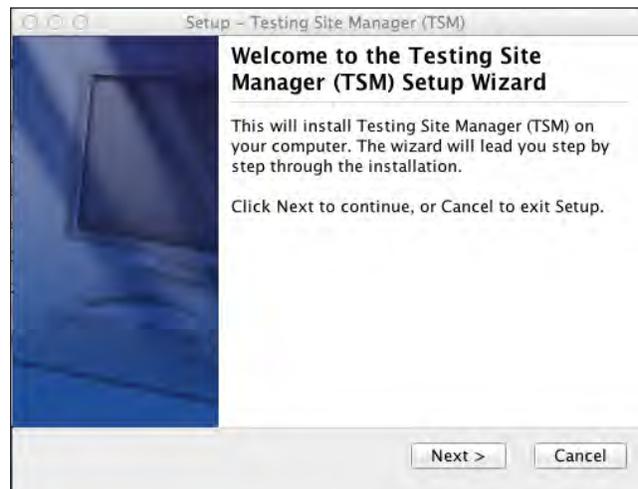
**Note:** You must be a Mac System Administrator to install the TSM from this file.

3. The Welcome screen displays for the Testing Site Manager (TSM) Setup Wizard.

**Note:** On most of the installation windows, you can click **Back** to return to the previous window, **Next** to proceed to the next window, and **Cancel** to cancel the installation. 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.

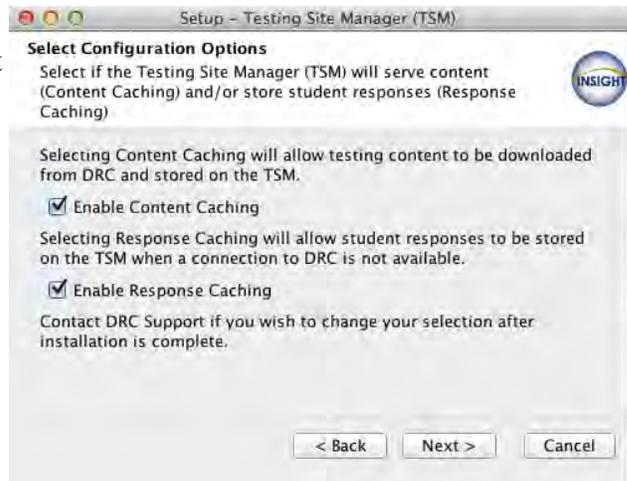
Software Downloads				
Testing Software Downloads				
Title	Platform	Operating System	Version	Action
DRC INSIGHT Android	Android	Android Lollipop 5.0 API 21, Android Lollipop 5.1 API 22	6.0.0	
Use the above to configure Google Play for Education-enrolled Android devices to work with DRC INSIGHT. Note: See "Systems Requirements" for list of supported Android touch devices.				
DRC INSIGHT iPad	Apple iOS	iOS 8.4, iOS 8.3, iOS 8.2, iOS 8.1.3	6.0.1	
Use the above to download INSIGHT, the student test engine for students testing on iPads.				
Online Assessments ID + Online Assessments Application URL	Chromebook	Chrome OS recent stable channel	6.0.1	
Use the application ID and URL to identify DRC INSIGHT in the Chrome Store for testing on Chromebook devices. Note: See "Systems Requirements" for list of supported Chrome touch devices.				
DRC INSIGHT Linux Installer - 32 bit	Linux	Ubuntu 12.04, Ubuntu 14.04 LTS with 32-bit GNOME 3.4, Unity Shell	6.0.0	
Use the installer above to download the DRC INSIGHT test engine.				
DRC INSIGHT Linux Installer - 64 bit	Linux	Ubuntu 12.04, Ubuntu 14.04 LTS with 64-bit GNOME 3.4, Unity Shell	6.0.0	
Use the installer above to download the DRC INSIGHT test engine.				
DRC INSIGHT Mac Installer	Mac OS	10.7, 10.8, 10.9, 10.10 (Mac Server Software is not supported)	6.0.0	
Use the installer above to download the DRC INSIGHT test engine.				
DRC INSIGHT Windows Installer	Windows	Windows Vista, Windows 7, Windows 8, Windows 8.1, Windows 10	6.0.0	
Use the installer above to download the DRC INSIGHT test engine. Note: See "Systems Requirements" for list of supported Windows touch devices.				
Testing Site Manager (TSM) Installer - 32 bit	Linux	Ubuntu 12.04, Ubuntu 14.04 LTS with 32-bit GNOME 3.4, Unity Shell	6.0.0	
Use the installer above to download the Testing Site Manager (TSM), which includes Content Caching and Response Caching. Note: The TSM should not be installed on mobile or touch-screen devices.				
Testing Site Manager (TSM) Installer - 64 bit	Linux	Ubuntu 12.04, Ubuntu 14.04 LTS with 64-bit GNOME 3.4, Unity Shell	6.0.0	
Use the installer above to download the Testing Site Manager (TSM), which includes Content Caching and Response Caching. Note: The TSM should not be installed on mobile or touch-screen devices.				
Testing Site Manager (TSM) Installer	Mac OS	10.7, 10.8, 10.9, 10.10 (Note: Mac Server Software is not supported)	6.0.0	
Use the installer above to download the Testing Site Manager (TSM), which includes Content Caching and Response Caching. Note: The TSM should not be installed on mobile or touch-screen devices.				
Testing Site Manager (TSM) Installer	Windows	Windows Vista, Windows 7, Windows 8, Windows 8.1, Windows 10	6.0.0	
Use the installer above to download the Testing Site Manager (TSM), which includes Content Caching and Response Caching. Note: The TSM should not be installed on mobile or touch-screen devices.				
Capacity Estimator	Excel	Microsoft Excel Excel 2007 and later	1.0.0	
Use the installer above to download the Capacity Estimator. This tool estimates testing response times by using the number of students testing, as well as network capacity and utilization.				



### Quick Tour 3: Installing a TSM for Mac OS X (cont.)

5. The Select Configuration Options window displays. On this window you specify whether to enable content caching and/or response caching. The default values are to enable both types of caching. After you make your selections, click **Next** to continue.

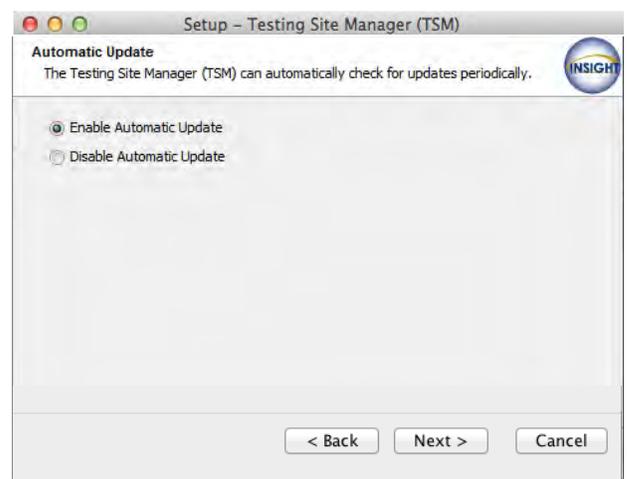
**! Important:** Install the TSM software on a computer that will be powered on when the TSM software or test content is automatically updated. If the computer is not on or is unavailable, it will not be updated. Whenever you restart a computer that has the TSM software installed, or anytime you plan to use the TSM for testing, verify that the TSM software and test content are up to date before you attempt to test (see “Content Caching” on page 161).



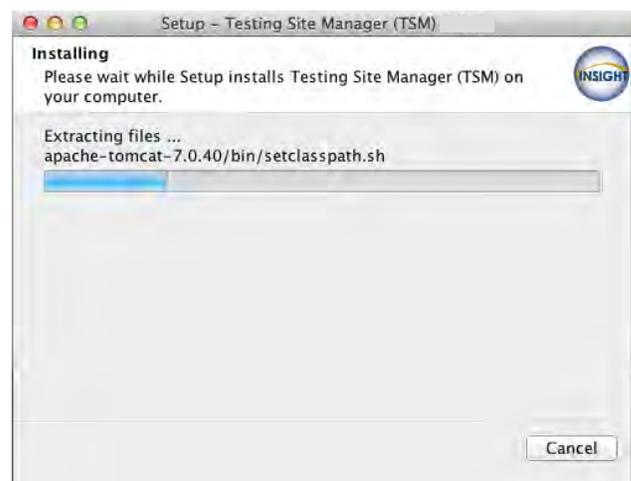
6. The Automatic Update window displays. On this window, specify whether to enable automatic TSM software updates.

- If you select **Enable Automatic Update** (the default value), DRC updates the TSM software automatically.
- If you select **Disable Automatic Update**, DRC notifies you whenever an update to the TSM software is available and you must update the software manually.

**! Important:** You use the Device Toolkit to change the TSM configuration of a testing device. If you update a device’s TSM configuration, the next time you start INSIGHT, it automatically updates the configuration of the testing device to reflect the changes.



After you have made your selection, click **Next** to start the installation. 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 3: Installing a TSM for Mac OS X (cont.)

7. When the installation completes, the Setup Complete window displays. **Record the TSM server name and port numbers—you need this information to configure the device in the Device Toolkit.** You can change the port numbers from this window.

- The TSM HTTP Port Number is the port number for regular communication.
- **The TSM HTTPS Port Number is the port number for encrypted communication that the INSIGHT secure web browser uses.**

**!** **Important:** To avoid conflicts, verify that no other device is using either port.



Click **Finish** when you are ready.

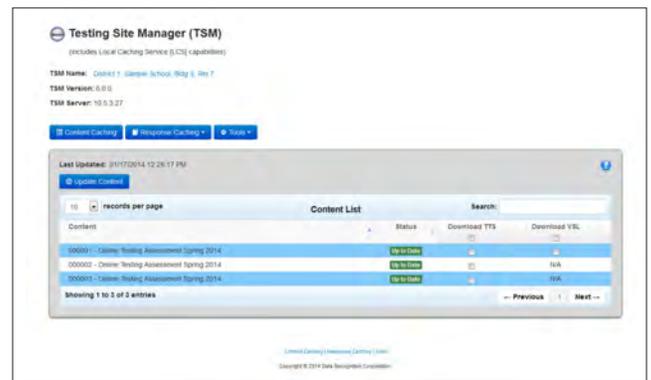
8. Start the TSM by selecting **Applications–TestingSiteManager–TestingSiteManager.url**.

**Note:** If you specified Content Caching (Step 5), when the TSM is first installed, your standard test forms and items are downloaded automatically (see “Content Caching” on page 161).



9. When the **Enter Testing Site Manager Name** window displays, enter a name in the TSM Name field to help you remember the location of the TSM machine. DRC recommends that you include some combination of the district, school, and location (building and/or room number) of the TSM. Click **Save**.

**Note:** The name is limited to 40 characters with no special formatting requirements.



10. The TSM displays. If you are using an accommodation, check the checkboxes to select the media content you need (for example, Download TTS and Download VSL) and click **Update Content** to load the latest test versions.

11. After installation is complete, select the **TESTING\_SITE\_MAN** volume from the desktop, **Ctrl-click**, and select **Eject “TESTING\_SITE\_MAN”** to unmount the volume and avoid potential conflicts with automatic updates.



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

This Quick Tour describes how to install INSIGHT on a Mac. DRC provides an easy-to-use wizard to install the software.

1. Download the dedicated installer for the Mac (OS X) operating system, DRC\_INSIGHT\_Setup.pkg, that DRC created. Sign in to eDIRECT, select **Test SetupGeneral Information–Downloads**, and click on the **Testing Site Manager (TSM) installer icon** select **Test Setup–General Information–Downloads**, and click on the DRC INSIGHT Macintosh Installer icon (📦).

2. Double-click on the downloaded **DRC\_INSIGHT\_Setup.pkg** file to start the wizard.

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

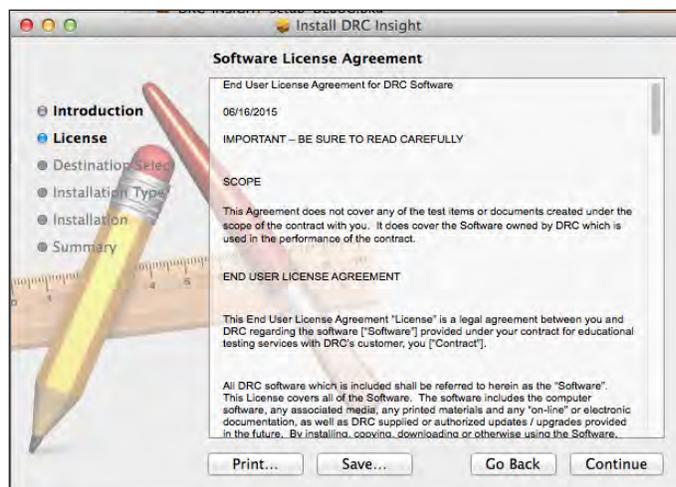
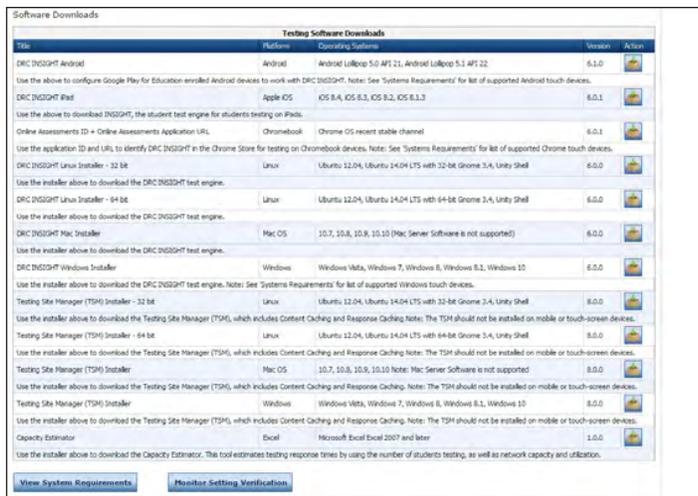
3. The Welcome screen for the DRC INSIGHT Online Assessments Installer displays.

**Note:** On most installation windows, you can click **Go Back** to return to the previous window, **Continue** to proceed to the next window, or **Cancel** to cancel the installation. Some windows display other options.

Click **Continue**.

4. The Software License Agreement window displays. You can read through the Agreement and select a different language from the Language drop-down menu.

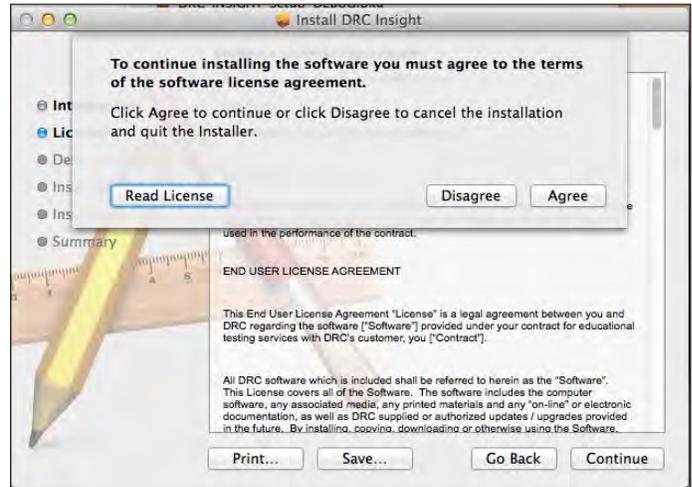
To continue, scroll down and read the agreement and click **Agree**, or click **Save**.



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

If you click **Continue** without reading the agreement or clicking **Save**, a window displays to verify your choice and explain the options.

To continue, click **Agree** and **Continue**.



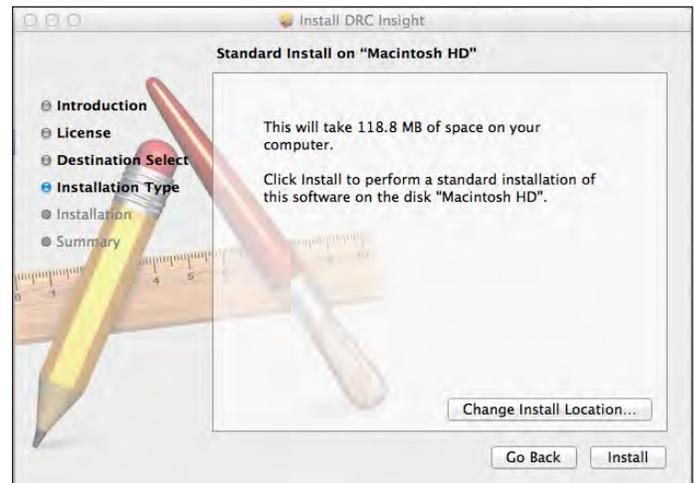
5. The Select Destination window displays, indicating the amount of disk space the installation will require.

Click **Continue**.



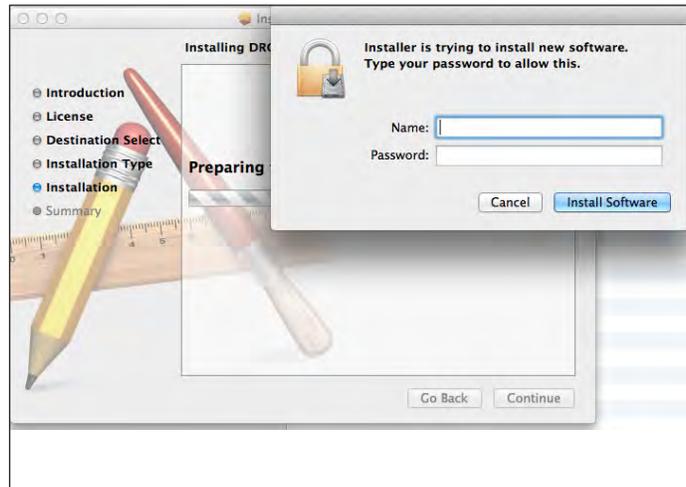
6. The Standard Install on “Macintosh HD” window displays. You can change the installation location, or use the default location.

To use the default location, click **Install**.

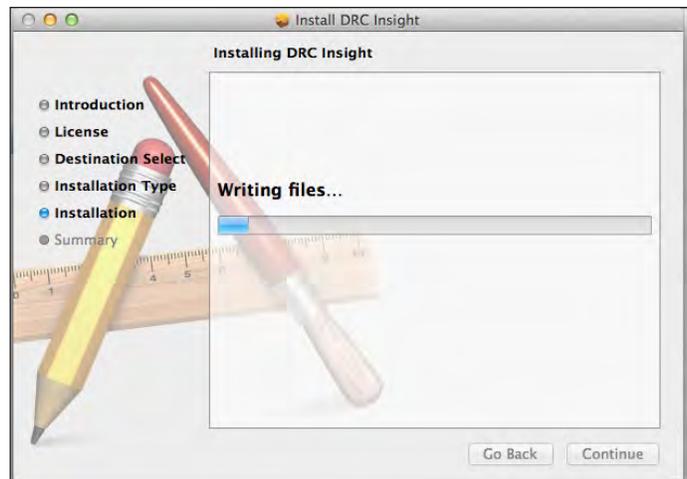


## Quick Tour 4: Installing INSIGHT for Mac OS X (cont.)

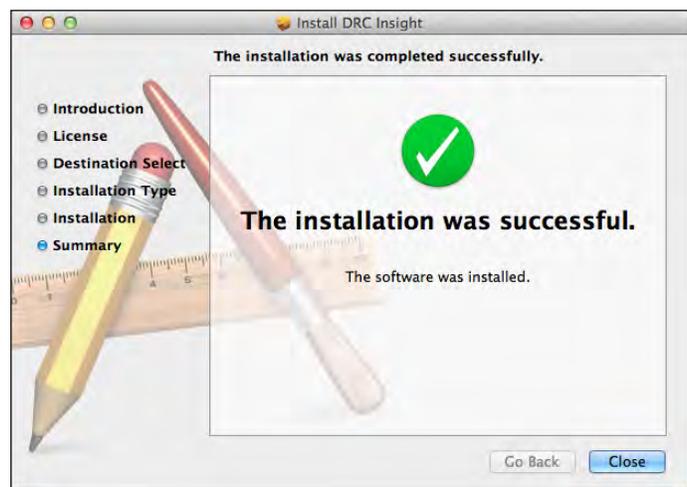
7. You must be a Mac System Administrator to install INSIGHT. After you enter your name and password and click **Install Software**, the installation begins.



8. During the installation, a summary window indicates the status of the installation.

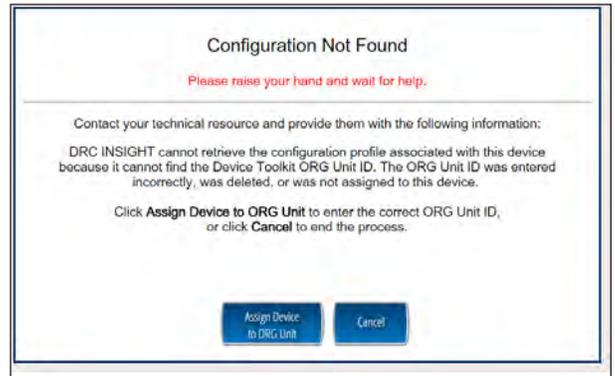


9. After the installation, a summary window indicates the status of the installation. If the installation is successful, click **Close**. Otherwise, if necessary, click **Go Back** to change your installation options.



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

10. The Configuration Not Found page displays. To successfully register the device with INSIGHT, you need to locate the device's ORG Unit ID from the Device Toolkit. When you have it (you can copy and paste it from the Device Toolkit), click **Assign Device to ORG Unit**.



11. When the Device Registration page displays, enter the device's ORG Unit ID from the Device Toolkit (or copy and paste it from the Device Toolkit), click **Add**.

**Note:** You can add more than one ORG Unit if you plan to use the device for more than one testing program.

When you have added the ORG Units(s), click **Register**.

- If you added one ORG Unit, when the device registers, the System Readiness check will display for that ORG Unit's testing program.
- If you added more than one ORG Unit, a page displays you can use to select your testing program. When the device registers, the System Readiness check will display for the testing program you selected.



12. When the System Readiness Check launches, the System Information screen displays. You can see details about each System Readiness Check test, execute the tests, and view the results.

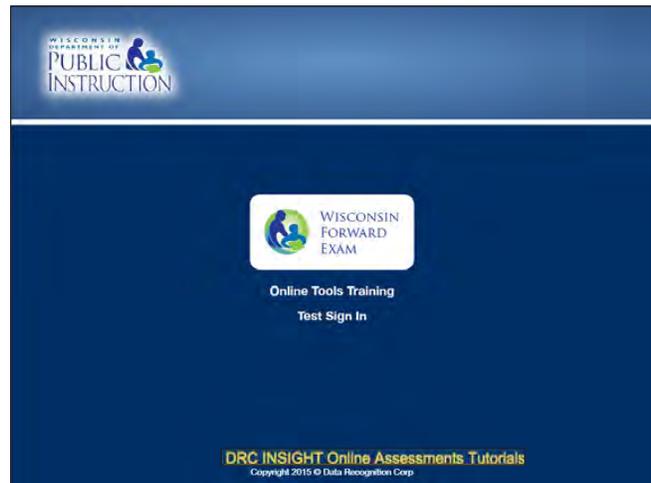
Click **Execute Tests** to verify that the testing computer and any TSM(s) are configured correctly. Click **Details** next to any test you need more information about (see "The System Readiness Required Tests" on page 196). When ready, click **Exit**.



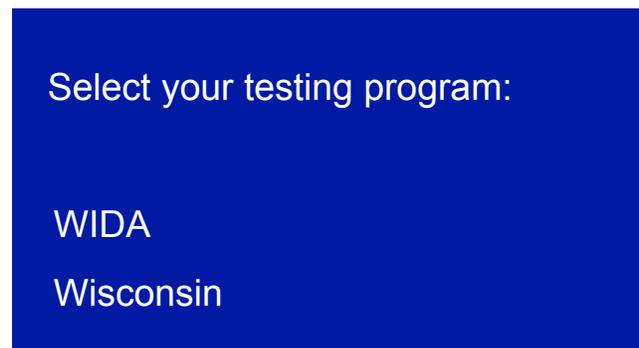
### Quick Tour 4: Installing INSIGHT for Mac OS X (cont.)

13. When the device is successfully registered with INSIGHT, one of two pages displays:

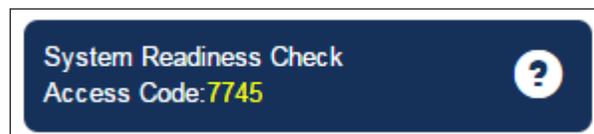
If you configured a single testing program, the main testing page displays.



If you configured more than one testing program, a page displays that you can use to select the testing program. After you make your selection, the main testing page displays.



You can try Online Tools Training (OTT) using your INSIGHT log-in information, or sign in to the System Readiness Check by clicking the checkmark  in the lower left side and entering the System Readiness Check Access Code.



14. The installation adds a single shortcut to your desktop. Use the shortcut to sign in to the Online Tools Training (OTT), or test using your INSIGHT log-in information.



## Managing the TSM

This section describes how to start and stop a TSM from a command line, and how to uninstall a TSM.

### Starting and Stopping the TSM

The TSM is a service that executes in the background without a standard graphical window. Technology Coordinators (TCs) should be familiar with starting and stopping the TSM with the TESTING\_SITE\_MANAGER script. You can use the **launchd** and **launchctl** commands to manage services. By default, the TSM is started after installation and launches anytime the computer is booted.

### Uninstalling the TSM

Before you attempt to uninstall the TSM, verify that there are no unsent responses in the TSM. If there are, transmit them manually first. If there are any unsent responses, you cannot uninstall the TSM. You can uninstall (remove) the TSM by selecting **Applications–TestingSiteManager–Testing Site Manager (TSM) Uninstaller**. First, you must enter your Mac administrator login information. Then, when the Testing Site Manager (TSM) Uninstall wizard displays, click **Next**.



Figure: Uninstalling the TSM

**Note:** If you are unable to remove a TSM, please contact DRC Technical Support.

## Managing INSIGHT

This section describes how to install INSIGHT from a command line using a software deployment tool, how to start and stop INSIGHT, and how to uninstall INSIGHT.

**! Important:** After installing INSIGHT, start INSIGHT to register the device with its Device Toolkit ORG Unit configuration. (You can do this manually, by using a script, or by device management software.) Remember to register the device before applying any desktop protection software (such as Deep Freeze) to avoid having the device re-register with the Device Toolkit every time INSIGHT is launched.

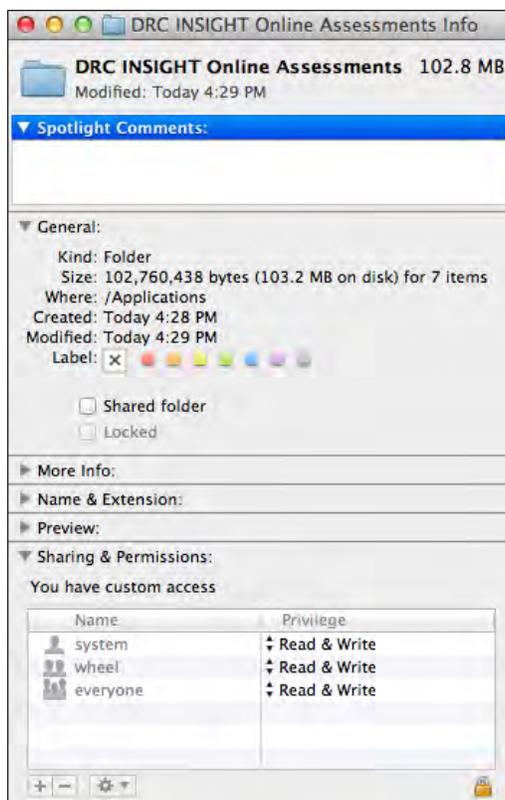
## Installing INSIGHT Using a Software Deployment Tool

The following example shows how to install INSIGHT on a Mac using the Apple Remote Desktop™ software.

**Note:** The Apple Remote Desktop software was used for this example, but the process is similar with other software deployment tools.

1. Remove the old version of INSIGHT and install and configure the INSIGHT secure browser on the computer from which you will be distributing the software (see “Quick Tour 4: Installing INSIGHT for Mac OS X” on page 92).

**! Important:** To ensure that testers can access the correct folders on the testing computers, you may need to adjust the permissions on the folders you will be copying before you distribute them to the testing computers (see the figure below).

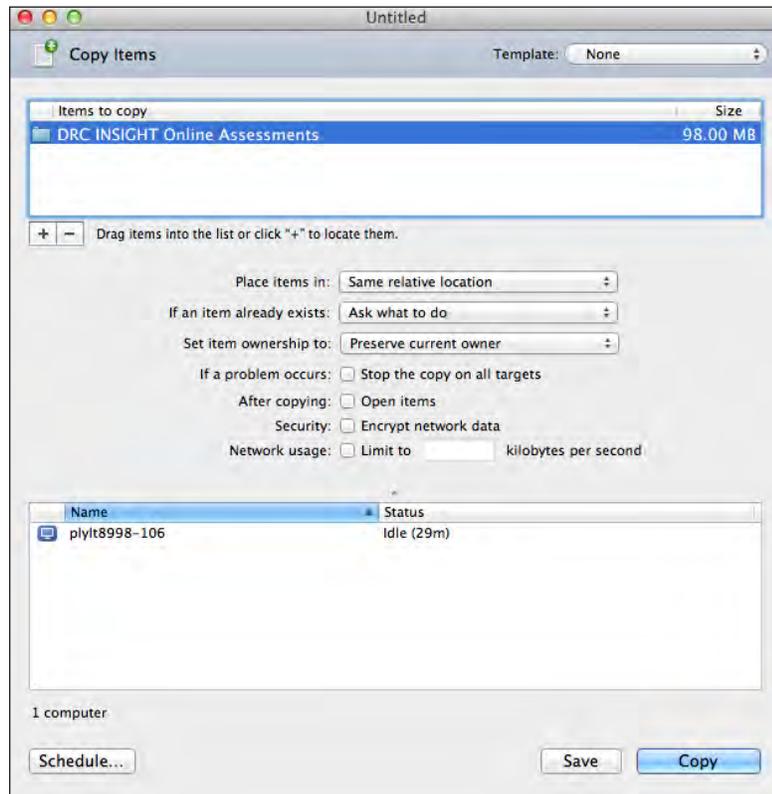


### Installing INSIGHT Using a Software Deployment Tool (cont.)

2. Start Apple Remote Desktop and select the following directory in a Copy Items window from the Apple Remote Desktop administrator's computer.

**/Applications/DRC INSIGHT Online Assessments**

**Note:** You may need to adjust the destination locations and permissions depending on student's permissions (see the figure below).



3. Copy the folders to your list of destination computers.
4. Verify the installation by running the Software Readiness Check on the computers where you installed the software.

### ***Starting INSIGHT***

You can start INSIGHT from a testing computer by using the desktop shortcut created by the installer, or from the Applications folder by double-clicking on **Applications–DRC INSIGHT Online Assessments–DRCInsight Online Assessments.app**.

### ***Stopping INSIGHT***

If INSIGHT becomes unresponsive, the TC may need to stop it using the key combination, **Command–Q**.

### ***Uninstalling INSIGHT***

You can uninstall (remove) INSIGHT using the Applications folder. You also can run the uninstallation process silently.

#### **Using the Applications Folder**

You can uninstall (remove) INSIGHT by double-clicking on **Applications–DRC INSIGHT Online Assessments–DRC Uninstaller.app**. Click **Yes** when the Warning dialog box displays, enter your Mac Administrator login information, and click **OK**. The uninstaller automatically uninstalls the program.

# Linux Installation



## ■ What's Covered in This Chapter

This chapter describes the installation process in a Linux environment.

.....  
**!** **Important:** To make the installation process easier, DRC recommends that you install the TSM before you use the Device Toolkit to create ORG Units and before you install INSIGHT.  
.....

The first part of this chapter provides basic information about installing and uninstalling the Testing Site Manager (TSM) and INSIGHT using the standard Linux interface.

Then, the chapter provides more advanced technical information about:

- Managing a TSM: starting, stopping, changing the default communication port, and uninstalling.
- Managing INSIGHT: starting, stopping, and uninstalling.
- Working in the terminal using Linux operating system commands.

**Note:** In this chapter, we assume that as an experienced Linux user you are familiar with Linux concepts such as Terminal mode, the Boot-Up Manager software, and the Ubuntu Software Center.

## ■ Installing a TSM

Because of the role that the TSM plays in testing, there are some special considerations regarding TSM software installation.

- The computer on which you install the TSM software should have a static IP address (an address that does not change when the computer is restarted or rebooted). If the IP address of a TSM machine changes, you must reconfigure the testing computers that connect to that TSM.
- If you need to change the configuration of a TSM after it is installed, you must uninstall the TSM and install a new version. If you reinstall a TSM, you may need to reconfigure the testing devices that connect to it.

## ■ Installing Multiple TSMs and INSIGHT

If you plan to perform multiple types of assessments using the same testing computers, you may need to install more than one TSM and use INSIGHT to access more than one testing program.

- You cannot install more than one TSM on the same computer.
- You can install a TSM and INSIGHT on the same computer.
- You can use INSIGHT to access multiple testing programs (for example, ACCESS for ELLs and your state-specific testing program) from the same device. You access these testing programs using the same DRC INSIGHT desktop shortcut. When you start INSIGHT, a page displays listing the different testing programs from which you can select.

## Quick Tour 5: Installing a TSM for Linux

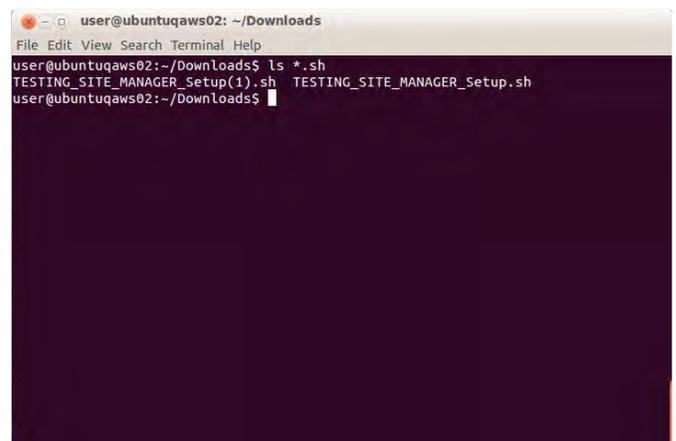
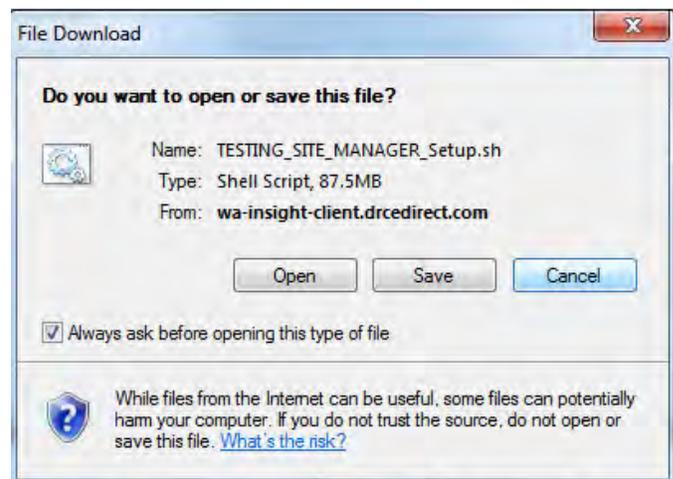
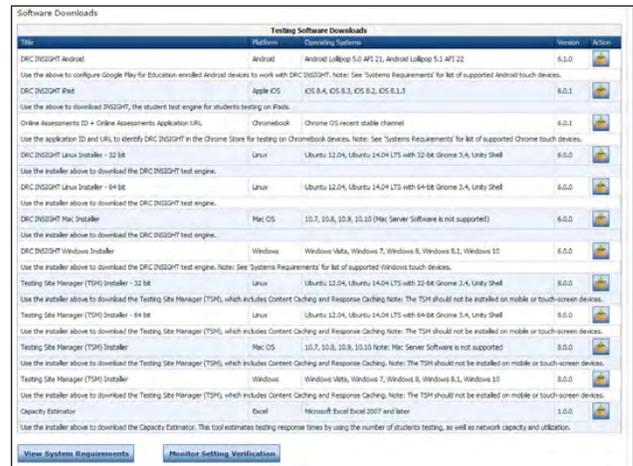
This Quick Tour describes how to install the Testing Site Manager (TSM) for Linux. DRC provides an easy-to-use Wizard to install the TSM software. In a Linux environment, you must enter a few commands before you can run the Wizard.

1. To launch the Wizard and start the installation, log on to eDIRECT, select **Test Setup—General Information—Downloads**, and click on the **Testing Site Manager (TSM)** installer icon (📄) for Linux.
2. Click on the Testing Site Manager (TSM) installer icon (📄) for Linux to download the TSM setup shell file—**TESTING\_SITE\_MANAGER\_Setup.sh**—to the Downloads directory on your testing computer.

**Note:** Depending on the web browser you are using, a pop-up window may display. If it does, select **Save File** and click **OK**. Other browsers automatically download the installation file to your Downloads folder.

3. Start a terminal and navigate to your Downloads directory.

4. Use the **ls** command to verify that the TESTING\_SITE\_MANAGER\_Setup.sh file is in the Downloads directory. If it is not there, download it again.



## Quick Tour 5: Installing a TSM for Linux (cont.)

5. Enter the following command (all Linux commands are case-sensitive) to start the installation:

```
sudo sh TESTING_SITE_MANAGER_Setup.sh
```

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

If prompted, enter your administrator password at the prompt. Linux unpacks the shell file and launches the Wizard to start the installation. The installation program creates an application folder in the /opt or /usr/local directory.

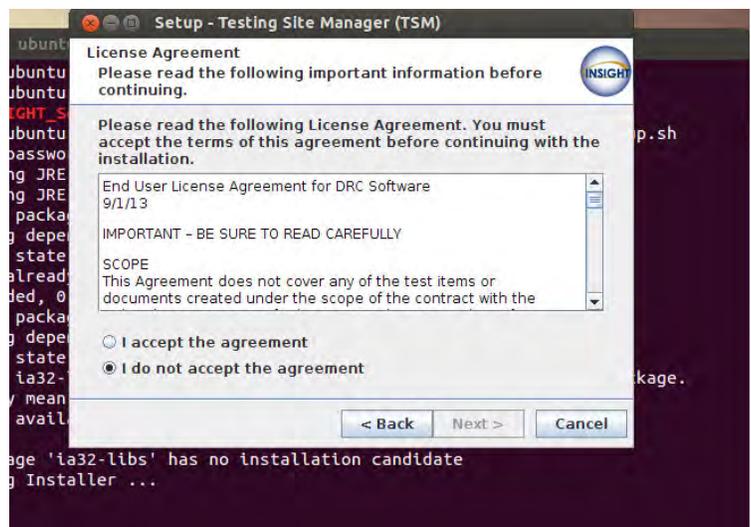
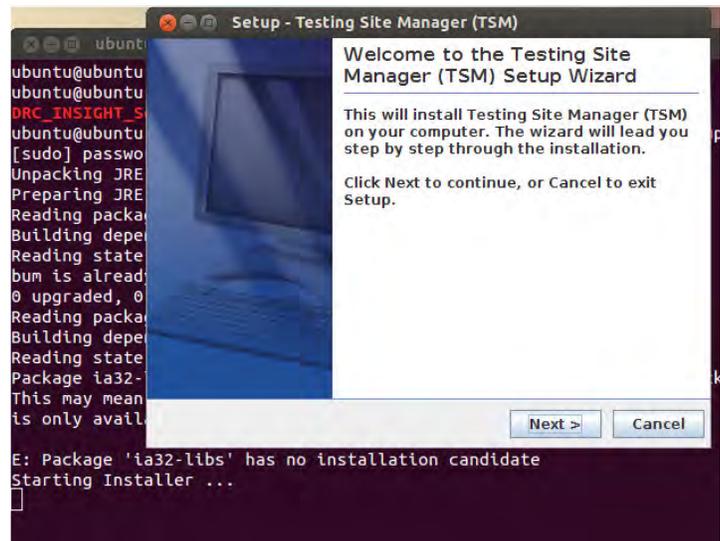
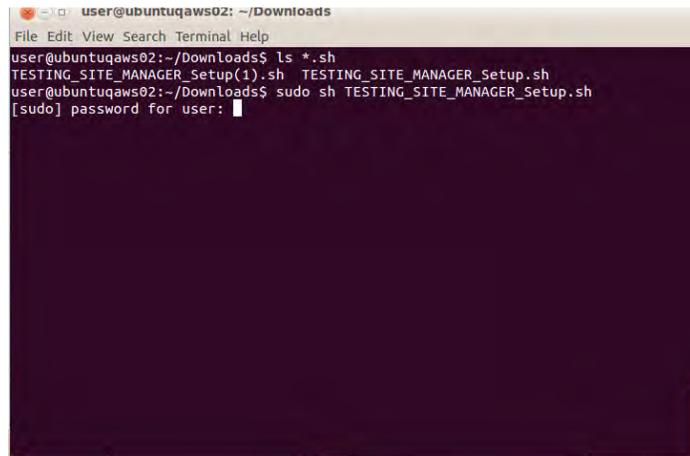
**Note:** On some 64-bit systems, you must install 32-bit Java libraries for the installation program to run. If you need to install these libraries, enter the command, **sudo apt-get install ia32-libs**

6. The Welcome screen displays for the DRC INSIGHT Testing Site Manager (TSM) Setup Wizard.

Click **Next** to continue.

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

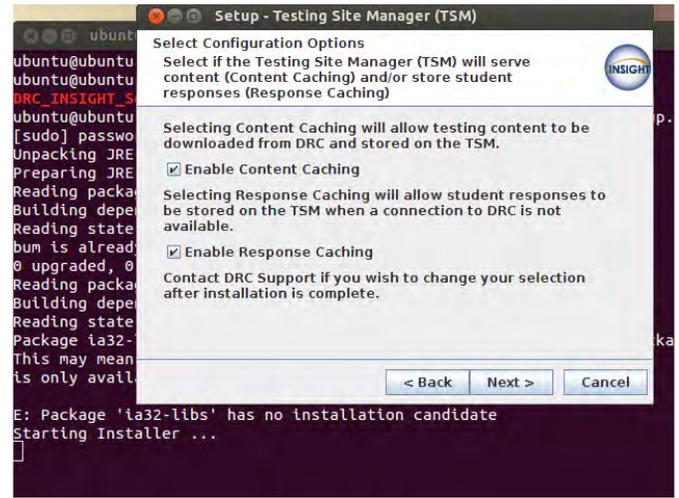
When the Next button becomes active, click **Next** to continue.



## Quick Tour 5: Installing a TSM for Linux (cont.)

8. The Select Configuration Options window displays. On this window you can enable content caching (test content) and response caching (test responses). The default values are to enable both types of caching. After you have made your selections, click **Next** to continue.

**!** **Important:** For content caching, install the TSM software on a computer that will be available when test content is automatically updated. Whenever you restart a computer that has the TSM software installed, or anytime you plan to use the TSM for testing, verify that the TSM content is up to date before you attempt to test (see “Content Caching” on page 161).

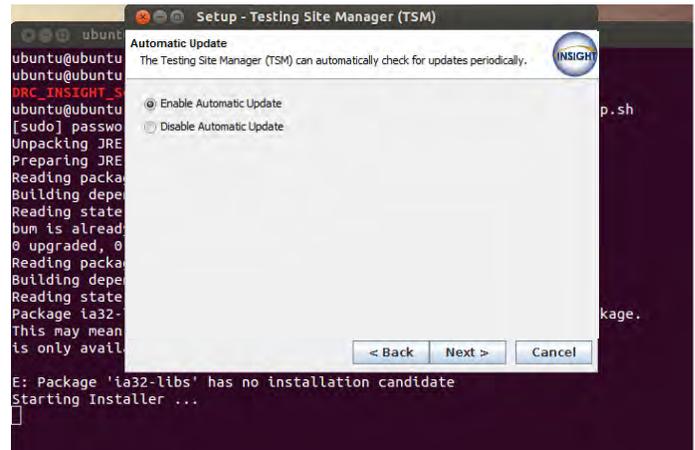


9. The Automatic Update window displays. On this window, specify whether to enable automatic TSM software updates.

- If you select **Enable Automatic Update** (the default value), DRC updates the TSM software automatically.
- If you select **Disable Automatic Update**, DRC notifies you whenever an update to the TSM software is available and you must update the software manually.

After you have made your selection, click **Next** to continue.

**!** **Important:** If you need to change the configuration of a TSM after it is installed, you must uninstall the TSM and install a new version. If you reinstall a TSM after you have installed INSIGHT, you may need to reset the TSM configuration properties for the testing computers that use the TSM (see “DRC INSIGHT Device Toolkit” on page 43).



## Quick Tour 5: Installing a TSM for Linux (cont.)

10. During the installation, a window displays to indicate the progress of the installation. If necessary, you can click **Cancel** to end the installation process.

When the installation completes, the Setup Complete window displays.

**Record the TSM server name and port numbers. You need this information when you install INSIGHT.** You can change the port numbers from this window.

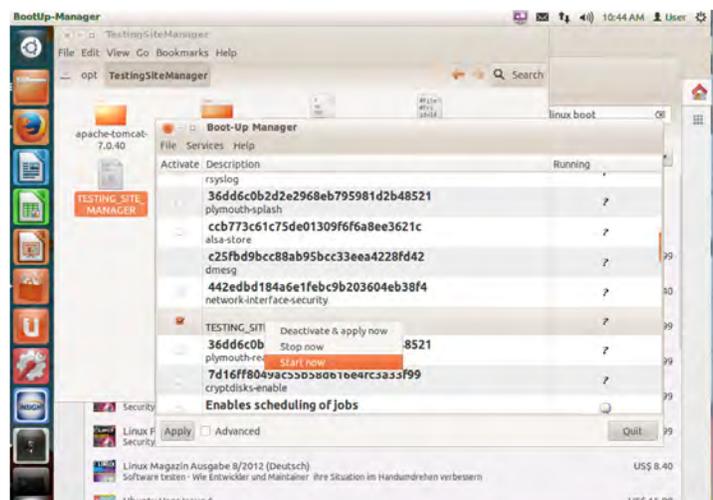
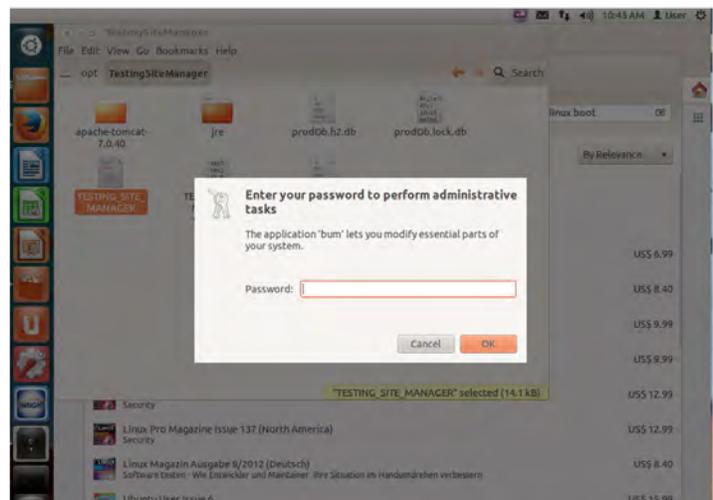
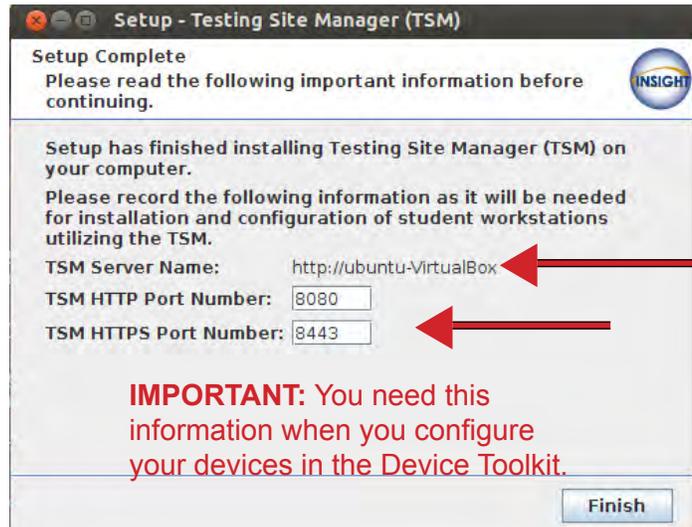
- The TSM HTTP Port Number is the port number for regular communication.
- The TSM HTTPS Port Number is the port number for encrypted communication that the INSIGHT secure web browser uses.

**Important:** To avoid potential conflicts, be certain no other device is using either port. You can change the port numbers from this window.

Click **Finish** when you are ready.

11. Open the Linux Boot-Up Manager. You may need to provide your administrator password.

12. Locate TESTING\_SITE\_MANAGER in the list, select it, right-click and select **Start Now**. When the Service started pop-up dialog displays, click **OK**.



## Quick Tour 5: Installing a TSM for Linux (cont.)

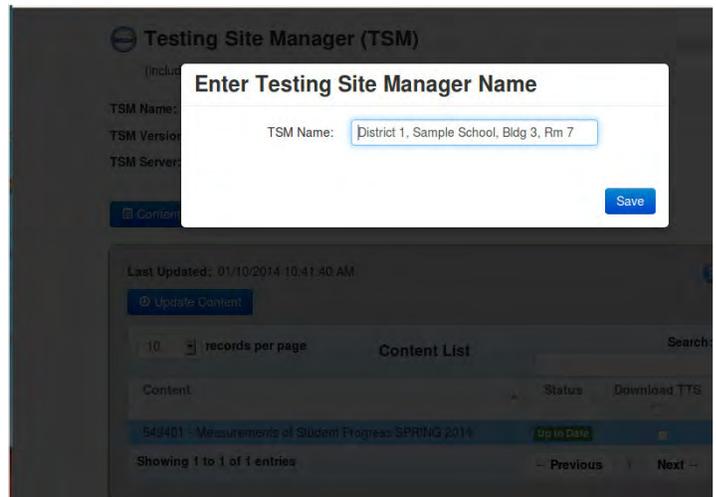
13. Start a browser and enter the following address into the address bar of a web browser:

**http://servername:8080/**

Where *servername* is the TSM server Name from Step 10. In our example, it is **ubuntu-VirtualBox**. When the TSM is first installed, the forms and items for all tests are downloaded automatically. The TSM will not display until these forms and items are downloaded.

When the Enter Testing Site Manager Name windows displays, enter a name in the TSM Name field that will help you remember the location of the TSM machine and click **OK**.

The name you choose is limited to 40 characters and there are no special formatting requirements (see “Using the TSM” on page 157). DRC recommends that you include some combination of the district, school, and location (building and/or room number) of the TSM.

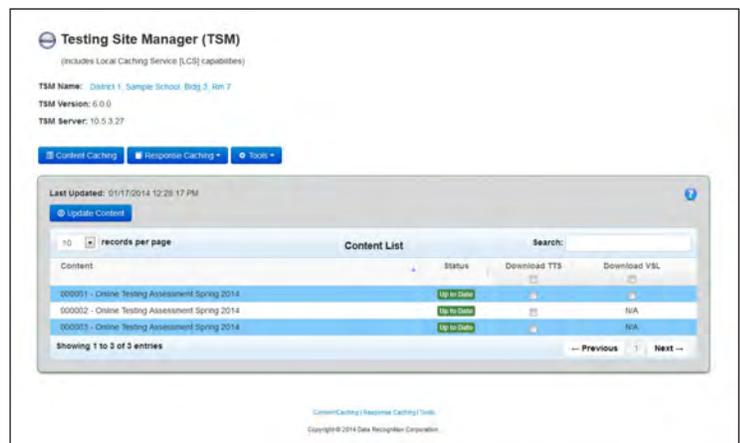


14. The TSM displays.

**Note:** If you specified Content Caching (Step 8), when the TSM is first installed, your standard test forms and items are downloaded automatically (see “Content Caching” on page 161).

If you are using optional accommodations, select the media content you need (for example, Download TTS, Download VSL). The status of the corresponding test changes to Out of Date.

Click **Update Content** to load the latest test versions. When the TSM updates the content cache, the Status field changes to Up to Date.



## 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 INSIGHT software. In a Linux environment, you use the Ubuntu Software Center to run the Wizard.

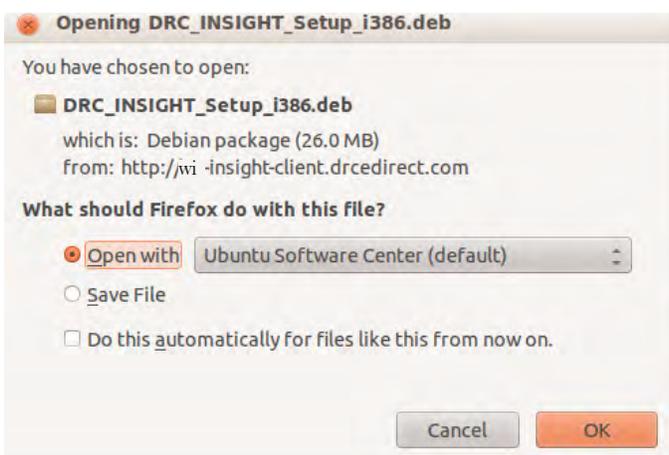
1. To launch the Wizard and start the installation, log on to eDIRECT, select **Test Setup–General Information–Downloads**, and click on the DRC Linux Installer icon (📄) to download the INSIGHT setup file—**DRC\_INSIGHT\_Setup\_i386.deb** (32-bit) or **DRC\_INSIGHT\_Setup\_amd64.deb** (64-bit)—to the Downloads directory on your testing computer.



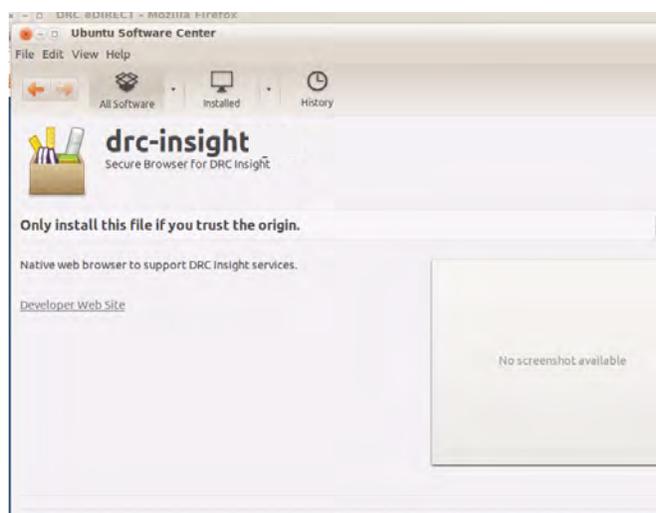
2. The Opening DRC\_INSIGHT\_Setup\_i386.deb dialog box displays (for 32-bit machines). The file for 64-bit machines is DRC\_INSIGHT\_Setup\_amd64.deb.

Select **Open with Ubuntu Software Center (default)** if it is not selected and click **OK**.

**Note:** Some browsers do not display a dialog box and load the installation file directly to your Downloads folder.

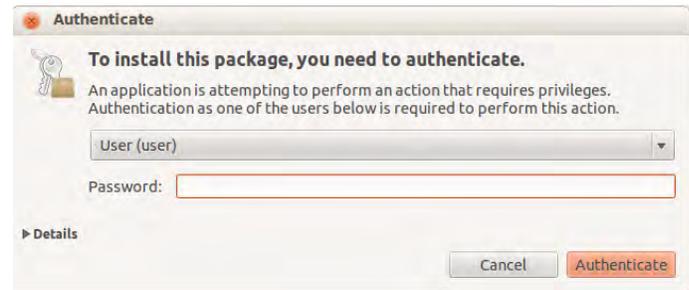


3. When the Ubuntu Software Center window displays, click **Install**.

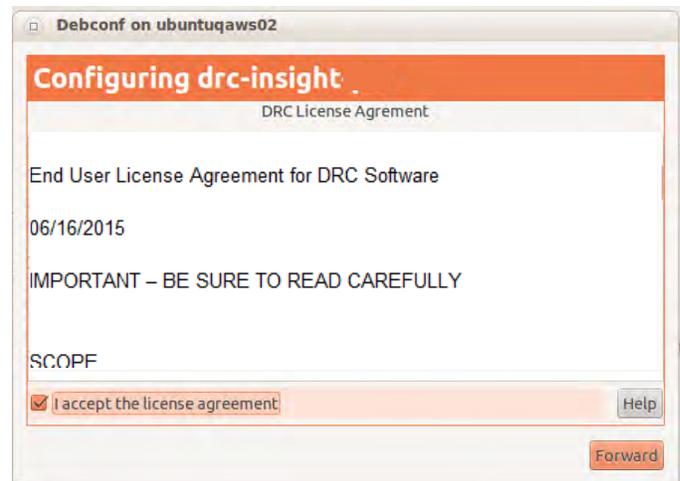


## Quick Tour 6: Installing INSIGHT for Linux (cont.)

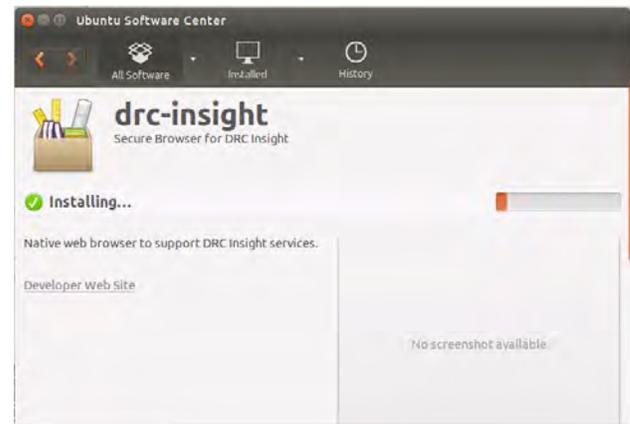
- The Authenticate dialog box displays. Select your username from the drop-down menu, enter your password and click **Authenticate**.



- The DRC License Agreement window displays. Check the **I accept the License agreement** checkbox and click **Forward**. The INSIGHT installation starts.



- While INSIGHT is installing, a page displays indicating the status of the installation.



## Quick Tour 6: Installing INSIGHT for Linux (cont.)

- After INSIGHT is installed, navigate to the directory when you installed and double-click on the DRC INSIGHT Online Assessments icon to start INSIGHT and register the device.
- The Configuration Not Found page displays, you need to locate the device's ORG Unit ID from the Device Toolkit. When you have it (you can copy and paste it from the Device Toolkit), click **Assign Device to ORG Unit**.
- When the Device Registration page displays, enter the device's ORG Unit ID from the Device Toolkit (or copy and paste it from the Device Toolkit), click **Add**.

**Note:** You can add more than one ORG Unit if you plan to use the device for more than one testing program.

When you have added the ORG Units(s), click **Register**.

- If you added one ORG Unit, when the device registers, the System Readiness check will display for that ORG Unit's testing program.
- If you added more than one ORG Unit, a page displays you can use to select your testing program. When the device registers, the System Readiness check will display for the testing program you selected.

- When the System Readiness Check launches, the System Information screen displays. You can see details about each System Readiness Check test, execute the tests, and view the results.

Click **Execute Tests** to verify that the testing computer and any TSM(s) are configured correctly. Click **Details** next to any test you need more information about (see "The System Readiness Required Tests" on page 196). When ready, click **Exit**.



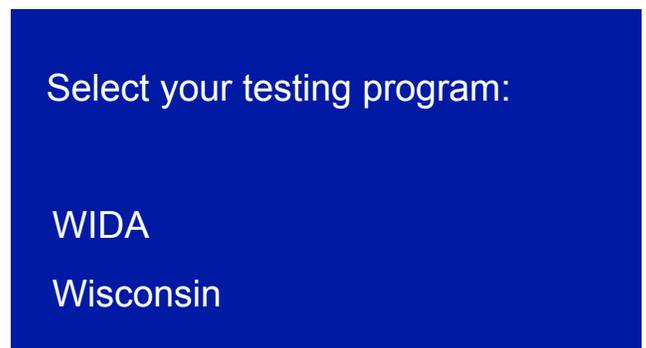
## Quick Tour 6: Installing INSIGHT for Linux (cont.)

11. When the device is successfully registered with INSIGHT, one of two pages displays:

If you configured a single testing program, the main testing page displays.

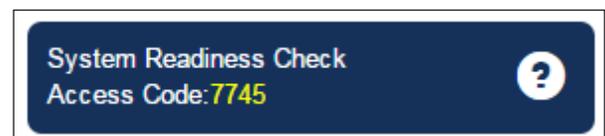


If you configured more than one testing program, a page displays that you can use to select the testing program. After you make your selection, the main testing page displays.



Within the INSIGHT App, you can try the Online Tools Training (OTT), or sign on to a take a test. You can sign in to the System Readiness Check by clicking the checkmark  in the lower left side and entering the System Readiness Check Access Code.

The System Readiness Check verifies that the testing computer has sufficient screen resolution, Internet connectivity, memory (RAM), and other technical specifications needed to perform online testing (see “The System Readiness Check” on page 190).



## Managing the TSM

This section describes how to start and stop the TSM from a command line and how to remove a TSM.

### Starting and Stopping the TSM from the Terminal

After the TSM software is installed, the Linux Administrator must start the associated service. The Linux Administrator can start or stop the TSM services in Terminal mode by using the start and stop commands as shown in the following example:

```
sudo /opt/TestingSiteManager/TESTING_SITE_MANAGER start
```

```
sudo /opt/TestingSiteManager/TESTING_SITE_MANAGER stop
```

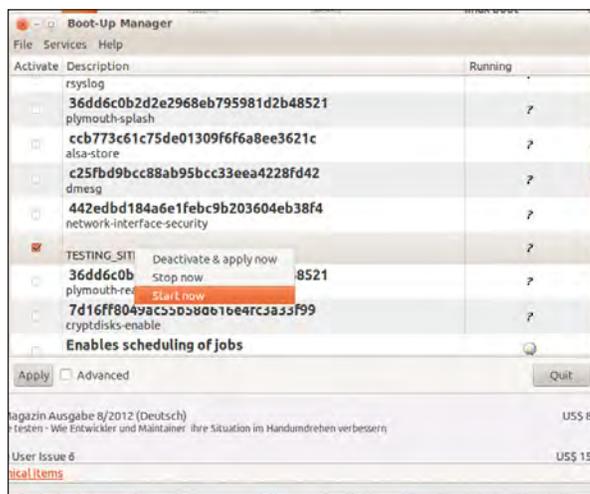
### Starting and Stopping the TSM Using the Boot-Up Manager Software

A Linux Administrator also can use the Boot-Up Manager to stop or start a service, and define whether to launch a service automatically on startup.

**Note:** The Boot-Up Manager software is installed automatically with the TSM. You also can install it from the Ubuntu Software Center, or by using the **apt-get install bum** command.

To start the TSM service, stop the TSM service, or launch the TSM service automatically at startup, do the following:

1. Start the Boot-Up Manager.
2. Locate **TESTING\_SITE\_MANAGER**.
3. Check the **Activate** checkbox to launch the service automatically on startup. To start or stop the service, right-click and select **Start now** or **Stop now**.



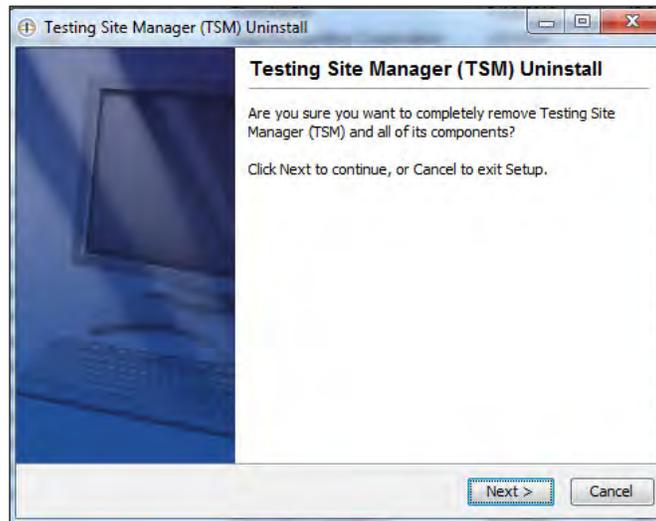
## Uninstalling the TSM

Before you attempt to uninstall the TSM, verify that there are no unsent responses in the TSM. If there are, transmit them manually first. If there are any unsent responses, you cannot uninstall the TSM.

To uninstall the TSM, perform the following steps:

1. Start Terminal mode.
2. Navigate to the TSM directory, `/opt/TestingSiteManager`.
3. Enter the command **sudo sh uninstall**
4. Click **Next** when the Uninstall Wizard displays (see the figure), follow the prompts, and click **Finish** when you are done.

**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.



### Uninstalling the TSM

**Note:** If you are unable to remove a TSM, please contact DRC Technical Support.

## Managing INSIGHT

This section describes how to install INSIGHT from the terminal or command line, and how to uninstall INSIGHT using the Synaptic Package Manager or by command.

**! Important:** After installing INSIGHT, start INSIGHT to register the device with its Device Toolkit ORG Unit configuration. (You can do this manually, by using a script, or by device management software.) Remember to register the device before applying any desktop protection software (such as Deep Freeze) to avoid having the device re-register with the Device Toolkit every time INSIGHT is launched.

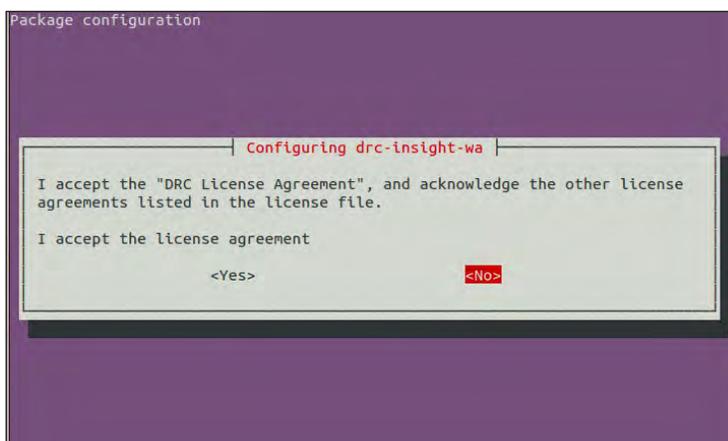
### Installing INSIGHT Using the Terminal

To install INSIGHT in the Terminal, do the following:

1. Log on to eDIRECT, select **Test Setup–General Information–Downloads** and click on the Linux Installer icon to download the INSIGHT setup file—DRC\_INSIGHT\_Setup\_i386.deb for 32-bit machines, or DRC\_INSIGHT\_Setup\_amd64.deb for 64-bit machines—to your testing computer.

**Note:** Depending on the web browser you are using, a pop-up window may display. If it does, click **Save File**. Other browsers automatically download the installation file to your Downloads folder.

2. Open the Terminal and navigate to your Downloads directory.
3. Enter the command **sudo dpkg -i DRC\_INSIGHT\_Setup\_i386.deb** or **DRC\_INSIGHT\_Setup\_amd64.deb** and press **Enter**.
4. Tab to the **Yes** field under I accept the license agreement and press **Enter**.



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

The INSIGHT installation places a silent install shell script (silent\_installer.sh) in the install directory. You can use this file to silently install INSIGHT in a Linux environment. Move the silent installer to the directory where the installer is located.

### **Installation Command Syntax and Example**

The following is the syntax for the install program command:

```
silent_installer.sh <properties>
```

The following is an example of the command you would run using the terminal from the folder where both the install file and the silent\_installer.sh file are located. The example installs the software in silent mode and points to ORG Unit WkyutvmVG1.

```
sudo ./silent_installer.sh -o WkyutvmVG1
```

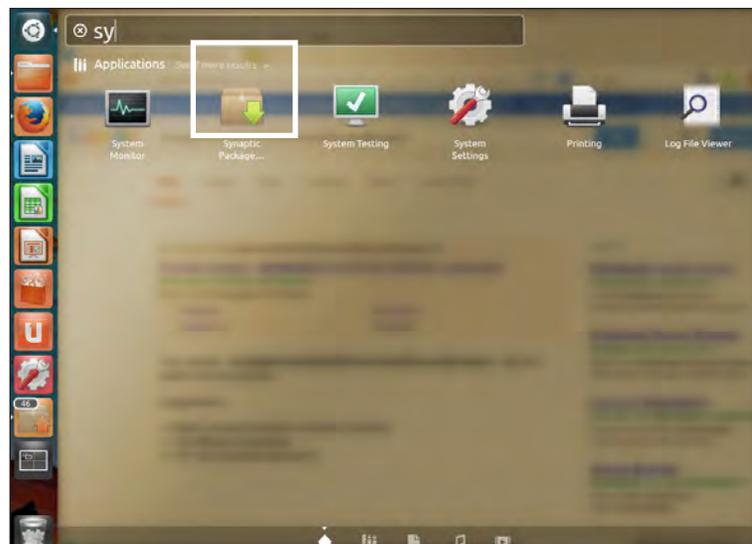
### ***Uninstalling INSIGHT Using the Synaptic Package Manager***

The Synaptic Package Manager is a graphical Linux tool to help you uninstall and remove software packages.

**Note:** You can install the Synaptic Package Manager by using the Ubuntu Software Center.

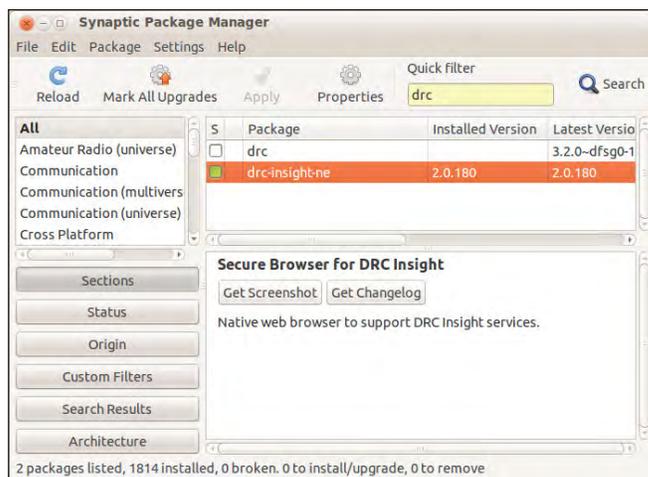
To uninstall INSIGHT, perform the following steps:

1. Start the Synaptic Package Manager by clicking on the **Synaptic Package Manager** icon in Applications.

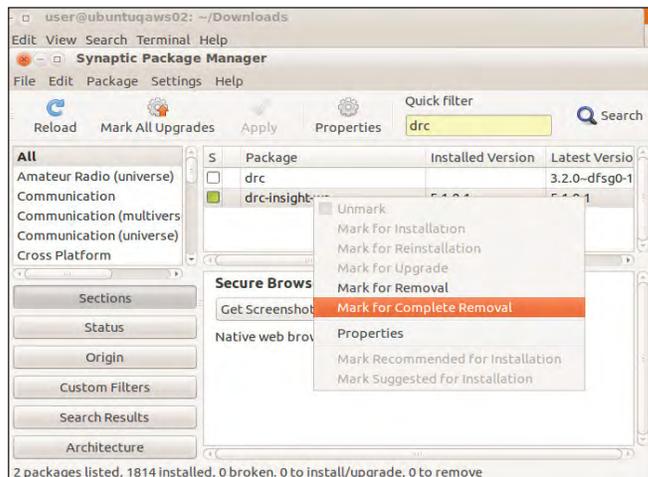


## Uninstalling INSIGHT Using the Synaptic Package Manager (cont.)

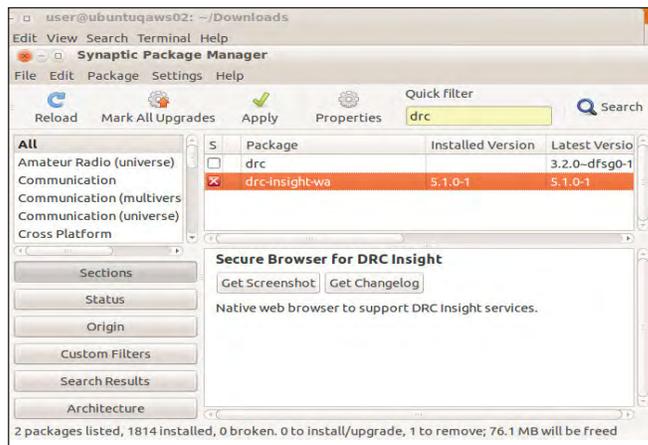
- From the Synaptic Package Manager, search for the string **drc** in the Quick Filter window.



- Select **drc-insight** and right-click on it. In the drop-down menu that displays, select **Mark for Complete Removal**.

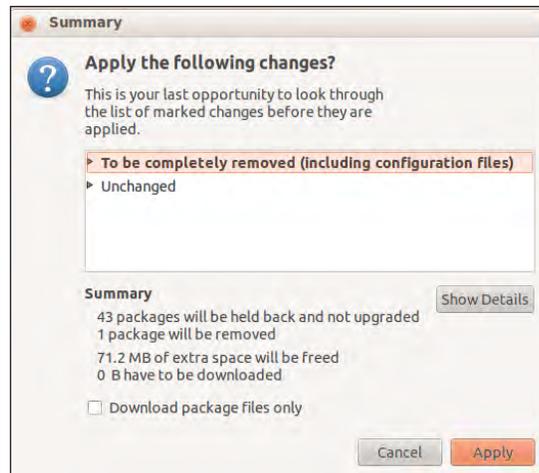


- A red icon with a white x inside of it displays next to **drc-insight**. On the Synaptic Package Manager toolbar, click **Apply**.

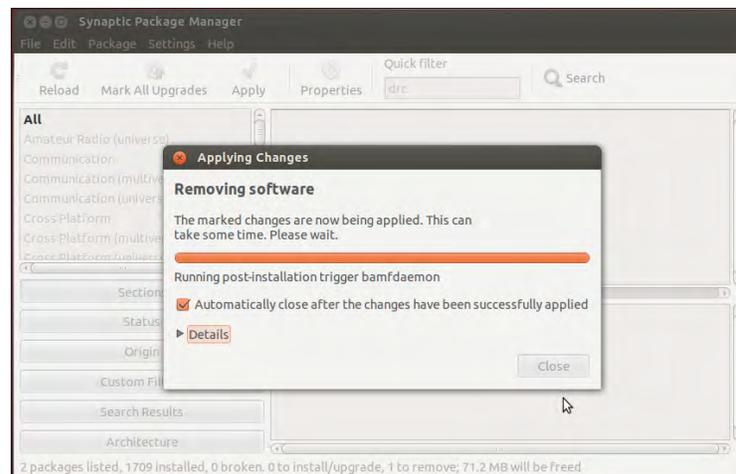


## Uninstalling INSIGHT Using the Synaptic Package Manager (cont.)

- The **Apply the following changes?** dialog box displays. Select **To be completely removed (including configuration files)** and click **Apply**.



- The Synaptic Package Manager removes the INSIGHT software package (drc-insight).



**Note:** After you are finished uninstalling INSIGHT, if you see any files or folders remaining that you want to remove, you can remove them using the **rm** command (see Cleanup on the following page). If you have any questions, please contact DRC Technical Support.

### *Uninstalling INSIGHT Manually*

In a Linux environment, the command line tool for adding, removing, and updating software packages is apt-get. To remove INSIGHT, you can use the following command in terminal mode:

```
sudo apt-get remove drc-insight
```

#### **Cleanup**

The Linux apt-get uninstall may leave files behind, such as the drconfiguration.json file. If this file still exists when you attempt a new installation, the settings for the new installation will not take effect. Use the following command from a Linux terminal to fully uninstall INSIGHT and remove its files.

```
sudo rm -rf /opt ^ DRC\ Online\ Assessments/
```

**Note:** For commands entered from a Linux terminal, the combination of backslash space (\ ) indicates a space.

# Installing INSIGHT on iPad Devices



## ■ What's Covered in This Chapter

## ■ Distributing and Registering INSIGHT

## ■ iPads, the TSM, and INSIGHT

## ■ Multiple Testing Programs

This chapter describes the process of installing INSIGHT for iPad devices in an iOS environment. It provides detailed information about installing INSIGHT and registering it to work with INSIGHT and the Testing Site Manager (TSM).

There are two main parts to the process of installing INSIGHT on an iPad device to test with the INSIGHT App—distribution and registration.

- To *distribute* (deploy) the INSIGHT App (DRC INSIGHT.ipa) you must use a Mobile Device Management (MDM) software tool. MDM software can secure, monitor, manage, and support mobile devices deployed across mobile operators, service providers, and enterprises.
- To *register* the iPad to work with your INSIGHT and the TSM, you have two options:
  - *If your MDM software supports the Managed App Configuration feature*, you can use the MDM software to deploy the INSIGHT configuration to register your iPad devices automatically. In other words, you can centrally configure multiple iPad devices using the MDM software.

Using an MDM software tool with the Managed App Configuration feature is the preferred method of distributing the same configuration file to the iPads. It is easier and less error-prone to register multiple iPads automatically than to manually register each iPad device.

- *If your MDM software does not support the Managed App Configuration feature*, you can use the MDM software to distribute the INSIGHT App to the iPad devices, but you must manually register each iPad.

A TSM is used primarily to cache and manage test content and responses. For various reasons, iPad devices do not provide a suitable environment for a TSM. As a result, you should install the TSM software on a Windows PC, Mac (OS X) computer, or Linux machine, and connect to the TSM when you install INSIGHT on the iPad device. For specific TSM installation instructions, refer to the appropriate installation chapter.

You can use INSIGHT to access multiple testing programs (for example, ACCESS for ELLs and your state-specific testing program) from the same device. You access these testing programs using the same DRC INSIGHT desktop shortcut. When you start INSIGHT, a page displays listing the different testing programs from which you can select.

## ■ DRC INSIGHT and the Apple App Store

## ■ Installing and Registering INSIGHT Using an MDM Solution

**! Important:** Currently, the DRC INSIGHT App for iPads is available from DRC eDIRECT. In a future release of DRC INSIGHT, the DRC INSIGHT App for iPads will be available from the Apple App Store.

To install INSIGHT on one or more iPads you must use MDM software. The following is a summary of the process of installing and registering INSIGHT on multiple iPads using an MDM solution. This summary assumes that you have already installed and set up an MDM solution and have enrolled all the iPads using the MDM tool.

**! Important:** There are many versions of MDM software. To *deploy and register* your DRC INSIGHT iPad software automatically, your MDM software must support the Managed App Configuration feature (first introduced in iOS 7). This feature is necessary to perform Step 2. Otherwise, after you deploy INSIGHT, you must register each iPad manually.

### 1. Configure the iPad Group

You must configure an iPad group for secure testing, either manually or by using an MDM solution. For iOS levels 8.1.3 and higher, Apple introduced configuration profile options to restrict access to spelling and definition features for supervised iPad devices. For these devices, you can use key values to:

- Turn Check Spelling off
- Turn Predictive Text off (see “iOS 8-Predictive Text and the Emoji Keyboard” on page 126)
- Turn Auto-Correction off
- Turn Auto-Capitalization off

For more information about using these options and key values with supervised devices, refer to <http://support.apple.com/en-us/HT204271>.

### 2. Deploy INSIGHT

Download the DRC INSIGHT executable (DRC INSIGHT.ipa) from DRC eDIRECT and locate the configuration file (ios.plist) you created using the Device Toolkit (see “Creating a Configuration File” on page 55). Deploy the DRC INSIGHT executable and configuration files to your iPads using your MDM software.

## ■ Installing and Registering INSIGHT Using an MDM Solution (cont.)

### □ Autonomous Single App Mode (ASAM)

#### 3. Prepare the iPads for Testing

When you are ready to start testing, start the iPad and use **Settings–General–Keyboard** to verify that Check Spelling, Predictive Text, Auto-Correction, and Auto-Capitalization are disabled. If they are not, disable them. Also verify that the English keyboard is the only keyboard that is active.

#### 4. Place iPad in Kiosk Mode

Verify that Guided Access is on to put the iPad into Kiosk Mode (required for testing). If it is not, specify **Settings–General–Accessibility–Learning–Guided Access** to turn it on and select **Set Passcode** to set the passcode. If you are using an external keyboard, pair the iPad with an external keyboard.

**Note:** To put the iPad device into Kiosk Mode, TCs must provide a passcode (numeric password). This same passcode information is necessary to exit the INSIGHT App during or after testing. **Do not give the passcode to students before or after testing.**

.....  
**!** **Important:** Autonomous Single App Mode (ASAM) is an iOS feature that can limit iPads to a single app (similar to Guided Access or Kiosk Mode). With ASAM, you do not have to manually turn on Guided Access before testing with INSIGHT—ASAM starts INSIGHT in Autonomous Single App Mode and releases the iPad from this mode when you exit INSIGHT. ASAM is managed by your MDM solution, or the Apple Configurator. For more information, see:

[https://www.apple.com/education/docs/Assessment\\_with\\_iPad\\_073015.pdf](https://www.apple.com/education/docs/Assessment_with_iPad_073015.pdf)  
.....

#### 5. Pair External Keyboard

To use an external keyboard, manually pair each iPad device with an external keyboard (if you did not use the MDM software to pair the iPad device with an external keyboard).

**Note:** Both wired and wireless keyboards are supported for testing.

#### 6. Launch the DRC INSIGHT App

Launch DRC INSIGHT. The iPad device is automatically registered with INSIGHT.

If a single assessment is configured, the main INSIGHT page displays. If multiple assessments are configured, you can select an assessment.

## ■ Installing INSIGHT Using an MDM Solution and Registering It Manually

The following is a process of installing INSIGHT using an MDM solution and registering it manually. This summary assumes that you have already installed and set up the MDM software and have enrolled all the iPads using the MDM software.

### 1. Configure the iPad Group

You must configure an iPad group for secure testing, either manually or by using an MDM solution. For iOS levels 8.1.3 and higher, Apple introduced configuration profile options to restrict access to spelling and definition features for supervised iPad devices. For these devices, you can use key values to:

- Turn Check Spelling off
- Turn Predictive Text off and delete the Emoji keyboard (see “iOS 8-Predictive Text and the Emoji Keyboard” on page 126)
- Turn Auto-Correction off
- Turn Auto-Capitalization off

For more information about using these options and key values with supervised devices, see:

<http://support.apple.com/en-us/HT204271>

If your MDM software allows, configure the iPad group to turn off Check Spelling, Predictive Text, Auto-Correction, and Auto-Capitalization, and enable/activate the Guided Access feature.

### 2. Deploy INSIGHT

Download the DRC INSIGHT executable (DRC INSIGHT.ipa) file from DRC eDIRECT and deploy the DRC INSIGHT executable file (INSIGHT.ipa) to your iPads using your MDM software.

### 3. Prepare the iPad for Testing

When you are ready to start testing, start the iPad and use **Settings—General—Keyboard** to verify that Check Spelling, Predictive Text, Auto-Correction, and Auto-Capitalization are disabled. If they are not, disable them. Also verify that the English keyboard is the only keyboard that is active.

## ■ Installing INSIGHT Using an MDM Solution and Registering It Manually (cont.)

### □ Autonomous Single App Mode (ASAM)

#### 4. Place iPad in Kiosk Mode

Verify that Guided Access is on to put the iPad into Kiosk Mode (required for testing). If it is not, specify **Settings–General–Accessibility–Learning–Guided Access** to turn it on and select **Set Passcode** to set the passcode. If you are using an external keyboard, pair the iPad with an external keyboard.

**Note:** To put the iPad device into Kiosk Mode, must provide a passcode (numeric password). This same passcode information is necessary to exit the INSIGHT App during or after testing. **Do not provide students with the passcode information.**

.....  
**!** **Important:** Autonomous Single App Mode (ASAM) is an iOS feature that can limit iPads to a single app (similar to Guided Access or Kiosk Mode). With ASAM, you do not have to manually turn on Guided Access before testing with INSIGHT—ASAM starts INSIGHT in Autonomous Single App Mode and releases the iPad from this mode when you exit INSIGHT. ASAM is managed by your MDM solution, or the Apple Configurator. For more information, see:

[https://www.apple.com/education/docs/Assessment\\_with\\_iPad\\_073015.pdf](https://www.apple.com/education/docs/Assessment_with_iPad_073015.pdf)  
.....

#### 5. Pair External Keyboard

To use an external keyboard, manually pair each iPad device with an external keyboard (if you did not use the MDM software to pair the iPad device with an external keyboard).

**Note:** Both wired and wireless keyboards are supported for testing.

#### 6. Launch the DRC INSIGHT App

Because the iPad device will not automatically be registered with INSIGHT, a field will display requesting the ORG Unit ID for the device. Enter the ID(s) in the field and click **Save** to request the Device Toolkit ORG Unit ID and register the iPad.

If a single assessment is configured, the main INSIGHT page displays. If multiple assessments are configured, you can select an assessment.

## ■ Working with Guided Access

### □ Configuring Guided Access

This section describes some helpful hints for working with the Apple Guided Access feature. Refer to Guided Access documentation for additional information. For alternatives to Guided Access, see “Autonomous Single App Mode (ASAM)” on page 122.

To configure the Guided Access feature, do the following:

1. Select **Settings–General–Accessibility (Learning)–Guided Access**.
2. Turn Guided Access on and click **Set Passcode**.
3. Enter and re-enter a four-digit passcode. You need this passcode to exit an INSIGHT session on an iPad while testing.

.....  
 **Important:** Do not provide the passcode to students.  
 .....

4. Click the Home button to exit Settings.

### □ Enabling Guided Access

To enable the Guided Access feature, do the following:

1. Open the INSIGHT App.
2. Triple-click the Home button quickly. The message **Guided Access Enabled** displays and the user cannot leave the App.
3. To exit the INSIGHT App, triple-click the Home button quickly and enter the four-digit passcode you used to configure Guided Access.
4. The screen display changes and allows you to End (end the App) and Resume (resume the App with Guided Access activated). Press **End** to end the App and **Exit** to exit INSIGHT.

### □ Parts of Touchscreen Disabled

To troubleshoot touchscreen issues, do the following:

1. Triple-Click the Home button.
2. Enter the four-digit Guided Access passcode.
3. Verify that **Ignore All Screen Touches** is disabled.
4. Check for gray circles on the screen. If any exist, delete them.
5. Press **Resume**.

### □ Enable Volume Rocker

To enable the volume rocker, do the following:

1. Triple-click the Home button.
2. Enter the four-digit Guided Access passcode.
3. Select **Options**.
4. Turn on the Volume.
5. Press **Resume**.

## iOS 8—Predictive Text and the Emoji Keyboard

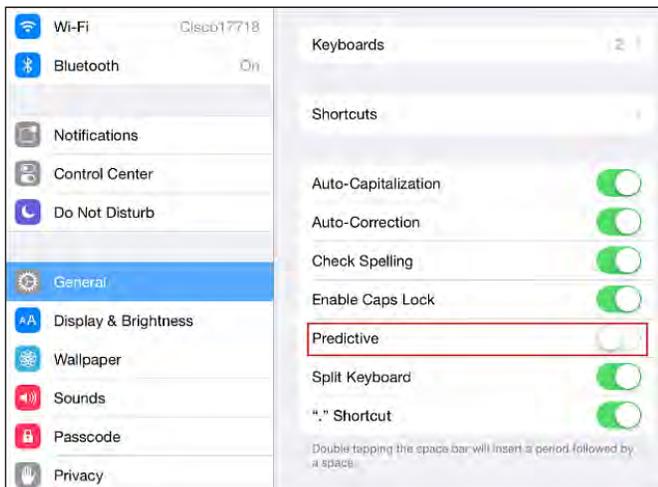
The iOS 8 level of Apple’s mobile operating system provides a feature called Predictive Text. When this feature is enabled, the operating system displays a menu above the iPad’s internal keyboard. The operating system software uses this menu to attempt to predict the word the user is typing. Instead of having to type the entire word, the user can tap the box above the keyboard that contains the suggested word to insert the word into the text.

**! Important:** If you test using iOS 8, you must disable the Predictive Text feature and delete the Emoji keyboard to prevent the operating system from enabling the Predictive Text feature again. This feature must be disabled to ensure the validity of student test results. Failure to do so may give some students advantages over other students.

### Disabling Predictive Text

To disable the Predictive Text feature, do the following:

1. Select **Settings–General–Keyboard–Predictive**.

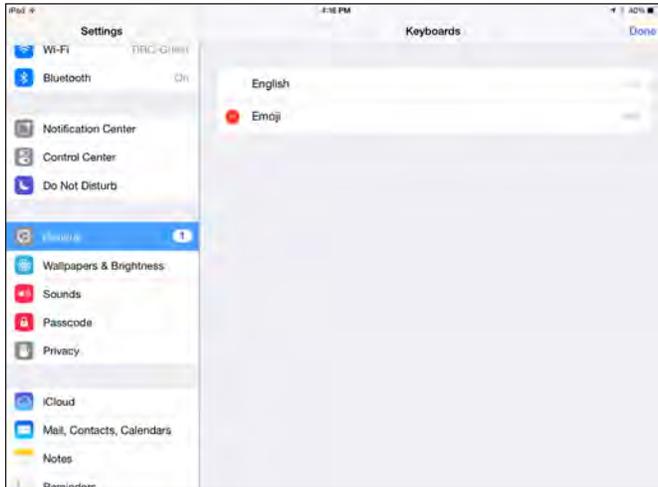


2. Turn **Predictive** off.

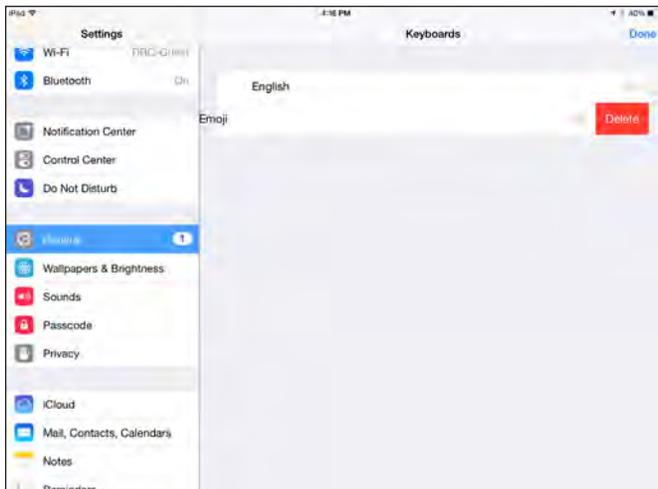
## Deleting the Emoji Keyboard

To disable Predictive Text and prevent it from being re-enabled in iOS 8, you also must delete the Emoji keyboard. To delete the Emoji keyboard, do the following:

1. Select **Settings–General–Keyboard–Keyboards–Edit** (top right corner). The Edit display changes to Done and a red Remove icon (🗑️) displays next to Emoji.



2. Press the red Remove icon (🗑️) and press **Delete** when it displays.

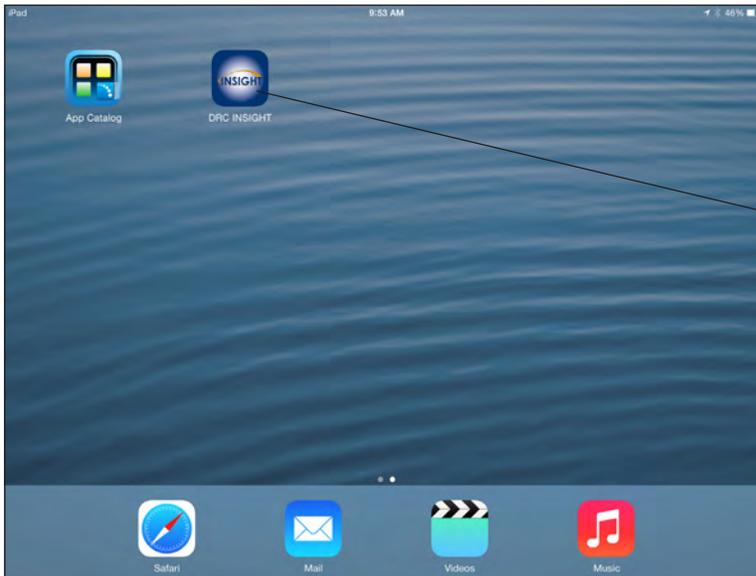


3. Verify that the student is using an English keyboard.
4. Click the Home button to exit Settings.

# iPad Installation

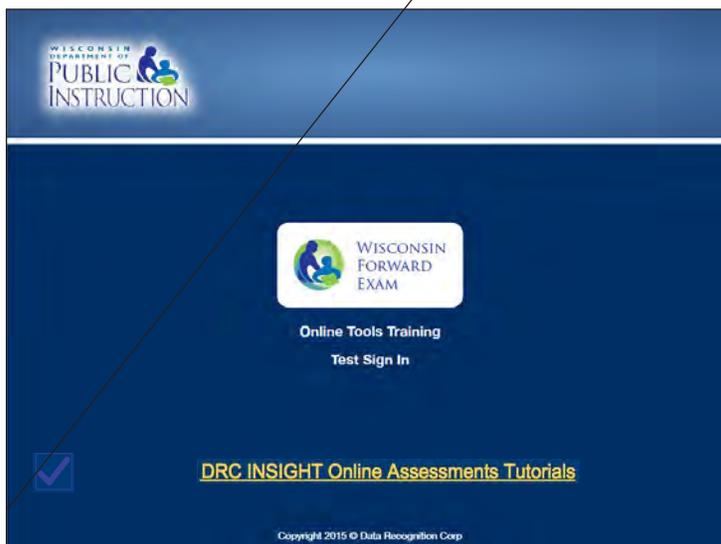
## Viewing the DRC INSIGHT Configuration on an iPad

You can view the iPad's INSIGHT configuration from the System Information page that displays when you start the System Readiness Check on an iPad.



**1.** Press **DRC INSIGHT** to start INSIGHT.

**2.** Press the System Readiness Check checkmark link  in the lower left corner and enter the four-digit System Readiness Check Access Code (**7745**) from the Device Toolkit to display the System Information page (see “Starting the Device Toolkit and Displaying an ORG Unit” on page 49).



**Note:** Within the INSIGHT App, you can try the or sign on to a take a test.

## Viewing DRC INSIGHT Properties on an iPad (cont.)

3. You can view your INSIGHT configuration. This information is read-only.

**System Information**

Client Version	Configuration Source	Installation Directory
6.0.0	Device Toolkit	C:\Program Files\DRC INSIGHT Online Assessments
Machine Name	User Name	OS Version
	Microsoft Windows 7 Enterprise Edition Service Pack 1 (build 7601), 32-bit	6.1
Response Caching TSM Connection	Response Caching TSM Configuration	Content Caching TSM Connection
https://10.1.99.78:8443/	Yes	https://10.1.99.78:8443/
HTTPS Proxy	Device ID	Device Toolkit Organizational Unit and ID
	QJU	Level 2 Support (969)
		District
		Sample District
		School
		Sample School 2

**Required Test List**

Status	Test Name	Details
✓	Screen Resolution	Details
✓	Internet Connection	Details
✓	RAM	Details
✓	Audio Capability	Details
✓	OS Level	Details
✓	User Agent	Details
✓	Response Caching TSM Connection	Details
✓	Response Caching TSM Status	Details
✓	Response Caching TSM Version	Details
✓	Content Caching TSM Connection	Details
✓	Content Caching TSM Version	Details
✓	Client Version	Details
✓	Folder Permissions	Details

Load Results Execute Tests Test Audio Exit

Copyright © 2015 Data Recognition Corporation.

4. Click **Execute Tests** to verify that the iPad is ready for testing. If there are errors, you must resolve them and repeat steps 3 and 4. To make configuration changes, you must use the Device Toolkit.

5. If your iPad is ready for testing, click **Exit**. Disable Check Spelling, Predictive Text, Auto-Correction, and Auto-Capitalization, and turn on the Guided Access feature to put the iPad into Kiosk Mode (required for testing).

**Note:** Apple requires a passcode (numeric password) to activate Guided Access. This passcode must be secure—do not allow students to have the passcode.

To use an external keyboard, pair the iPad with a keyboard and relaunch the DRC INSIGHT App.

# Notes

# Installing INSIGHT on Chromebook Devices



## ■ What's Covered in This Chapter

## ■ Setting Up INSIGHT on Chromebooks

### □ INSIGHT Deployment Overview

### □ INSIGHT Installation Overview

This chapter describes the INSIGHT installation and configuration process for Chromebook devices. It provides detailed information about installing INSIGHT and configuring it using the Device Toolkit.

DRC provides software called the Device Toolkit that you can use to configure and install the TSM with the Chromebooks in your environment. You use this software after you have registered your Chromebooks in your Google domain account (for more information about registering Chromebooks, see <https://support.google.com/a/answer/182433>).

The following overviews the process of installing, configuring, deploying, and registering INSIGHT on your Chromebook devices. Basically, you set up organization units (ORG Units) using the Device Toolkit, generate a chromeos.json file, and install and deploy INSIGHT. When you start INSIGHT, the Chromebook device is registered with INSIGHT through the ORG Unit.

1. Use the DRC Device Toolkit to create ORG Units.
2. Use Chrome device management to install and deploy INSIGHT and the chromeos.json file to your Chromebook devices. The INSIGHT App is installed as a Kiosk application the next time the policy is reloaded based on your site's settings. To deploy the INSIGHT App immediately, enter **chrome://policy** in the address bar of the Chromebook and click **Reload policies**.
3. After INSIGHT is deployed, start it on each Chromebook device to register the device.

To test using INSIGHT, you can connect to a TSM for content caching, response caching, load simulation testing, and other functions. The following is a brief overview of the process of installing INSIGHT and configuring a Chromebook.

1. To use a TSM, install one or more TSMs on desktop or laptop computers that have static IP addresses (if you use the machine's IP address to connect to the TSM) and will be available around the clock.
2. Sign on to DRC eDIRECT using a supported browser (see "Web Browsers and the Device Toolkit" on page 45) and use the Device Toolkit link to start the DRC INSIGHT Device Toolkit.

**!** **Important:** You must whitelist the following URL to enable the Chromebook to communicate with the Device Toolkit.

**dtk.drcedirect.com 50.58.190.22**

## ❑ INSIGHT Installation Overview (cont.)

3. Use the DRC INSIGHT Device Toolkit to organize and configure your Chromebook devices by performing the following tasks:
  - Create ORG Units based on your testing setup and needs, and group the Chromebook devices into the ORG Units.
  - Configure each ORG Unit, specifying the connection to a TSM for all of the devices in the ORG Unit.
  - Check the contents of the log files during testing to monitor testing and Chromebook activity and make any configuration changes.
4. Use the URL DRC provides to install the DRC INSIGHT App on your Chromebook devices from the Google administration website.
5. Using Chrome management, upload the chromeos.json file which you generated from the Device Toolkit.
6. Launch INSIGHT on the Chromebook. Run the System Readiness Check to verify that the Chromebook can connect to the TSM and is ready for testing. If necessary, use the Device Toolkit to reconfigure the ORG Unit, and restart the DRC INSIGHT software to update the device's configuration.
7. Test the configurations and monitor the log files for issues.

## ❑ Chromebooks, the TSM, and INSIGHT

A TSM is used primarily to cache and manage test content and responses. For various reasons, Chromebooks do not provide a suitable environment for a TSM. As a result, you should install the TSM software on a Windows PC, Mac (OS X) computer, or Linux machine, and connect to the TSM when you install INSIGHT on the Chromebook. For specific TSM installation instructions, refer to the appropriate installation chapter.

---

**!** **Important:** Verify that the maximum number of Chromebook devices in any Chrome Management subgroup does not exceed 150. If you attempt to test using a single TSM with more than 150 devices the results are unpredictable (see “TSM Installation and the Number of Students Testing” on page 28).

---

## ❑ Multiple Testing Programs

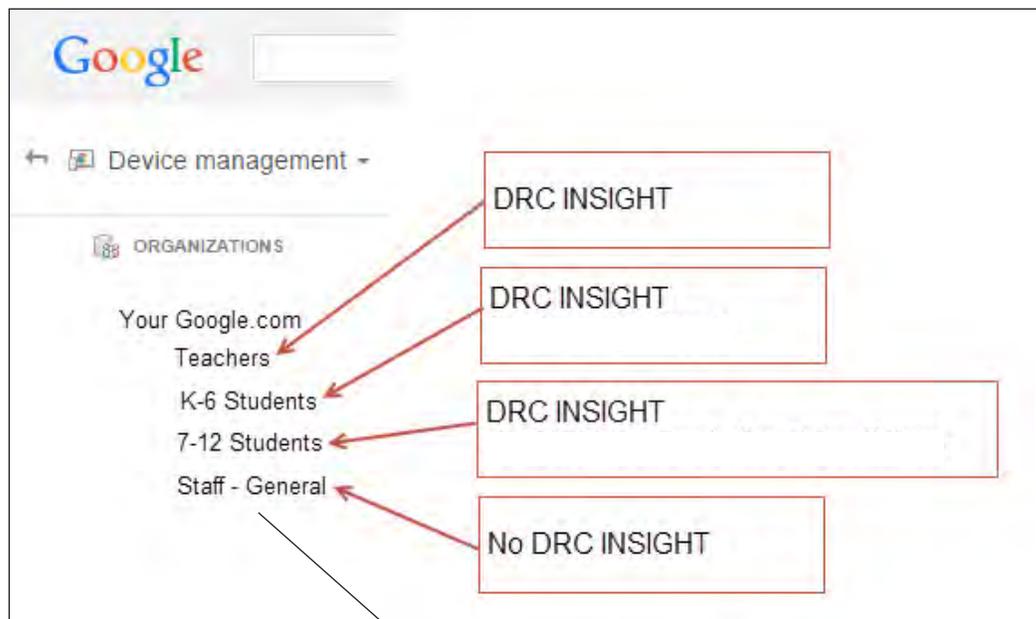
You can use INSIGHT to access multiple testing programs (for example, ACCESS for ELLs and your state-specific testing program) from the same device. You access these testing programs using the same DRC INSIGHT desktop shortcut. When you start INSIGHT, a page displays listing the different testing programs from which you can select.

## Example of Chromebook Setup and Configuration for INSIGHT

The following is a high-level example of how to set up your Chromebook environment in Google to complement DRC INSIGHT and Single App Kiosk Mode. DRC assumes that users have registered their Chromebooks as part of their initial implementation. For secure testing, Google specifies that the user must get Chrome device management software for each Chrome device and enroll each Chrome device in the school's domain.

**! Important:** The instructions in this chapter assume that you have already set up your Chrome environment using the Chrome device management software. The details of this process are outside the scope of this documentation. For more information, see <https://support.google.com/chrome/a> and “Chromebook Questions” on page 227.

1. Log in to your Google Admin account at [admin.google.com](https://admin.google.com).



2. Identify which organizations or sub-organizations should have DRC INSIGHT (see the Image above).

3. Enroll Chromebook devices and identify them by the device's serial number. You can add notes to help identify the device (see the Example and Notes below).

**Device Serial Number YH4B922AB01005R Notes: Chromebook assigned to Sample School, Grade 4, Asset number 12345**

4. Move the Chromebook devices to the appropriate sub-organizations.

**Note:** The Google device administration organizations (organization units) are not the same as the DRC Device Toolkit ORG Units, and the Chromebook's serial number is not the same as the Chromebook Device ID that the Device Toolkit creates (see “DRC INSIGHT Device Toolkit” on page 43).

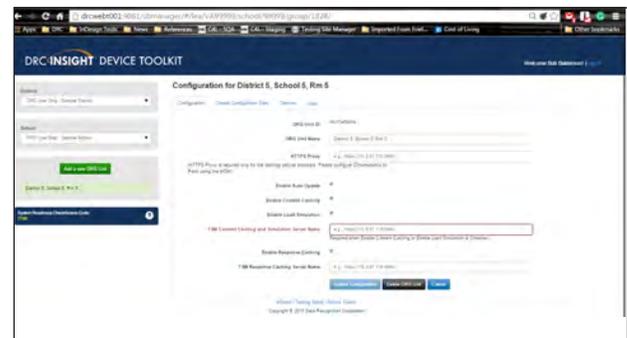
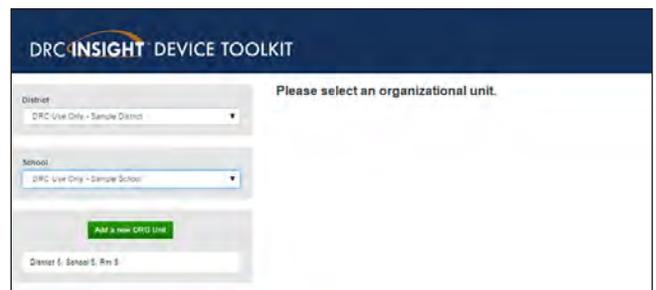
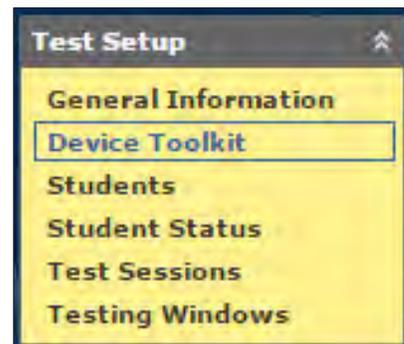
## Quick Tour 7: Installing INSIGHT for Chrome

This Quick Tour describes how to install the DRC INSIGHT App on one or more Chromebooks using the Device Toolkit and the Google administration site (see the Important note below).

**! Important:** You must have a Google Chrome Administrator profile to install the DRC INSIGHT App.

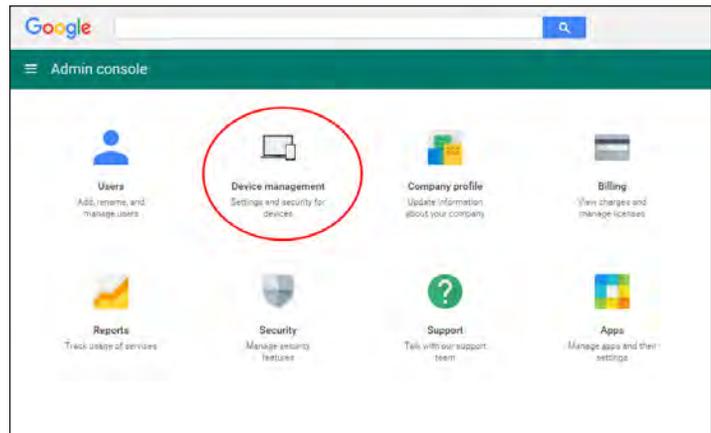
If you plan to use Chromebook devices that were previously registered with the Device Toolkit, and the Device Toolkit ORG Unit configurations and Device IDs are still applicable, you do not need to follow this process and re-register your Chromebooks with the Device Toolkit. When INSIGHT is launched, it will locate the Device ID from the Device Toolkit and use the associated configuration.

1. You must deploy the DRC INSIGHT configurations to each Chromebook being used for testing by using the DRC Device Toolkit. To start the Device Toolkit software and register the Chromebook, sign in to DRC eDIRECT at <https://wi.drceirect.com> using a supported browser and select **Test Setup–Device Toolkit**.
2. The Device Toolkit software displays in your browser. Use this software to create organizational units (ORG Units) to group, organize, and categorize your Chromebooks for testing. For each ORG Unit, you identify its DRC INSIGHT configuration. When you launch the Chromebook, it uses the configuration settings identified for the ORG Unit(s) to which the device is assigned (see “DRC INSIGHT Device Toolkit” on page 43).
3. Select a district from the District drop-down menu and a school from the School drop-down menu.
4. Click **Add a new ORG Unit** to get started (see “Creating and Deleting ORG Units” on page 51).

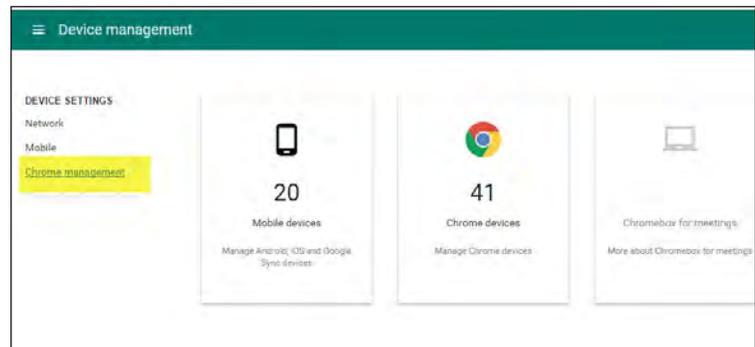


## Quick Tour 7: Installing INSIGHT for Chrome (cont.)

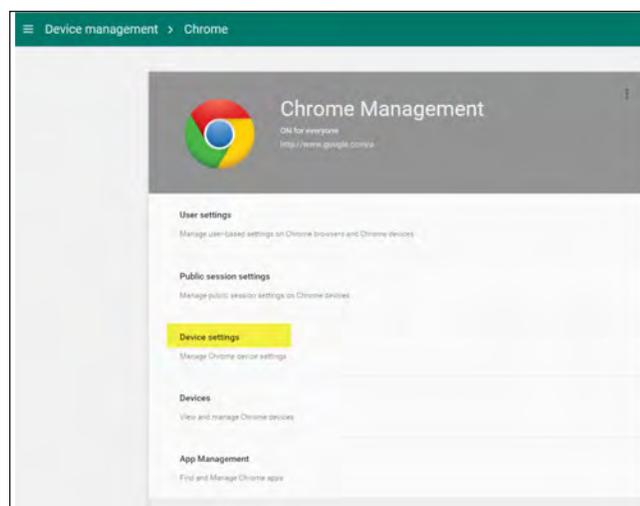
- Using a web browser that Google supports (see <https://support.google.com/a/answer/33864?hl=en>), navigate to the Google administration site a <http://admin.google.com>, log in with an administrator profile, and select **Device management**.



- Select **Chrome Management**.



- Select **Device settings**.



## Quick Tour 7: Installing INSIGHT for Chrome (cont.)

8. The Device Settings page displays (for steps 1–5, refer to the circled numbers in the images).

**1** Select the proper organization level to be able to deploy the DRC INSIGHT App to everyone that will use it for testing.

**Note:** Where the example shows drc-education.com, your domain will be listed.

**2** Verify that the setting for Release Channel is Move to Stable Channel (the default value).

**! Important:** This setting prevents development or beta versions of software being distributed to your Chromebooks during a Google Chrome update process.

**3** For Auto-Launch Kiosk App, leave the value as **None** so the user can use the Chromebook for non-DRC INSIGHT testing.

**4** Scroll up the page to User Data and select **Do not erase all local user data**.

**5** Scroll down the page and click **Manage Kiosk Applications**.

9. The Kiosk Apps page displays (for steps 1–4, refer to the circled numbers in the diagram).

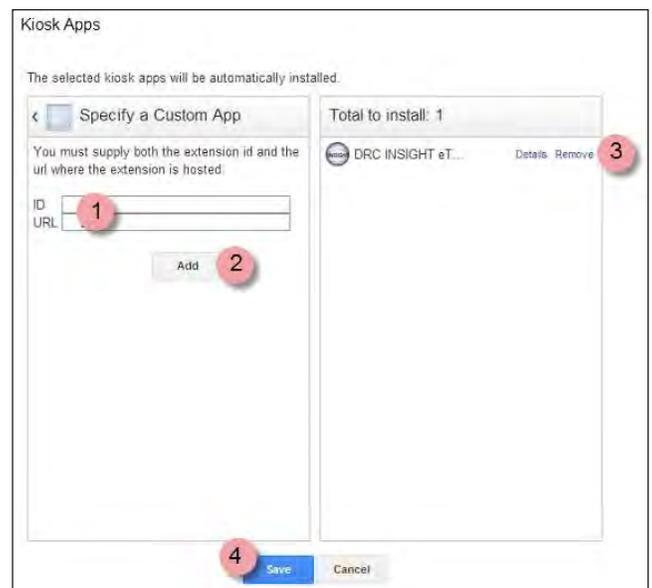
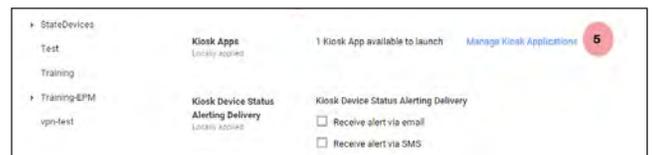
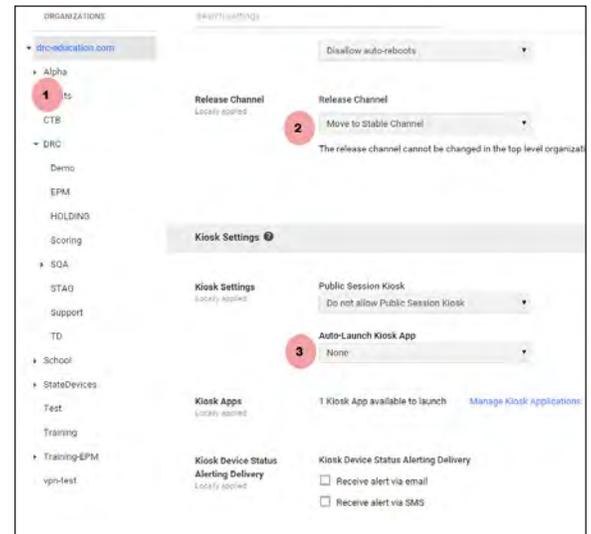
**1** Click **Specify a Custom APP** and Enter the ID and URL for the DRC INSIGHT App (required).

**Note:** For the ID and URL, see “Installation Files” on page 20. The Chromebook installation file (ChromeAppIDInfo.txt) contains the ID and URL. To download the file, log in to eDIRECT, select **Test Setup–General Info–Downloads**, and download the file for the Chromebook platform.

**2** Click **Add**.

**3** The screen refreshes and the DRC INSIGHT App icon displays in the **Total to install** list.

**4** Click **Save**.



## Quick Tour 7: Installing INSIGHT for Chrome (cont.)

10. Use the Chrome management App Management feature to upload the chromeos.json file.



11. Launch the DRC INSIGHT app by selecting the string next to the icon (above the arrow).



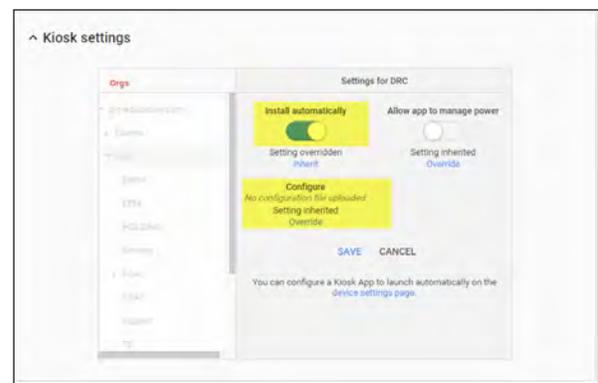
12. Navigate to Kiosk Settings and locate the Chrome organizational unit containing the device you want to configure.



13. Click **Override** under Setting Inherited to search for and upload the chromeos.json file you generated from the Device Toolkit, verify that **Install automatically** is enabled, and click **Save**. The Device Settings page redisplay. Click **Save Change**.

The INSIGHT App will be installed as a Kiosk application the next time the policy is reloaded, based on your site's settings.

**Note:** To reload device policy updates (to the INSIGHT App) immediately, enter *chrome://policy* in the address bar of the Chromebook and click **Reload policies**.



## Quick Tour 7: Installing INSIGHT for Chrome (cont.)

The INSIGHT App will be installed as a Kiosk application the next time the policy is reloaded, based on your site's settings.

**Note:** To reload device policy updates (to the INSIGHT App) immediately, enter *chrome://policy* in the address bar of the Chromebook and click **Reload policies**.

14. You are ready to register the device and start testing. To start INSIGHT, start the Chromebook and do not log in to any Google accounts (see below).

.....  
**!** **Important:** If a user logs in to the Chromebook using a Google account, they will not see the DRC INSIGHT App. The DRC INSIGHT App runs in Single App Kiosk Mode, which means that the user cannot access any other application until they exit INSIGHT.  
.....

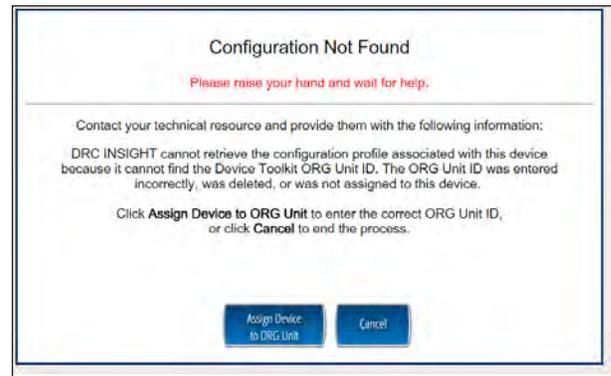
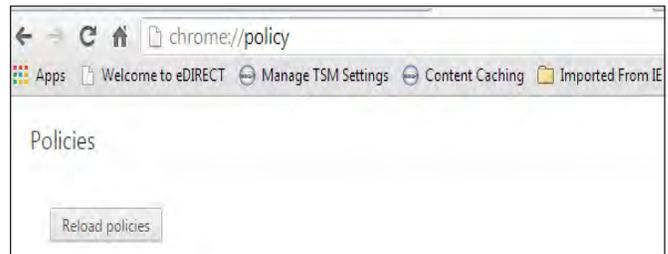
Click **App** from the Chromebook sign-in screen, and click **DRC INSIGHT** to display the main page. If the device successfully registers with INSIGHT, skip to Step 18.

15. If the device did not successfully register with INSIGHT and the Configuration Not Found page displays, you need to locate the device's ORG Unit ID from the Device Toolkit. When you have it (you can copy and paste it from the Device Toolkit), click **Assign Device to ORG Unit**.

16. When the Device Registration page displays, enter the device's ORG Unit ID from the Device Toolkit (or copy and paste it from the Device Toolkit), click **Add**.

**Note:** You can add more than one ORG Unit if you plan to use the device for more than one testing program.

When you have added the ORG Units(s), click **Register**. When the device registers, the System Readiness check will display.



## Quick Tour 7: Installing INSIGHT for Chrome (cont.)

17. When the System Readiness Check launches, the System Information screen displays. You can see details about each System Readiness Check test, execute the tests, and view the results.

Click **Execute Tests** to verify that the testing computer and any TSM(s) are configured correctly. Click **Details** next to any test you need more information about (see “The System Readiness Required Tests” on page 196). When ready, click **Exit**.



18. When the device is successfully registered with INSIGHT, one of two pages displays:

If you configured a single testing program, the main testing page displays.

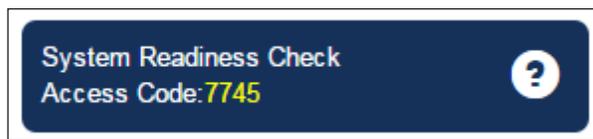
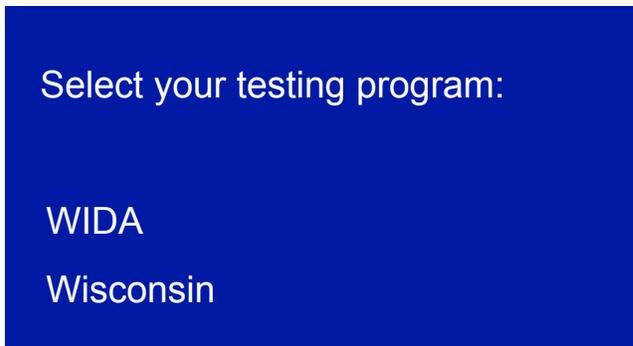


If you configured more than one testing program, a page displays that you can use to select the testing program. After you make your selection, the main testing page displays.

19. Within the INSIGHT App, you can try the Online Tools Training (OTT), or sign on to take a test.

**Note:** You can retrieve the Chromebook’s Device ID by from the System Readiness Check by clicking the checkmark  link in the lower left side and entering the four-digit passcode (7745). For more information, see “Using the System Readiness Check on a Chromebook” on page 141.

 **Important:** When you launch INSIGHT for the first time, the DRC INSIGHT App uses the Chromebook device’s ORG Unit ID to associate the Chromebook with its INSIGHT configuration and register the device.



## Using the System Readiness Check on a Chromebook

When you start the System Readiness Check on a Chromebook, the Device ID and Device Toolkit ORG Unit and ID display in the header fields on the System Information page (see below). For more information about using this information to configure the Chromebook, see “DRC INSIGHT Device Toolkit” on page 43.

The Chromebook's Device ID displays in the **Device ID** field.

The district and school where the Chromebook is registered display in the **District** and **School** fields.

System Information					
Client Version	Configuration Source		Installation Directory		
6.0.0	Device Toolkit		C:\Program Files (x86)\DRC INSIGHT Online Assessments		
Machine Name	User Name	OS Level		OS Version	
MGWS11274	BBalderson	Microsoft Windows 7 Enterprise Edition Service Pack 1 (build 7601), 64-bit		6.1	
Response Caching	TSM Connection	Response Caching TSM Configuration	Content Caching	TSM Connection	Content Caching TSM Configuration
		No		No	No
HTTPS Proxy	Device ID	Device Toolkit Organizational Unit and ID	District	School	
	-1UHh-9Frg	Test (133)	DRC Use Only - Sample District	DRC Use Only eDIRECT Sample School	

The Chromebook's Device Toolkit ORG Unit and ID display in the **Device Toolkit Organizational Unit and ID** field.

# Notes

# Installing INSIGHT on Android Devices



## ■ What's Covered in This Chapter

## ■ Google Play for Education

This chapter describes the INSIGHT installation process for Android devices. It provides detailed information about installing INSIGHT.

You must enroll your Android devices in Google Play for Education to install INSIGHT. DRC assumes that you have already set up your Google Play for Education domain. For more information, see the following link:

### **Android Quick Start Guide**

<https://support.google.com/edu/android/answer/3434383?hl=en>

---

**!** **Important:** All Android devices that will be used for testing must be enrolled in Google Play for Education. You cannot test with DRC INSIGHT and an Android device unless the device is enrolled in Google Play for Education.

---

## ■ Web Browsers and the Device Toolkit

The Device Toolkit is supported for the following web browser versions.

<b><u>Browser</u></b>	<b><u>Version</u></b>
Internet Explorer	Version 10 or newer*
Mozilla Firefox	Version 31 or newer
Google Chrome	Latest stable channel version

\*If you attempt to access the Device Toolkit using an unsupported version of Internet Explorer, you will receive a Flash error.

## ■ Android Devices, the TSM, and INSIGHT

A TSM is used primarily to cache and manage test content and responses. For various reasons, Android devices do not provide a suitable environment for a TSM. As a result, you should install the TSM software on a Windows PC, Mac (OS X) computer, or Linux machine, and connect to the TSM when you install INSIGHT on the Android devices. For specific TSM installation instructions, refer to the appropriate installation chapter.

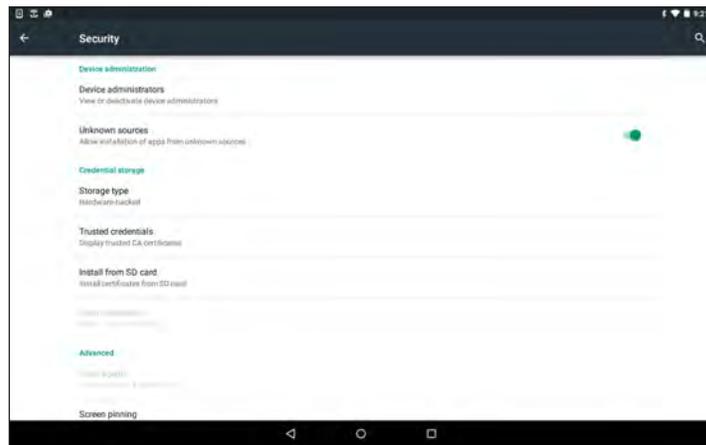
## ■ Multiple Testing Programs

You can use INSIGHT to access multiple testing programs (for example, ACCESS for ELLs and your state-specific testing program) from the same device. You access these testing programs using the same DRC INSIGHT desktop shortcut. When you start INSIGHT, a page displays listing the different testing programs from which you can select.

## ■ Summary of Configuring a TSM and Installing INSIGHT for Android Devices

To test using INSIGHT, you connect to a TSM for content caching, response caching, load simulation testing, and other functions. The following overviews the process of configuring Android devices with a TSM and installing INSIGHT.

1. Set up the student's Android device following the Google Play for Education guidelines (see <https://support.google.com/edu/android/answer/3434383?hl=en>).
2. When the Android device is set up, enable **Unknown sources** under **Settings–Security** (see below).



3. Install one or more TSMs on desktop or laptop computers that have static IP addresses (if you use the machine's IP address to connect to the TSM versus the machine's name) and will be available around the clock (see “Android Devices, the TSM, and INSIGHT” on page 144).
4. Launch a supported browser (see “Web Browsers and the Device Toolkit” on page 144), sign on to the eDIRECT site, and click the **Device Toolkit** link from the Test Setup menu to start the DRC INSIGHT Device Toolkit.

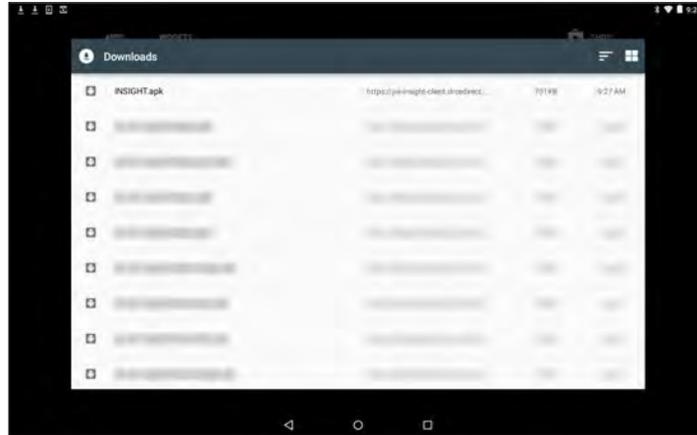
**!** **Important:** You must whitelist the following URL to enable Android devices to communicate with the Device Toolkit.

**dtk.drcedirect.com 50.58.190.22**

5. Use the DRC Device Toolkit software to organize and configure your Android devices by performing the following tasks:
  - Create ORG Units based on your testing setup and needs, and group the Android devices into ORG Units.
  - Configure each ORG Unit, specifying the connection to a TSM for all of the devices in the ORG Unit.

## ■ Summary of Configuring a TSM and Installing INSIGHT for Android Devices (cont.)

- Using the Android device, select **General Information** from the eDIRECT Test Setup menu to display the Downloads page and download the INSIGHT.apk file (the INSIGHT executable file).
- Install the INSIGHT.apk file from the Android's download folder.

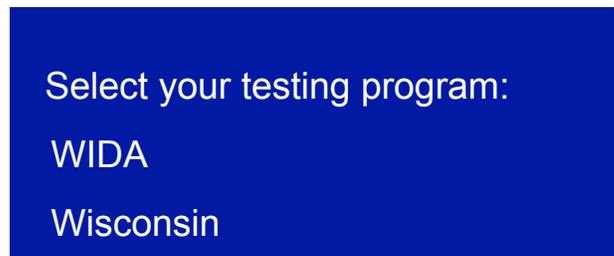


- Launch INSIGHT on the Android devices to register the device.
- Enter the ID(s) in the field and click **Save** to register the Android device.

If a single assessment is configured, the main INSIGHT page displays.



If multiple assessments are configured, you can select an assessment.

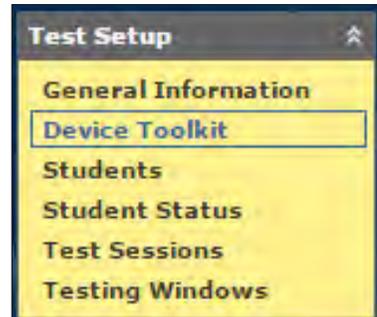


- Run the System Readiness Check to verify that the Android devices can connect to the TSM and is ready for testing. If necessary, use the Device Toolkit to reconfigure the ORG Unit and restart the DRC INSIGHT software to automatically update the Android device's configuration.
- Test the configurations and monitor the log files for issues.

## Quick Tour 8: Installing INSIGHT for Android Devices

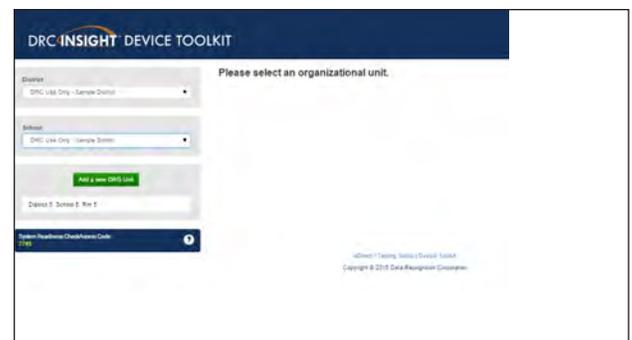
This Quick Tour describes how to install INSIGHT on an Android device. To install INSIGHT, you must have enrolled your Android device in Google Play for Education.

1. You use the DRC Device Toolkit to create the DRC INSIGHT configurations for each Android device being used for testing. To start the Device Toolkit software, create configurations, and register the Android devices, sign in to the eDIRECT site at <https://wi.drccdirect.com> using a supported browser and select **Test Setup–Device Toolkit**.

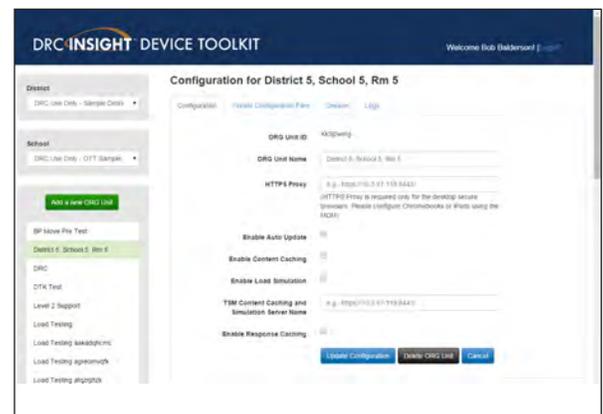


2. The Device Toolkit software displays in your browser. Use this software to create organizational units (ORG Units) to group, organize, and categorize your Android devices for testing. For each ORG Unit, you identify its DRC INSIGHT configuration.

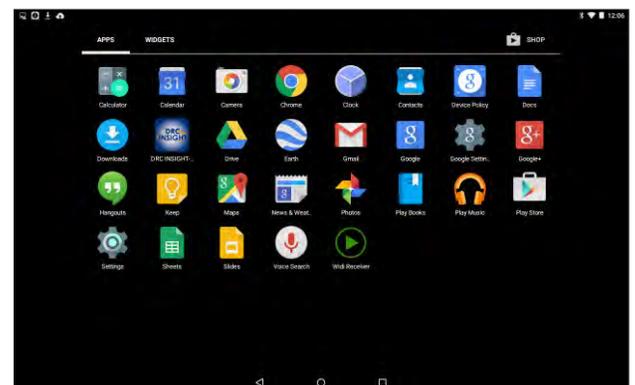
When you launch the Android devices, it uses the configuration settings identified for the ORG Unit(s) to which the device is assigned (see “DRC INSIGHT Device Toolkit” on page 43).



3. Select a district from the District drop-down menu and a school from the School menu.
4. Click **Add a new ORG Unit** to get started (see “DRC INSIGHT Device Toolkit” on page 43 to complete the configuration setup and generate the configuration file for deployment).



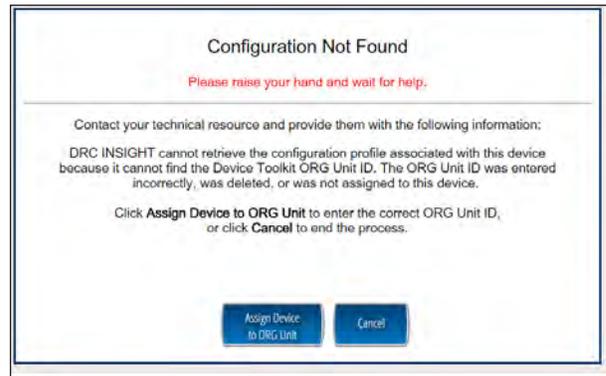
5. After you have used the DRC INSIGHT Device Toolkit, select **General Information** from the eDIRECT Test Setup menu to display the Downloads page, download the DRC INSIGHT executable (INSIGHT.apk). Install the INSIGHT.apk file from the Android’s download folder. You are ready to register the device and start testing.
6. To start INSIGHT, from the Android device App Drawer press **DRC INSIGHT**.



## Quick Tour 8: Installing INSIGHT for Android Devices (cont.)

7. The first time you launch INSIGHT, the Configuration Not Found page displays. Locate the device's ORG Unit ID from the Device Toolkit.

When you have the ORG Unit ID (you can copy and paste it from the Device Toolkit), click **Assign Device to ORG Unit**.



8. When the Device Registration page displays, enter the device's ORG Unit ID from the Device Toolkit (or copy and paste it from the Device Toolkit), click **Add**. When you have added the ORG Units(s), click **Register**. When the device registers, the System Readiness Check will display.

**! Important:** After you launch INSIGHT for the first time, the DRC INSIGHT App uses the Android device's ORG Unit ID to associate the device with its INSIGHT configuration.



9. When the System Readiness Check launches, the System Information screen displays. You can see details about each System Readiness Check test, execute the tests, and view the results.

Click **Execute Tests** to verify that the testing computer and any TSM(s) are configured correctly. Click **Details** next to any test you need more information about (see “The System Readiness Required Tests” on page 196). When ready, click **Exit**.



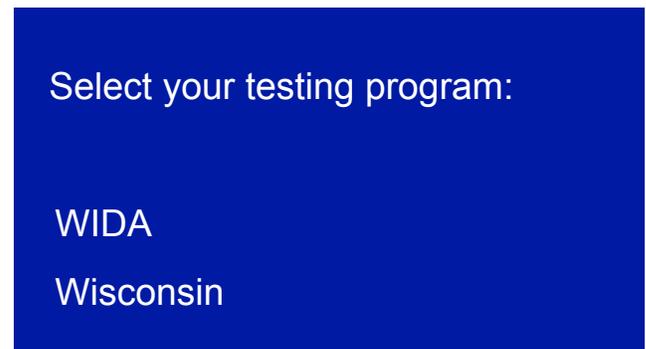
10. When the device is successfully registered with INSIGHT, one of two pages displays:

## Quick Tour 8: Installing INSIGHT for Android Devices (cont.)

If you configured a single testing program, the main testing page displays.

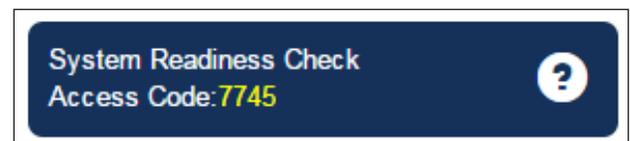


If you configured more than one testing program, a page displays that you can use to select the testing program. After you make your selection, the main testing page displays.



Within the INSIGHT App, you can try the Online Tools Training (OTT), or sign on to a take a test.

**Note:** You can retrieve the Android's Device ID from the System Readiness Check by clicking the checkmark  link in the lower left side and entering the four-digit passcode (7745). For more information, see "Using the System Readiness Check on an Android Device" on page 150.



## Using the System Readiness Check on an Android Device

When you start the System Readiness Check on an Android device, the Device ID and Device Toolkit ORG Unit and ID display in the header fields on the System Information page (see below). You use this information when you configure the Android devices using the Device Toolkit.

For more information about using this information to configure the Android devices, see “DRC INSIGHT Device Toolkit” on page 43.

The Android device's Device ID displays in the **Device ID** field.

The district and school where the Android devices is registered display in the **District** and **School** fields.

System Information				
Client Version	Configuration Source	Installation Directory		
6.1.0	Device Toolkit			
Machine Name	User Name	OS Level	OS Version	
190a497616ce37ba	Pinning Mode	Lollipop_mr1 5.1	5.1	
Response Caching /SM Connection	Response Caching /SM Configuration	Content Caching /SM Connection	Content Caching /SM Configuration	
https://10.1.98.190:8443/	Yes	https://10.1.98.190:8443/	Yes	
HTTPS Proxy	Device ID	Device Toolkit Organizational Unit and ID	District	School
	GynW2H_8e	Level 2 Support (7)	SAMPLE DISTRICT	SAMPLE SCHOOL SMOKE TEST INSIGHT

The Android devices's Device Toolkit ORG Unit and ID display in the **Device Toolkit Organizational Unit and ID** field.

# Working with INSIGHT



### ■ What's Covered in This Chapter

#### ❑ Online Tools Training (OTT)

This chapter discusses some of the tools and components of the DRC INSIGHT Online Learning System. These include Online Tools Training (OTT), the Monitor Verification Test, the Testing Site Manager (TSM), the Capacity Estimator, and the System Readiness Check. This chapter also offers tips and techniques to implement your INSIGHT configuration for maximum efficiency.

This section describes the OTT, a series of sample test questions to help introduce students to the testing tools available in the online environment.

#### ❑ The Monitor Verification Test

This section describes the Monitor Verification test, available in DRC eDIRECT that helps you determine whether the monitor settings for the testing computer are configured for optimal testing.

#### ❑ The Testing Site Manager (TSM)

This section describes how to use the TSM software to manage tests and response communication between DRC and students efficiently. It also introduces the diagnostic tools available within the TSM.

#### ❑ Using Caching

This section describes how to use the TSM to help manage the process of storing and updating tests (content caching) and student test responses (response caching).

#### ❑ Ping Activity

This section describes how to display the consistency and rate of data transfer across a network (latency) during a specified date range to determine the best times for testing.

#### ❑ Load Simulation Testing

This section describes how to perform load simulations and estimate the amount of time it will take to download tests and upload responses during testing based on the testing load.

#### ❑ The Capacity Estimator

This section describes the Capacity Estimator, a tool that you can download to estimate test loading times as well as the time required for a testing computer to save a test response and retrieve the next question.

#### ❑ The System Readiness Check

This section describes how to verify that a testing computer is ready to test using the INSIGHT software.

## Online Tools Training (OTT)

The OTT is a set of sample test questions to introduce students to the tools available during testing and prepare them for online assessments. This training allows students to try the features of the testing software before the actual test.

The OTT is not designed to cover the test content—the goal is to instruct the student about using the testing application, not to assess skills. The sample OTT questions demonstrate the features of the testing environment and the OTT tests are not scored.

School Assessment Coordinators should review the OTT before the students begin the test administration. Test Administrators should also review the OTT at least once. All students who will be testing online should have at least one opportunity to review the OTT for their subject and/or grade.

**Note:** An OTT, especially an OTT with an accommodation (such as TTS or VSL) is a good way to determine that INSIGHT is properly installed and configured with a TSM.

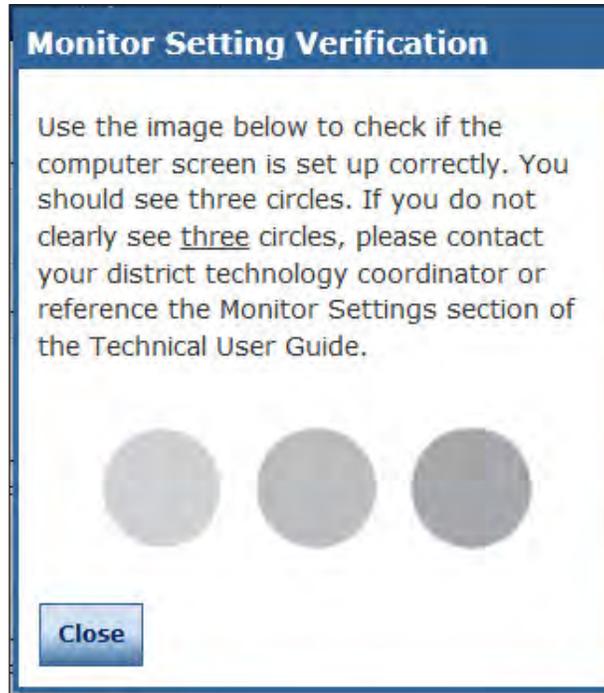
To try the OTT, do the following:

1. The first step depends on the type of testing device.
  - From a Windows 7 computer, select **All Programs–DRC INSIGHT Online Assessments–DRC Online Assessments** (or click the **DRC INSIGHT Online Assessments** desktop shortcut).
  - From a Mac (OS X), select **Applications–DRC INSIGHT Online Assessments–DRC INSIGHT Online Assessments.app** (or click the **DRC INSIGHT Online Assessments** desktop shortcut).
  - From a Linux machine, select **opt/DRC INSIGHT Online Assessments/DRC INSIGHT Online Assessments**.
  - From an iPad device, press **DRC INSIGHT** to start the INSIGHT App.
  - From a Chromebook device, click on the INSIGHT App.
  - From an Android device App drawer, press **DRC INSIGHT** to start the INSIGHT App.
2. When INSIGHT launches, if you configured a single testing program, the main testing page displays. If you configured more than one testing program, a page displays that you can use to select the testing program. After you make your selection, the main testing page displays. From the main testing page, click or select **Online Tools Training**.
3. Select a subject by clicking on it.
4. Enter the username and password provided on the screen and click **Sign In**.
5. Follow the instructions on the screen to take the practice tests and use the test tools.

**Note:** There are no restrictions for accessing the OTT, students are allowed to repeat the practice tests as often as necessary.

### ***The Monitor Verification Test***

After you sign in to start a test, a screen similar to the following displays to help determine whether your monitor is set up correctly to display the online tests.



If you do not see three shaded circles on the monitor display, a student will have difficulty answering some of 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 depending on 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 or brightness. For a specific hardware configuration, you also can try searching the Internet using a search such as *changing the contrast for operating system x or monitor y*.

### **Windows Operating System**

- On a laptop computer, look for a half-white/half-black circle on the keyboard. This function key changes the 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 following key combination:

**Command key + Option key + Ctrl key + .** (period)

- To decrease the contrast, use the following 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.

### **Linux**

For Linux desktop monitors, check the settings in the Monitor menu options.

### **iPad or Android Devices**

For iPad or Android devices, refer to your iPad or Android documentation.

### **Chromebook Devices**

For Chromebook devices, refer to the Google Chrome help or documentation.

## ■ The Testing Site Manager (TSM)

The Testing Site Manager (TSM) is a powerful, easy-to-configure, web-based software application that contains a number of software tools to help you plan, configure, manage, and troubleshoot your online testing environment, including caching software to store tests and/or student test responses.

The following table describes the suite of TSM software tools.

Tool	Description
<b>Content Caching*</b>	The TSM stores tests and lets you update them to the most current versions for testing.
<b>Response Caching*</b>	<p>In the event the Internet connection to DRC is lost, the TSM stores test responses and attempts to transmit them at fifteen-minute intervals to DRC.</p> <p>It also lets you review details about responses currently stored in the TSM (unsent responses) and responses the TSM transmitted to DRC (historical responses).</p>
<b>Load Simulation Test (LST)</b>	The LST helps you estimate variations in network responsiveness based on the number of students testing at the same time, the current network traffic, the amount of available bandwidth, and other site-specific factors.
<b>Ping Trend Graphs</b>	Ping trend graphs help you determine the best time of day to test based on the variances in speed, connectivity, and responsiveness of your network communication.

\*The benefits of TSM test content and test response caching are shown in “Using Caching” on page 159.

## Using the TSM

This section describes how to use the TSM and its basic functions.

To start the TSM, select **Start–All Programs–TestingSiteManager–TestingSiteManager**.

The first time you start the TSM, the Enter Testing Site Manager Name dialog box displays. In the TSM Name field, enter a name that will help you remember the location of the TSM machine and click **Save**.

**Note:** DRC recommends that you include the district, school, and location (building and/or room number) of the TSM. The name you choose is limited to 40 characters and there are no special formatting requirements.

**Enter Testing Site Manager Name**

TSM Name:

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

The **Help** icon ( ? ) is displayed on every page in the TSM. Click it to display online help for the page you are currently on.

**Testing Site Manager (TSM)**  
(includes Local Caching Service [LCS] capabilities)

TSM Name: [District 1, Sample School, Bldg 3, Rm 7](#)

TSM Version: 6.0.0

TSM Server: 10.5.3.27

[Content Caching](#) | [Response Caching](#) | [Tools](#)

Last Updated: 01/17/2014 12:28:17 PM

[Update Content](#)

10 records per page

Content	Status	Download TTS	Download VSL
000001 - Online Testing Assessment Spring 2014	Up to Date	<input type="checkbox"/>	<input type="checkbox"/>
000002 - Online Testing Assessment Spring 2014	Up to Date	<input type="checkbox"/>	N/A
000003 - Online Testing Assessment Spring 2014	Up to Date	<input type="checkbox"/>	N/A

Showing 1 to 3 of 3 entries

[-- Previous](#) | 1 | [Next -->](#)

[Content Caching](#) | [Response Caching](#) | [Tools](#)

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There are active page links to all of the functions currently configured in the TSM.

## Using the TSM (cont.)

You can sort the data in a column.

- Click the up arrow icon (▲) next to the column header to sort the column data in ascending order, either alphabetically or by date, depending on the type of data.
- Click the down arrow icon (▼) next to the column header to sort the data in descending order, either alphabetically or by date, depending on the type of data.

Throughout the TSM you can use the Search field to search for specific information, such as tests, student responses, and simulation results, and filter the display.

The screenshot displays the Testing Site Manager (TSM) interface. At the top, it shows the TSM Name: District 1, Sample School, Bldg 3, Rm 7, TSM Version: 6.0.0, and TSM Server: 10.5.3.27. Below this are buttons for Content Caching, Response Caching, and Tools. The main content area is titled 'Content List' and includes a search field, a 'records per page' drop-down menu (set to 10), and a table of content entries. The table has columns for Content, Status, Download TTS, and Download VSL. The entries are: 000001 - Online Testing Assessment Spring 2014 (Up to Date), 000002 - Online Testing Assessment Spring 2014 (Up to Date), and 000003 - Online Testing Assessment Spring 2014 (Up to Date). Navigation buttons for 'Previous' and 'Next' are at the bottom right of the table. A footer contains 'Content Caching | Response Caching | Tools' and 'Copyright © 2014 Data Recognition Corporation.'

Use the **records per page** drop-down menu to specify the number of records to display at once. You can select **10** (the default value), **25**, **50**, **100**, or **All** (for all records).

Use the **Previous** and **Next** buttons to move backward and forward between pages in the display. The number between the buttons indicates the number of the page you are currently viewing.

## ■ Using Caching

The TSM can cache (store) test items and student responses. It manages test items using the Content Caching option and student responses using the Response Caching option. Both of these caching options are configurable—a user can select either, both, or neither.

- Before testing occurs, content caching stores copies of the test items that you can keep updated, manually or automatically, to guarantee that students are using the correct version of the test.

.....  
**!** **Important:** With content caching, each morning before testing begins, verify that your TSM has the most current test items (see “Content Caching” on page 161).  
.....

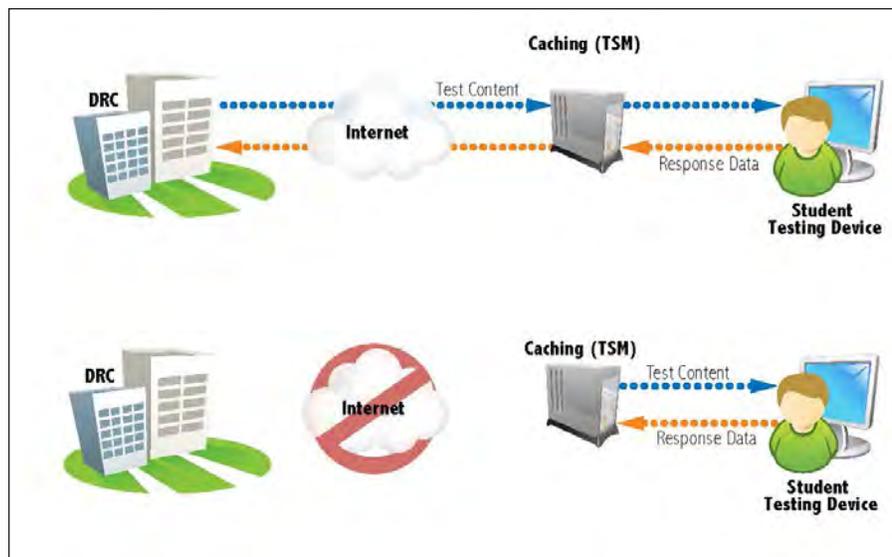
- As students test, if a student’s connection to DRC fails, response caching stores their test responses in the TSM as a secure backup copy to be transmitted to DRC.

Testing continues even if the connection to DRC is disrupted. If this happens, the TSM attempts to transmit its stored responses every fifteen minutes. You also can use the TSM to review the status of stored responses and transmit them manually.

An overview of the TSM test content and test response caching process and its benefits for districts and schools is shown on the following page.

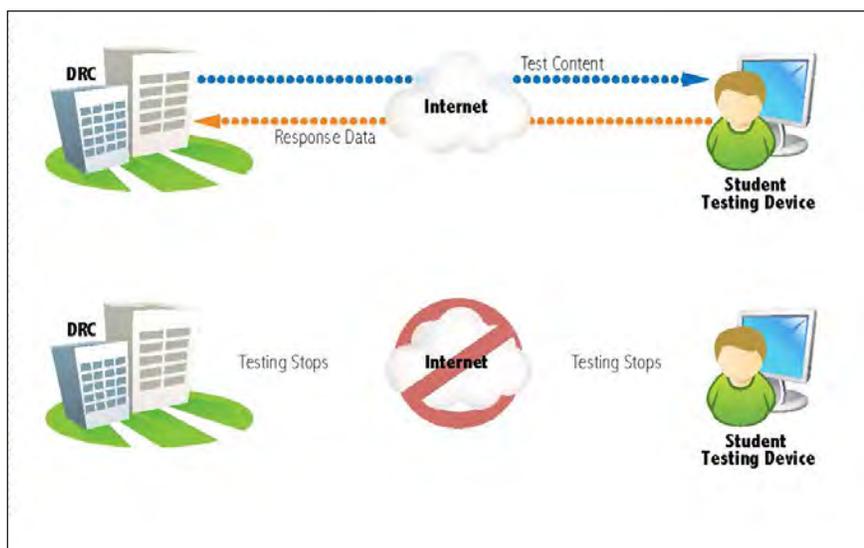
## Testing With TSM Caching

With TSM caching, before testing begins tests are downloaded from DRC's servers across the Internet and stored on the school or district computer where the TSM software is installed. When the student logs in at test time, the test content is downloaded from the TSM to the student's testing device. As the student transmits test responses, a copy of each response is stored in the TSM. If the Internet connection fails, the student can continue testing without interruption.



## Testing With No TSM Caching

With no TSM caching, tests are downloaded directly from DRC's servers across the Internet when the student logs in. As the student takes the test, the responses are returned to DRC in real-time and stored in the DRC databases. An active Internet connection is required at all times for students to test.



## Content Caching

The correct test content must be available when students start testing—students can only test using test content that is up to date. Because there may have been updates to the test content between the time the TSM was installed and testing begins, it is important to verify that the test items stored in the TSM are up to date. Before testing, you must replace any test content that is out of date with the most current versions from DRC. Students cannot test if test item content is out of date.

The **Content Caching** button displays the tests available on the TSM. These tests are available to download to INSIGHT.

Each testing administration in the cache is identified by a unique ID number followed by the name of the specific assessment. In the examples in this user guide, a generic identifier is displayed—the identifier you see will be specific to your state and assessments.

**Testing Site Manager (TSM)**  
(Includes Local Caching Service [LCS] capabilities)

TSM Name: District 1, Sample School, Bldg 3, Rm 7  
TSM Version: 3.0.0  
TSM Server: 10.5.3.27

Content Caching | Response Caching | Tools

Last Updated: 01/17/2014 12:28:17 PM

Update Content

10 records per page

Content	Status	Download TTS	Download VSL
000001 - Online Testing Assessment Spring 2014	Up to Date	[Download]	[Download]
000002 - Online Testing Assessment Spring 2014	Up to Date	[Download]	N/A
000003 - Online Testing Assessment Spring 2014	Up to Date	[Download]	N/A

Showing 1 to 3 of 3 entries

Content Caching | Response Caching | Tools  
Copyright © 2014 Data Recognition Corporation

The **Status** column in the Content List table indicates whether all test forms in an administration are the most current version (up to date).

- If all of the most current versions of tests in an administration are on the TSM, the Status column displays **Up to Date** in green text.
- If the most current versions are not on the TSM, the Status column displays **Out of Date** in red text.

**Note:** An administration must have a status of Up to Date before it is administered. Otherwise, students receive an error message when they log in and will be unable to test.

## Content Caching (cont.)

If you have specified accommodations such as Text-To-Speech (TTS) or Video Sign Language (VSL), the forms for those tests are not loaded automatically when the TSM is downloaded.

1. If you have students that require an audio accommodation, check **Download TTS**. If you have students testing with Video Sign Language (VSL), check the **Download VSL** checkbox.

**Note:** When you check a checkbox, a large amount of audio and/or video files are downloaded. If no student testing requires the accommodation, it is not necessary to check the checkbox.

2. Click **Update Content**.

Select the appropriate checkboxes to download the customized test forms.

**Download TTS**   **Download VSL**

**Note:** A value of **N/A** in a column indicates that the accommodation is not available for the corresponding assessment.

The screenshot shows the Testing Site Manager (TSM) interface. At the top, it displays the TSM Name, Version, and Server. Below this, there are tabs for Content Caching, Response Caching, and Tools. The main area shows a 'Content List' table with the following data:

Content	Status	Download TTS	Download VSL
000001 - Online Testing Assessment Spring 2014	Out of Date	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
000002 - Online Testing Assessment Spring 2014	Out of Date	<input checked="" type="checkbox"/>	N/A
000003 - Online Testing Assessment Spring 2014	Out of Date	<input checked="" type="checkbox"/>	N/A

The Status indicator changes to Out of Date to indicate that you do not have the forms for the accommodation.

Click **Update Content** to update the TSM with the latest customized test version(s).

**Note:** This process can take some time based on the size of these forms. When the process is complete, the Status indicator changes to **Up to Date** to indicate that you have the latest forms for the accommodation.

### Content Caching (cont.)

To update tests manually, click the **Update Content** button at the top of the page. When you click **Update Content**, the latest version of each test is downloaded and the status changes to Up to Date.

**Note:** The TSM also automatically checks for test content updates at regular intervals. If the computer where the TSM is installed is powered on, the TSM automatically updates the test content.

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

**! Important:** On the day of testing, confirm that the TSM test content is up to date to ensure that students can log into their tests. For example, if the machine where the TSM is installed was turned off recently, it is possible that its content is out of date. If it is, click **Update Content**.

The screenshot shows the Testing Site Manager (TSM) interface. At the top, it displays 'Testing Site Manager (TSM)' with subtext '(includes Local Caching Service [LCS] capabilities)'. Below this, it shows 'TSM Name: District 1, Sample School, Bldg 3, Rm 7', 'TSM Version: 6.0.0', and 'TSM Server: 10.5.3.27'. There are three buttons: 'Content Caching', 'Response Caching', and 'Tools'. The main area shows 'Last Updated: 01/17/2014 12:28:17 PM' and an 'Update Content' button. Below is a 'Content List' table with columns for Content, Status, Download TTS, and Download VSL. The table contains three rows, all with 'Out of Date' status. A search bar and pagination controls are also visible.

Content	Status	Download TTS	Download VSL
000001 - Online Testing Assessment Spring 2014	Out of Date	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
000002 - Online Testing Assessment Spring 2014	Out of Date	<input checked="" type="checkbox"/>	N/A
000003 - Online Testing Assessment Spring 2014	Out of Date	<input checked="" type="checkbox"/>	N/A

When an update starts, the **Content Update** page displays information regarding the update process. After you read the information, click **OK**.

The screenshot shows a 'Content Update' dialog box. It contains a message: 'The TSM is downloading content. This process may take some time to complete. Please do not refresh the browser or close it. Do not power off the computer or restart it.' There is an 'Ok' button at the bottom right.

The screenshot shows the TSM interface during an update. It displays 'Last Updated: 07/29/2014 02:08:13 PM' and a progress bar. The progress bar is labeled 'Updating...' and shows 'Processing 88290 TTS files for administration: 550479'.

During the update, a progress bar displays to indicate the status of the update.

## Response Caching—Viewing Unsent Student Test Responses

To check whether student test responses have been transmitted to DRC and for detailed information about those responses, Select **Response Caching–Unsent Responses**.

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

The screenshot shows the Testing Site Manager (TSM) interface. At the top, it displays the TSM Name: District 1, Sample School, Bldg 3, Rm 7, TSM Version: 6.0.0, and TSM Server: 10.5.3.27. Below this, there are three main menu items: Content Caching, Response Caching, and Tools. The Response Caching menu is expanded, showing two options: Unsent Responses and Historical Responses. A callout box points to the Unsent Responses option. Below the menu, there is a 'Content List' table with columns for Content, Status, Download TTS, and Download VSL. The table shows three entries, all with a status of 'Up to Date'. The interface also includes a search bar, a 'Last Updated' timestamp, and pagination controls.

Content	Status	Download TTS	Download VSL
000001 - Online Testing Assessment Spring 2014	Up to Date	<input type="checkbox"/>	<input type="checkbox"/>
000002 - Online Testing Assessment Spring 2014	Up to Date	<input type="checkbox"/>	N/A
000003 - Online Testing Assessment Spring 2014	Up to Date	<input type="checkbox"/>	N/A

Select **Response Caching–Unsent Responses** to see information about student responses currently stored on the TSM for transmission to DRC.

## Response Caching—Viewing Unsent Student Test Responses (cont.)

When you select **Unsent Responses**, the Student Responses–Unsent tab displays information about student responses currently stored in the TSM that are waiting to be transmitted to DRC.

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

**Testing Site Manager (TSM)**  
(includes Local Caching Service [LCS] capabilities)

TSM Name: District 1: Sample School, Bldg 3, Rm 7  
TSM Version: 6.0.0  
TSM Server: 10.5.3.27

Content Caching | Response Caching | Tools

Unsent Tests: 4  
Last Transmission Attempt: 01/14/2014 12:53:59 PM  
Next Transmission Attempt: 01/14/2014 01:08:59 PM

Transmit Responses

10 records per page

School	Test Session	Student Name	State ID	Earliest Response
Demo Site 1	Grade 05	Demo One Student	231365498	01/14/2014 12:39:57 PM
Demo Site 1	Grade 05	Demo Two Student	231365499	01/14/2014 12:39:57 PM
Demo Site 2	Grade 06	Demo Three Student	231365400	01/14/2014 12:39:57 PM
Demo Site 2	Grade 06	Demo Four Student	231365401	01/14/2014 12:39:57 PM

Showing 1 to 4 of 4 entries

Content Caching | Response Caching | Tools

**Next Transmission Attempt** indicates the date and time the next automatic transmission is scheduled. Responses are automatically transmitted every fifteen minutes.

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

## Response Caching—Viewing Unsent Student Test Responses (cont.)

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

**!** **Important:** 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 to transmit any stored responses.

Enter information in the **Search** field to search for specific data.

The screenshot shows the Testing Site Manager (TSM) interface. At the top, it displays the TSM Name, Version, and Server information. Below this are three buttons: 'Content Caching', 'Response Caching', and 'Tools'. The 'Response Caching' button is highlighted. Underneath, there is a section for 'Unsent Tests: 4', with a 'Transmit Responses' button. Below this is a table titled 'Student Responses - Unsent' with a search field and a 'records per page' dropdown set to 10. The table has columns for School, Test Session, Student Name, State ID, and Earliest Response. At the bottom of the table, there are 'Previous' and 'Next' buttons with the number 1 between them, indicating the current page.

School	Test Session	Student Name	State ID	Earliest Response
Demo Site 1	Grade 05	Demo One Student	231365498	01/14/2014 12:39:57 PM
Demo Site 1	Grade 05	Demo Two Student	231365499	01/14/2014 12:39:57 PM
Demo Site 2	Grade 06	Demo Three Student	231365400	01/14/2014 12:39:57 PM
Demo Site 2	Grade 06	Demo Four Student	231365401	01/14/2014 12:39:57 PM

By default, the Student Responses – Unsent page displays all of the information currently available.

Use the **Previous** and **Next** buttons to move backward and forward between pages in the display. The number between the buttons indicates the page you are currently viewing.

## Response Caching—Viewing Historical Test Responses

Select **Historical Responses** from the drop-down menu to display information about student responses that have been transmitted to DRC.

The screenshot shows the Testing Site Manager (TSM) interface. At the top, it displays the TSM Name, Version, and Server information. Below this, there are three main menu items: 'Content Caching', 'Response Caching', and 'Tools'. The 'Response Caching' menu is expanded, showing two options: 'Unsent Responses' and 'Historical Responses'. The 'Historical Responses' option is selected, and a line points from this selection to a callout box below the screenshot.

Below the menu, the 'Content List' table is visible. It shows a list of content entries with columns for 'Content', 'Status', 'Download TTS', and 'Download VSL'. The table contains three entries, all with a status of 'Up to Date'. The table also includes a search bar, a 'records per page' dropdown set to 10, and navigation buttons for 'Previous' and 'Next'.

Content	Status	Download TTS	Download VSL
000001 - Online Testing Assessment Spring 2014	Up to Date	<input type="checkbox"/>	<input type="checkbox"/>
000002 - Online Testing Assessment Spring 2014	Up to Date	<input type="checkbox"/>	N/A
000003 - Online Testing Assessment Spring 2014	Up to Date	<input type="checkbox"/>	N/A

Showing 1 to 3 of 3 entries

Content Caching | Response Caching | Tools  
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Select **Response Caching—Historical Responses** to display information about the student test responses that the TSM has sent to DRC.

## Response Caching—Viewing Historical Test Responses (cont.)

Enter information in the **Search** field to search for specific data.

**Testing Site Manager (TSM)**  
(includes Local Caching Service [LCS] capabilities)

TSM Name: District 1, Sample School, Bldg 7, Rm 3  
TSM Version: 6.0.0  
TSM Server: 10.5.3.27

Content Caching | Response Caching | Tools

Unsent Tests: 4  
Last Transmission Attempt: 01/27/2014 12:18:50 PM  
Next Transmission Attempt: 01/27/2014 12:33:50 PM  
Transmit Responses

10 records per page **Student Responses - Historical** Search:

School	Test Session	Student Name	State ID	Transmitted Timestamp
Demo Site 3	Grade 04	Demo Five Student	231365402	01/27/2014 12:28:46 PM
Demo Site 4	Grade 05	Demo Six Student	231365403	01/27/2014 12:28:46 PM

Showing 1 to 2 of 2 entries    ← Previous 1 Next →

Content Caching | Response Caching | Tools  
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By default, the **Student Responses – Historical** tab displays all of the information currently available.

Use the **Previous** and **Next** buttons to move backward and forward between pages in the display. The number between the buttons indicates the page you are currently viewing.

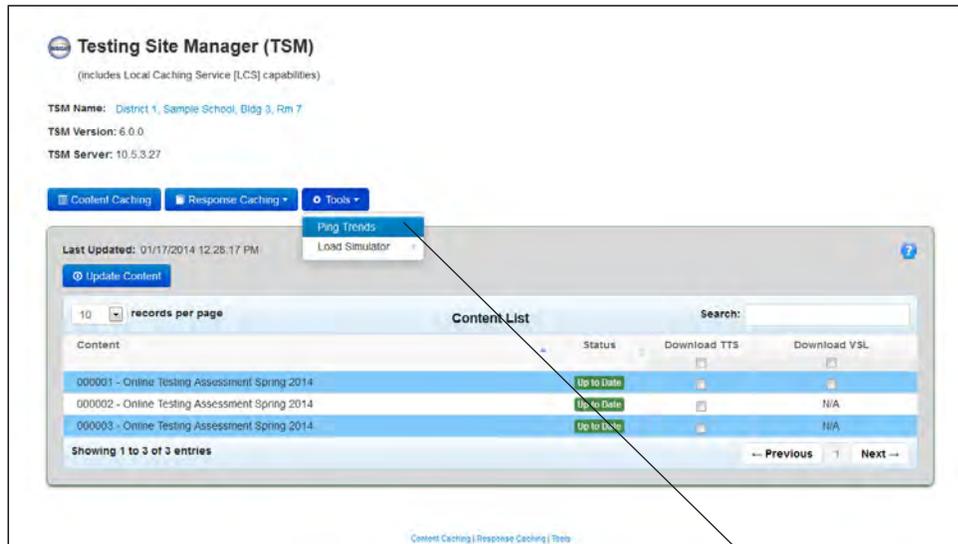
## ■ Ping Activity

When the TSM “pings” the IP address of the DRC server, the network sends data packets from the TSM to the DRC server and back. The network also calculates the time, in milliseconds, it takes for the data to be received. The longer this time is, the longer it has taken the DRC server to receive the data packets (usually because of excess network traffic).

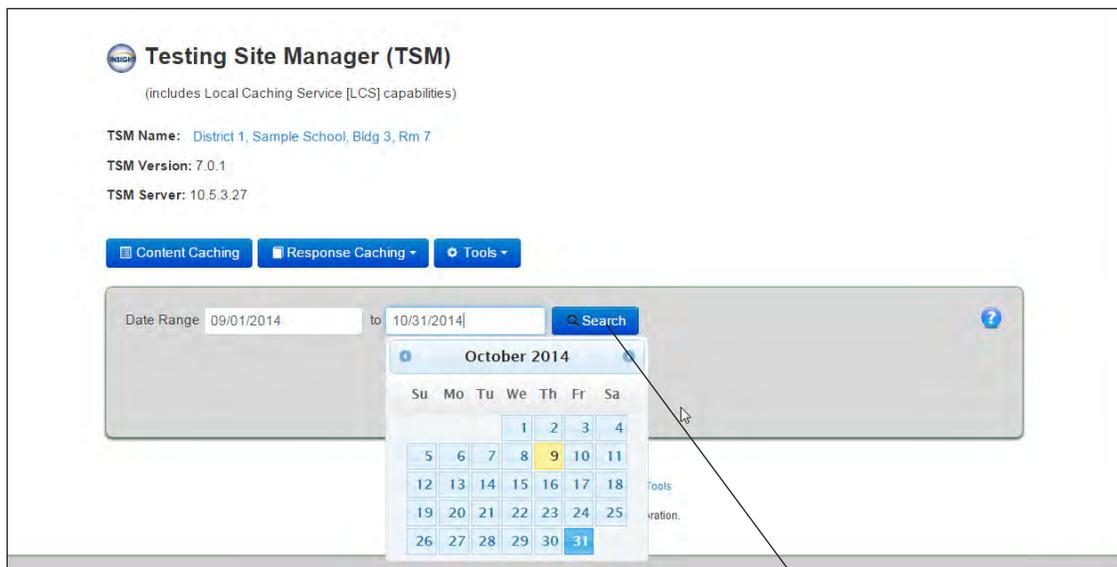
This rate of data transfer across a network is referred to as latency. Knowing the latency is useful for helping to determine peak network traffic times and for analyzing the best times for testing.

## Graphing Ping Activity

Select **Tools–Ping Trends** to graph the time that was required by the TSM to ping the DRC servers for a date range that you specify, as well as the number of ping failures during the same date range.

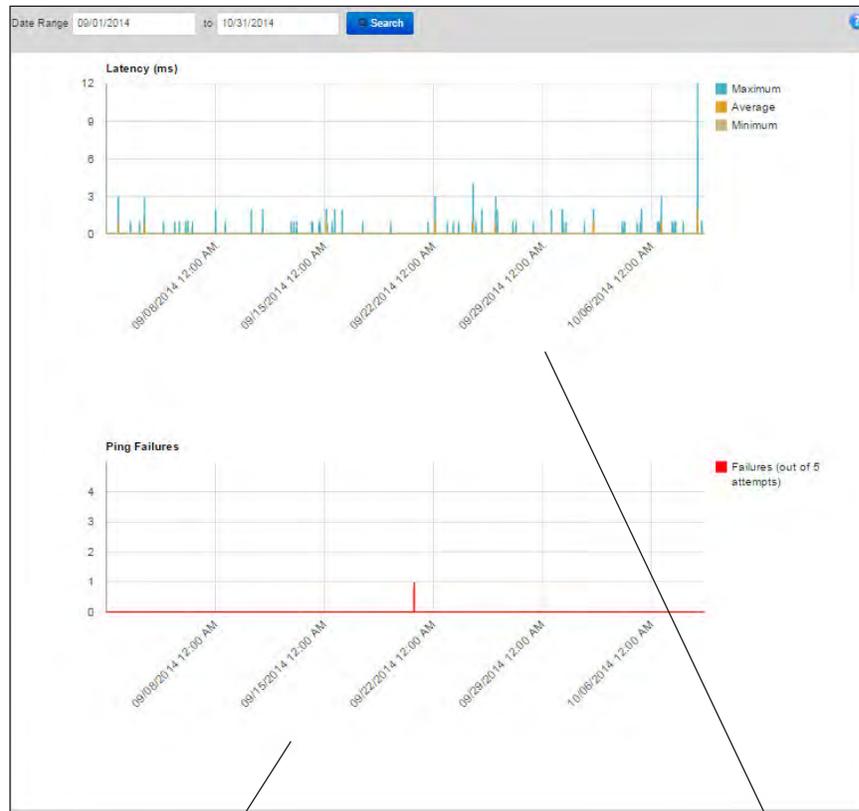


1. Select **Tools–Ping Trends** to display the Ping Trends page.



2. Use the drop-down calendars to specify a date range for the data and click **Search**.

## Graphing Ping Activity (cont.)

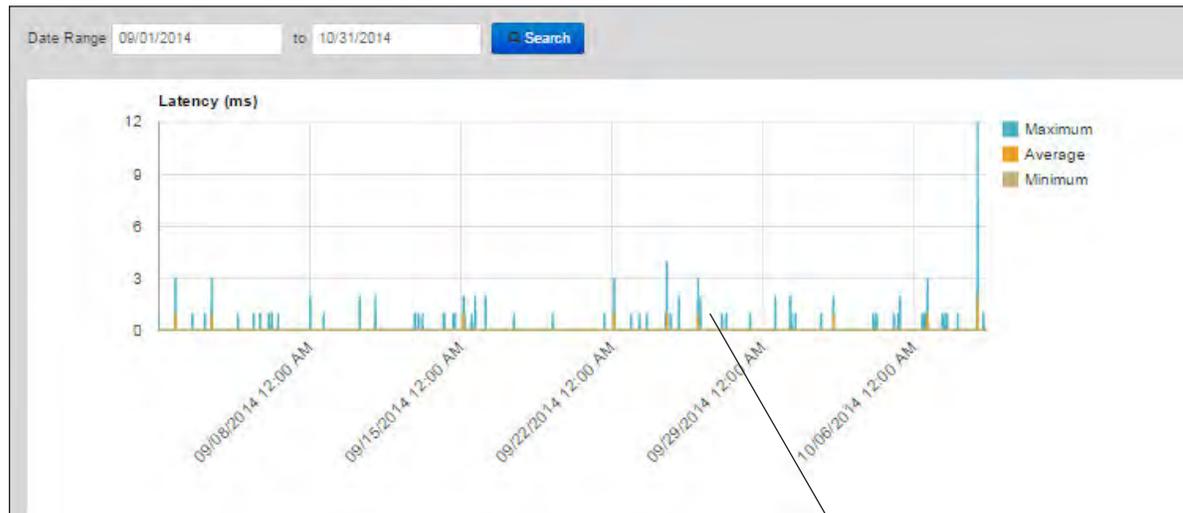


Two graphs display network communication information for the date range.

- The first graph reveals the latency of the network.
- The second graph indicates the number of ping failures.

### Graphing Ping Activity (cont.)

The first graph displays a measure of the latency during the date range. Latency is a measure of the time delay in a system—the greater the latency, the slower the communication.



In this graph, latency represents the time required (in milliseconds) for ping attempts during the time period, organized by color:

- The blue line indicates the maximum amount of time needed for ping attempts.
- The orange line indicates the average amount of time needed for ping attempts.
- The tan line indicates the minimum amount of time needed for ping attempts.

As the time required for ping attempts increases, peaks or spikes appear that can indicate increased network traffic and slower response time. You can use this information to determine optimum testing times.

### Graphing Ping Activity (cont.)

The second graph displays the number of ping failures during the date range. Ping failures are a good indicator of system availability—a spike, or high failure rate, indicates a time period of poor communication between the TSM and DRC. Similarly, a low failure rate indicates a good time for testing. You can use this information to determine optimum testing times.



Ping failures indicate the number of times (Y-axis) that the TSM was unable to successfully ping the DRC server after five attempts during each time interval\* (X-axis).

\*To graph ping failures, the TSM divides the date range you specified into equal date and time intervals.

### ■ Load Simulation Testing

District Technology Coordinators can perform load simulations to estimate the amount of time it will take during testing to download tests and upload responses. The following are prerequisites and tips for performing load simulation tests:

- The TSM must be installed, running, and connected to each testing device that you plan to include in the simulation.

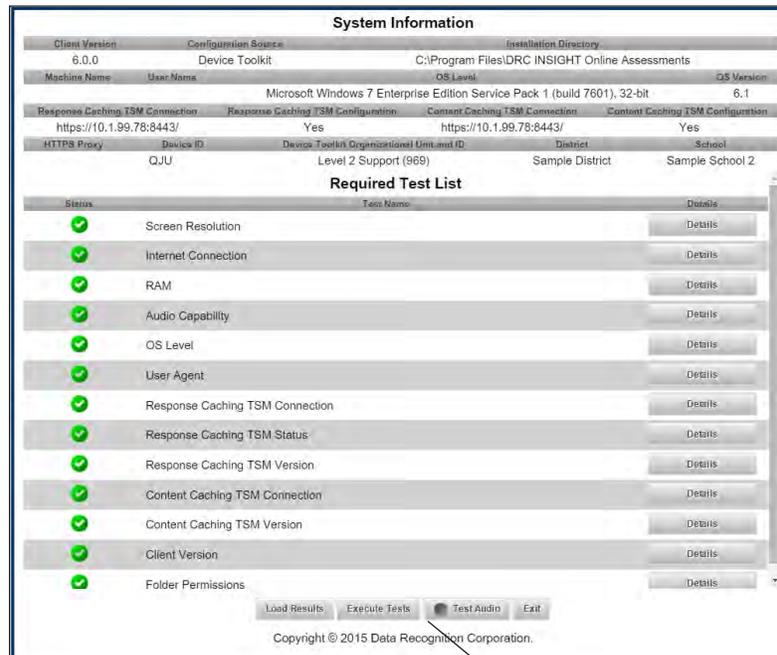
.....  
**!** **Important:** For a load simulation test, limit the number of testing devices per TSM to 100. Attempting to perform a load simulation test with more than 100 devices may cause the TSM to become unresponsive. You may have to uninstall and reinstall the TSM.  
.....

- DRC recommends that you run the simulation three times during your load simulation testing. Run it twice specifying the TSM as the source for form content and once specifying DRC as the source for form content.
- Run different load simulations with different groups of devices to ensure that all devices are included in multiple simulations.
- INSIGHT must be installed on each testing computer that you plan to include in the simulation.
- The System Readiness Check must be displayed on the screen of each testing computer that you plan to include in the simulation.

**Note:** For general questions and answers regarding Load Simulation Testing, see “Load Simulation Testing Questions” on page 224.

## Performing a Load Simulation

You use the TSM and INSIGHT to perform a load simulation—if you are not using a TSM for content caching, you cannot perform load simulations. First, group the device on a Device Toolkit ORG Unit that specifies the location of a TSM to use for content caching. Next, install INSIGHT on a testing device to register the testing device with the TSM. Now, start the TSM, specify which of the registered computers to include in the simulation, and run your simulations. Then, use the TSM to review the results of the simulations.



To perform a load simulation, do the following:

1. Install INSIGHT on each testing device (see the Installation chapters) that you will be using in the load simulation.
2. Start the System Readiness Check (click the link and enter the four-digit passcode) to display the System Information page.
3. Verify that a TSM is configured correctly for content caching.
 

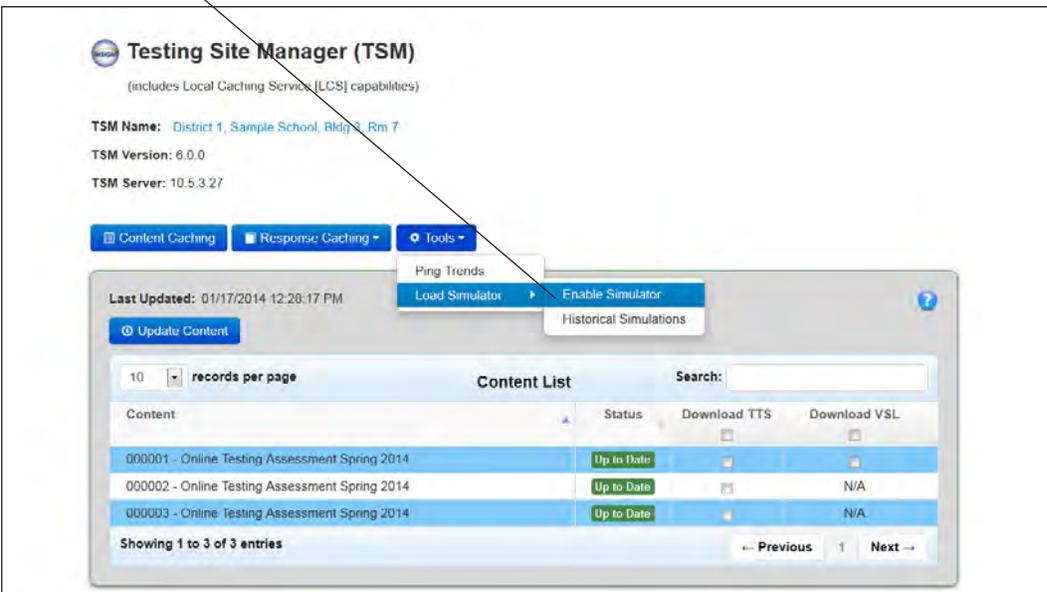
.....

**!** **Important:** If you have not configured a TSM for content caching for the ORG Unit associated with the device, you must use the Device Toolkit to either reconfigure the device (see “Configuring an ORG Unit TSM and Specifying INSIGHT Software Updates” on page 52) or move the device to a different ORG Unit (see “Moving Devices” on page 63), and restart INSIGHT on the device. When you restart INSIGHT, the device’s new configuration will be applied to the device.

.....
4. When you are finished, leave the System Readiness Check open. The System Readiness Check must be active on each testing computer that you plan to include in the simulation.
5. Start the TSM by selecting **Start–All Programs–TestingSiteManager–TestingSiteManager**.

## Performing a Load Simulation (cont.)

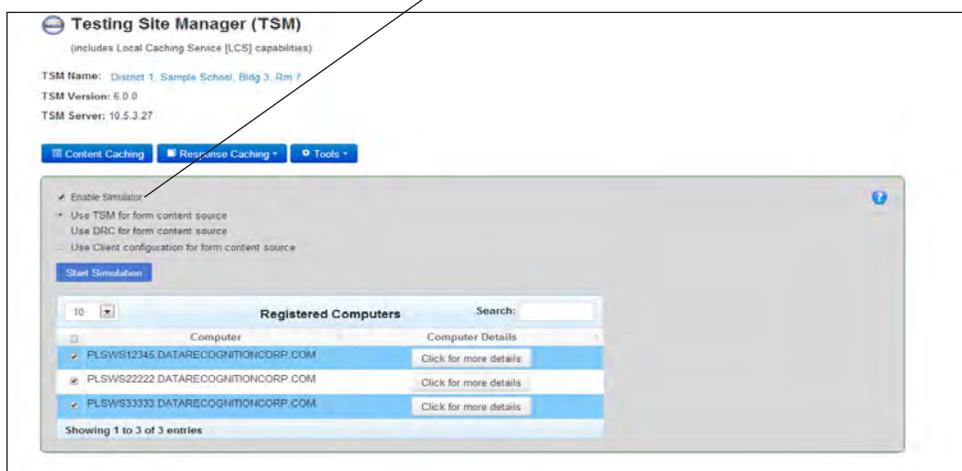
5. From the TSM, select **Tools–Load Simulator–Enable Simulator**.



You can specify the source for the test form content—the TSM or the DRC servers.

6. Check the **Enable Simulator** checkbox and use the radio buttons to specify the source of the form content for the simulation.

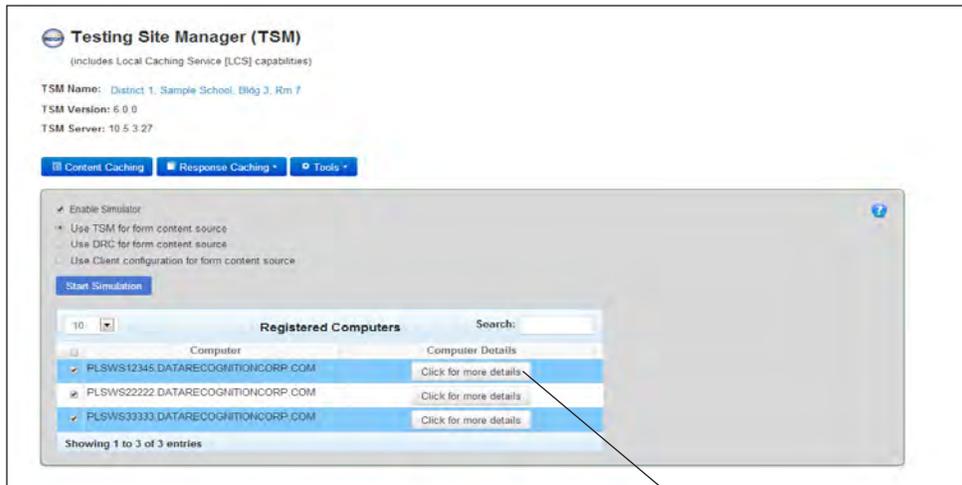
**Note:** This step registers the testing computer with the TSM.



The Registered Computers page displays the number and name of each testing computer registered to the TSM.

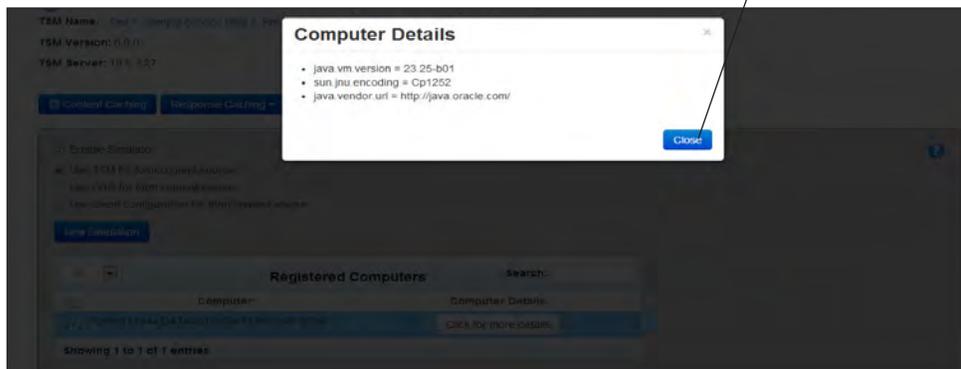
7. Select one or more computers from the Computer column to include in the simulation by clicking the checkbox next to each computer's name. Click the checkbox at the top of the column to test all of the computers.

## Performing a Load Simulation (cont.)

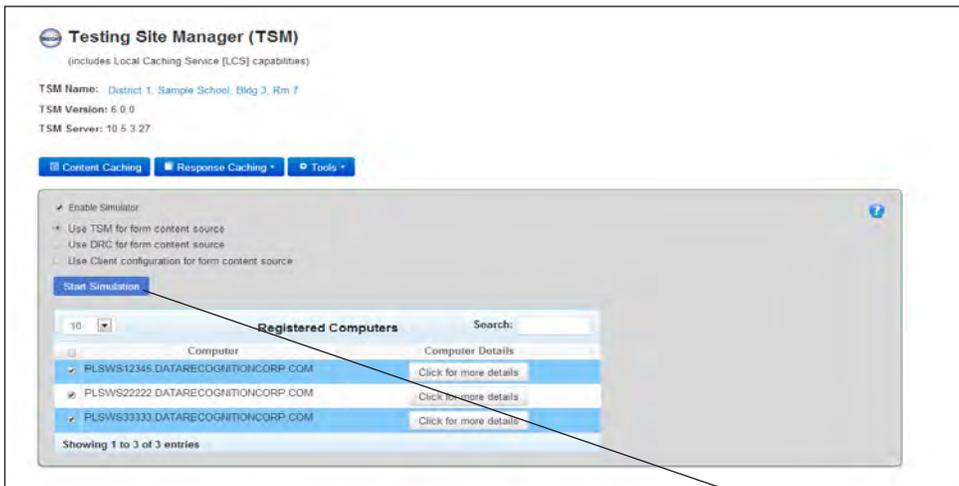


You are ready to run a simulation.

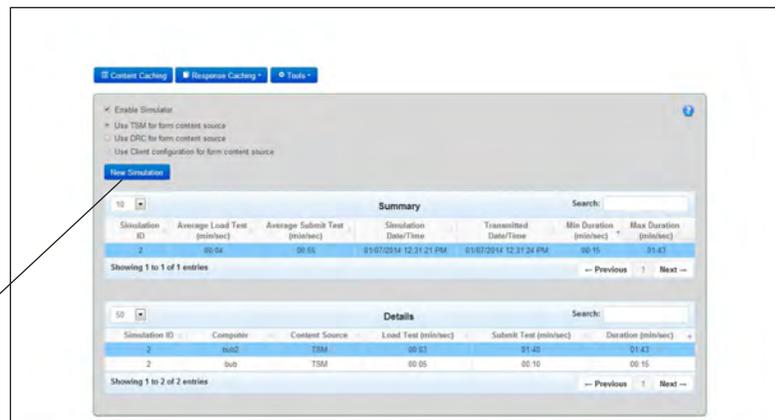
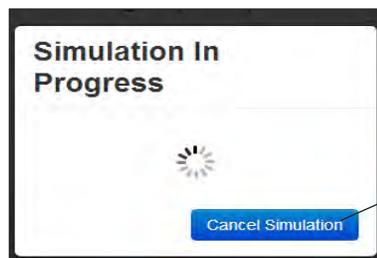
8. To locate one or more computers in the list, use the Search box. Click the **Click for more details** button to display technical details about the testing computer. Click **Close** when you are finished.



## Performing a Load Simulation (cont.)



9. Click **Start Simulation** to start the simulation. You can click **Cancel Simulation** to cancel a simulation.



After a simulation, the Start Simulation button changes to New Simulation and each testing computer in the simulation displays a completion message.

10. To run another simulation, click the **New Simulation** button to reset it to **Start Simulation** and repeat steps 4–9. If you are finished, close the System Readiness Check on each testing computer.

**Note:** A simulation times out after ten minutes. The time for a simulation that lasts less than one second is rounded to one second.

## Analyzing Load Simulation Results

When the load simulation finishes, the results display. For a description of the information displayed, refer to the tables on the following page.

The simulation results are sorted by Maximum Duration and Simulation ID. You can click on any column heading to re-sort the data.

The screenshot displays the simulation results interface. At the top, there are buttons for 'Content Caching', 'Response Caching', and 'Tools'. Below these are several configuration options: 'Enable Simulator' (checked), 'Use TSM for form content source' (selected), 'Use DRC for form content source' (unchecked), and 'Use Client configuration for form content source' (unchecked). A 'New Simulation' button is also present.

The main area contains two tables. The first table, titled 'Summary', shows a single entry for Simulation ID 2. The second table, titled 'Details', shows two entries for Simulation ID 2, one for computer 'bub2' and one for 'bub'. Both tables include search bars and pagination controls.

Simulation ID	Average Load Test (min/sec)	Average Submit Test (min/sec)	Simulation Date/Time	Transmitted Date/Time	Min Duration (min/sec)	Max Duration (min/sec)
2	00:04	00:55	01/07/2014 12:31:21 PM	01/07/2014 12:31:24 PM	00:15	01:43

Simulation ID	Computer	Content Source	Load Test (min/sec)	Submit Test (min/sec)	Duration (min/sec)
2	bub2	TSM	00:03	01:40	01:43
2	bub	TSM	00:05	00:10	00:15

### **Analyzing Load Simulation Results (cont.)**

The following tables describe the information displayed from the completed simulation.

#### **Summary**

The information in the Summary column summarizes simulation results across all of the testing computers in the simulation.

<b>Heading</b>	<b>Description</b>
Simulation ID	A system identifier for the simulation.
Average Load Test (min/sec)	The average time for the computers in the simulation to load test content.
Average Submit Test (min/sec)	The average amount of time for the computers in the simulation to submit all test responses to DRC. This time factors in the time required to submit each test response, the wait time between each test question, and the time required for the final test submission.
Simulation Date/Time	The date and time the simulation started.
Transmitted Date/Time	The time the simulation results were transmitted to DRC.
Min Duration (min/sec)	The time required for the fastest computer in the simulation to load the test and submit the results.
Max Duration (min/sec)	The time required for the slowest computer in the simulation to load the test and submit the results.

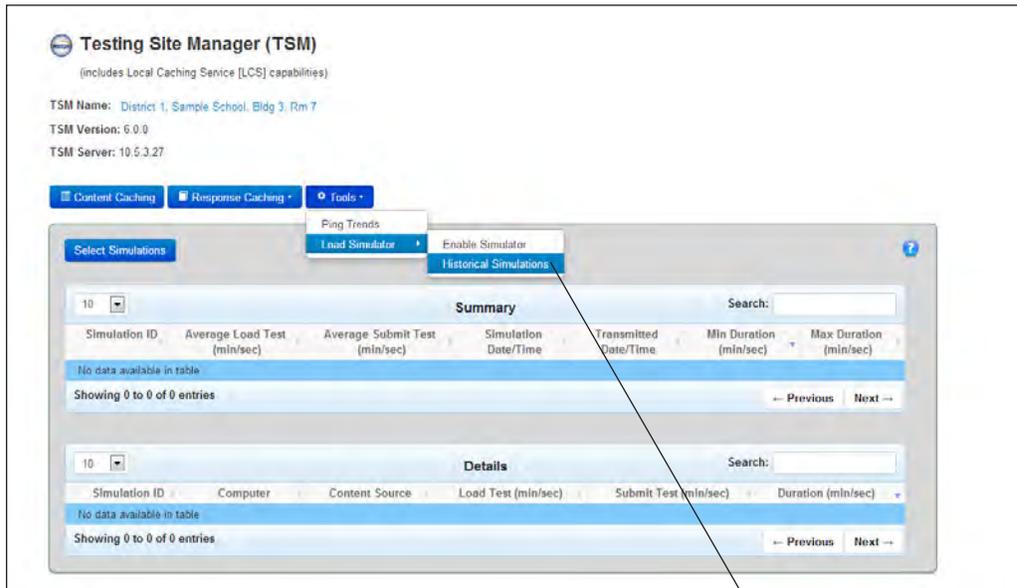
#### **Details**

The information in the Details column shows simulation details for each testing computer in the simulation.

<b>Heading</b>	<b>Description</b>
Simulation ID	A system identifier for the simulation.
Computer	The unique name of each computer in the simulation.
Content Source	The source of the test content loaded to the testing computer, DRC or TSM.
Load Test (min/sec)	The time it took the testing computer to load test content.
Submit Test (min/sec)	The time it took the testing computer to submit test responses to DRC.
Duration (min/sec)	The total time it took the testing computer to load the test and submit the results.

## Viewing Historical Simulation Data

Use the Historical Simulations option to view the results of one or more simulations that you select. For a description of the meaning of the information displayed, refer to the tables that follow.



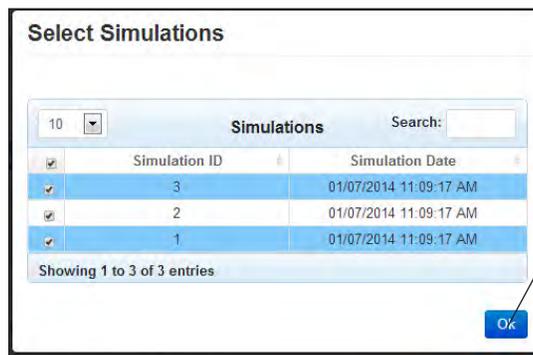
To select one or more simulations, do the following:

**1. Select Tools–Load Simulator–Historical Simulations.**

**2. Click Select Simulations.**

The Select Simulations dialog displays. Check a checkbox for each simulation you want to display.

**3. Click OK to view the results.**



## Viewing Historical Simulation Data (cont.)

**Testing Site Manager (TSM)**  
 (includes Local Caching Service [LCS] capabilities)

TSM Name: District 1, Sample School, Bldg 3, Rm 7  
 TSM Version: 6.0.0  
 TSM Server: 10.5.3.27

Content Caching   Response Caching   Tools

Select Simulations

10   Summary   Search:

Simulation ID	Average Load Test (min/sec)	Average Submit Test (min/sec)	Simulation Date/Time	Transmitted Date/Time	Min Duration (min/sec)	Max Duration (min/sec)
2	00:08	00:06	01/07/2014 11:09:17 AM		00:13	00:14
3	00:06	00:06	01/07/2014 11:09:17 AM		00:09	00:18
1	00:04	00:06	01/07/2014 11:09:17 AM		00:08	00:10

Showing 1 to 3 of 3 entries   -- Previous 1 Next --

10   Details   Search:

Simulation ID	Computer	Content Source	Load Test (min/sec)	Submit Test (min/sec)	Duration (min/sec)
3	PLSWS22222.DATARECOGNITIONCORP.COM	DRC	00:13	00:05	00:18
2	PLSWS33333.DATARECOGNITIONCORP.COM	DRC	00:08	00:06	00:14
2	PLSWS11111.DATARECOGNITIONCORP.COM	DRC	00:07	00:07	00:13
2	PLSWS22222.DATARECOGNITIONCORP.COM	DRC	00:09	00:05	00:13
1	PLSWS11111.DATARECOGNITIONCORP.COM	TSM	00:03	00:07	00:10
1	PLSWS33333.DATARECOGNITIONCORP.COM	TSM	00:03	00:06	00:09
3	PLSWS33333.DATARECOGNITIONCORP.COM	TSM	00:03	00:06	00:09
3	PLSWS11111.DATARECOGNITIONCORP.COM	TSM	00:03	00:07	00:09
1	PLSWS22222.DATARECOGNITIONCORP.COM	TSM	00:04	00:05	00:08

Showing 1 to 9 of 9 entries   -- Previous 1 Next --

The results display for the simulations you selected.

- For a description of the meaning of the information displayed, refer to the tables on the following page.

**Note:** The results are sorted by Maximum Duration and Simulation ID. You can click on the column headings to re-sort the data.

**Viewing Historical Simulation Data (cont.)**

The following tables describe the simulation information that displays.

**Summary (Historical)**

The historical summary information summarizes simulation results across all of the testing computers in the simulation selected.

Heading	Description
Simulation ID	A system identifier for the simulation.
Average Load Test (min/sec)	The average time for the testing computers in the simulation to load test content.
Average Submit Test (min/sec)	The average amount of time for the computers in the simulation to submit all test responses to DRC. This time factors in the time required to submit each test response, the wait time between each test question, and the time required for the final test submission.
Simulation Date/Time	The date and time the simulation started.
Transmitted Date/Time	The time the simulation results were transmitted to DRC.
Min Duration (min/sec)	The time required for the fastest computer in the simulation to load the test and submit the results.
Max Duration (min/sec)	The time required for the slowest computer in the simulation to load the test and submit the results.

**Details (Historical)**

The historical detail information shows simulation details for each testing computer in the simulation selected.

Heading	Description
Simulation ID	A system identifier for the simulation.
Computer	The unique name of each computer in the simulation.
Content Source	The source of the test content loaded to the testing computer, DRC or TSM.
Load Test (min/sec)	The time it took the testing computer to load test content.
Submit Test (min/sec)	The time it took the testing computer to submit test responses to DRC.
Duration (min/sec)	The total time it took the testing computer to load the test and submit the results.

### ■ The Capacity Estimator

The Capacity Estimator is an Excel spreadsheet file that you can download to estimate the following times:

- The time it will take to initially download INSIGHT (the test engine) based on the number of students who test at the same time.
- The times a student will wait for a fixed-form test to load, with and without content caching configured. These times are plotted against the number of students who start testing at the same time.
- The time required for a student to receive the next fixed-form test question when the student is finished with a question (the time required for the testing computer to save the test response and retrieve the next question).

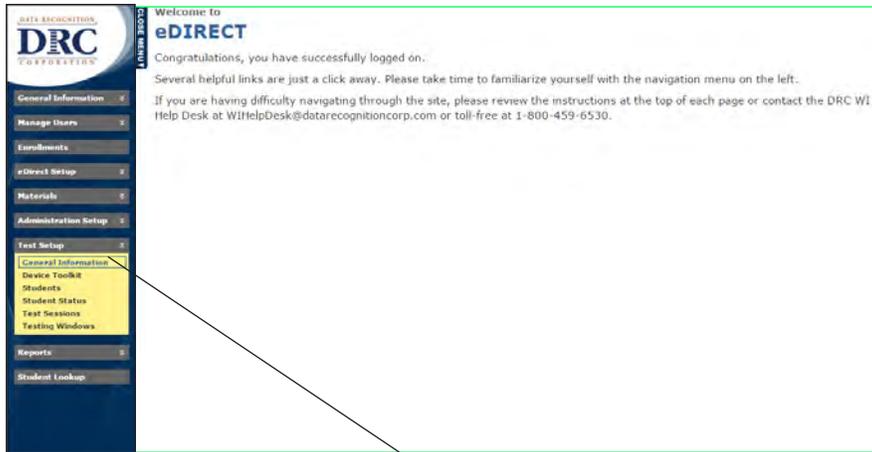
The following is a summary of the process of downloading and using the Capacity Estimator to estimate testing speeds:

1. Download the Capacity Estimator from eDIRECT.
2. Verify with your Internet Service provider (ISP), or other technical source, the ISP connection speed of the testing computer and your local area network (LAN) connection speed.
3. In the Capacity Estimator, enter the number of students testing at the same time, the numbers from Step 2, and your estimate of the amount of bandwidth that is available for testing.
4. Use the Capacity Estimator to review the results.

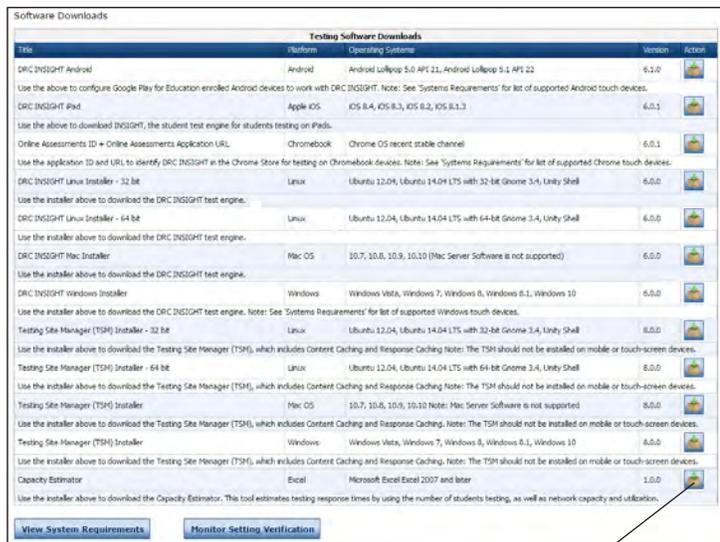
This process is discussed in detail on the following pages.

## Using the Capacity Estimator

To download and use the Capacity Estimator to estimate your testing response times, perform the following steps from a computer you plan to use for testing.



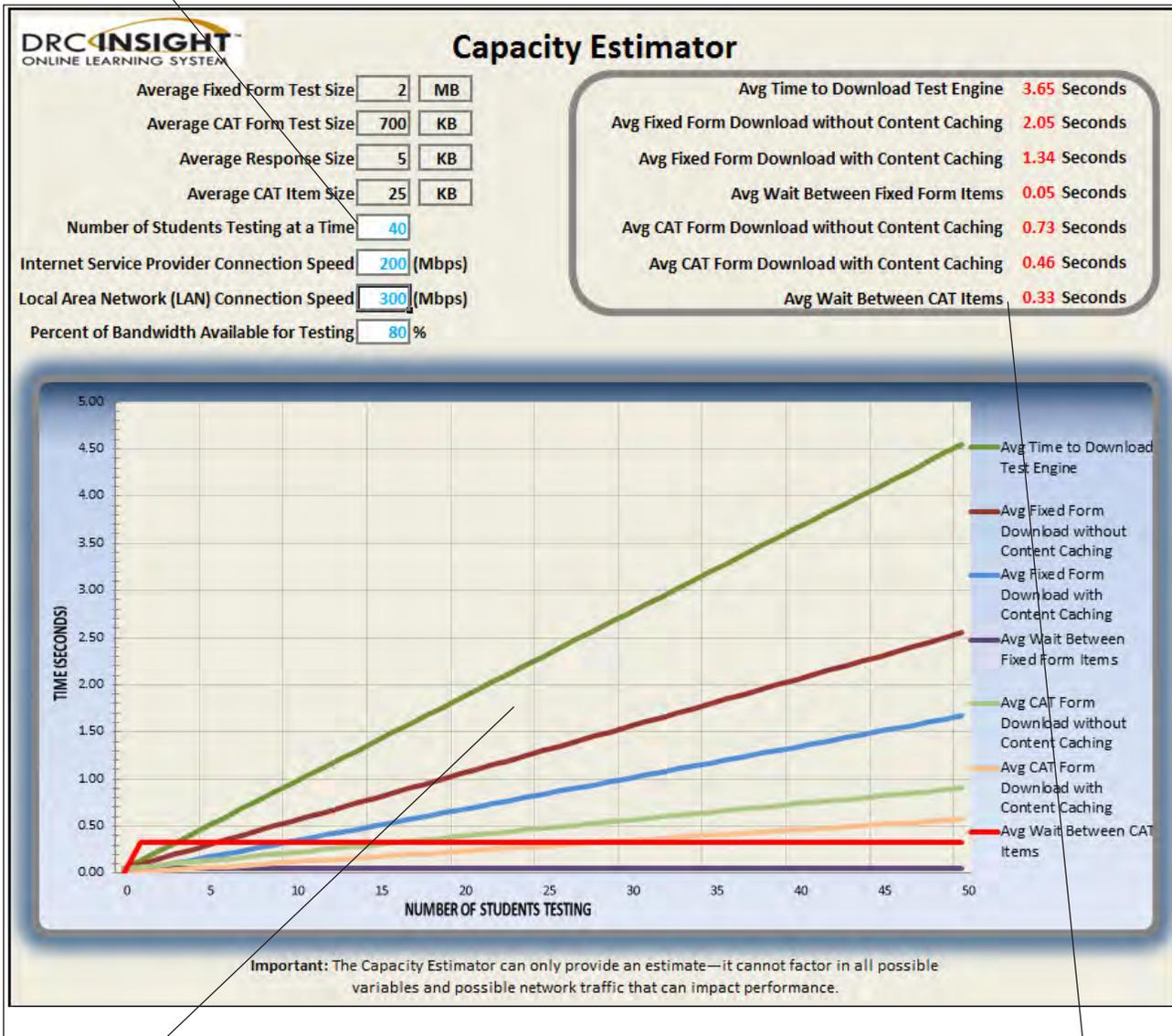
1. Go to the eDIRECT website at <https://wi.drccdirect.com>, log on, and select **General Information** from the Test Setup menu.



2. Select the **Downloads** tab, locate the Capacity Estimator, and click the Download icon (). Depending on the browser you use, a dialog may display that you can use to specify a location to download the file.

## Using the Capacity Estimator (cont.)

- Open the Capacity Estimator you downloaded in Steps 1 and 2, and enter the number of students that will start testing at the same time, the ISP connection speed, the LAN connection speed, and the percent of bandwidth available for testing (your best estimate—typically, 100% minus the amount being consumed by activities other than testing).

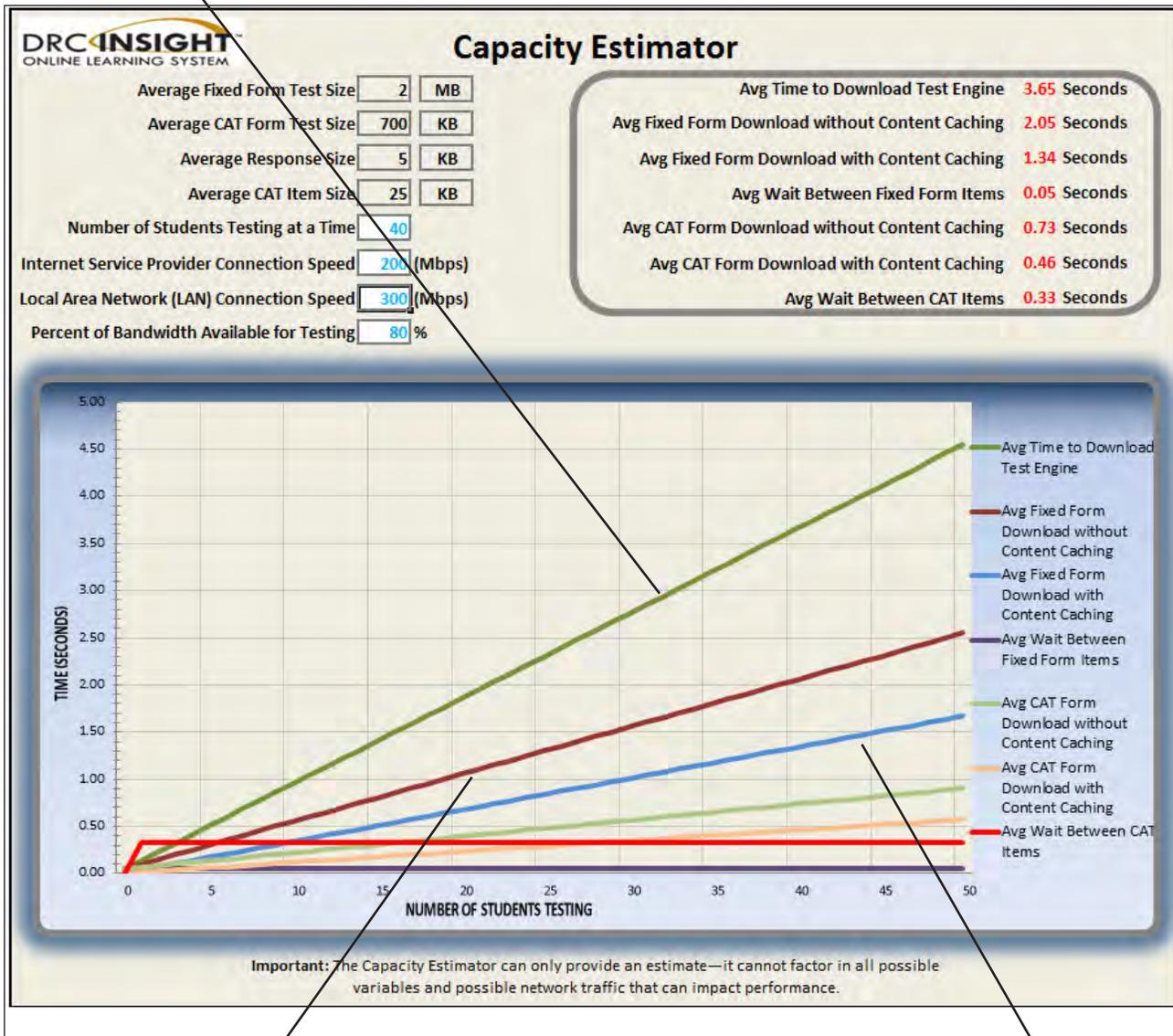


The Capacity Estimator displays the results graphically for up to fifty students.

The Capacity Estimator numerically displays information for all of the students testing (rounded to hundredths of seconds) above the graph.

Using the Capacity Estimator (cont.)

The dark green **Avg Time to Download Test Engine** line indicates the time (in seconds) a student will wait for the test engine to download as they log in for testing. This time is plotted against the number of students who start testing at the same time.



The dark red **Avg Fixed Form Download without Content Caching** line indicates the time (in seconds) a student will wait for a fixed-form test to load after they click **Select the Test** if they are not using a TSM for content caching. This time is plotted against the number of students who start testing at the same time.

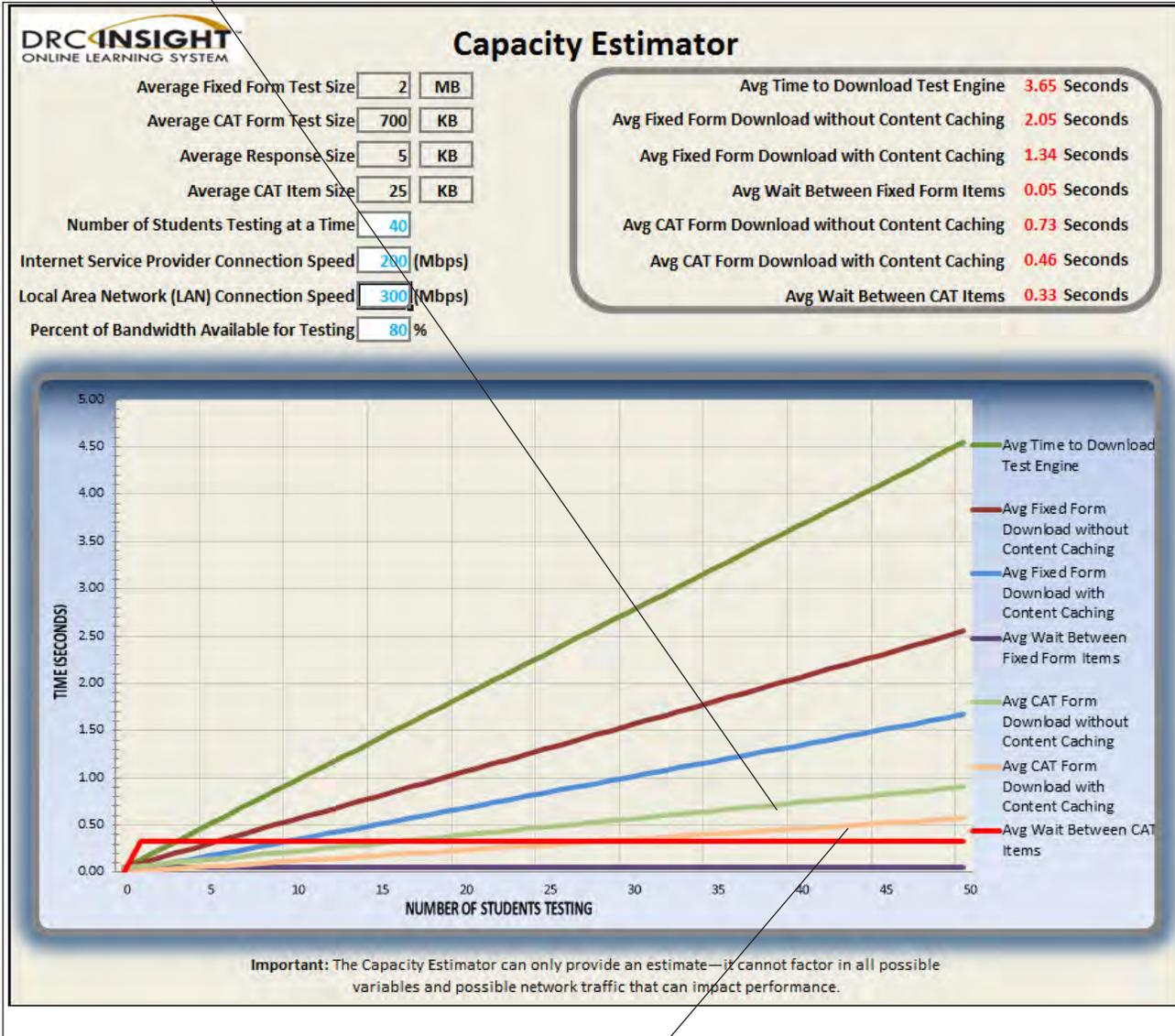
The blue **Avg Fixed Form Download with Content Caching** line indicates the time (in seconds) a student will wait for a fixed-form test to load after they click **Select the Test** if they are using a TSM for content caching. This time is plotted against the number of students who start testing at the same time.

# Working with INSIGHT

## Using the Capacity Estimator (cont.)

**!** **Important:** The Wisconsin Forward Exams are fixed form, only—CAT forms are not used for these exams.

The light green **Avg CAT Form Download without Content Caching** line indicates the time (in seconds) a student will wait for the test to load after they click **Select the Test** if they are not using a TSM for content caching. This time is plotted against the number of students who will start testing at the same time.

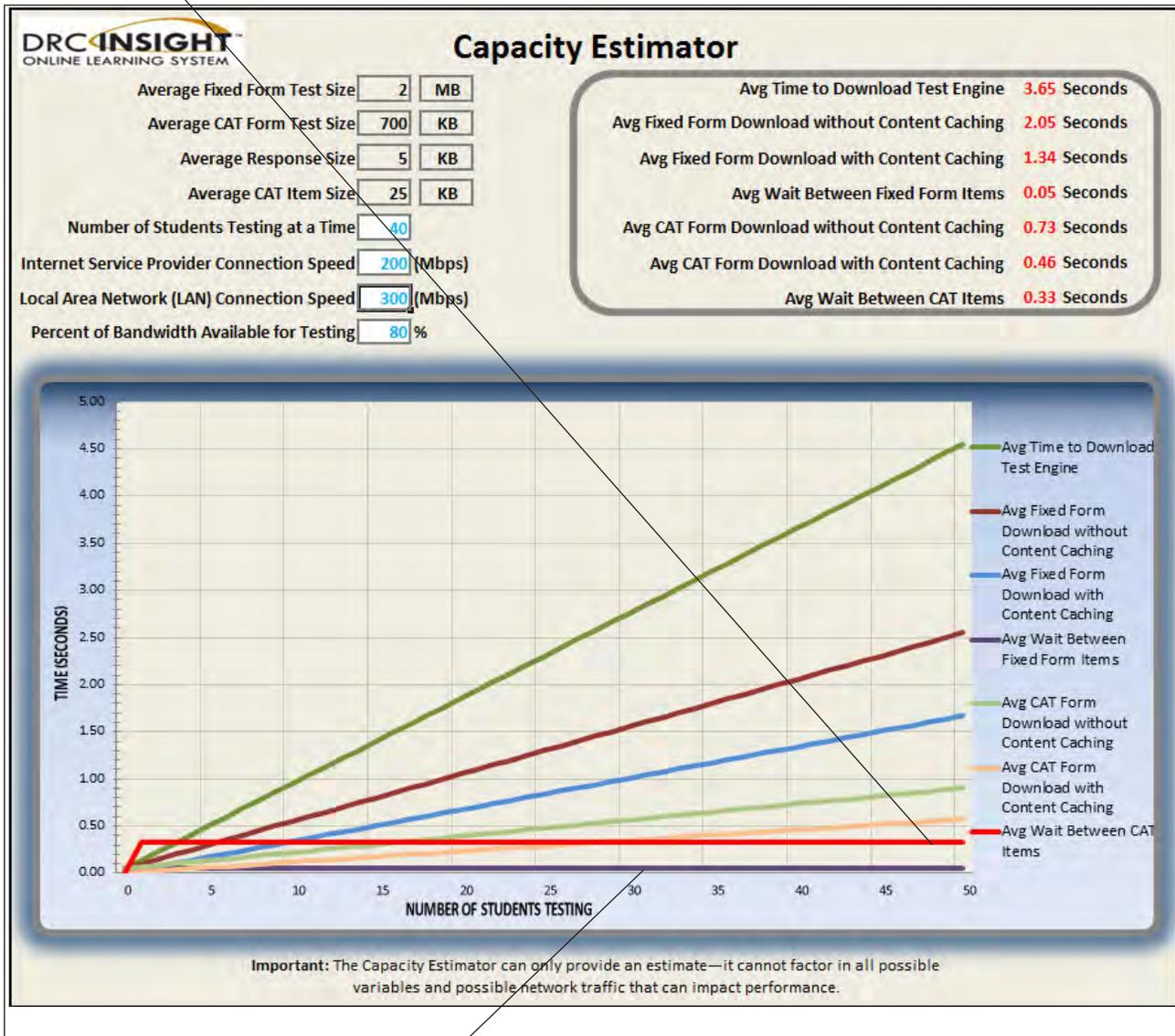


The gold **Avg CAT Form Download with Content Caching** line indicates the time (in seconds) a student will wait for the test to load after they click **Select the Test** if they are using a TSM for content caching. This time is plotted against the number of students who will start testing at the same time.

Using the Capacity Estimator (cont.)

The light red **Avg Wait Between CAT Items** line indicates the time (in seconds) a student will wait for the next CAT item after they finish an item and click **Next**.

**Note:** This estimate tends to be lower because it is calculated using the assumption that students do not finish an item at the same time (that is, students will click **Next** at different times).



The black **Avg Wait Between Fixed Form Items** line indicates the time (in seconds) a student will wait for the next fixed-form item after they finish an item and click **Next**.

**Note:** This estimate tends to be lower because it is calculated using the assumption that students do not finish an item at the same time (that is, students will click **Next** at different times).

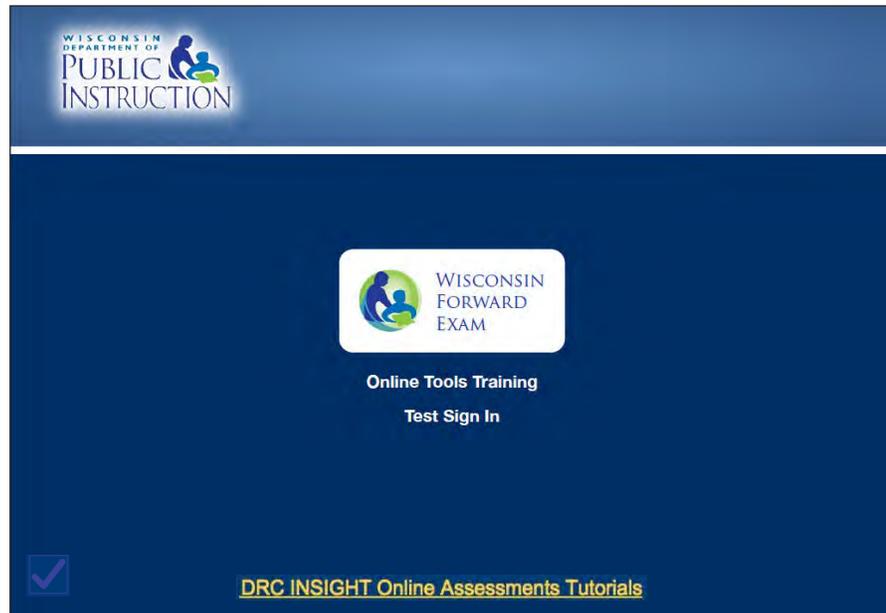
## ■ The System Readiness Check

The System Readiness Check helps you troubleshoot issues that might occur during INSIGHT installation or when INSIGHT is running. It is installed when you install INSIGHT and performs a series of tests you can use to diagnose and prevent or correct most errors easily.

The System Readiness Check verifies that a testing device meets all of the necessary hardware and software requirements for testing. It also indicates any checks that the testing device failed and provides suggestions for success.

To start the System Readiness Check from a device, do the following:

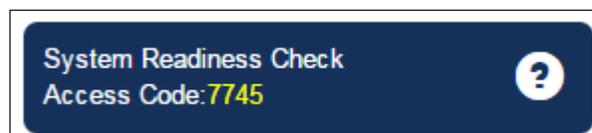
1. Start INSIGHT on the device.



2. Click the checkmark  in the lower left side of the portal page.



3. When you are prompted, enter the four-digit System Readiness Check Access Code (7745—see below).



### Using the System Readiness Check

After installing INSIGHT, use the System Readiness Check to determine whether your testing device meets system requirements and to troubleshoot issues. When you start the System Readiness Check from a device, the System Information page displays information about the device's software and configuration.

The **Client Version** field indicates the version of INSIGHT software.

The **Configuration Source** field indicates the source of the device's configuration information.

The **Installation Directory** field indicates the directory where INSIGHT is installed.

The **Machine Name** field indicates the name of the testing computer.

The **User Name** field indicates the name of the user logged in to the computer.

Client Version	Configuration Source	Installation Directory		
6.0.0	Device Toolkit	C:\Program Files (x86)\DRC INSIGHT Online Assessments		
Machine Name	User Name	OS Level	OS Version	
MGWS11274	BBalderson	Microsoft Windows 7 Enterprise Edition Service Pack 1 (build 7601), 64-bit	6.1	
Response Caching TSM Connection	Response Caching TSM Configuration	Content Caching TSM Connection	Content Caching TSM Configuration	
https://MGWS11274:8443/	Yes	https://MGWS11274:8443/	Yes	
HTTPS Proxy	Device ID	Device Toolkit Organizational Unit and ID	District	School
	kyRVimEg	District 5, School 5, Rm 5 (1828)	DRC Use Only - Sample District	DRC Use Only - Sample School

Status	Test Name	Details
✔	Screen Resolution	Details
✔	Internet Connection	Details
✔	RAM	Details
✔	Audio Capability	Details
✔	OS Level	Details
✔	User Agent	Details
✔	Response Caching TSM Connection	Details
✔	Response Caching TSM Status	Details
✔	Response Caching TSM Version	Details
✔	Content Caching TSM Connection	Details
✔	Content Caching TSM Version	Details

Load Results   Execute Tests   Test Audio   Exit

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The **OS Level and OS Version** fields indicate the operating system and level that is installed on the testing computer.

## Using the System Readiness Check (cont.)

The **Response Caching TSM Connection** field indicates the URL to the response caching server and the **Response Caching TSM Configuration** field indicates whether response caching is configured.

The **HTTPS Proxy** field indicates the URL to the secure proxy server (if configured).

The **Content Caching TSM Connection** field indicates the URL to the content caching server and the **Content Caching TSM Configuration** field indicates whether content caching is configured.

Client Version	Configuration Source	Installation Directory		
6.0.0	Device Toolkit	C:\Program Files (x86)\DRC INSIGHT Online Assessments		
Machine Name	User Name	OS Level	OS Version	
MGWS11274	BBalderson	Microsoft Windows 7 Enterprise Edition Service Pack 1 (build 7601), 64-bit	6.1	
Response Caching TSM Connection	Response Caching TSM Configuration	Content Caching TSM Connection	Content Caching TSM Configuration	
https://MGWS11274:8443/	Yes	https://MGWS11274:8443/	Yes	
HTTPS Proxy	Device ID	Device Toolkit Organizational Unit and ID	District	School
	bkyR\irmEg	District 5, School 5, Rm 5 (1828)	DRC Use Only - Sample District	DRC Use Only - Sample School

Status	Test Name	Details
✓	Screen Resolution	Details
✓	Internet Connection	Details
✓	RAM	Details
✓	Audio Capability	Details
✓	OS Level	Details
✓	User Agent	Details
✓	Response Caching TSM Connection	Details
✓	Response Caching TSM Status	Details
✓	Response Caching TSM Version	Details
✓	Content Caching TSM Connection	Details
✓	Content Caching TSM Version	Details

The **District** and **School** fields indicate the district and school associated with this device.

The **Device ID** field indicates the unique, 10-digit device ID generated by the Device Toolkit. The Device Toolkit uses this ID to register the device with INSIGHT.

The **Device Toolkit ORG Unit and ID** field indicates the device's ORG Unit name and ID (in parentheses).



## Using the System Readiness Check (cont.)

When you click **Execute Tests**, the System Readiness Check runs all of the tests from the required test list and displays the results.

The screenshot displays the 'System Information' and 'Required Test List' sections of the INSIGHT application. The 'System Information' section at the top provides details about the client version (6.0.0), device toolkit, machine name (MGWS11274), user name (BBalderson), operating system (Microsoft Windows 7 Enterprise Edition Service Pack 1), and various caching configurations. Below this, the 'Required Test List' section shows a table of tests with their status icons and 'Details' links. The tests and their statuses are: Screen Resolution (green check), Internet Connection (green check), RAM (green check), Audio Capability (green check), OS Level (yellow check), User Agent (green check), Response Caching TSM Connection (red exclamation point), Response Caching TSM Status (red exclamation point), Response Caching TSM Version (yellow check), Content Caching TSM Connection (red exclamation point), Content Caching TSM Version (yellow check), Client Version (green check), and Folder Permissions (green check). At the bottom of the test list, there are buttons for 'Load Results', 'Execute Tests', 'Print All', and 'Exit'. The copyright notice 'Copyright © 2015 Data Recognition Corporation.' is visible at the very bottom.

Status	Test Name	Details
✓	Screen Resolution	Details
✓	Internet Connection	Details
✓	RAM	Details
✓	Audio Capability	Details
⚠	OS Level	Details
✓	User Agent	Details
!	Response Caching TSM Connection	Details
!	Response Caching TSM Status	Details
⚠	Response Caching TSM Version	Details
!	Content Caching TSM Connection	Details
⚠	Content Caching TSM Version	Details
✓	Client Version	Details
✓	Folder Permissions	Details

Various icons indicate the status of a test.

- A green check mark icon (✓) indicates that the testing computer passed the test.
- A red exclamation point icon (!) indicates that the testing computer failed the test.
- A grey icon (⏏) indicates that the test is not applicable to the configuration.
- A yellow check mark icon (⚠) may display for the OS Level check only. This icon appears if the operating system is valid but the level/version of the operating system has not been fully tested by DRC.

## Using the System Readiness Check (cont.)

You can display details about the System Readiness Check before and after the tests. For a description of these tests, see “The System Readiness Required Tests” on page 196.

When you click **Details** before you execute a test, a window displays a description of the test.

**System Information**

Client Version	Device Toolkit	Installation Directory
5.0.0	C:\Program Files (x86)\DRC INSIGHT Online Assessments	
Machine Name	User Name	OS Level
MGWS11274	bbalderson	Microsoft Windows 7 Enterprise Edition Service Pack 1 (build 7601), 64-bit
OS Version	OS Service	
6.1		
Response Caching TSM Connection	Response Caching TSM Configuration	Content Caching TSM Connection
https://MGWS11274-8443/	Yes	https://MGWS11274-8443/
Content Caching TSM Configuration	Content Caching TSM Version	Content Caching TSM Connection
Yes		
HTTPS Proxy	Device ID	Device Toolkit Organizational Unit and ID
	bkyRVimEg	District 5, School 5, Rm 5 (1628)
	District	DRC Use Only - Sample District
	Address	DRC Use Only - Sample School

**Required Test List**

Status	Test Name	Details
✓	Screen Resolution	Details
✓	Internet Connection	Details
✓	RAM	Details
✗	Content Caching TSM Version	Details

Verifies client version at correct level: Failed  
Verifies that you're on a currently validated client:  
The client major version is incorrect, please update.

Buttons: Load Results, Execute Tests, Test Audio, Exit

When you click **Details** after you execute a test, a window displays the results of the test.

**System Information**

Machine Name	User Name	OS Level	OS Version
MGWS11274	bbalderson	Microsoft Windows 7 Enterprise Edition Service Pack 1 (build 7601), 64-bit	6.1
Response Caching TSM Connection	Response Caching TSM Configuration	Content Caching TSM Connection	Content Caching TSM Configuration
https://MGWS11274-8443/	Yes	https://MGWS11274-8443/	Yes
Content Caching TSM Configuration	Content Caching TSM Version	Content Caching TSM Connection	Content Caching TSM Configuration
Yes			
HTTPS Proxy	Device ID	Device Toolkit Organizational Unit and ID	Address
	bkyRVimEg	District 5, School 5, Rm 5 (1628)	DRC Use Only - Sample District
	District	DRC Use Only - Sample District	DRC Use Only - Sample School

**Required Test List**

Status	Test Name	Details
✓	Screen Resolution	Details
✓	Internet Connection	Details
✓	RAM	Details
✓	Content Caching TSM Connection	Details
✓	Content Caching TSM Version	Details

Verifies client version at correct level: Passed  
Verifies that you're on a currently validated client.  
This is not a secure client.

Buttons: Load Results, Execute Tests, Test Audio, Exit

## The System Readiness Required Tests

The System Readiness Check performs a series of required tests to determine whether the device is ready for online testing. The following table describes each test and the minimum requirements to pass the test.

Test	Description	Required to Pass
<b>Screen Resolution</b>	Verifies that the screen width and height are sufficient to display the online tests.	A minimum screen size of 1024 x 768 pixels.
<b>Internet Connection</b>	Verifies that the computer is connected to the Internet and that the connection speed is fast enough for testing.	The computer and browser must have a ping (connection) time of no more than 250 milliseconds.
<b>RAM</b>	Verifies that the computer has enough memory for online testing.	512 MB of RAM
<b>Audio Capability</b>	Verifies that the computer has the audio capability needed for online testing and/or tutorials.	The computer must have one or more audio channels and be able to play MP3 audio files.
<b>OS Level</b>	Verifies that the operating system is supported and at a level required for online testing.	See “INSIGHT System Requirements” on page 21 for the supported operating systems.
<b>User Agent</b>	Verifies that the web browser will work for the unsecured, practice tests—the Online Tools Training, or OTT.	An up-to-date Chrome browser.
<b>Response Caching TSM Connection</b>	Verifies that the INSIGHT test engine software on the testing computer can connect to the TSM response caching server.	The connection to the TSM response caching server must be working.
<b>Response Caching TSM Status</b>	Verifies that the TSM contains no unsent student responses.	The TSM must contain no stored responses.
<b>Response Caching TSM Version</b>	Verifies that the version of the TSM response caching server is the most recent.	The TSM response caching server must be the latest version.
<b>Content Caching TSM Connection</b>	Verifies that the INSIGHT test engine software on the testing computer can connect to the TSM content caching server.	The connection to the TSM content caching server must be working.
<b>Content Caching TSM Version</b>	Verifies that the version of the TSM content caching server is the most recent.	The TSM content caching server must be the latest version.
<b>Client Version</b>	Verifies that the version of the client software will work with the secure browser.	The base level of the client software must be up to date.
<b>Folder Permissions</b>	Verifies that you have permission to read and write to the installation folder.	Read/write access to the installation folder.

## ***Resolving System Readiness Required Tests***

This section 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. 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 21 for the supported resolution).

### ***Issue 2. 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: What Should I Whitelist, Allow, or Unblock?" on page 235).

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

If the error occurs when you are starting or running the System Readiness Check, 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.
3. Contact your Internet Service Provider (ISP) and verify that it is not filtering or throttling your connection with DRC.
4. Verify that you have all of the DRC addresses whitelisted.

### ***Issue 3. 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 4. Audio Capability Error***

---

This test verifies that the computer has the audio capability needed for online testing and/or tutorials. If this test fails, verify that the computer's sound card is working and that the computer has a valid playback device.

### ***Issue 5. OS Level Error***

---

This test verifies that INSIGHT is running on a supported operating system. If the machine is running a supported operating system, the test verifies that your setup meets the minimum system requirements. In addition to supported versus unsupported operating systems warnings, there is also a warning if the machine is using an untested version of a supported OS.

### Resolving System Readiness Required Tests (cont.)

#### Issue 6. User Agent Error

---

This test verifies that the web browser is correct for online testing.

#### Issue 7. TSM Connection Error

---

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

.....  
**!** **Important:** The two most common reasons for TSM connectivity issues are difficulty translating the server name into an IP address and not excluding the TSM from the system firewall on the computer where the TSM is installed.  
.....

#### You Are Not Using a TSM

1. Disable the TSM settings in the Device Toolkit by deselecting Enable Content Caching and Enable Response Caching (see “Configuring an ORG Unit TSM and Specifying INSIGHT Software Updates” on page 52).
2. Click **Update Configuration** to save your changes .
3. Restart INSIGHT.

#### You Are Using a TSM

- Start the System Readiness Check and verify that the TSM server settings are correct. If they are not correct, do the following:
  - a. Use the Device Toolkit to edit the settings (see “Configuring an ORG Unit TSM and Specifying INSIGHT Software Updates” on page 52).
  - b. Click **Update Configuration** to save your changes.
  - c. Restart INSIGHT.
- Verify that the TSM service is running.
- Verify that the TSM is reachable. Open the TSM both on the computer where the TSM is installed and on some of the machines that are receiving the error.
- Make sure that any Antivirus/Firewall/Proxy between, or on, the client and server is open. Also, ensure that both the testing client and the TSM are whitelisted.  
**Note:** See “Question 1: What Should I Whitelist, Allow, or Unblock?” on page 235 to verify what should be allowed, whitelisted, and unblocked.
- Try setting the proxy settings manually.
- Verify that no other web servers are running. Check whether a Virtual Machine (VM) is being used to host the TSM. Make sure no other VMs on the server are running a web server on ports 8080 or 8443.

## *Resolving System Readiness Required Tests (cont.)*

### *Issue 8. TSM Response Caching Error*

---

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

**Note:** Students cannot log in if there are stored responses in the TSM.

1. Start the TSM.
2. Select **Response Caching–Unsent Responses**.
3. Verify whether there are unsent tests and click **Transmit Responses** if there are.

### *Issue 9. TSM Version Error*

---

The TSM is not the latest version. You must uninstall it and reinstall the latest version.

1. Uninstall the TSM (see the Installation chapters) and verify that it was uninstalled correctly.
2. Reinstall the TSM from eDIRECT (see the Installation chapters).
3. Rerun the System Readiness checks (see “Using the System Readiness Check” on page 191) to verify that the TSM is the latest version.

### *Issue 10. Client Version Error*

---

The client software (INSIGHT) is not the latest version. You must download the latest version (if you are prompted to update your software, click **Update**).

# Notes

# Appendix A: Error Messages



### ■ 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.

For some messages, there are references to a more detailed description of how to resolve the error.

### ***INSIGHT, TSM, and Device Toolkit Error Messages***

This section describes common INSIGHT, Testing Site Manager (TSM), and Device Toolkit error messages and methods to resolve them.

**Message:** *Configuration Error*

*Contact your technical resource and provide them with the following information: DRC INSIGHT cannot retrieve the configuration profile associated with this device because a device can only be actively assigned to one Device Toolkit ORG Unit for a testing program.*

**Description:** The Device Toolkit is unable to uniquely identify the device because more than one ORG Unit ID exists for the device within the same testing program.

**What Should I Do?** Verify that the device has been assigned to only one ORG Unit per testing program on the device (see “Creating Configuration Files for Multiple Testing Programs” on page 56).

---

**Message:** *Configuration Not Found*

*Contact your technical resource and provide them with the following information: DRC INSIGHT cannot retrieve the configuration profile associated with this device because it cannot find the Device Toolkit ORG Unit ID which was entered incorrectly, was deleted, or was not assigned to the device.*

**Description:** One of the following situations has occurred:

- The Device Toolkit ORG Unit was deleted after the device was assigned to it.
- The Device Toolkit ORG Unit ID was not uploaded.
- The Device Toolkit ORG Unit ID was entered incorrectly.
- The Device Toolkit ORG Unit ID was not set up in Chrome Management (or in an MDM).

**What Should I Do?** Verify that the device has been assigned to an ORG Unit in the Device Toolkit and that the ORG Unit ID has been uploaded to this device. After you have the correct Device Toolkit ORG Unit information, click **Assign Device to ORG Unit** and enter the correct ORG Unit ID (see “DRC INSIGHT Device Toolkit” on page 43).

---

**Message:** *Connection Error Retrieving Content*

Please contact your local IT staff to verify network connection is working. They can contact DRC Customer Support if they need additional help to resolve the matter.

**Description:** The testing client is not able to connect and download the test form from DRC. This connection error occurred while trying to download the form.

**What Should I Do?** If the issue persists check your whitelisting on your network devices and prioritize testing traffic. If possible allow testing traffic to bypass as many network devices as possible. Ensure that bandwidth is not being completely consumed. If you are using a TSM, verify the whitelisting and firewalls to and on the TSM (“Issue 7. TSM Connection Error” on page 198).

---

**Message:** *Could Not Retrieve Testing Information*

Possible connection error while attempting to retrieve device configuration.

**Description:** INSIGHT is unable to determine the identity of the device.

**What Should I Do?** Check your network connection and retry. Verify that the device is registered in the DRC INSIGHT Device Toolkit (see “DRC INSIGHT Device Toolkit” on page 43).

---

**Message:** *Device Registration*

A device cannot be actively registered to more than one Device Toolkit ORG Unit for the same testing program.

**Description:** The Device Toolkit is unable to uniquely identify the device because more than one ORG Unit ID exists for the device within the same testing program.

**What Should I Do?** Verify that the device has been assigned to only one ORG Unit per testing program in the Device Toolkit and that one or more ORG Unit ID has been uploaded to this device. After you have the correct Device Toolkit ORG Unit information, click **Assign Device to ORG Unit** and enter the correct ORG Unit ID(s) (see “DRC INSIGHT Device Toolkit” on page 43 and “Creating Configuration Files for Multiple Testing Programs” on page 56).

---

---

**Message:** *Download Of Upgrade Failed*

Your upgrade failed because the download was unsuccessful.

**Description:** The testing client tried to upgrade but was unable to download the update.

**What Should I Do?** Try one or more of the following actions:

1. Retry the update.
2. Verify your whitelisting settings.
3. Manually update the testing client.

---

**Message:** *Failed to Load Device Information*

A communication error occurred. Click **Reload** to try again or **Cancel** to cancel the process.

**Description:** Because of a network communication error, the device information was not loaded from the Device Toolkit.

**What Should I Do?** Wait a few seconds and click **Reload** to retry the process. If the network problems persist, click **Cancel** and contact your network administrator (or try again later).

---

**Message:** *Guided Access Is Not Enabled*

Please raise your hand and wait for help.

**Description:** Guided Access must be started on the iPad device before students log in and begin testing.

**What Should I Do?** Start Guided Access on the iPad device (see “Working with Guided Access” on page 125).

---

**Message:** *Idle Error -- Responses Stored*

Your session has been ended due to inactivity. Please click the OK button to proceed.

**Description:** The test session ended due to inactivity and auto shut down testing.

**What Should I Do?** The student testing should log in again and continue testing after his or her responses have been transmitted from the TSM.

---

**Message:** *Internet Connection Error*

There has been an interruption in Internet connection. The student may be moved to another computer to continue testing. If this error persists, contact your local IT staff to verify network and Internet connections are working. They can contact DRC Customer Support if they need additional help to resolve the matter.

**Description:** There was an interruption in the Internet connection and the testing client was unable to reach DRC or the TSM.

**What Should I Do?** If the issue persists, check whitelisting on your network devices and prioritize testing traffic. Allow testing traffic to bypass as many network devices as possible. Ensure bandwidth is not being completely consumed (see “Issue 2. Internet Connectivity Error” on page 197).

---

---

**Message:** *No TSM Configured*

A TSM must be configured when using audio. Please contact an administrator.

**Description:** The testing client is trying to log into an audio test that requires a TSM, but no TSM is configured.

**What Should I Do?** Connect the testing client to a TSM for content caching (see “DRC INSIGHT Device Toolkit” on page 43).

---

---

**Message:** *Operating System Version xxx Is Not Supported By DRC INSIGHT*

The version of the operating system on this testing device has not been fully tested by the DRC INSIGHT team. You may experience issues while taking the test or be unable to complete the test.

**Description:** The operating system on the testing device is valid, but the version or level of the operating system has not been tested by DRC.

**What Should I Do?** You are allowed to test with this version, but DRC recommends that you use a fully tested and supported level of the operating system (see “INSIGHT System Requirements” on page 21).

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

The responses for the student's previous login to this test may have used a Testing Site Manager (TSM). The student cannot continue testing until any stored responses are sent. Please contact your local IT staff to check for unsent responses. They can contact DRC Customer Support if they need additional help to resolve the matter.

**Description:** The last login for this ticket saved responses, or tried to save responses, to the TSM. This login is either not connecting to the same TSM, or is not connecting to any TSM. The testing client must verify that there are no unsent responses on the previous TSM before the student can continue testing.

**What Should I Do?** The testing client must connect to the same TSM as their previous login to verify that there are no unsent responses. Start the TSM, select **Response Caching–Unsent Responses**, and click **Transmit Responses**.

---

**Message:** *Previous Login With Unsent Responses*

The responses for the student's previous login to this test are still stored on the Testing Site Manager (TSM). The responses must be sent by the TSM before the student can continue testing. Please contact your local IT staff to send the responses. They can contact DRC Customer Support if they need additional help to resolve the matter.

**Description:** The last login for this ticket saved responses to the TSM and they have not been submitted yet.

**What Should I Do?** Submit the unsent responses. Start the TSM, select **Response Caching–Unsent Responses**, and click **Transmit Responses**.

---

**Message:** *Registration Failed*

*The registration was unsuccessful*

The registration failed because the Device Toolkit ORG Unit ID does not exist. Click **Back** to re-enter the ORG Unit ID.

**Description:** DRC INSIGHT was unable to register the device because it could not find the device's Device Toolkit ORG Unit ID.

**What Should I Do?** Verify that you have the correct ORG Unit ID for the device, click Back, and re-enter the ORG Unit ID.

---

## Error Messages

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### **Message:** *Session Ended*

Another session has been activated with this student's login. Please confirm the student is using their assigned login. If the student is actively testing on another computer, click OK. Please contact DRC Customer Support if you need additional help to resolve this matter.

**Description:** Someone else has logged in with the same credentials on another computer.

**What Should I Do?** Verify that the student is using the correct testing credentials and that another student is not using them, and have the student login again.

---

---

### **Message:** *Session Status Outside Window*

Testing is currently unavailable. Please contact an administrator.

**Description:** The test ticket that is trying to be logged into is in a test session where the window is not active.

**What Should I Do?** Move the student to a test session in an appropriate testing window.

---

---

### **Message:** *Test Exit! Responses Stored On TSM*

There has been an interruption in Internet connection. All of the student's responses have been saved to the Testing Site Manager (TSM). The student should return to the same testing workstation or device to complete the test. Please contact your local IT staff to confirm the TSM is cleared by the end of the day. They can contact DRC Customer Support if they need additional help to resolve this matter.

**Description:** During testing the testing client lost connection with DRC. The test continued while saving responses to the TSM. The test has not been completed, so before the student can continue testing, the TSM must submit the responses for the student. The student must connect to the same TSM to complete the test.

**What Should I Do?** Make sure the TSM submits all the unsent responses. The student will not be able to continue testing until the responses are submitted. From the TSM, select **Response Caching–Unsent Responses**, and verify that the TSM displays **No unsent responses!** If there are unsent responses, click **Transmit Responses**. If that doesn't work, contact your System Administrator, or see "Issue 2. Internet Connectivity Error" on page 197.

---

---

**Message:** *Test Version Error*

The form the student is trying to access is not available. The form must be downloaded prior to students testing. Please contact your local IT staff to update the Testing Site Manager (TSM). If further support is required, contact DRC Customer Support.

**Description:** The form the testing client is trying to download from the TSM is not available.

**What Should I Do?** Download the form onto the TSM (see “Question 2: How Do I Update Test Forms in a TSM?” on page 236).

---

---

**Message:** *Test Version Error*

The test the student is trying to access is not the most up-to-date version. The latest version must be downloaded prior to students testing. Please contact your local IT staff to update the Testing Site Manager (TSM). If further support is required, contact DRC Customer Support.

**Description:** The form on the TSM is not up to date.

**What Should I Do?** Update the form on the TSM (see “Question 2: How Do I Update Test Forms in a TSM?” on page 236).

---

---

**Message:** *Testing Complete! Responses Stored On TSM*

There has been an interruption in Internet connection. All of the student’s responses have been saved to the Testing Site Manager (TSM). The TSM will send the responses for scoring. Please contact your local IT staff to confirm the TSM is cleared by the end of the day. They can contact DRC Customer Support if they need additional help to resolve this matter.

**Description:** During testing the testing client lost connection with DRC. The test continued while saving responses to the TSM. The test has been completed.

**What Should I Do?** Make sure the TSM submits all the unsent responses. From the TSM, select **Response Caching–Unsent Responses**, and verify that the TSM displays **No unsent responses!** If there are unsent responses, click **Transmit Responses**. If that doesn’t work, contact your System Administrator, or see “Issue 2. Internet Connectivity Error” on page 197.

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---

**Message:** *TSM Connection Error -- Could Not Register TSM*

This computer cannot connect to the Testing Site Manager (TSM). The problem must be corrected before the student can continue testing. Try logging in again or restarting INSIGHT. Otherwise, contact your local IT staff to verify network and TSM connections are working. They can contact DRC Customer Support if they need additional help to resolve the matter.

**Description:** The connection to the TSM was lost. All responses should be stored either at DRC or on the TSM.

**What Should I Do?** Confirm that the testing client can reach the TSM. Also confirm that the testing client's TSM URL is correct.

---

---

**Message:** *TSM Connection Error -- Responses May Be Stored*

This computer can no longer connect to the Testing Site Manager (TSM). The connection must be restored before the student can continue testing. Please contact your local IT staff to verify network and TSM connections are working. They can contact DRC Customer Support if they need additional help to resolve the matter.

**Description:** The connection to the TSM was lost. All responses should be stored either at DRC or on the TSM.

**What Should I Do?** Confirm that the testing client can reach the TSM. Check the TSM for unsent responses. Contact your System Administrator, or see "Issue 7. TSM Connection Error" on page 198.

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**Message:** *TSM Connection Error During Login*

This computer cannot connect to the Testing Site Manager (TSM). The connection or the content must be restored before the student can continue testing. Please contact your local IT staff to verify network and TSM connections are working. They can contact DRC Customer Support if they need additional help to resolve the matter.

**Description:** The testing client is not able to connect to the TSM. This connection error occurred while trying to login.

**What Should I Do?** Verify that you can reach the TSM. If the issue persists check your TSM computer's firewall and check your whitelisting on your firewall, content filter, proxies and other network devices.

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**Message:** *TSM Connection Error Retrieving Content*

This computer cannot connect to the Testing Site Manager (TSM) to retrieve content. The connection or the content must be restored before the student can continue testing. Please contact your local IT staff to verify network and TSM connections are working. They can contact DRC Customer Support if they need additional help to resolve the matter.

**Description:** The testing client is not able to connect and download the test form from the TSM. This connection error occurred while trying to download the form.

**What Should I Do?** Verify that all the forms are up to date and that the testing client can reach the TSM.

---

**Message:** *TSM Content Caching Configuration Error*

The Testing Site Manager (TSM) is not configured to deliver testing content. Enter a different TSM for Content Caching. Please contact DRC Customer Support if you need additional help to resolve this matter.

**Description:** The testing client is configured to download testing content from the TSM, but the TSM is not configured to deliver content.

**What Should I Do?** Either the client must be set to not download content from the TSM, or the TSM must be configured to provide content. This is a configuration issue and something needs to be corrected in the setup. For example, a URL must be updated.

---

**Message:** *TSM Content Caching Error*

The Testing Site Manager (TSM) is not configured to deliver testing content. Testing Content will not be downloaded from the TSM. Please contact your local IT staff to update your content source configuration. They can contact DRC Customer Support if they need additional help to resolve this matter.

**Description:** The testing client is configured to download testing content from the TSM but the TSM is not configured to deliver content.

**What Should I Do?** Either the client must be set to not download content from the TSM, or the TSM must be configured to provide content. There is an issue with content caching that cannot be updated by making a change to the configuration.

---

**Message:** *TSM Response Caching Configuration Error*

The Testing Site Manager (TSM) is not configured to store student responses. Enter a different TSM for Response Caching. Please contact DRC Customer Support if you need additional help to resolve this matter.

**Description:** The testing client is configured to save responses to the TSM but the TSM is not configured to save responses.

**What Should I Do?** Either the client must be set to not save responses to the TSM, or the TSM must be configured to save responses. This is a configuration issue and something needs to be corrected in the setup. For example, a URL must be updated.

---

---

**Message:** *TSM Response Caching Error*

The Testing Site Manager (TSM) is not configured to store student responses. The student responses will not be saved to the TSM. Please contact your local IT staff to update your student response caching configuration. They can contact DRC Customer Support if they need additional help to resolve this matter.

**Description:** The testing client is configured to save responses to the TSM, but the TSM is not configured to save responses.

**What Should I Do?** Either the client must be set to not save responses to the TSM, or the TSM must be configured to save responses. There is an issue with response caching that cannot be updated by making a change to the configuration.

---

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**Message:** *TSM Version Error*

The TSM is out of date. Please contact an administrator.

**Description:** The TSM is out of date.

**What Should I Do?** Update the TSM. If you did not specify automatic updates of your TSM software when you installed it, you must uninstall the current version of the TSM and reinstall the new version.

---

---

---

**Message:** *Your Client Attempted To Access An Invalid URL*

Your session has been ended because your client tried to access an unsupported address. Please click the OK button to proceed.

**Description:** The client is pointed to the wrong URL. The correct URLs are as follows:

**BaseURL:** <https://wbte.drceirect.com/>

**StartupURL:** <https://wbte.drceirect.com/>

**UpdateURL:** <https://-insight-client.drceirect.com/Download/SecureBrowser/VERSIONS.txt>

**What Should I Do?** The issue is often caused by incorrect forwarding by either the router DNS or the ISP.

---

**Message:** *Your Client Failed The Readiness Check*

Your session has been ended because your client is not supported. Please click the OK button to proceed. It is possible that the browser that you are using is unsupported. Please download the latest version of Chrome.

**Description:** The testing client has failed a System Readiness Check test.

**What Should I Do?** Use the System Readiness Check to see which test failed and fix the issue. This error can be caused by issues such as an invalid operating system or incorrect screen resolution.

---

**Message:** *Your Client Is Out Of Date*

Your session has been ended because your client is out of date. We will now attempt an upgrade.

**Description:** The testing client is out of date. If Auto Update is enabled, it will now run.

**What Should I Do?** If you enabled Auto Update, it will run now. Otherwise, enable and run Auto Update, or install the update manually.

---

## Error Messages

### **Message:** *Your Client Is Out Of Date*

Your session has ended because your client is out of date. The latest version must be downloaded prior to students testing.

**Description:** The testing client is out of date. Auto Update is not enabled, so you must update the testing client manually.

**What Should I Do?** You did not enable Auto Update. Enable and run Auto Update, or install the update (upgrade) manually.

Note: You cannot use Auto Update to move from version 5.x of INSIGHT to version 6.x. You must manually uninstall INSIGHT 5.x and manually install INSIGHT 6.x.

---

### **Message:** *Your Device Has Not Been Registered*

The Chromebook device is not registered in the DRC INSIGHT Device Toolkit.

**Description:** INSIGHT does not recognize the Chromebook device because it is not registered in the INSIGHT Device Toolkit.

**What Should I Do?** Use the Device ID displayed in the message to register the Chromebook device in the Device Toolkit (see “DRC INSIGHT Device Toolkit” on page 43).

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### **Message:** *Your Device Has Not Been Registered*

The Chromebook device was already registered in the DRC INSIGHT Device Toolkit.

**Description:** Because the Google Admin Console setting for **Erase all local user info, settings, and state after sign-out** was accidentally set to **Erase all local user data after each sign-out**, the Chromebook was registered successfully, but the registration was lost/deleted when the Chromebook was restarted.

**What Should I Do?** Verify that the setting for **Erase all local user info, settings, and state after sign-out** in the Google Admin Console is set to **Do not erase all local user data** (see below).

The screenshot shows a settings card for 'User Data' with a help icon and the text 'Locally applied'. The main setting is 'Erase all local user info, settings, and state after each sign-out', which is currently set to 'Do not erase all local user data' via a dropdown menu.

# Appendix B: FAQs, Hints and Tips



### ■ What's Covered in This Appendix

This Appendix contains a list of frequently asked questions (FAQs), as well as helpful hints and tips, regarding configuring, installing, and using DRC INSIGHT and the Testing Site Manager (TSM) software. The questions and answers are technical in nature and cover the following environments:

- Windows
- Macintosh (OS X)
- Linux
- iOS (iPad devices)
- Chrome OS (Chromebook devices)
- Android OS (Android devices)

The FAQs and Hints and Tips are divided into various categories. In addition, the Common Technical Questions and Answers cover the common technical support issues you may encounter, and provide tips, techniques, and workarounds to resolve them.

## ■ General Questions

**Q1: Is the TSM in the Mac environment a true service that runs when no one is logged in to the server?**

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

**Q2: If our TSM “goes down” or is unavailable, will a test automatically bypass the TSM, or are we stuck until the TSM is running again?**

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

**Q3: Is there a way to provide failover TSM service? Or a quick way to redirect service if a server fails during the testing window?**

A: Because the TSM is configured using Device Toolkit ORG Units, it is possible to quickly switch TSMs if necessary. To do so, you specify the location to the new TSM in the ORG Unit using the Device Toolkit and restart INSIGHT on the device. When it starts, INSIGHT automatically uses the new TSM configuration from the Device Toolkit.

**Q4: Do we use an .msi file for installation?**

A: The INSIGHT and TSM installation file types vary by operating system:

- The Windows version uses an .exe file for the TSM and an .msi file for INSIGHT.
- The Mac (OS X) version uses a .dmg file for the TSM and a .pkg file for INSIGHT.
- The Linux version uses a .sh file for the TSM and a .deb file for INSIGHT.
- The iOS version uses an .ipa file and a .plist file for INSIGHT.
- For Chrome, the INSIGHT App ID and URL is contained in a .txt file.
- The Android version (Lollipop) uses an .apk file for INSIGHT.

For more information, see “Installation Files” on page 20.

**Q5: I tried removing the TSM and reinstalling it, but now I can’t seem to use it?**

A: Verify that the uninstallation process removed the TSM installation folder. On a Windows 7 machine (64-bit), the folder is C:\Program Files (x86)\TestingSiteManager. After you remove the TSM, if this folder still exists, delete it before you reinstall the TSM.

**■ General Questions (cont.)**

**Q6: Do we have to have a TSM 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 TSM server you can offload about 50% of the traffic from the Internet to your TSM.

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

**Q7: Do we need to go to each student's computer to enable automatic updates?**

A: No. Just remember to enable automatic updates when you configure the device in the Device Toolkit (see “Configuring an ORG Unit TSM and Specifying INSIGHT Software Updates” on page 52). After installation, INSIGHT automatically checks for software updates and installs them whenever it is launched.

**Q8: How are test responses received?**

A: It depends on whether a TSM is installed and how it is configured.

**A TSM is installed and configured for content caching**

The students log in first. INSIGHT always contacts DRC to log in. After students log in, they download the test from the TSM and send test responses directly to DRC.

**A TSM is installed and configured for response caching**

If there is an interruption in internet connectivity, a student's testing computer starts sending the test responses to the TSM. The TSM tries to submit them to DRC every fifteen minutes. The student continues sending responses to the TSM until the student completes the test, pauses, or exits and logs back in.

**Note:** Students cannot log back in while their responses are still on the TSM.

**There is no TSM installed**

The student logs in by connecting with DRC. Tests are sent directly from DRC and responses are sent directly to DRC. If there is an Internet connectivity problem, the student is unable to continue testing.

## ■ General Questions (cont.)

### Q9: How do I test that a TSM is working?

A: Start the System Readiness Check on a testing computer.

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

1. Verify that the TSM settings are showing up in the System Readiness Check.
2. Click **Execute Tests** in the System Readiness Check.
3. What you do next depends on the type of caching.

For content caching, check the results for Content Caching TSM Connection, Content Caching TSM Status, and Content Caching TSM Version.

For response caching, check the results for Response Caching TSM Connection, Response Caching TSM Status, and Response Caching TSM Version.

These results tell you whether the testing client is set up correctly to work with a TSM. Verify that a TSM is being used and check the test details for more information.

4. Click the desktop shortcut for **DRC Online Assessments**, select **Online Tools Training**, sign in, and take a training test to verify that you can connect to the TSM.

### Q10: Can we install INSIGHT on one central server/computer and use shortcuts, or other links, to share it for testing across different machines?

A: No. DRC assumes that INSIGHT is installed on each computer that will be used for testing. Any other configuration is unsupported and may produce unexpected results.

### Q11: The sound for Text-To-Speech (audio) does not work. What should I do?

A: Run the System Readiness Checks and verify that the sound (Audio Capability) is working (see “Resolving System Readiness Required Tests” on page 197). Adjust the volume before testing.

■ **Capacity Estimator Questions**

**Q1: What is the Capacity Estimator?**

A: The Capacity Estimator is an Excel spreadsheet file designed to help districts and schools estimate the time it will take students to download tests initially and move to the next question after they send a response. These time estimates are based on the following:

- The site’s knowledge of the speed of their internal network
- The calculated estimated speed of the external network connection to DRC
- The estimated number of students testing concurrently and the estimated percentage of bandwidth available for use

This tool helps sites plan their testing more effectively based on factors such as the current network traffic, the number of students testing at the same time, and the type of test—fixed-form or Computer Adaptive Test (CAT).

**! Important:** The Wisconsin Forward Exams are fixed form, only—CAT forms are not used for these exams.

**Q2: What does the Capacity Estimator estimate?**

A: The Capacity Estimator estimates the following time values.

Value	Estimates
<b>Avg Time to Download Test Engine</b>	The average time the student will wait for INSIGHT to download as they log in for testing.
<b>Avg Fixed Form Download without Content Caching</b>	The average time required to download a fixed-form test without content caching.
<b>Avg Fixed Form Download with Content Caching</b>	The average time required to download a fixed-form test with a TSM and content caching.
<b>Avg Wait Time Between Fixed Form Items</b>	The average time required to save a response and load the next question for a fixed-form test.

■ Capacity Estimator Questions (cont.)

**Q3: What information does the site have to supply?**

A: The site needs to supply four numbers:

1. The Internet Service Provider connection speed①
2. The Local Area Network (LAN) connection speed②

(for numbers ①②, see the figures below)

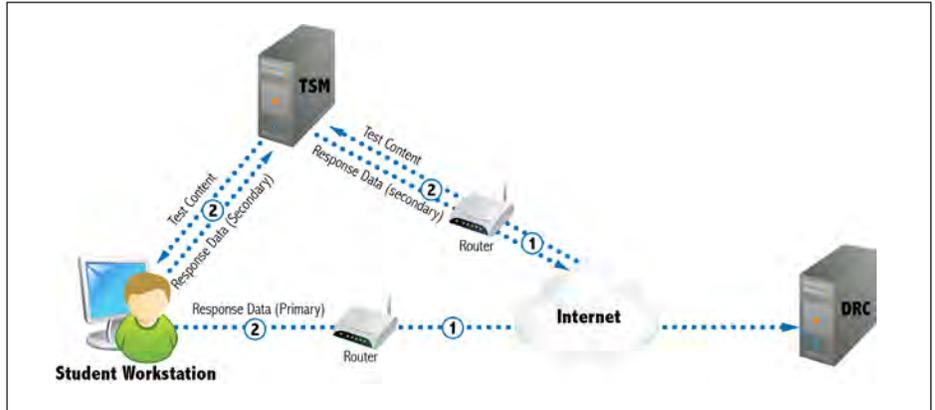


Figure: Testing With a TSM

**Note:** The primary path is the data path used when test responses are being sent directly through the Internet and stored on the TSM. The secondary path is the data path used when responses are also being sent from the TSM (the Internet connection was interrupted).

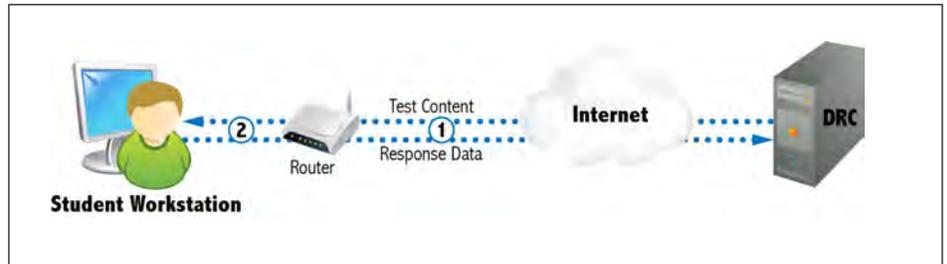


Figure: Testing Without a TSM

3. An estimate of the percentage of bandwidth that is currently available for testing

Because testing is probably not the only process running on your LAN and Wide Area Network (WAN), each site must estimate how much capacity these other processes are consuming, subtract that estimate from 100, and enter the result in the Percent of Bandwidth Available for Testing field.

4. An estimate of the number of students that will be testing at the same time

## ■ Capacity Estimator Questions (cont.)

### Q4: Are these estimates for each student, or for all students testing?

A: The average form download times estimate the time required to download a test that each student will experience if *all* students start testing at the same time. The average wait between item times estimate times for individual students because students finish questions at different times.

**Note:** The calculations represent conservative estimates. The Capacity Estimator can only provide an estimate—it cannot factor all possible variables, including network and Intranet traffic, that can impact performance.

### Q5: Is it possible to arrive at different estimates for these numbers using other software tools?

A: Yes. For example, we recommend using Speedtest.net to determine your download and upload speeds back to Minnesota. Other software tools might connect to servers that are different distances away and use different Internet paths to reach those servers.

**Note:** The Load Simulation Tool is designed to simulate DRC's testing traffic.

### Q6: What does “number of students testing at a time” mean?

A: The number of students testing at a time is the number of students in your school or district network who will download tests at roughly the same time (students who will start testing within a few seconds of each other). All students do not start a test at the same time, so this number is really used to estimate what would happen at maximum load (for more information, see the next question).

### Q7: Could you provide examples of how we would use the Capacity Estimator?

A: Yes. First, assume that 40 students are testing at the same time, with an Internet Service Provider connection speed of 200 Mbps, a LAN connection speed of 300 Mbps, and 80% of the total bandwidth available. According to the Capacity Estimator:

- The Avg Time to Download Test Engine (the time the student will wait for INSIGHT to download as they log in for testing) is 3.65 seconds.
- The Avg Fixed Form Download without Content Caching time (the time required to download a fixed-form test) is 2.05 seconds.
- The Avg Fixed Form Download with Content Caching time is 1.34 seconds.

## ■ Capacity Estimator Questions (cont.)

- The Avg Wait Time Between Fixed Form Items (the time required to save a response and load the next fixed-form test question) is .05 seconds.
- The Avg CAT Form Download without Content Caching time (the time required to download a CAT test) is .73 seconds.
- The Avg CAT Download Time with Content Caching is .46 seconds.
- The Avg Wait Time Between CAT Items (the time required to save a response and load the next CAT test question) is .33 seconds.

Now, assume that the number of students testing at the same time is increased to 800 (see the Note). According to the Capacity Estimator:

- The Avg Time to Download Test Engine (the time the student will wait for INSIGHT to download as they log in for testing) is 1.20 minutes.
- The Avg Fixed Form Download without Content Caching time (the time required to download a fixed-form test) is 40.05 seconds.
- The Avg Fixed Form Download with Content Caching time is 26.67 seconds.
- The Avg Wait Time Between Fixed Form Items (the time required to save a response and load the next fixed-form test question) is .07 seconds.
- The Avg CAT Form Download without Content Caching time (the time required to download a CAT test) is 13.72 seconds.
- The Avg CAT Download Time with Content Caching is 9.12 seconds.
- The Avg Wait Time Between CAT Items (the time required to save a response and load the next CAT test question) is .36 seconds.

**Note:** Although you can increase the number of students testing at the same time to a number greater than 50 for calculation purposes, the Capacity Estimator displays results visually for a maximum of 50 students.

## ■ Load Simulation Testing Questions

### Q1: What is the Load Simulation Tool?

A: It's a software tool that Technology Coordinators can use to perform load simulations that help estimate the amount of time it will take to download tests and upload responses.

### Q2: How many testing devices should we use for a simulation? Can we use just one?

A: DRC recommends that you include all of the schools and all of the computer labs that will perform online testing.

.....  
**!** **Important:** For a load simulation test, limit the number of testing devices per TSM to 100. Attempting to perform a load simulation test with more than 100 devices per TSM may cause the TSM to become unresponsive. You may have to uninstall and reinstall the TSM.  
.....

### Q3: How many times should I run the simulation?

A: DRC recommends that you run the simulation three times during your load simulation testing. Run it twice specifying the TSM as the source for form content and once specifying DRC as the source for form content (see "Load Simulation Testing" on page 174).

### Q4: What metrics are reported?

A: A load simulation test reports the following for each testing device:

- The source for the content: TSM, DRC, or the client computer (based on configuration)
- The amount of time it took to load the test to the testing device, on average.
- The time it took to submit the result to DRC.
- The combined time for the load test and submit result.

For more information and a description of the summary results, see "Load Simulation Testing" on page 174.

## ■ Load Simulation Testing Questions (cont.)

### Q5: What are acceptable results for test load and response times?

A: As a result of the Technology Readiness Assessments that DRC has performed, we suggest that the test load time should be less than 60 seconds. We also suggest that the Avg Submit Test time on the load simulation test should be less than 60 seconds. This value is a combined time that factors in the time required to submit each test response, the wait time between each test question, and the time required for the final test submission.

For a description of all summary results, see “Analyzing Load Simulation Results” on page 179.

Districts should analyze their results and set what they feel are acceptable response times for their students. If necessary, they can adjust their technical configurations and/or the number of students testing at one time.

**■ iPad Questions****Q1: Do I install a TSM on an iPad or Chromebook?**

A: A TSM is used primarily to cache and manage test content and responses. For various reasons, tablet devices (such as iPads) and Chromebooks do not provide a suitable environment for a TSM. As a result, you must install the TSM software on a Windows PC, Mac (OS X) computer, or Linux machine, and connect to the TSM when you install INSIGHT on the tablet device or Chromebook.

**Q2: Can the DRC INSIGHT iPad App be distributed without an MDM as an .ipa file using iTunes or other software/methods?**

A: Currently, the DRC INSIGHT App for iPads is available from DRC eDIRECT. In a future release of DRC INSIGHT, the DRC INSIGHT App for iPads will be available from the Apple App Store.

**Q3: Does DRC recommend any particular version of Mobile Device Management (MDM) software?**

A: No, there are many versions of MDM software, any of which will distribute INSIGHT. To configure INSIGHT using the MDM software, you must use a version that supports the Managed App Configuration feature (originated in iOS 7).

**Q4: Is iOS 8 supported?**

A: Yes, currently iOS 8.1.3, 8.2, 8.3, and 8.4 are supported.

**Q5: Is an external keyboard required for testing with iPads?**

A: Yes. An external keyboard is required for all tests containing open-ended items (such as constructed-response or equation builder items).

**Q5: Is custom installation of the Apple virtual (internal) keyboard supported for testing?**

A: Yes—the internal keyboard does not display automatically during testing, but can be toggled on using an iPad function key. If you are testing with iOS 8 be sure that the Emoji keyboard is removed from the user settings and that students are using only an English keyboard.

**Q6: What features need to be on or off to securely test with an iPad?**

A: Ensure that Check Spelling, Predictive Text, Auto-Correction, and Auto-Capitalization are turned off on each iPad device, and enable/activate the Guided Access feature.

**Note:** Apple requires a Passcode (numeric password) to activate Guided Access. This passcode must be secure—do not allow students to have the passcode.

## ■ Chromebook Questions

Chromebooks can be a secure platform for administering student assessments. When set up properly, these devices meet K–12 education testing standards. If configured according to Google specifications, Chromebooks can be set to disable students' access to browse the web during an exam in addition to disabling external storage, screenshots, and the ability to print. Google provides three scenarios for setting up Chromebooks for secure assessment, detailed at the link below:

<https://support.google.com/chrome/a/answer/3273084?hl=en>

If you need help setting up your Google Administrator account or enrolling Chromebooks, please contact Google directly.

**Q1: Of the three secure testing scenarios provided by Google, which one did DRC select and why?**

A: DRC developed the Chromebook INSIGHT application to meet the specifications of Google's Scenario 1 for delivery of secure assessments. Although each scenario prepares a Chromebook for secure testing, DRC selected Scenario 1 where the student takes an exam on the Chromebook using the DRC INSIGHT App in Single App Kiosk Mode. While the student tests, the INSIGHT App runs in a secure, full-screen mode. After the student exits the test, the Chromebook device can be used for any purpose, secure or otherwise—the Chromebook is only secured during testing with the DRC INSIGHT App.

### **Scenario 1**

DRC specifically selected Scenario 1 because:

- It is the only scenario that allows for fully secure assessment delivery (Single App Kiosk Mode).
- It allows the DRC INSIGHT App to communicate securely with the TSM.
- It does not require locking down the device and dedicating it for assessment purposes. Students can use the Chromebook for other purposes when the INSIGHT App is not being used for testing.
- It provides students a full-screen environment (the only scenario that does).

## ■ Chromebook Questions (cont.)

### Scenario 2

In contrast, Google's Scenario 2 includes a restricted sign-in feature for secure assessment delivery, which assumes that the Chromebook will be used solely for testing purposes. When this feature is enabled, non-assessment sign on is not allowed. When this feature is not enabled, test administrators must maintain separate student profiles—assessment and non-assessment—to allow for additional restrictions needed during assessment sessions.

Scenario 2 requires a higher level of administration oversight (for example, creating accounts twice). And, it requires manual management of security permissions making it prone to user error that is difficult to detect. It also requires taking the test in the Chrome browser, or manually launching a non-kiosk application (essentially launching the user into a desktop session where they have access to one URL). Finally, the Chromebook device must be cleared of data (wiped) upon exiting the test.

### Scenario 3

In Scenario 3, Google's Public Session Kiosk Mode is used to limit user access to non-assessment-related features of the Chrome OS operating system. Using Scenario 3 negates the possibility of TSM integration and secure content delivery due to known conflicts with Chrome packaged Apps. In addition, there are other considerations with Scenario 3:

- The URL and taskbar at the bottom of screen are visible. This consumes screen space and means the test engine must scale down the test content.
- Students can open additional Chrome windows.
- Students can use a command line shell that allows access to another machine.
- Students can close the Chrome window while the test engine is running, instead of using **Pause–Exit** or **Review–End Test–Exit**. This could mean lost test responses.

## ■ Chromebook Questions (cont.)

### Q2: Does DRC require users to log in to each Chromebook and write down the Device ID?

A: No. For unregistered Chromebooks, use the DRC Device Toolkit to create DRC ORG Units, download the configuration file (.zip) using Chrome device management, and upload the chromeos.json file from the configuration file using Chrome device management (see “Creating a Configuration File” on page 55). When the user starts the DRC INSIGHT App on the Chromebook, the Chromebook will be registered.

For Chromebooks that are already registered with the Device Toolkit, if the Device Toolkit ORG Unit configurations and Device IDs are still applicable, when INSIGHT is launched it will locate the Device ID from the Device Toolkit and use the associated configuration.

**Note:** The System Readiness Check (available through a link on the DRC INSIGHT App portal page) displays the Device ID on the System Information page.

### Q3: Why does DRC require Google Apps for Education and the Google Administrator accounts?

A: The DRC INSIGHT Chrome App requires Single App Kiosk mode to launch and ensure a secure testing environment on Chrome devices. Google Apps for Education and Chrome device management allow Chrome administrators to manage kiosk apps for multiple Chrome devices from a central console. This is the best approach to managing these devices in terms of efficiency and security.

DRC assumes that users have registered their Chromebooks as part of the initial implementation. Google specifies two additional requirements for secure testing using any of the three scenarios described in Q1:

- Google administrators must use Chrome device management to manage their Chrome devices from a single location.
- Google administrators must enroll each device in the school’s domain.

## ■ Chromebook Questions (cont.)

**Q4: How is installing DRC INSIGHT different than installing other testing applications that districts may be using?**

A: The DRC INSIGHT Chromebook App is configured to be secure and deployed using Chrome device management and configured to work with the TSM using the DRC Device Toolkit. For a different application, the process would not necessarily use a secure App or a TSM. These processes rely on Chromebook user account or other settings to restrict access. Since there is no secure testing App for the Chromebook, these processes require a workaround to secure the testing sessions.

**Q5: Does the deployment or installation of DRC INSIGHT require the Chromebooks to be dedicated to testing for the duration of the assessment window?**

A: No, the Chromebook device is not dedicated to testing, but the secure DRC INSIGHT App is. The DRC INSIGHT App is the secure testing environment that the student accesses using a unique test ticket. After a student has finished a test and exits the DRC INSIGHT App, the student can execute other applications and use the Chromebook for other purposes. Test Administrators are responsible for monitoring testing and ensuring students are properly ending and submitting their tests.

**Q6: Does Google provide a method to mass deploy secure testing configurations to Chromebooks?**

A: Yes, Google has a feature that allows users to “push” a secure testing configuration using Chrome device management.

**Q7: How do I configure Chromebooks to work with DRC INSIGHT?**

A: DRC provides the DRC INSIGHT Device Toolkit that you can use to configure and manage your Chromebooks after you have registered them in your Chrome domain.

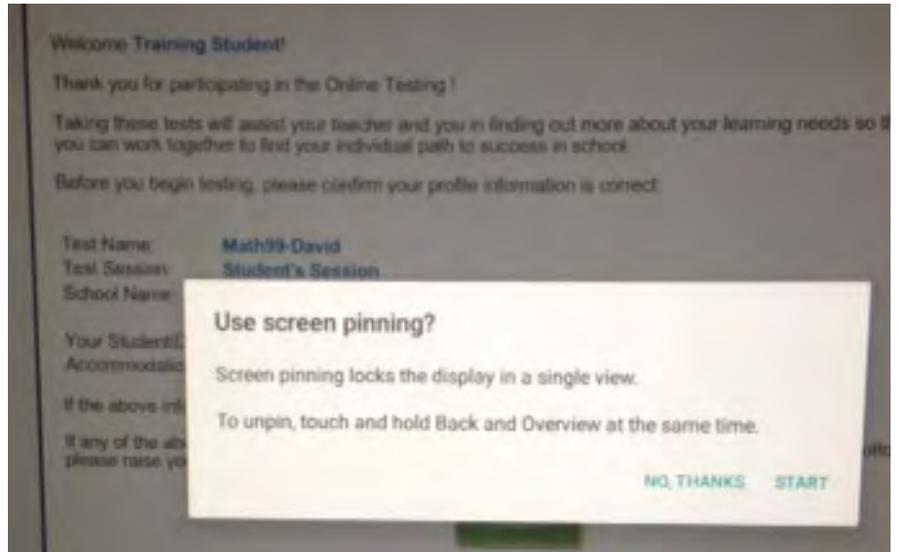
**Q8: Can I use DRC INSIGHT on a touch-enabled Chromebook?**

A: Yes, DRC supports certain touch-enabled devices. For a complete list, see “INSIGHT System Requirements” on page 21.

## ■ Android Questions

**Q1: What happens if my Android device is not enrolled in Google Play for Education and/or pinned correctly?**

A. When you start INSIGHT, a **Use screen pinning?** prompt displays (see below).



You must touch START at the prompt to lock the Android device for testing. If you select NO THANKS, you will not be able to test.

**Q2: Can I use MDM software to deploy the INSIGHT software?**

A. You can use MDM software to deploy your DRC INSIGHT Android software, but you must manually configure each Android device.

### ■ General Hints and Tips

The following are hints and tips for testing with iPad, Chromebook, and Android devices.

- Be sure to have a strong network connection, either Wi-Fi or direct Internet connectivity.
- Make sure the device's keyboard is set to English.
- Make sure the devices are either fully charged or plugged in.
- An optical drive is not required.
- While you are running the DRC INSIGHT application, the system operates in Single App Kiosk Mode.
- DRC INSIGHT displays in landscape mode only.

### ■ iPad Hints and Tips

- Use the following finger tap/press to navigate DRC INSIGHT—**Show Version** = two fingers plus three taps.
- For calculators, click the **OK** button versus the Return key. Using the Return key on your keyboard will not work as an 'Enter' function.
- All iPad devices have a Sleep Mode setting. In Sleep Mode the screen goes black and users can touch any key to re-activate it, or press their home key and type in the device passcode (if applicable).

The DRC INSIGHT timeout warning is not visible when an iPad is in Sleep Mode. To disable Sleep Mode, select **Settings-General-Auto-Lock** and select **Never**.

**Note:** School iPad profiles may not permit you to set this to Never.

- Smaller graphing and dragging elements may be difficult to track because the user's finger covers the item.
- The pinch-to-zoom in/out iOS gesture is supported; the swipe iOS gesture is not supported.
- The internal keyboard will not display during test execution. You can toggle it on using the appropriate iPad function key.
- The Audio starting point does not turn red when your finger gets close to touching it.
- All non-OTT tests require you to turn on the Guided Access feature. Under **Device Settings-General-Accessibility Learning-Guided Access**, enable Guided Access and Passcode.

**Note:** Administrators must ensure that this passcode is set before testing begins (see "Working with Guided Access" on page 125).

## ■ Chromebook Hints and Tips

- You must enroll a Chromebook in your Google domain account before using it with INSIGHT. As part of the enrollment process, Google uses the concept of ORG Units. These are not the same ORG Units that DRC uses in the Device Toolkit.

To prepare for the Chromebook administration, please ensure that you have set up Google Apps for Education and have enrolled all of your Chromebooks in the Google Device Manager software. This software helps you manage your device configurations.

For more information about managing Chromebooks and setting up your basic Chromebook environment, see the topic [https://support.google.com/chrome/a/answer/1289314?hl=en&ref\\_topic=2935995](https://support.google.com/chrome/a/answer/1289314?hl=en&ref_topic=2935995).

If you need help setting up your Google Administrator account or enrolling Chromebooks, please contact Google directly.

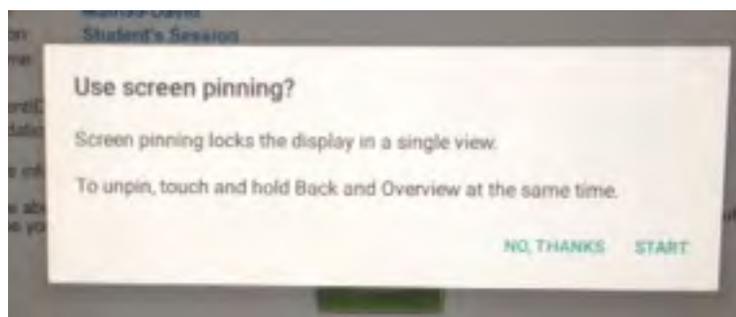
- The DRC INSIGHT Device Toolkit manages the INSIGHT portion of the Chromebook device configuration process.
- When you use the Device Toolkit to create DRC ORG Units and group Chromebooks, DRC assigns each Chromebook a Device ID. This Device ID is different than the serial number of the Chromebook.
  - Google uses the Chromebook's serial number to enroll the Chromebook in the Google domain.
  - DRC uses the Chromebook's Device ID to register the Chromebook in a DRC ORG Unit.

To help manage and organize your Chromebooks, keep track of the current Device ID.

- On your Chromebook, do not log in to your Google account if you want to access DRC INSIGHT. Because INSIGHT runs in Single App Kiosk Mode, you cannot access it after you have logged in to a Google account. If you attempt to start the INSIGHT App, an error message displays indicating that you are not in Single App Kiosk Mode. To access INSIGHT, log out of your Google account and start the INSIGHT App.

### ■ Android Hints and Tips

- You must enroll each Android device in your Google Play for Education domain account before using it with INSIGHT.
- When you start a test in INSIGHT, if your Android device was not enrolled in Google Play for Education and/or pinned correctly, a **Use screen pinning?** prompt displays. You must touch **START** at the prompt to lock the Android device for testing. If you select **NO THANKS**, you will not be able to test.



- Ensure that the Android device is connected to the correct Wi-Fi network.
- Ensure that the latest version of the DRC INSIGHT App is installed on each Android device.
- Ensure that all Android devices are fully charged or plugged in.
- Android devices should be “bumped” to ensure that INSIGHT launches in Pinned (secure) mode.

<https://support.google.com/edu/android/answer/3434383?hl=en>

**Note:** If an Android device was bumped before INSIGHT was installed, the device does not need to be bumped again.

- Deactivate the Android Gesture Typing feature.
- Deactivate the Android OK Google feature if it is on (the default value is off).

<http://forums.androidcentral.com/motorola-droid-mini/448925-how-do-you-turn-off-ok-google-now.html>

- Make sure that your Android device allows App installs from unknown sources.

<http://www.androidcentral.com/allow-app-installs-unknown-sources>

- The DRC INSIGHT Device Toolkit manages the INSIGHT portion of the Android device configuration process.

## Common Technical Questions and Answers

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

### Question 1: What Should I Whitelist, Allow, or Unblock?

The following is a list of the items to include (for more information, see “Network Requirements for Testing Computers” on page 33):

- Allow or enable http/https protocols on ports 80/443.
- Allow connectivity on ports 80 and 443.
- Whitelist the following file types, both internally and externally:  
**enc exe (for updates) gif html jar jpeg json xml**
- Prioritize and whitelist INSIGHT traffic on:
  - Firewalls, Internet packet shapers, routers, switches, proxies
  - Other network devices you use
- Whitelist the following URL to communicate with the Device Toolkit.  
**dtk.drccedirect.com 50.58.190.22**
- 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://wi-insight-client.drccedirect.com/">http://wi-insight-client.drccedirect.com/</a>	insightwebdl01
<a href="https://wi-insight.drccedirect.com/">https://wi-insight.drccedirect.com/</a>	INSIGHTAPPWEB10
<a href="https://wbte.drccedirect.com">https://wbte.drccedirect.com</a>	no label

**Notes:**

- When whitelisting, you may need to use \*.drccedirect.com instead of -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 TSM server to DRC servers.

State	URL	IP Address	Port/Protocol
Wisconsin	<a href="http://wi-insight-client.drccedirect.com">http://wi-insight-client.drccedirect.com</a>	50.58.190.77	80/http; 443/https
	<a href="https://wi-insight.drccedirect.com">https://wi-insight.drccedirect.com</a>	50.58.190.46	80/http; 443/https
	<a href="https://wbte.drccedirect.com">https://wbte.drccedirect.com</a>	50.58.190.53	80/http; 443/https
	<a href="https://dtk.drccedirect.com">https://dtk.drccedirect.com</a>	50.58.190.22	80/http; 443/https

## Common Technical Questions and Answers (cont.)

### Question 2: How Do I Update Test Forms in a TSM?

---

To update your test forms, do the following:

1. Open the TSM by pasting the following URL in a browser:

**http://localhost:8080/**

**Note:** The string **localhost** only works in this URL if you are using a browser on the computer where the TSM is installed.

2. To access the TSM remotely, change **localhost** to the IP address or server name of the computer where the TSM is installed.
3. Select any optional media files (audio—TTS, video—VSL) that need to be updated (if applicable).
  - a. If you have students that require an audio accommodation, check the **Download TTS** checkbox.
  - b. If you have students testing with Video Sign Language (VSL), check the **Download VSL** checkbox.

**Note:** When you check these checkboxes, a large amount of audio and/or video files are downloaded. If no student testing requires these accommodations, it is not necessary to check the checkboxes.

4. If the status of any content changes to Out of Date, click the **Update Content** button.

**Note:** When an update starts, the Content Update page displays information regarding the update process. After you read the information, click **OK**. During the update, a progress bar displays to indicate the status of the update. It takes a while for the TSM to update. Wait for the screen to refresh and all of the content to display the status **Up to Date**.

---

---

## Common Technical Questions and Answers (cont.)

### Question 3: Can We Mass Deploy Test Software to All 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 [Modifying the Setup File](#).

#### Modifying the Setup File

You can modify the DRC\_INSIGHT\_Setup.msi installation file to install your software on many machines using different installation settings. To modify the file, you need the ORCA installer package from the Windows SDK for Windows Installer Developers. This package is available at the following location:

<http://www.microsoft.com/download/en/details.aspx?displaylang=en&id=3138>

After installing the Windows SDK Components for Windows Installer Developers, double-click on **Orca.msi** to install the Orca.exe file.

To modify the setup file, do the following:

1. Start Orca.
2. Select **File–Open** and open the MSI installer.
3. Select **Property–Table** to open the Property table (see the figure below). Make all of your changes in this table.

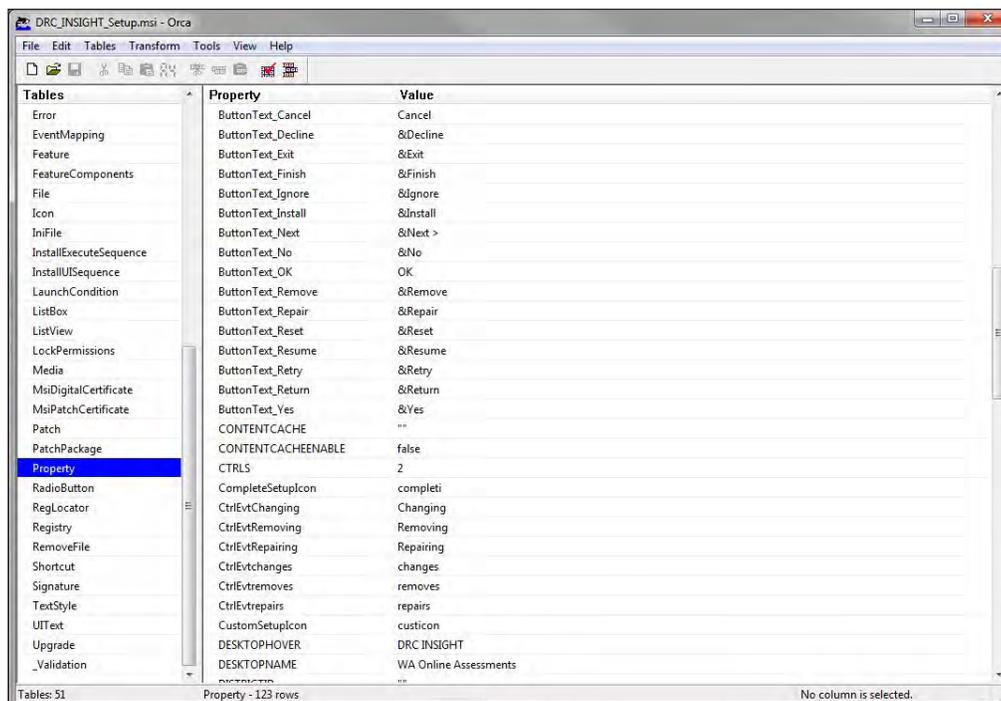


Figure: Property Table

## Common Technical Questions and Answers (cont.)

4. The following are the different properties you can change. To make a change, double-click on the value of the property, enter your value, and click **Enter**.

.....  
**!** **Important:** Make sure that there are no spaces before your input—do not put spaces in front of any attribute that you modify.  
.....

### ouIds

The 10-digit alphanumeric ORG Unit ID generated by the Device Toolkit.

### httpsproxy

The URL and secure port of the proxy host server. Depending on your configuration, this URL can start with either `http://` or `https://`.

5. After you make your changes, save the file and overwrite the original `DRC_INSIGHT_Setup.msi` file.

### Silent Install Example

---

The following example shows the syntax you would use to install INSIGHT silently in Windows 7.\*

```
DRC_INSIGHT_Setup.msi /qn
```

### Silent Uninstall Example

---

The following example shows the syntax you would use to uninstall INSIGHT silently in Windows 7.\*

```
msiexec /x DRC_INSIGHT_Setup.msi /qn
```

\*For Microsoft Windows 8, use `/qb` instead of `/qn`.

---

---

# Glossary



### ■ Accommodation

Modifications or enhancements made to tests, or test environments, that allow students with physical or learning disabilities, or a limited English-language ability to more accurately demonstrate their knowledge and skills in an assessment situation.

### ■ Capacity Estimator

An Excel spreadsheet file you can download and use to estimate the following testing time:

- The time it will take to initially download INSIGHT (the test engine) based on the number of students who test at the same time.
- The times a student will wait for both a fixed-form test and a Computer Adaptive Test (CAT) to load, with and without content caching configured. These times are plotted against the number of students who start testing at the same time.
- The time required for a student to receive the next fixed-form or CAT test question when the student is finished with a question (the time required for the testing computer to save the test response and retrieve the next question).

### ■ Content Caching

The Testing Site Manager (TSM) can cache test content. At test time, the TSM content caching software sends its cached test items to the testing devices. This content must be up to date in order for students to test. DRC strongly recommends TSM content caching for maximum performance (see “*Response Caching*”).

### ■ DRC INSIGHT Device Toolkit

DRC provides software called the Device Toolkit that you use to configure the testing devices in your environment. You use the Device Toolkit to organize, configure, and manage your devices for testing with DRC INSIGHT and the TSM.

### ■ DRC INSIGHT Learning System

DRC’s system to deliver assessments and related resources online for all content areas and grade levels by incorporating computerized testing, related resources, dynamic reporting, and a suite of educator tools.

The DRC INSIGHT Learning System consists of a secure web browser testing interface and the TSM to help manage network traffic, maintain connectivity, and handle bandwidth issues (see “*Testing Site Manager*”).

### ■ DRC INSIGHT

The main component of the DRC INSIGHT Online Learning System, DRC INSIGHT is a secure web browser testing interface that is installed on each testing device. This software communicates with the DRC INSIGHT server to provide and test questions to the test taker, and to send responses to the DRC INSIGHT server, which stores them securely.

**■ Dynamic IP Address**

An IP address that can change when the computer is restarted or rebooted based on the pool of IP addresses that are available at the time (see “*Static IP Address*”).

**■ Kiosk Mode**

When DRC INSIGHT runs on a supported device and operating system, it uses Kiosk Mode to “lock down” student access and prevent students from performing inappropriate testing activities, such as accessing the Internet.

**Note:** On an iPad device, Kiosk mode is referred to as Guided Access Mode. On an Android device, Kiosk mode is referred to as Pinning Mode.

**■ Latency**

The rate of data transfer across a network is referred to as latency. Knowing the latency of a network is useful for helping to determine peak network traffic times and for analyzing the best times for testing.

For example, when the TSM “pings” the IP address of the DRC server, the network sends data packets from the TSM to the DRC server and back. The network calculates the time, in milliseconds, it takes for the data to be received. The longer this time is, the longer it has taken the DRC server to receive the data packets (usually because of excess network traffic).

**■ Load Simulation Test (LST)**

A software test used to perform load simulations to help estimate the amount of time it will take to download tests and upload responses. For individual testing devices, a load simulation test reports the following:

- The source for the content: the TSM, DRC, or the client computer (based on the configuration)
- The amount of time it took to load the test to the testing device, on average
- The time it took to submit the result to DRC
- The combined time for the load test and submit result

**■ Native Device**

A device that can run INSIGHT-supported operating systems natively if it meets the minimum system requirements. Running natively means running without external support, as opposed to running in an emulation.

**■ Online Tools Training (OTT)**

An optional, customized feature of DRC INSIGHT that allows students and administrators to become familiar with the online test environment and their suite of online testing tools.

### ■ **Response Caching**

The TSM can cache student test responses. During testing, if the test devices cannot communicate with the DRC INSIGHT server, the TSM response caching software buffers and stores their test responses.

When the response caching software is communicating with DRC, it sends test responses to the DRC INSIGHT server every fifteen minutes. Even if DRC is not currently communicating with the testing devices, the test responses are still being stored on the TSM for transmission to DRC, so no responses are lost. DRC strongly recommends the TSM response caching software for maximum performance (see “*Content Caching*”).

### ■ **Static IP Address**

An IP address that is permanently assigned to a computer and does not change when the computer is restarted or rebooted (see “*Dynamic IP Address*”).

### ■ **System Readiness Check (SRC)**

A software program that helps you troubleshoot issues that may occur when DRC INSIGHT is installed or running. The SRC is installed automatically when you install DRC INSIGHT, runs anytime DRC INSIGHT runs, and performs a series of tests that you can use to diagnose, prevent, or correct most errors easily. It verifies that a testing device meets the necessary hardware and software requirements for testing, indicates any checks the testing device failed, and provides suggestions for success.

### ■ **Testing Site Manager (TSM)**

DRC’s powerful, web-based application that works with DRC INSIGHT to provide caching and a software toolbox to help you plan, configure, and manage your online testing environment.

The TSM offers two types of caching—content caching for test content and response caching for student test responses. The TSM caching software is installed on one or more strategic computers with sufficient bandwidth to help manage and streamline communication between the test computers and the DRC INSIGHT server. A TSM typically reduces bandwidth traffic for schools by about 50% when downloading test content (see “*Content Caching*” and “*Response Caching*”).

### ■ **Text-To-Speech (TTS)**

An optional audio testing accommodation offered with DRC INSIGHT that allows a student to hear the test recorded by a computer-simulated voice.

### ■ **Thin Client**

A computer that relies on servers for information processing and other tasks.

### ■ Video Sign Language (VSL)

An optional testing accommodation offered with DRC INSIGHT that allows a student to see both test instructions and content signed visually through an online video.

VSL is available in American Sign Language (ASL). There is no audio for the ASL version.

### ■ Virtual Desktop

Desktops that can indirectly host some supported operating systems for DRC INSIGHT (other physical devices host operating systems directly). Typically, users access virtual desktops from another operating system, on another device, across a network boundary.

### ■ Virtual Desktop Device

A device a student interacts with, which is actually a gateway to the virtual or remote desktop. The device may or may not be capable of supporting DRC INSIGHT natively, or be able to run an operating system that DRC INSIGHT supports.

## A

- Android devices
  - FAQs 231
  - hints and tips 234
  - System Readiness Check 150
- Audio
  - and VSL 13 36
  - troubleshooting 197
- Automatic updates
  - configuring for INSIGHT 31
  - configuring for Linux 105
  - configuring for Mac (OS X) 94
  - configuring for the TSM 31
  - configuring for Windows OS 75
  - described 31
  - specifying in a program
    - Windows OS 238
- Autonomous Single App Mode (ASAM)
  - securing an iPad 122 124 125

## B

- Bandwidth Capacity
  - estimating 35 185
  - requirements 35
- Boot-Up Manager 112

## C

- Caching
  - and the TSM 159
  - configuring
    - Linux 105 109
    - Mac (OS X) 90
    - Windows 72
  - content 159
  - content caching 144
  - response 164
  - response caching 144
  - using 159
- Capacity Estimator
  - described 184
  - questions and answers 220
  - using 185
- Chromebook
  - configuration checklist 47 132
  - DRC Device Toolkit 45
  - example INSIGHT setup 134
  - FAQs 227
  - Google Administrator 229
  - hints and tips 232
  - installations 49 132
  - moving devices with Device Toolkit 65
  - removing devices with Device Toolkit 66
  - security 227
- Chrome device management
  - described 45

- Client System Properties dialog box 31
  - Commands
    - INSIGHT setup 82 115
    - INSIGHT TSM setup 78
  - Communication port
    - and installation 49
    - changing
      - for Mac (OS X) 91
      - for Windows OS 73
      - for Linux 106
  - Content caching
    - configuring
      - Linux 105 109
      - Mac (OS X) 90
      - Windows 72
    - described 12 159
    - updating content 161
  - Control Panel
    - changing font size 41
    - changing monitor display for VSL 37
    - changing the monitor contrast 155
    - start or stop the TSM 79
    - uninstall INSIGHT 86
    - uninstall TSM 80
    - using to uninstall 80
- ## D
- Data Recognition Corporation (DRC)
    - INSIGHT Device Toolkit 45
    - INSIGHT Online Learning System
      - components 11
    - Testing Site Manager (TSM) 27
  - Desktop
    - Apple Remote Desktop™ software 98
    - devices 40
    - monitoring 34
  - Devices
    - Android 26 144
    - Chrome 25
    - Chromebooks 40
    - iPad 24
    - iPads 120
    - tablets 40
    - Windows 21
  - Device Toolkit
    - adding devices 63 64
    - configuring a TSM 54
    - creating and deleting ORG Units 51 52 53
    - described 45
    - log files 67
    - moving devices 65
    - ORG Units described 45
    - removing devices 66
  - Disk space
    - INSIGHT requirements 22 23 25 26
    - TSM requirements 29

**E**

- Error messages
  - common 203
  - TSM Connection Error 203 204 205 211 212 213 214
- Estimating
  - bandwidth requirements 35
  - capacity 184
  - ping attempts 170
  - testing times 184

**F**

- Files
  - Device Toolkit log files 67
  - TSM log files 198
  - uninstalling INSIGHT
    - Linux 114 115
    - Mac (OS X) 100
    - Windows OS 86
  - uninstalling the TSM
    - Linux 118
    - Mac (OS X) 97
    - Windows 80
- Firewall 197 198
- Folders
  - Applications 100
  - permissions for installing on Mac (OS X) 98 121 122 124 125
  - System Readiness Check tests 196
  - TSM installation folder 217
- Frequently Asked Questions (FAQs) 216

**G**

- Google
  - Chrome device management 45
  - Organizational units 45
  - Play for Education 144
- Guided Access
  - activating 226
  - and MDM software 123

**H**

- Historical data
  - simulation test results 181
  - test responses 167

**I**

- INSIGHT Online Learning System
  - installing 74
    - Chrome 135
    - Linux 108
    - Mac (OS X) 28 89 92 120
    - Windows OS 74 81
  - installing from command line
    - Linux 115
    - Mac (OS X) 98
    - Windows 81
  - installing on iPad 121 123
  - installing the TSM
    - Linux 103
    - Mac (OS X) 89
    - Windows OS 71 78
  - starting 85
  - stopping 85
  - uninstalling
    - Linux 118
    - Mac (OS X) 86 100
    - Windows OS 86
  - uninstalling the TSM
    - Linux 113
    - Mac (OS X) 97
    - Windows OS 80
- Install TSM
  - Linux 103
  - Mac (OS X) 28 89 120
  - Windows OS 71
- Internet
  - connectivity errors 197
  - whitelisting 235
- iPad
  - configuring with MDM software 120
  - FAQs 226
  - Guided Access 125
  - hints and tips 232
  - installing with MDM software 120
  - Predictive Text 126 127
  - securing for testing 125
  - securing using ASAM 122 124 125
  - system controls 232
- IP address
  - dynamic 241
  - static 242 241

**K**

- Kiosk Mode 39
  - Google Public Session 228
  - Single App for Chromebooks 227

## L

- Latency 169 241
- Load Simulation Testing
  - analyzing results 179
  - described 174
  - detail data 180
  - historical data 181
  - historical detail data 183
  - historical summary data 183
  - performing 175
  - questions and answers 224
  - requirements 174
  - summary data 180

## M

- Mac (OS X)
  - INSIGHT system requirements 21 24 25
  - versions supported 21 24 25
- Mobile Device Management (MDM) software
  - described 120
  - Managed App Configuration feature 120

## N

- Network
  - connectivity requirements 35
  - data transfer speed 169 241
  - reliability and TSM 218
  - wireless 34
- Network latency 169 241

## O

- Online Tools Training (OTT)
  - described 13
  - using 153
- Operating systems
  - and DRC INSIGHT 21 24 25
  - supported and unsupported 40
  - virtual desktop 40
- Oral Administration
  - configuration 38
- ORG Units
  - adding devices 63 64
  - creating and deleting 51 52 53
  - described 45
  - moving devices between 65
  - removing devices 66

## P

- Ping activity
  - described 173
  - forecasting 170
  - impact on testing 170
- Proxy settings
  - and whitelisting 33 235

## Q

- Quick Tours
  - Installing a TSM for Linux 103 108
  - Installing a TSM for Mac (OS X) 90
  - Installing a TSM for Windows 71
  - Installing INSIGHT for Android devices 147
  - Installing INSIGHT for Chrome 135
  - Installing INSIGHT for Linux 108
  - Installing INSIGHT for Mac (OS X) 92
  - Installing INSIGHT for Windows 74

## R

- Response caching
  - configuring
    - Linux 105 109
    - Mac (OS X) 90
    - Windows 72
  - described 12 159
  - viewing historical information 167
  - viewing unsend responses 164

## Roles

- District Assessment Coordinator 10
- District Technology Coordinator 10
- School Assessment Coordinator 10
- School Technology Coordinator 10
- Technology Coordinator 17 19 97 224
- Test Administrator 10

## S

- Security
  - and Chromebooks 227
  - and desktop monitoring 34
  - and INSIGHT Kiosk Mode 39
  - and iPads 125
  - and Windows taskbar 42
- Starting and stopping
  - INSIGHT
    - Mac (OS X) 100
    - Windows OS 85
  - System Readiness Check
    - Linux 112
    - Mac (OS X) 100
    - Windows OS 85
  - TSM service
    - Linux 112
    - Windows OS 79
- System Readiness Check
  - described 190 197 198 199
  - error messages 197
  - iOS (iPad) 128 141
  - Linux 109
  - performing on iPad 128 141

- starting
  - iOS (iPad) 128 141
  - iPad 128 141
  - Mac (OS X) 100
  - Windows OS 85
- troubleshooting results 197
- using 191 192 193 194 195

- System requirements
  - INSIGHT 21 24 25
    - desktops and laptops 21 25
  - TSM 29
  - Video Sign Language (VSL) 36

## T

- Task Manager
  - stopping INSIGHT 85
  - using 85
- Testing accommodations
  - defined 240
  - loading tests 162
- Testing Site Manager (TSM)
  - benefits 27
  - caching
    - content 161
    - described 12 159
    - response 164
  - configuring manually for iPad 128 141
  - configuring with Device Toolkit 54
  - described 12 152
  - forecasting ping trends 170
  - installing
    - for Linux 103
    - for Mac (OS X) 28 89 120
    - for Windows OS 71
    - manually 78
    - using Wizard 28 71 89 103 120 133 144
  - Linux 112
  - load simulation testing 175
  - Mac (OS X) 97
  - sending data 169
  - starting and stopping 79
    - Linux 112
    - Mac (OS X) 97
    - Windows OS 79
  - tools 12
  - transmitting student responses 164
  - uninstalling
    - Linux 113
    - Mac (OS X) 97
    - Windows 80
  - viewing historical data 167
  - Windows OS 78 79
- Text-To-Speech (TTS)
  - configuring 38
  - described 13 38

- Troubleshooting
  - common questions 235
  - error messages 202
  - frequently asked questions (FAQs) 216
  - questions and answers 235
  - whitelisting 235

## U

- Uninstall
  - INSIGHT
    - Linux 118
    - Mac (OS X) 86 100
    - Windows OS 86
  - TSM
    - Linux 114
    - Mac (OS X) 97
    - Windows OS 80

## V

- Video Sign Language (VSL)
  - changing monitor display 37
  - configuring 36
  - described 13 21
  - troubleshooting 37
- Virtual Desktop
  - and INSIGHT 39 40
  - monitoring 34

## W

- Whitelisting
  - Internet connectivity errors 197
  - list of items 235
  - network requirements 33
- Window
  - DRC INSIGHT License Agreement 71 74 92 104
- Windows OS
  - INSIGHT system requirements 21 24 25
  - using the Task Manager to stop INSIGHT 85
  - versions supported 21 24 25
- Wizard
  - Install INSIGHT
    - Linux 108
    - Mac (OS X) 92
    - Windows OS 74
  - Install TSM
    - Linux 103 108
    - Mac (OS X) 28 89 120
    - Windows OS 71
  - Uninstall INSIGHT
    - Linux 114 115
    - Mac (OS X) 100
    - Windows OS 86
  - Uninstall TSM
    - Linux 113
    - Mac (OS X) 97
    - Windows OS 80



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