



**MEASUREMENT**  
I N C O R P O R A T E D

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**Measurement Incorporated**  
**Secure Testing (MIST™)**

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Technical Guide

# Overview

*How do I prepare for online testing using MIST™?*

This guide outlines the basic steps required to deploy MIST and includes a readiness checklist that each school and district may be requested to complete before the online test administration begins.

## Preparing for online testing

This guide includes the following references to help prepare for MIST online testing.

- **Appendix A** – Online Assessment Technical Specifications
- **Appendix B** – MIST Online Readiness Checklist (optional)
- **Appendix C** – MIST-Supported Hardware/Software Tools

To ensure that each school is ready for MIST online testing, complete the following tasks:

1. Review the **MIST Technical Specifications** in Appendix A for Windows, Macintosh and Linux to initially confirm that all testing computers meet the documented hardware and software requirements.
2. Verify that all firewalls and proxy servers are configured to allow access to MIST servers. See **Network Requirements** in Appendix A for information related to firewalls and proxy servers.
3. Follow the steps in **Downloading and Installing the Application** on page 3 to download and install MIST.
4. Optionally, you can download and/or print a copy of the **MIST Online Readiness Checklist** in Appendix B for the schools you support. The checklist will assist you in determining the suitability of each school's network to run the MIST application and in ensuring that the computers meet the required technical specifications. Just follow the instructions to
  - verify that the application can run on each testing computer;
  - confirm that the network has adequate capacity to support MIST online testing; and
  - if requested, fax or email the completed **MIST Online Readiness Checklist(s)** to the Measurement Incorporated Technical Support Desk.

If you have any questions or concerns about preparing for online testing, please contact the MIST Technical Support Desk at **(855) 999-4246** for assistance.

## Downloading and Installing the Application

	<p><b><i>If you have a previously downloaded version of MIST, the MIST application may have been updated. Click the desktop icon to confirm that you have the latest version. If the MIST executable is out of date, an upgrade message will appear. Click OK to close the message window. You will need to download an updated version of MIST from the Proctor Website.</i></b></p>
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This procedure must be performed by a technical staff person with the administrative privileges to install software on school computers. To download the MIST application, complete the following steps:

1. Open a supported browser on a network computer (see **Supported Browsers** in Appendix A).
2. Type <https://mist.measinc.com> in the address field at the top of the browser window and press **Enter** to access the MIST Proctor Sign In page.

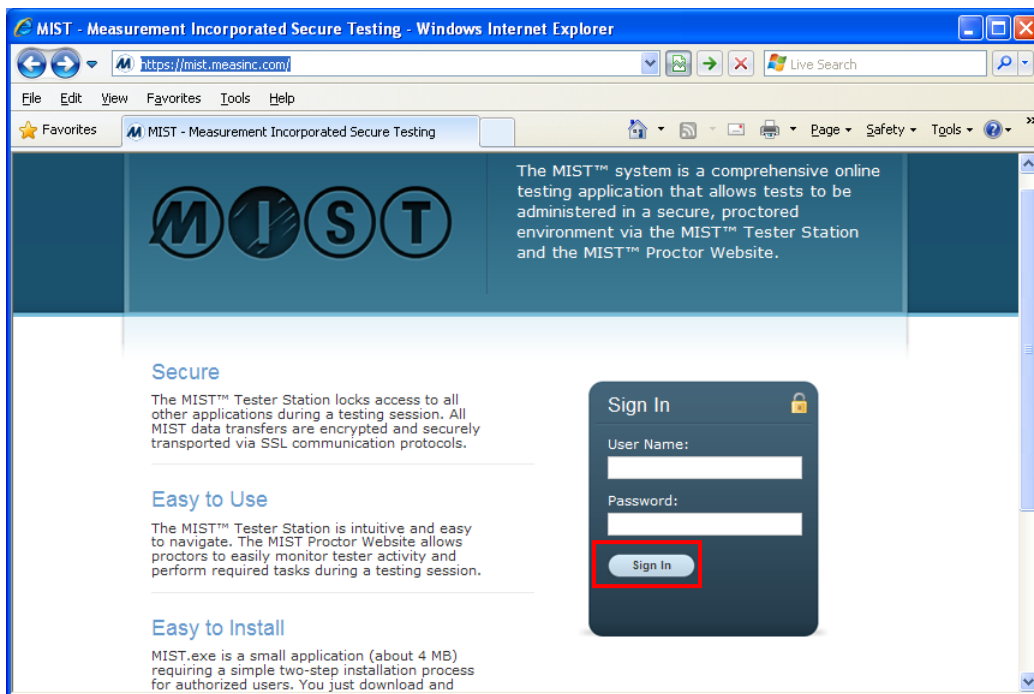


FIGURE 1 - MIST Proctor Sign In page

3. Type the user name and password you received from Measurement Incorporated in the applicable fields, then click **Sign In**.

If you do not know the username and password, contact the MIST Technical Support Desk at (855) 999-4246 for assistance.

4. On the Test Activity page, click the **Downloads** link on the left menu.

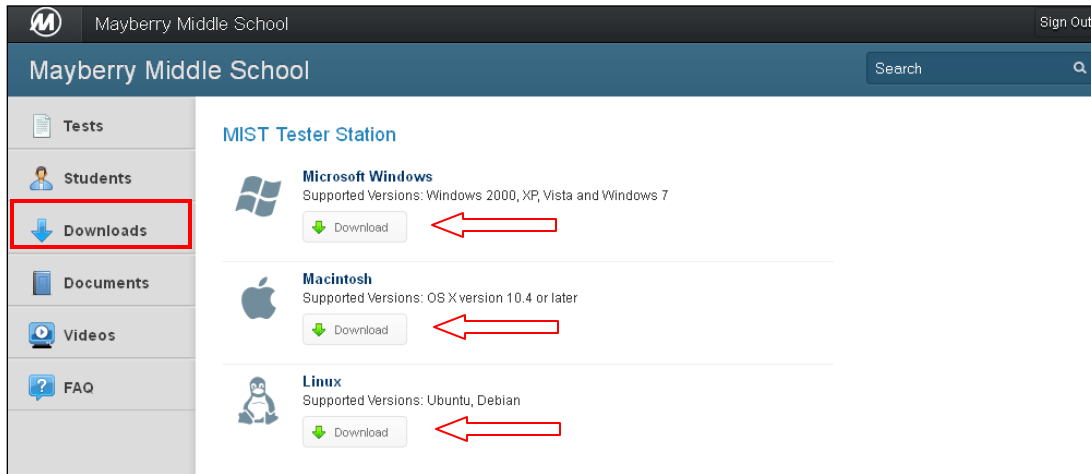


FIGURE 2 – Proctor Downloads page

5. On the Downloads page, click to select the Windows, Macintosh, or Linux **Download** button, depending on the computer's operating system.

For Windows, a stand-alone application (MIST.exe) will download (as shown in FIGURE 3). For Macintosh, a compressed file (MIST.zip) will download and automatically expand to an application file (MIST.app). For Linux, a package will download (MIST.deb) that must be installed by a system administrator.

6. When the File Download dialog box appears, click **Save**. [NOTE: Steps 6 and 7 are (Windows) system-dependent and may require additional action for different operating systems.]

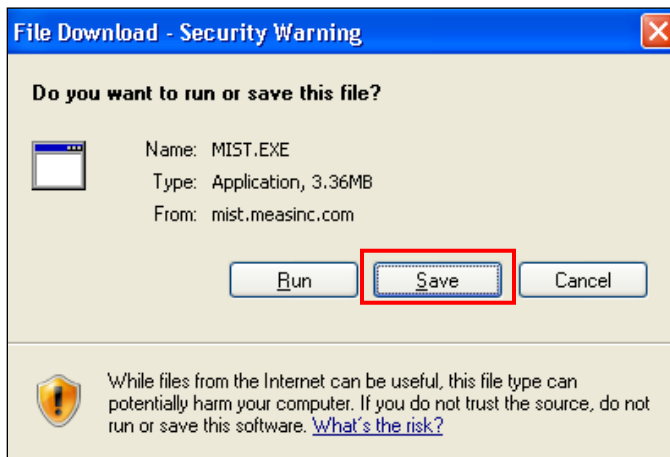
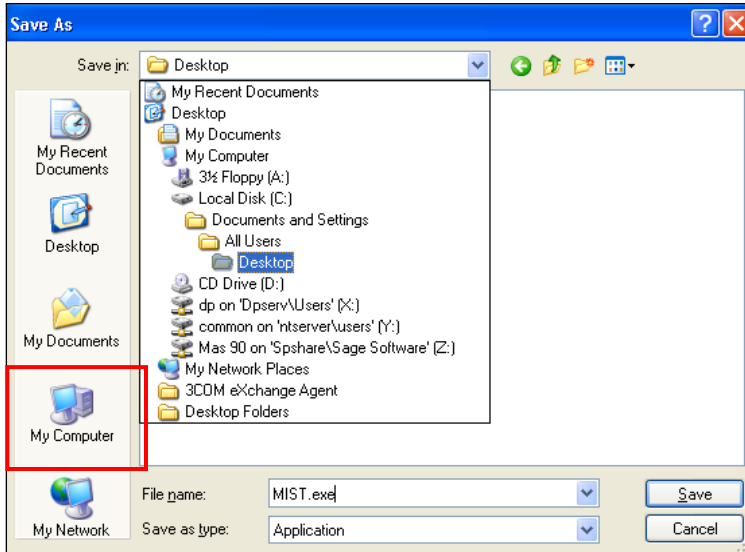


FIGURE 3 – Windows File Download dialog box

7. From the Save As dialog box,
  - a. Click on My Computer on the left menu.
  - b. Double-click on C: drive, then *Documents and Settings*, then *All Users*, and finally *Desktop*.
  - c. Click **Save**.



Step 7 ensures that MIST is available for all users regardless of their permission levels.

FIGURE 4 – Saving the applet to the All Users desktop

An icon for the application is displayed on the computer’s Desktop.



8. From the Desktop, double-click the new icon to run MIST.



When the MIST Login screen appears, you have successfully installed MIST (see FIGURE 5). Click **Cancel**.

If the MIST Login screen does not appear, follow the instructions displayed on the screen.

FIGURE 5 – MIST Login screen



*If you continue to have downloading problems, contact the MIST Technical Support Desk at (855) 999-4246 for additional assistance.*

9. Since MIST is a stand-alone application, it can be downloaded once, saved to a network location and installed onto the *All Users* desktop of each testing computer (i.e., Step 7).

*-or-*

The downloaded application can be deployed across the network using any available network management tools.

APPENDIX A

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**Online Assessment  
Technical Specifications**

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# MIST Technical Specifications

## System Requirements for Windows

Category	Specification
Processor	Pentium® II 450 MHz PC or faster
RAM	256 MB
Operating Systems	Windows XP, Vista, 7, and 8
Minimum Resolution	800 x 600 pixels, 16-bit color
Internet Access	High-speed internet (T1 or higher recommended)
Additional Hardware Requirements	Mouse Keyboard

## System Requirements for Macintosh

Category	Specification
Processor	PowerPC® G3 500MHz or faster Any Intel x86-based Macintosh
RAM	256 MB
Operating Systems	Mac OS X v10.4 or later
Minimum Resolution	800 x 600 pixels, 16-bit color
Internet Access	High-speed internet (T1 or higher recommended)
Additional Hardware Requirements	Mouse Keyboard

## System Requirements for Linux

Category	Specification
Processor	Pentium® II 450 MHz PC or faster
RAM	256 MB
Operating Systems	Ubuntu 12.04 or later (kernel 3.2 or later)
Minimum Resolution	800 x 600 pixels, 16-bit color
Internet Access	High-speed internet (T1 or higher recommended)
Additional Hardware Requirements	Mouse Keyboard



# MIST Technical Specifications

## Network Requirements

Category	Specification	Description
<b>Bandwidth</b>	1500 kb/s for every 30 computers (T1 or higher recommended)	Bandwidth requirements may increase based on the number of students and size of test administration.
<b>Firewalls</b>	Port 80 and 443 must be open.	Port 80 and 443 are used to establish a connection, and are used during the test. Web services are used for communication between the client and server during testing and proctoring.
<b>Proxy Server Bypass</b>	URL address: <a href="https://mist.measinc.com">https://mist.measinc.com</a> IP address: 96.45.112.226 Port no: 443 (https)	This information may be required to bypass a proxy server. The program asks for the URL address in the format specified.
<b>Executable</b>	MIST.exe <i>md5sum=cce87a3120b053dcbfd98c4a92014185</i> <i>sha1sum=b51d3e8ab2a5347fe5d116b1e41a37fd14d763bd</i>  MIST.zip <i>md5sum=bbdfcf5e18483c256f6a1d2e5b7df1a6</i> <i>sha1sum=2aab106caf9140562d9c49f9c58674205df22a78</i>  MIST_i386.deb <i>md5sum=f9afd57b233efef88edbf8ef1857ec48</i> <i>sha1sum=96ccf35eac3d87b0c1e829dc7b095be970a4bf42</i>	This information may be required to verify whether the MIST executable has been modified.

## Supported Browsers and Installed Software

Operating System	Supported Browser*	Installed Software**
<b>Windows</b>	Internet Explorer 8.0 or later Firefox 8.0 or later Chrome 16.0 or later Safari 4.0 or later	Adobe Reader Quick Time
<b>Macintosh</b>	Firefox 8.0 or later Chrome 16.0 or later Safari 4.0 or later	Adobe Reader Quick Time
<b>Linux</b>	Firefox 8.0 or later Chrome 16.0 or later Safari 4.0 or later	Adobe Reader

\* A browser is not required to run MIST. The browser is only required to download the application and proctor tests.

\*\* Adobe Reader and Quick Time are not required to run MIST. The add-ons are only required to read the user guide, view reports, or view the MIST Instructional Videos during a proctoring session.

APPENDIX B

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**MIST**

**Online Readiness Checklist**

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# MIST Online Readiness Checklist

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## Overview

This optional checklist will assist you in determining the suitability of your school's network to run the Measurement Incorporated Secure Testing (MIST™) application and in ensuring that your computers meet the minimum technical requirements.

This checklist should be completed by school or district technical support staff. If you have any questions or concerns, please contact our support staff at **(855) 999-4246**. **If requested, please fax or email the completed checklist to the MIST Technical Support Desk at (919) 688-0938 or [support@utahwrite.com](mailto:support@utahwrite.com).**

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## School Information

Enter your school information below so that we can contact you with any MIST requirement updates or questions related to your system capabilities. If you want to use one form for an entire district, just write "All" for the School Name.

School Name:		District Name:	
Contact Name:		Contact Title:	
Phone:		Email Address:	

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## System Readiness

Answer the questions below for each computer that will be used for online testing at your school. Follow the instructions in the **MIST™ Technical Guide** to download the test application.

- Are all of your testing computers running one of the following operating systems? Yes  No   
*Windows: Windows XP, Vista, 7, or 8*  
*MAC: OS X v10.4 or later*  
*Linux: Ubuntu 12.04 or later*
- Do all of your testing computers have at least 256 MB of memory? Yes  No
- Do all of your testing computers and monitors support a resolution of at least 800 x 600 pixels with 16-bit color? Yes  No
- When logged in to a student account, can you access the MIST website (<https://mist.measinc.com>) on each testing computer? Yes  No
- Can you successfully install the MIST test application onto the desktop of each testing computer? Yes  No
- When logged in to a student account, can you run the application on each testing computer? Yes  No

# MIST Online Readiness Checklist

## Network Capacity

Use the worksheet below to estimate the amount of bandwidth per student your network can accommodate. You will need to know the total bandwidth of your network; for example, a T1 line is 1500 Kbits per second (kb/s). The testing group size should be based on the number of students that can be accommodated in one or more of your school's computer labs.

A	Enter the total bandwidth of your network. You can get an estimate at <a href="https://mist.measinc.com/speedtest/">https://mist.measinc.com/speedtest/</a> .	A	kb/s
B	Enter the total number of students that will be testing concurrently.	B	
C	Divide line A by line B and enter the result here.	C	kb/s

Use the results from lines A through C to answer the following questions.

7. Based on the value from line A, do you have at least 1500 kb/s of total bandwidth? Yes  No
8. Based on the value from line C, do you have at least 50 kb/s for each student that will be testing concurrently? Yes  No
9. During a test, can you guarantee that 50 kb/s will be available for each testing computer? Yes  No

If No, how many other computers in your school compete for bandwidth?

10. Please describe any additional concerns that you may have about your school's network capacity to run the MIST application (e.g., other applications, recent network outages).

If you answered **No** to one or more of Questions 1 through 9 *or* you expressed concerns about your school's network capacity, contact us at **(855) 999-4246** to discuss how we may assist you in preparing your school for online testing.

If requested, please fax or email the completed MIST Online Readiness Checklist to the MIST Technical Support Desk at **(919) 688-0938** or [support@utahwrite.com](mailto:support@utahwrite.com).

APPENDIX C

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**MIST-Supported  
Hardware/Software Tools**

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# Hardware/Software Supported by MIST

## ***Text Reader and Text Magnification***

Both a Text Reader and Text Magnification function is available on the MIST application for students requiring a Reader and Large Print presentation accommodation, respectively. The Text Magnification function allows students to zoom out (make the text smaller) or zoom in (make the text larger) for easier viewing. The zoom levels include 0.65x, 0.8x, 1.0x, 1.25x, 1.6x, and 2.0x.

## ***Special Keyboards***

Most special keyboards (e.g., Intellikeys™) are compatible with the MIST application and should work properly on machines that meet the minimum OS requirements (see ***MIST Technical Specifications***).

## ***Sticky Keys***

For additional accessibility and ease-of-use, Sticky Keys (e.g., Ctrl, Alt, and Shift) are compatible with MIST and can be turned "on" (according to your operating system instructions) prior to setting up a Tester Station.

## ***Touch Screen Monitors***

Most touch screen monitors (e.g., Hyvision MV155 Touch LCD) that meet the minimum resolution requirements (see ***MIST Technical Specifications***) are compatible with the MIST application and should work properly on machines that meet the minimum OS requirements.

**Contact Measurement Incorporated Utah DWA Technical Support Staff for assistance before or during the scheduled test administration.**

**Phone: (855) 999-4246**

**or**

**Email: [dwasupport@misttest.com](mailto:dwasupport@misttest.com)**