

# MORAE

## Getting Started Guide

Version 1.3

TechSmith Corporation

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# Welcome to Morae

Nothing is more insightful than seeing real users interact with your Web site, software, or eCommerce application. It is the only way to truly understand user needs and the “why” behind their actions: why they exited your Web site, why they abandoned their shopping cart without buying, or why they were frustrated enough with your software application to make costly calls to Technical Support.

Usability testing is a proven method for gaining this insight, but continues to be underutilized, because conducting user testing in the past required costly and complex hardware that was only accessible in a usability lab.

Now, *Morae* provides usability lab functionality in an easy-to-use software solution that eliminates the cost and complexity barriers of lab-based research. By making usability testing accessible, *Morae* gives you the power to understand where problems exist for your users. Armed with this insight, you can make key design changes that will:

- Improve the navigation of your online store and increase conversion rates.
- Make your software easier to use and improve user satisfaction.
- Make information easier to find on your site so users return again and again.
- Increase productivity of employees using your intranet.

*Morae* consists of three components – *Morae Recorder*, *Morae Remote Viewer*, and *Morae Manager*. These three components work together to record, observe, log, and share the user experience. This section contains the following topics to help you get started with *Morae*:

- *Overview of Morae’s Components*
- *Ways to Implement Morae*
- *Morae System Requirements*
- *Installation Instructions*
- *Getting Help with Morae*

## Overview of Morae's Components

### Record – Morae Recorder

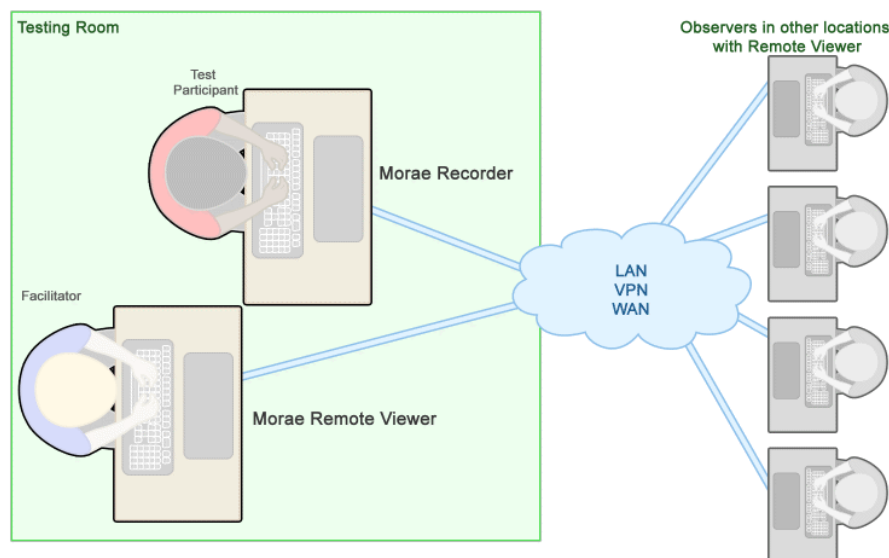
The *Morae Recorder* component is installed on the test participant's PC and records screen and system activity, as well as video and audio of the user. *Recorder* can handle simple recordings that are started manually, but it is also fully programmable to handle the most complex testing situations. Using TechSmith's Rich Recording Technology, *Recorder* automatically synchronizes the video and the data, creating a complete digital record of the user experience.

#### Features:

- Define markers to log specific user actions you are interested in, such as errors and comments.
- Use the built-in COM server to control *Recorder* for many applications, including starting, stopping, and inserting markers.
- Easily specify what to record, capturing only the data you need.
- Automate repeated recordings based on the settings you specify in the recording configuration.

### Observe and Log – Morae Remote Viewer

The *Remote Viewer* component connects to *Recorder* over a network and displays the full user experience, including the screen, audio comments, and video of the user's face. Each *Remote Viewer* observer can set Markers and add text notes which are communicated back to the *Recorder* and saved with the recording file.



Each *Remote Viewer* can save a local WMV file of the screen video, camera video and audio from the session, available for immediate viewing when the recording is complete.

**Features:**

- Connect to *Recorder* via LAN/WAN or VPN.
- Remotely start and stop *Recorder* from a *Remote Viewer* station.
- View *Recorder*'s screen video, picture-in-picture (PIP) and audio of the user.
- Log the test session live with customized markers and text notes
- Record a digital video file (WMV) of content displayed in *Remote Viewer* for immediate playback and sharing of the test session.
- Connect multiple *Remote Viewers* simultaneously to *Recorder* (with additional licenses).

**Analyze and Share – Morae Manager**

In the past, a key problem with recording usability tests was the time-consuming process of trying to go back through the video to find key moments and conduct analysis of what happened. The *Manager* component of *Morae* solves this problem using Markers, automatic Segment creation, a powerful search editor and other Rich Recording Technology features. Additionally, *Manager* includes integrated editing functionality, making it quick and easy to assemble the important video clips into a highlight video to share with stakeholders. You can choose whether to include just the user's screen and audio in the highlight video, or add a Picture-in-Picture (PIP) window showing the user's facial expressions, as well. The highlight video can be produced in either AVI or WMV format.

**Analysis Features:**

- Review screen video automatically synchronized with user video and audio.
- View log marks and text notes entered through *Remote Viewer(s)* synchronized with the video recording.
- Search for specific event types, or text that appeared onscreen, with a powerful, natural language search editor (i.e., find every time the user clicked on a specific Web page).
- Automatically break recordings into tasks based on markers.
- Quickly calculate usability metrics, including time on task, click path, and user success rate.
- Export search results to a comma-delimited file that can be used in other applications, such as Microsoft Excel.

**Presentation Features:**

- Create highlight videos with an easy-to-use, drag-and-drop, editing interface.
- Create and edit video and title clips, and optionally add audio voice-overs.
- Import videos not recorded with *Morae* and include them in the highlight video.
- Position, resize and adjust the opacity of the PIP image for each clip.
- Create multiple highlight videos within a single project.
- Easily add transitions.
- Produce highlight videos as an industry-standard AVI or WMV files for easy sharing.
- Produce individual clips to easily include in PowerPoint presentations.

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## Ways to Implement Morae

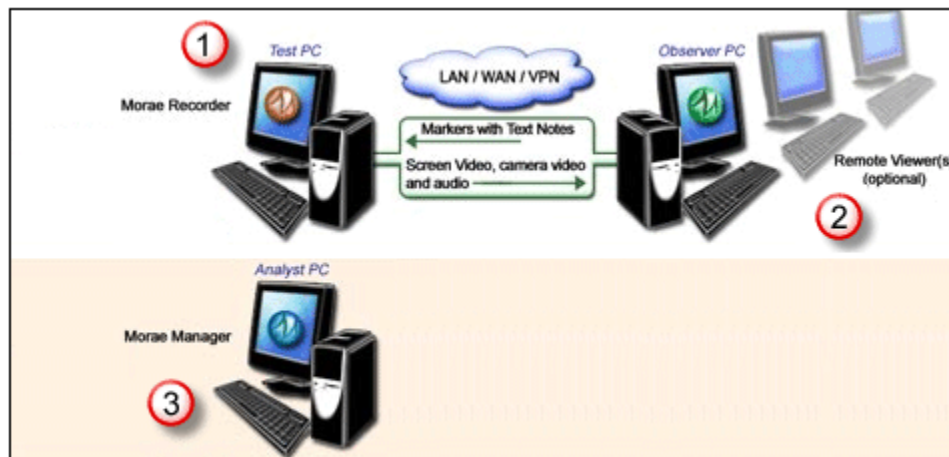
Before you install *Morae*, it is a good idea to take time to consider how you plan to use the components and where they should be installed to best meet your needs.

As you consider your specific requirements, keep in mind that the *Manager* component requires activation, and this process locks the *Manager* to the single computer on which it is installed. It cannot be installed on any other computer once activation is complete. For more information about *Manager* activation, see *Installation Instructions* on page 11.

This section will illustrate three common setup configurations for the components of *Morae*. However, there are many other possible implementation scenarios, and these are meant simply to give you some ideas to start with. Once you are familiar with the components, customizing your setup beyond these basic examples should be fairly easy.

### Creating a Fixed Setup

This example illustrates a single-license installation in a fixed laboratory setting.

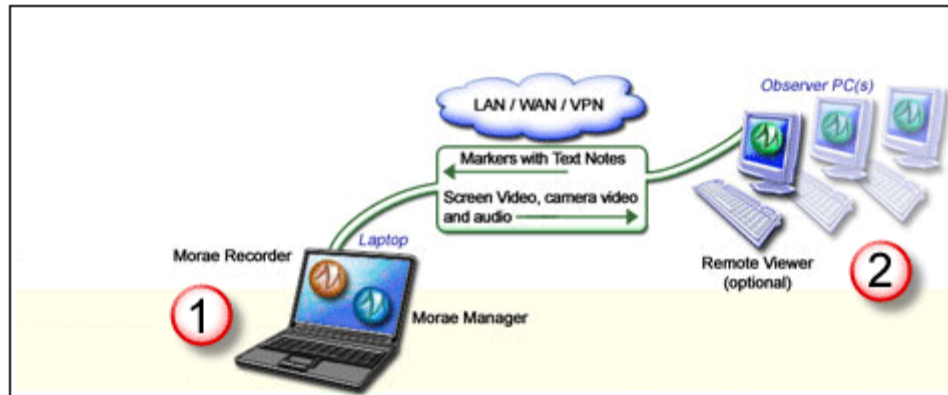


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- 1 Install Recorder on the computer you wish to record** (the Test PC).  
If you want to capture video and audio of the user, a Web camera and microphone must also be connected to this computer.
  - 2 Install Remote Viewer(s)\* on a separate computer(s)** (the Observer PC) that connects to the Recorder computer via a network, either a LAN, WAN or VPN. A high-speed internet connection is required to connect via a VPN. Use of the Remote Viewer component is optional. (\*Additional Remote Viewer licenses are available.)
  - 3 Install Manager on a third computer** (the Analyst PC) that will be used by the person analyzing the data.
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## Creating a Portable Setup

This example illustrates a single-license installation on a laptop.



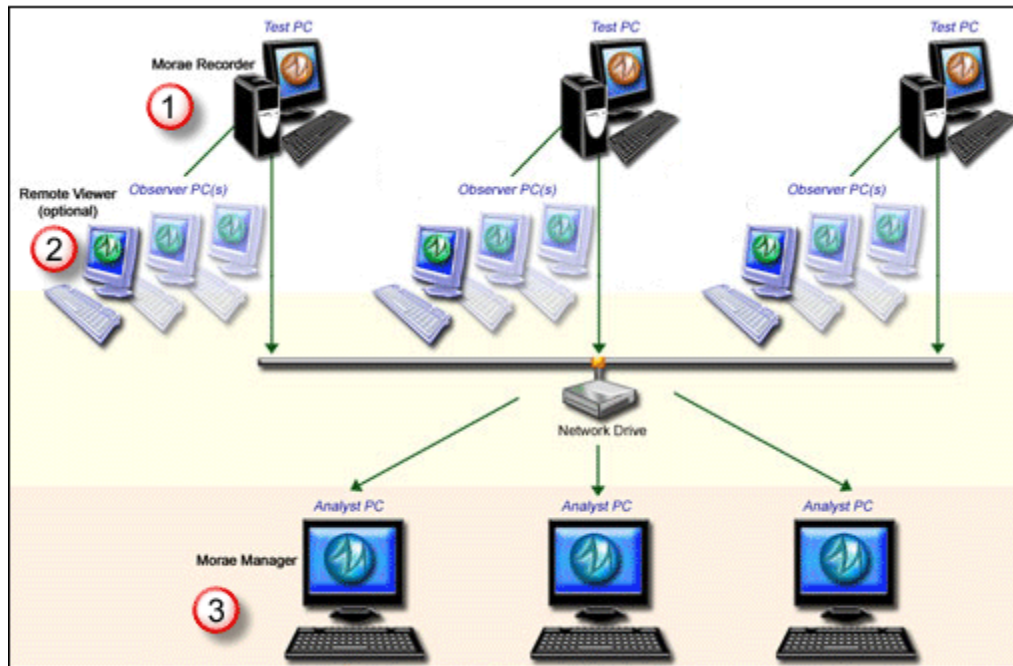
- 1** **Install Recorder and Manager on the same laptop.** This will be both your Test PC and your Analyst PC. During recording, the user interacts with this machine. Recordings can be saved to the hard drive for easy access by *Manager*.
- 2** **Install Remote Viewer component(s) on a separate computer(s)** (the Observer PCs) that can connect to the laptop via a wireless network or LAN/WAN/VPN. (Additional Remote Viewer licenses are available.)

When testing is complete, save the recording file to the hard drive of the laptop. Because the *Manager* component is also installed on the laptop, you can conduct analysis and create highlight videos anywhere, at any time. With this configuration, you can easily take your research lab into the field to your users.

## Creating a Multiple Researcher Setup

Because *Morae* consists of multiple components, it easily scales to meet your needs. This example illustrates a multiple-license setup for a team of researchers.

Additional licenses of each *Morae* component are available for a setup like the one illustrated here.



- 1 **Install *Recorder* on each Test PC.** Recordings from the multiple Test PCs can be saved to the same network drive.
- 2 **Install *Remote Viewer* on one or more Observer PCs.** This allows multiple observers from anywhere in the world to connect via a wireless network or LAN/WAN/VPN and view the session on any of the Test PCs.
- 3 **Install *Manager* on multiple Analyst PCs** for multiple researchers in your organization. This can greatly increase the productivity of your team because each researcher can conduct simultaneous analysis. Because the recordings are saved to a network drive, each researcher has easy access to the recording files from his or her PC.

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## Morae System Requirements

Please note that systems that are near the **minimum** requirements may experience performance issues depending on the following factors:

- System needs of other applications
- Screen resolution of recording computer
- Screen content of recording computer
- Frame rates

In order to get the maximum benefit from *Morae*, we have a **recommended** set of system specifications, listed for each component below. If you are planning to purchase a new computer to use with *Morae*, we strongly recommend that the system you buy meets or exceeds our recommended specifications.

### Morae Recorder System Requirements

	Required/Minimum	Recommended
<b>Operating System</b>	Microsoft Windows 2000, XP or later version of Windows	
<b>DirectX</b>	Version 8.1 or later	Version 9.0 or later
<b>Processor</b>	1.5 GHz or higher	1.7 GHz Pentium M or 2.8 GHz Pentium 4 processor or higher
<b>RAM</b>	512 MB RAM or more	1 GB RAM or more
<b>Video card</b>	64 MB dedicated memory Note: Shared video memory graphics cards are not supported.	128 MB dedicated video card
<b>Sound card, microphone, speakers</b>	Windows-compatible	
<b>Hard drive space for installation</b>	20 MB of hard drive space for program installation	
<b>Disk space for recording</b>	Approximately 20–40 MB disk space per minute of recording	
<b>Network connection</b>	10 Mbps	100 Mbps

## Morae Remote Viewer System Requirements

	Required/Minimum	Recommended
<b>Operating System</b>	Microsoft Windows 2000, XP or later version of Windows	
<b>Processor</b>	1.5 GHz or higher	1.7 GHz Pentium M or 2.8 GHz Pentium 4 processor or higher
<b>RAM</b>	512 MB RAM or more	1 GB RAM or more
<b>Video card</b>	32 MB dedicated memory Note: Shared video memory graphics cards are not supported.	128 MB dedicated video card
<b>Hard drive space for installation</b>	5 MB of hard drive space for program installation	
<b>Disk space for WMV recording</b>	Approximately 10–12 MB disk space per minute of recording	
<b>Network connection</b>	10 Mbps	100 Mbps

## Morae Manager System Requirements

	Required/Minimum	Recommended
<b>Operating System</b>	Microsoft Windows 2000, XP or later version of Windows	
<b>DirectX</b>	Version 8.1 or later	Version 9.0 or later
<b>Processor</b>	1.5 GHz or higher	1.7 GHz Pentium M or 2.8 GHz Pentium 4 processor or higher
<b>RAM</b>	512 MB RAM or more	1 GB or more
<b>Video card</b>	64 MB dedicated memory Note: Shared video memory graphics cards are not supported.	128 MB dedicated
<b>Sound card, microphone, speakers</b>	Windows-compatible	
<b>Hard drive space for installation</b>	20 MB	
<b>Disk space for highlight video creation</b>	10–12 MB per minute of video	

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# Installation Instructions

Your *Morae* software comes with three installation CDs – one for each component.

## To install a component

1. Start *Windows*.
2. Insert the component's CD-ROM into the CD-ROM drive. The setup will automatically start when you close the drive.
3. Simply follow the install prompts using the default options, if desired.
4. Once the installation is complete, restart *Windows* if prompted to do so.

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**Important!** After the *Manager* component is installed, you must activate it using the software key. See the *Activating Manager* section for instructions.

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## Recorder's COM Server

In addition to containing the installation setup for *Recorder*, the *Recorder* installation CD includes information about the *Recorder* COM component, including documentation and sample applications. For more information about Recorder's COM server, see *Using Recorder's COM Server* on page 158.

## Activating Manager

The first time you open *Manager* after installation, you will be prompted to activate the component. The activation wizard will take you through the steps necessary to activate *Manager* either by Internet or by phone. You only have to activate *Manager* once.

## What is Activation?

Activation is a product security process that prevents the unlicensed duplication of the *Manager* component. This process “locks” the *Manager* component to the computer on which it is activated. Unlike product registration, activation is an anonymous process that does not require you to submit information about yourself. The process simply confirms that you have a licensed copy of *Manager*.

## Using the Internet to Activate Manager

To complete the activation process by Internet, you will need your Software Key. The Key is located on your *Morae* packaging, on the shipping receipt, and in the purchase confirmation e-mail you received. If you cannot locate your Software Key, please contact TechSmith customer service (phone: +1.517.381.2300 x636).

1. Choose the **Activate** radio button to begin the activation process. Click **Next** to continue.
2. Choose the **Internet** radio button and click **Next**.
3. Enter your Key in the **Software Key** field. You can find this Key on your *Morae* packaging.
4. Click **Next** to activate *Manager*. When activation is complete, *Manager* will open.

**Calling TechSmith to Activate Manager (Phone Activation)**

1. Choose the **Activate** radio button to begin the activation process. Click **Next** to continue.
2. Choose the **Phone** radio button and click **Next**.
3. The *Phone Activation* dialog box appears, containing a **Challenge Code**. Leave this dialog box in plain view.
4. Contact TechSmith customer service (phone: +1.517.381.2300 x636) and report the Challenge Code to the support person. You will be given an Activation Code.
5. Enter that code in the **Activation Code** field.
6. Click **Finish** to activate *Manager*. When activation is complete, *Manager* will open.

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**Note:** Choose the **Activate Later** radio button if you are having difficulty activating and want to begin using *Manager*. The **Activate Later** option will expire after 15 days. Once this time period is up, *Manager* will not work unless you go through the proper activation process.

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## Getting Help with Morae

There are several ways to find help when you run into questions or problems with using *Morae*.

### Morae's Help System

*Morae's* Help system is incorporated into each component of the product and contains the detailed information you will need to successfully use *Morae*. You can access the Help system through any *Help* menu or button within *Morae's* components.

To open context-sensitive help topic for a particular option or dialog in *Morae*, press <F1> on your keyboard. The Help topic for the screen or area of the software you are currently using will appear automatically. When you've finished reading, simply close the Help window.

The most current version of *Morae's* Help system is always available on our Web site at: <http://www.techsmith.com/techsupp/morae/documentation/documentation.asp>.

### TechSmith Technical Support

Help with *Morae* installation-related issues is provided at no cost. If you experience problems installing *Morae*, we encourage you to search our Knowledge Base (<http://support.techsmith.com>). If you don't find your answer there, you can use the *Contact Support* tab in the Knowledge Base to send your question to TechSmith Technical Support.

Beyond questions about installation, all additional in-person technical support for *Morae* is provided under the *Morae* Essential Plan.

### Morae Essential Plan

The ***Morae* Essential Plan** is designed to ensure your success by providing the maximum benefit for your investment. With this comprehensive support plan, you are guaranteed ongoing maintenance, upgrades and priority support. For more information about this plan, please contact your *Morae* representative at [moraesales@techsmith.com](mailto:moraesales@techsmith.com).

### TechSmith's Web Site

Additional support resources, such as TechNotes, tutorials, and FAQs are always available, and are being continuously updated online at TechSmith's Web site ([www.techsmith.com](http://www.techsmith.com)).

### Balloon Tips and Tip Dialogs

*Morae* actively offers you help both in the form of *balloon tips* (in *Manager* only) and *tip dialogs* (in *Manager* and *Recorder*). Both types of tips contain helpful information and recommendations related to the task you are trying to complete.

**To Reset Balloon Tips in *Manager*:**

Balloon tips will appear only the first couple of times you complete a particular task, and then they will automatically stop being displayed. If *Manager*'s balloon tips stop appearing, and you wish to reset them so that they will appear again, choose **Help > Reset Balloon Tips**.

**To Disable Tip Dialogs in *Recorder* and *Manager*:**

Tip dialogs will always appear unless you disable one or more of the dialogs manually. If you want to disable all of the tip dialogs so that they do not appear:

- *Recorder* – Choose **Record > Settings > Preferences** tab and then remove the checkmark from the **Show all tips** option.
- *Manager* – Choose **File > Preferences** and then remove the checkmark from the **Show all tips** option.

You can also disable an individual tip dialog by removing the checkmark from the **Show tip again** option in the lower left-hand corner of the dialog box.



# Using Morae: A Scenario

## About this Scenario

This section of the *Getting Started Guide* is presented as a scenario based on an actual usability study. We hope it will give you an overview of how to use *Morae* that you can adapt to fit your own situation. It is not meant to represent an example of a testing methodology, nor does it cover all of the specific hardware and networking issues that may arise in a testing situation.

Each section of the scenario offers cross-references to the “how-to” topics located in the back of this guide, which will give you step-by-step instructions for the processes mentioned in the scenario.

For detailed assistance with any component of *Morae*, consult the Help file within the software.

## Background

Elizabeth, a research consultant, is testing the usability of a technical support system for a client. She will be traveling from her home office in New York to testing locations in three other states. At each of these three sites, she will spend two days and test five participants per day, for a total of 30 participants. At each site she has rented a hotel meeting space where she will conduct the tests.

Her key goals are to determine:

1. How long it takes a participant to find the specific answer in the database (Task 1).
2. The number of search attempts the participant makes before finding the answer.
3. Whether the search attempt is successful (pass/fail).
4. The paths and search terms the participant uses to conduct the search.
5. How long it takes the participant to complete and submit the form to request technical support (Task 2).
6. Where errors in navigation or difficulties occurred for the participant.

Elizabeth wants to record what is happening on the screen, as well as the camera video and audio of each participant. Additionally, she wants to record all of the participant’s interaction events, including mouse clicks, keystrokes (input from the keyboard), window events (opening and closing dialogs, etc.) and Web page changes.

Elizabeth’s research assistant, Jeff, will be observing all of the tests remotely from their home office and logging the test using *Remote Viewer’s* Marker system. A client stakeholder will also be viewing the tests from the home office with Jeff.

## Planning and Setting Up

Elizabeth will be going to three sites to conduct tests of the client's technical support system. For this kind of testing, she uses *Morae* in a portable lab setup: she installs *Recorder* and *Manager* on the laptop she will be taking to the testing site, and she carries her own Web camera (with built-in microphone) to use for the test. The hotel meeting room she has reserved at each site provides high-speed internet access.

To observe and log the tests, her assistant, Jeff, will use *Remote Viewer*, which he has installed on a machine at their home office. A client stakeholder will also observe the test from Jeff's office using *Remote Viewer*, but will not be logging with Markers.

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**Note:** Additional *Remote Viewer* licenses can be purchased when your situation requires multiple installations of the component that will be used simultaneously.

---

There are several advantages to the portable setup:

1. Elizabeth knows that her laptop meets the recommended system requirements for *Recorder* and *Manager*, so she can be confident that *Morae* will run efficiently during the test and she will not run out of hard drive space for the multiple recordings she will be saving.
2. She can prepare her recording configuration, and test those settings, in advance.
3. Because *Recorder* and *Manager* share the laptop's hard drive, Elizabeth does not have to move the recordings before they can be imported into *Manager* for analysis.
4. She can easily reach remote participants who might otherwise be difficult or impossible to include in the testing.

### Preparing the Recording Configuration

Before she goes to the first remote site, Elizabeth sits down with her laptop and prepares a recording configuration for each participant, which she will save and use for the tests. She could prepare one configuration and use it for all of the participants. However, for this series of tests, she knows who her participants will be in advance, and she really wants to make use of the *Recording file details* area to include specific important information about each participant.

### Entering Participant and Test Information

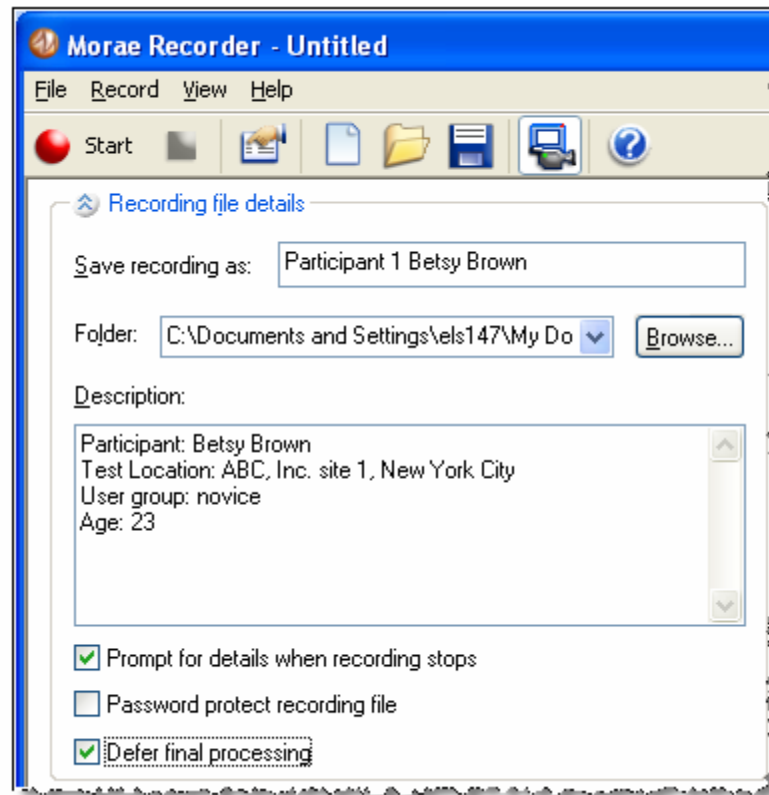
Elizabeth launches *Recorder* and begins selecting settings for the first participant's configuration in the *Configuration* pane. She starts with the *Recording file details* area.

She fills in the file name (**Save recording as**) and **Description** fields with information specific to the participant (i.e., name, test location, user group, age). However, she still selects **Prompt for details when recording stops**, because she will want to have access to the **Description** field again after the test is complete, to add post-test comments.

---

**Note:** Because the information entered in the **Description** field stays with the recording, this area is valuable for storing comments and information specific to a participant or testing session. The **Description** can be viewed in *Remote Viewer*'s *Recording Details* window during the test, and it also appears in *Manager*'s *Details* pane when the recording is imported.

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To save time between tests, Elizabeth decides to **Defer final processing** of the files, which puts the test recordings in a batch processing queue. After the tests are complete, she will process the recordings all at once using the **Batch Process Recordings** option.

---

**Note:** During final processing, all of the recorded data are compressed and saved to a more portable file format. However, your recordings are stored to disk as they are occurring (just in a less compressed format), so choosing to defer processing does not put your data at any risk of being lost.

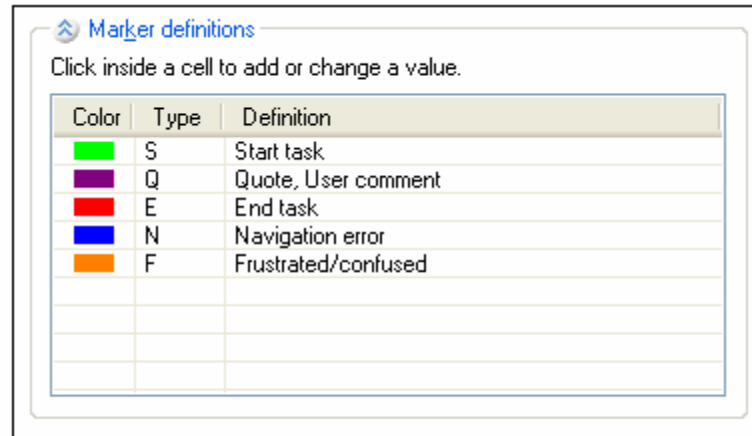
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## Defining Markers

Next, Elizabeth moves on to the *Marker definitions* area. She and Jeff, her research assistant, have decided that Jeff will use some of the Marker definitions that are already in *Recorder*'s default set during the tests and that they will also add a couple of custom definitions.

Jeff will be using *Remote Viewer* to observe and mark different elements of the test. In particular, he will mark when each participant starts and ends each task, using the “**S – Start Task**” and “**E – End Task**” default defined markers, respectively. He will also be marking navigation errors, so Elizabeth adds “**N – Navigation error**” to the list of defined Markers. She deletes the rows for the default definitions she will not be using.

Jeff will also be looking for and marking qualitative data during the test (such as facial expressions that indicate frustration or confusion, as well as verbal comments). They decide he will use the default **Q – Quote, User comment**, and then Elizabeth adds one more defined Marker to the list: “**F – Frustrated/confused.**”

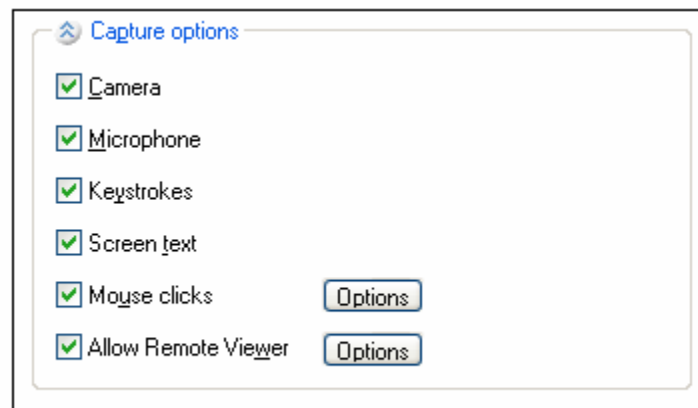


These defined Markers will appear in *Remote Viewer's* Marker menus and in the *Marker Definitions* window (with quick-use Type buttons), for easy access by *Remote Viewer(s)* during recording.

By defining the Markers Jeff will use in advance, Elizabeth can also take advantage of the *Create Segments Based on Markers Wizard*. Using this feature, she will be able to automatically create Segments that begin with Jeff's "**S – Start task**" Markers and end with Jeff's "**E – End task**" Markers. Based on these Segments, she can then easily calculate time on task.

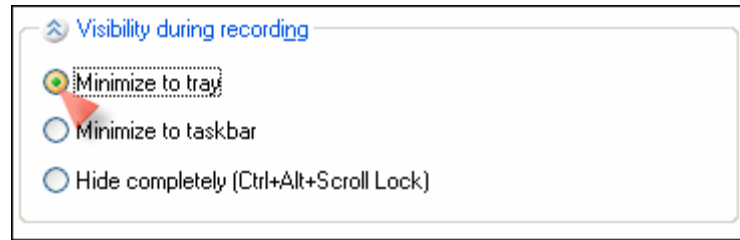
### Selecting Streams to Capture

Elizabeth wants to capture camera video and audio, all keyboard entry, text that appears on-screen, mouse clicks, and Web page changes. *Recorder* also automatically captures desktop activity and application/system events. So, in *Capture options*, Elizabeth leaves all of the default streams selected. She also leaves the **Allow Remote Viewer** option enabled so that Jeff and the client observer will be able to connect to *Recorder* to view the tests.



### Deciding about Recorder's Visibility

Elizabeth wants *Recorder* to minimize to a tray icon during recording. In the *Visibility during recording* area, she leaves the default option, **Minimize to tray**, selected.



### Setting up for Manual Start and Stop of Recorder

Elizabeth would like to start *Recorder* manually. Under *Start details*, she leaves the default option, **Manually start**, selected. When the participant is ready to begin the test, Elizabeth can use the hotkey combination **<Ctrl + Alt + Shift + F9>** to start the recording.




Since she doesn't know how long each test will take, Elizabeth wants to be able to stop *Recorder* manually. Under *Stop details*, she leaves the default option, **Manually stop**, selected. This way, when the test is complete, she can use the hotkey combination **<Ctrl + Alt + Shift + F9>** to stop the recording.

### Saving the Configuration

Having completed the configuration, Elizabeth saves it as "Participant Brown Configuration" so that she can easily locate it and use it with the first test participant. With the settings still loaded into *Recorder*, she can now simply adjust the information in the *Recording file details* area and save a configuration for each participant, without going through the configuration process repeatedly. By using the same configuration settings with each participant, she can also be assured that each recording will be conducted exactly the same way.

### Running a Mock Test

Elizabeth wants to be certain her setup is correct and that *Recorder* is capturing data exactly as specified in the configuration. To test this, she runs a mock recording.

She clicks the **Start** button  to start the recording. *Recorder*'s tray icon changes from a "waiting" icon () to a "recording" icon (). Next, Elizabeth quickly runs through the first task of the test scenario. After she completes the task, she stops *Recorder* using the hotkey combination **<Ctrl + Alt + Shift + F9>**.

She saves the test recording file and imports it into a project in *Manager*, where she can see that the screen video, camera video, and audio have been recorded correctly. A quick search using the *Search Editor* tells her that the other data streams have been captured accurately, as well.

### Setting up at the Remote Site

When Elizabeth arrives at the first remote site, she connects her laptop to the Internet. She connects the Web camera (which has a built-in microphone) to the laptop and launches *Recorder*. And, she opens the VPN network connection to her home office to allow Jeff and the client's *Remote Viewer(s)* easy access to *Recorder*.

---

**Note:** Using a wireless Internet connection is not recommended.

---

*Recorder* opens with the configuration Elizabeth saved last, but this is not the correct configuration file for the first test participant, Betsy Brown. To load Betsy's configuration, she chooses **File > Open Configuration**, which allows her to browse for and open Betsy's configuration file.

---

**Note:** *Recorder* configuration files have the extension **.mrcfg**.

---

She checks the camera preview in *Recorder* and adjusts the camera so that it is pointed properly to capture the participant's face when sitting at the test computer. She also talks out loud to check the volume level in the **Mic volume** display under the camera preview pane. The volume at its loudest point is registering in the orange range, so Elizabeth adjusts the volume down so that it is peaking in the yellow range.




---

**Note:** To adjust microphone volume, go to **Record > Settings > Audio tab > Volume**.

---

### Conducting a Test Recording

With everything set up, Elizabeth wants to quickly test that *Recorder* will capture everything properly.

To do this, she clicks the **Test Recording** button in *Recorder*. The *Recorder* application minimizes to a tray icon.  As the ten-second test is running, Elizabeth moves the mouse, opens the internet browser and talks out loud.

After ten seconds, the test recording completes and automatically plays back in the *Morae Player*. Elizabeth makes sure the video and audio were recorded properly. The test playback shows that everything worked perfectly.

### Setting up the Remote Viewers at the Home Office

Elizabeth calls her assistant, Jeff, who is ready to connect with the *Remote Viewers* from their home office. He launches *Remote Viewer* on the machine he'll use for logging. His machine and the one used by the client observer are connected to the office LAN. Elizabeth uses a VPN to access this LAN from the remote sites.

He enters the IP address of Elizabeth's laptop in the **Recorder Computer name** field of the *Connect to Recorder* dialog box.

Then, he enters his name in the **Your name** field, so the Markers he sets will be labeled as his. Finally, he chooses to **Include audio and PIP** so that he can see and hear the participant's expressions.

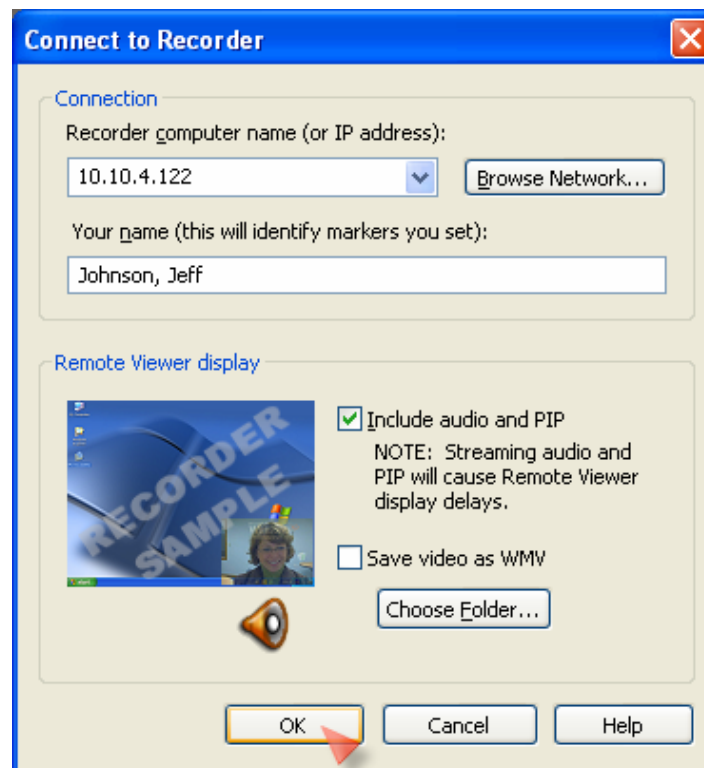
---

**Note:** *Remote Viewer* provides two different display options for viewing *Recorder*: screen video only, in real-time, or screen video with audio and PIP streamed, but with a delay of typically 8–12 seconds. If you will be interacting with the participant during the test or are in the same room as the participant, we recommend deselecting the **Include audio and PIP** option in the *Connect to Recorder* dialog box.

**Note:** Regardless of the display option you choose (real-time or streaming), any Markers you set will be correctly synched with the recording.

---

The *Connect to Recorder* dialog box on his *Remote Viewer* machine looks like this:



He clicks **OK**, and a connection to *Recorder* is successfully established:



Next, Jeff launches *Remote Viewer* on the computer that the client observer will be using. In the *Connect to Recorder* dialog box, he enters Elizabeth's IP address again. In the **Your name** field he enters the client observer's name. He leaves **Include audio and PIP** selected, and also selects **Save video as WMV** so that a video of the recording sessions the client observes will be immediately available to the client once the tests are completed. He clicks **OK**, and a connection to *Recorder* is successfully established.

---

**Note:** Windows Media Video (WMV) is a standard video file format. WMV files of *Remote Viewer* content can be viewed by anyone with the Windows Media Player.

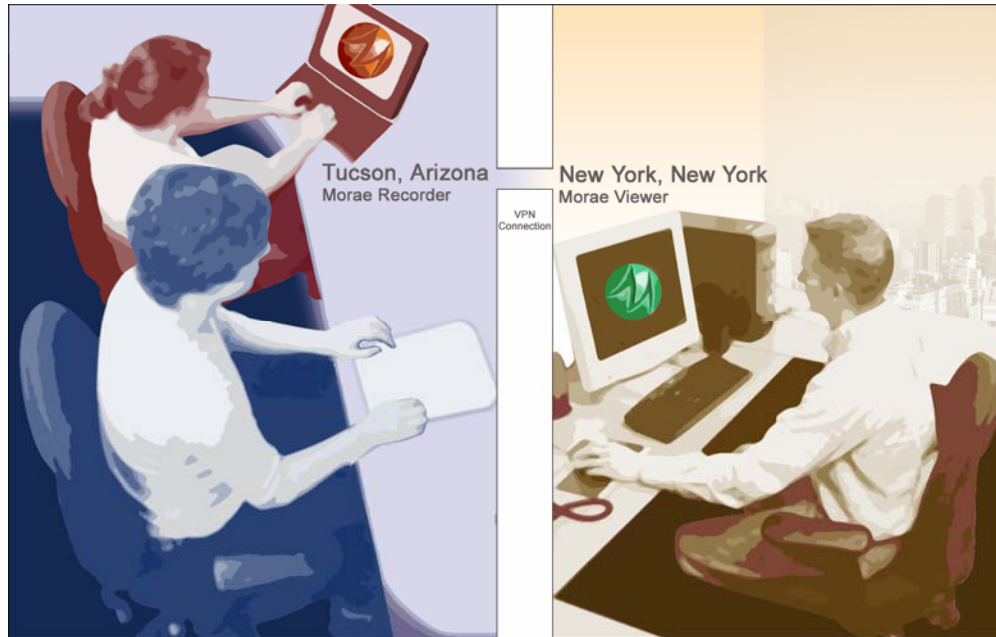
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With *Recorder* set to wait for the participant, and the two *Remote Viewer* computers successfully connected over the VPN, Elizabeth is ready to conduct the first test.





## Conducting the Tests

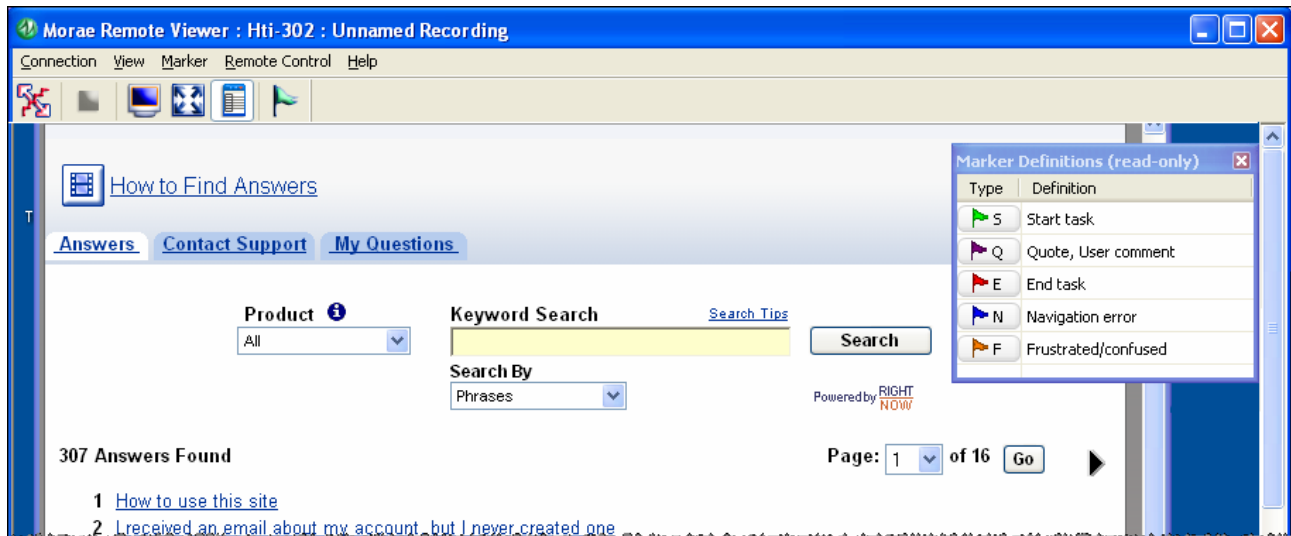
The client observer arrives at Jeff's office and seats himself at the *Remote Viewer* machine Jeff has set up for him. When the first participant arrives, Elizabeth seats her at the laptop and briefly orients her to the testing environment and the task instructions. Elizabeth takes a seat next to the participant, with pen and paper ready for notetaking during the test.



### When the Test Begins

The participant launches the Web browser to begin the test, and Elizabeth starts *Recorder* using the hotkey <Ctrl + Alt + Shift + F9>. *Recorder* begins recording (the tray icon changes from  to ) and begins streaming the data over the network to the *Remote Viewer(s)*.

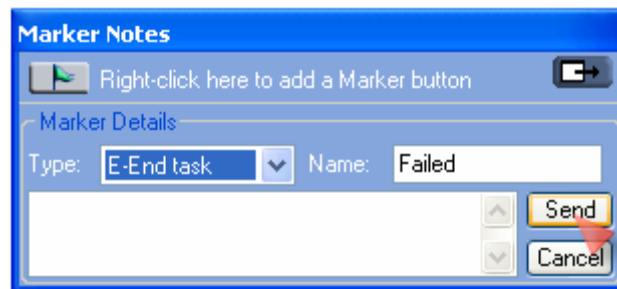
As soon as the recording starts, both of the *Remote Viewers* have access to the defined Markers, which appear in *Remote Viewer's* *Marker Definitions* window:



## Remote Viewing and Logging

During the test, Jeff marks the start and end of each of the participant's tasks. To mark the start of a task, he uses the "S" defined Marker, which he creates either by pressing **<Ctrl + S>** on the keyboard or by clicking the "S" Type button in the *Marker Definitions* window (see figure above). Doing either opens the *Marker Notes* pane (if it was not already visible). Jeff types "Task 1" in the **Name** field and then presses **<Enter>** to complete the Marker.

To mark the end of each task, Jeff uses the "E-End task" Marker, and in the **Name** field he indicates whether the participant "Passed" or "Failed" the task. This information will help Elizabeth during analysis.




---

**Tip:** If no additional annotation is necessary, a defined Marker can be completed in two steps. Just click the Type button in the *Marker Definitions* window (or press **<Ctrl + [letter]>** on the keyboard), and then press **<Enter>**. This makes it easy to watch the test without being distracted by the marking process.

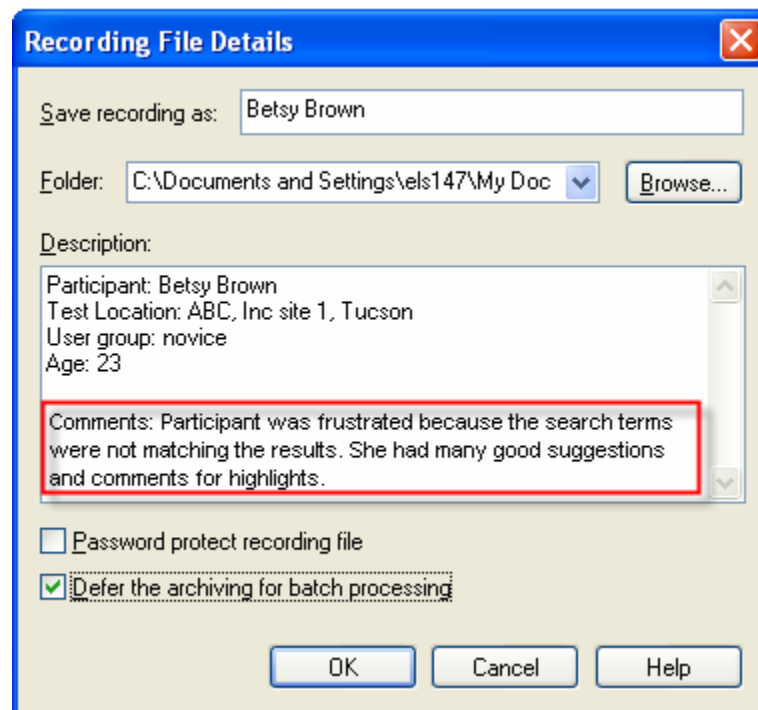
---

Jeff uses the "F" and "Q" markers to log participant frustration/confusion and comments. He initiates the Marker by clicking the Type button in the *Marker Definitions* window and adds a text note to include more detail about what he observes:



### When the Test Ends

When the participant is done with the test, Elizabeth stops *Recorder* using the hotkey combination <Ctrl + Alt + Shift + F9>. *Recorder* stops recording and a dialog appears, prompting Elizabeth to fill in the *Recording file details*. She uses this opportunity to enter additional comments about the test.



All *Remote Viewers* are sent a message that they have a short time to complete and send any pending Markers. Between tests they do not disconnect from *Recorder*.

Elizabeth loads the configuration file for the next participant, and the testing team repeats this entire process for all of the participants scheduled at this remote site.

## **Managing Files**

After all the participants at this remote site have completed testing, Elizabeth uses the **File > Batch Process Recordings** option in *Recorder* to process the recordings (.rdg files) from this set of tests all at one time.

The recording files are verified and saved on the laptop's hard drive. While still connected to the home office network by VPN, Elizabeth makes a backup copy of the recording files on the office server.

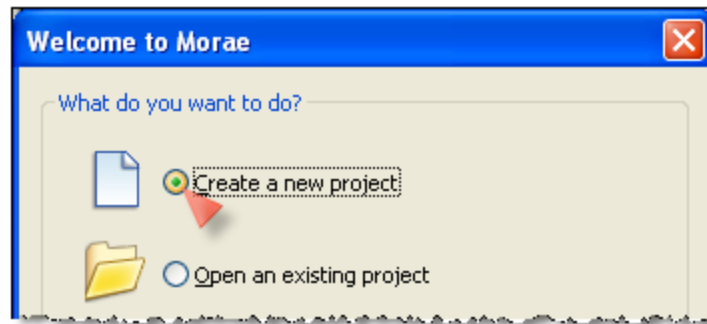
Meanwhile, Jeff copies the WMV files from the client observer's machine to CD or DVD for the client to share and distribute. He then disconnects both *Remote Viewer(s)* from *Recorder* by clicking

the **Disconnect from Recorder** toolbar button .

This entire process is repeated at the other two remote sites until all participants have been tested.

## Analyzing the Results

When Elizabeth is ready to begin analyzing the recordings from the tests, she launches *Morae Manager* on her laptop. She has not yet created a project in which to view and store the recordings, so she chooses **Create a new project** in *Manager's Welcome* screen.



Following the steps in the *Create New Project* wizard that appears, Elizabeth imports the recording files from the tests into the new project file. The imported recordings appear in the *Project* pane. She is able to view the screen and camera video as well as hear the audio from the user by playing a recording.

In order to satisfy her analysis goals for each participant, she will use *Morae Manager's* search functionality.

### Elizabeth's goals are to determine:

1. How long it took each participant to find the specific answer in the database (Task 1).
2. The number of search attempts the participant made before finding the answer.
3. Whether the search attempt was successful (which Jeff noted in the **"E-End task"** Markers during testing).
4. The paths and search terms the participant used to conduct the search.
5. How long it took the participant to complete and submit the form to request technical support (Task 2).
6. Where errors in navigation or difficulties occurred for the participant.

### Calculating Time on Task Using Automatic Segment Creation

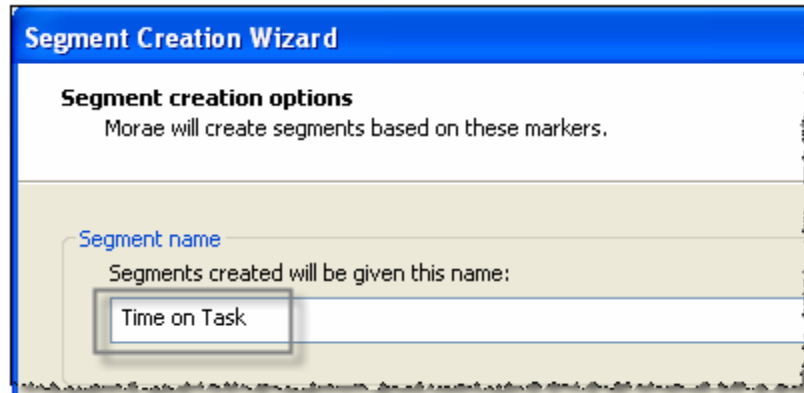
Because Jeff used the **"S-Start task"** and **"E-End task"** Markers during the test, Elizabeth is now able to automatically create Segments between each **S** and **E** Marker pair that represent a completed task. The length of the Segment will tell her the time on task. This information will satisfy goals 1 and 5: to determine how long it took each participant to find a specific answer in the database, and also how long it took each participant to complete and submit the technical support form.

Elizabeth chooses **Segment > Create > Segments Based on Markers**. She names all of the automatically created Segments "Time on Task" by entering this text in the **Segment name** field.

---

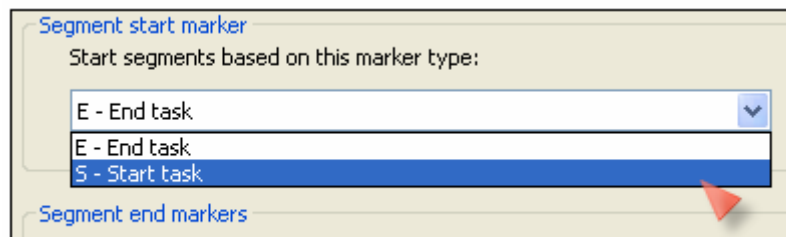
**Note:** The *Create Segments from Markers Wizard* automatically increments the name for each Segment. So, for this example, the first Segment will be "Time on Task-1", followed by "Time on Task-2", etc.

---



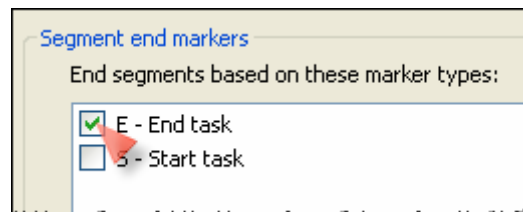
The **Segment Creation Wizard** dialog box has a blue title bar. Below the title bar, the text "Segment creation options" is followed by "Morae will create segments based on these markers." A section titled "Segment name" contains the text "Segments created will be given this name:" and a text input field with the value "Time on Task".

Next, she chooses **S-Start task** as the Marker that will start each Segment:



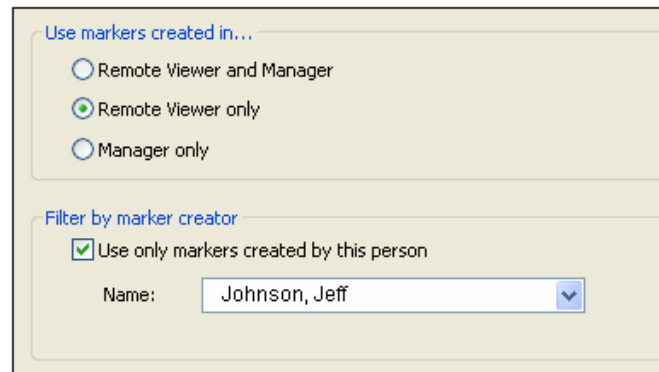
The **Segment start marker** dialog box has a title bar. Below the title bar, the text "Start segments based on this marker type:" is followed by a dropdown menu. The dropdown menu is open, showing a list with "E - End task" at the top and "S - Start task" selected and highlighted in blue. A red arrow points to the "S - Start task" option. Below the dropdown menu, the text "Segment end markers" is visible.

And she chooses **E-End task** as the Marker that will end each Segment:



The **Segment end markers** dialog box has a title bar. Below the title bar, the text "End segments based on these marker types:" is followed by a list of two options: "E - End task" with a checked checkbox and "S - Start task" with an unchecked checkbox. A red arrow points to the "E - End task" option.

She clicks **Next**, and then chooses **Remote Viewer only**, because she only wants to create Segments using Markers that were entered from a *Remote Viewer* during the test. And, she only wants the Segments to be based on Jeff's **S** and **E** Markers, so she enables **Use only markers created by this person** and selects Jeff's name from the dropdown menu.



Use markers created in...

☐ Remote Viewer and Manager

☒ Remote Viewer only

☐ Manager only

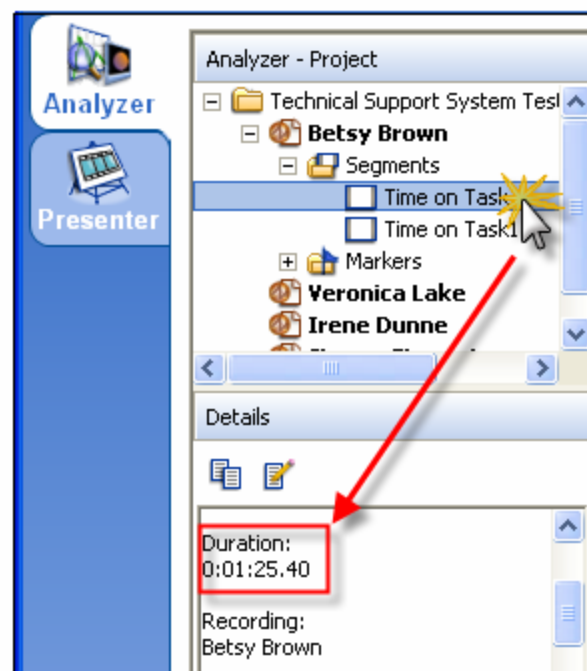
Filter by marker creator

☒ Use only markers created by this person

Name:

When Elizabeth clicks **Finish**, *Manager* automatically creates the “Time on Task” Segments, with **S** as the In Point and **E** as the Out Point, and lists them in the Segments folder in the *Project* pane. The *Create Segments from Markers Wizard* will remember Elizabeth’s settings, so she can easily repeat the process with the same settings for all of her other recordings.

Since the Segments were created using the start and end points of the participant’s task, Elizabeth knows that the length of each Segment equals the time spent on the task. To find the Segment duration, Elizabeth clicks on a Segment and looks in the **Duration** field in *Details* pane. She can use the lengths of the automatically created Segments to satisfy two of the analysis goals: calculating Time on Task 1 and Time on Task 2 for each participant.




## Searching for Data

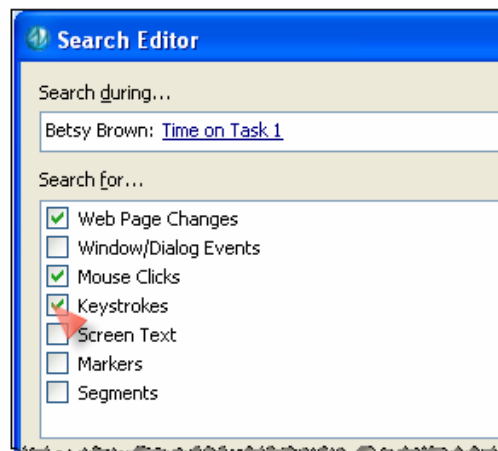
The automatic Segment creation feature allows Elizabeth to quickly encapsulate individual tasks from start to end. But, without using the search functionality, she would still have to watch each Segment from the recording and try to count all of the steps the user took to complete a task. Doing so would be extremely difficult and take a great deal of time. Instead, using *Morae*'s search functionality, she can find this information quickly and easily.

## Creating a Search profile

By selecting the correct settings in the Search profile, Elizabeth can conduct one search that will help her satisfy several of her analysis goals: the number of search attempts required to find the answer, whether the search was successful, and the paths and search terms used to find the answer.

To create the search profile, Elizabeth selects a Segment (which represents a participant's completed task) in the *Project* pane.

Next, she clicks the **Search** button  in the *Search* pane. This brings up a dialog box that enables her to specify what to search for. Elizabeth selects **Web Page Changes**, **Mouse Clicks** and **Keystrokes**.



This will return the URLs of all Web pages the participant visited, as well as where they clicked on a page or entered text from the keyboard (for example, when they entered a search term).

## Conducting the Search

Elizabeth then clicks the **Search Now** button to conduct the search, and the list view is populated with the results.

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**Note:** The settings in a *Search profile* can be saved and reused.

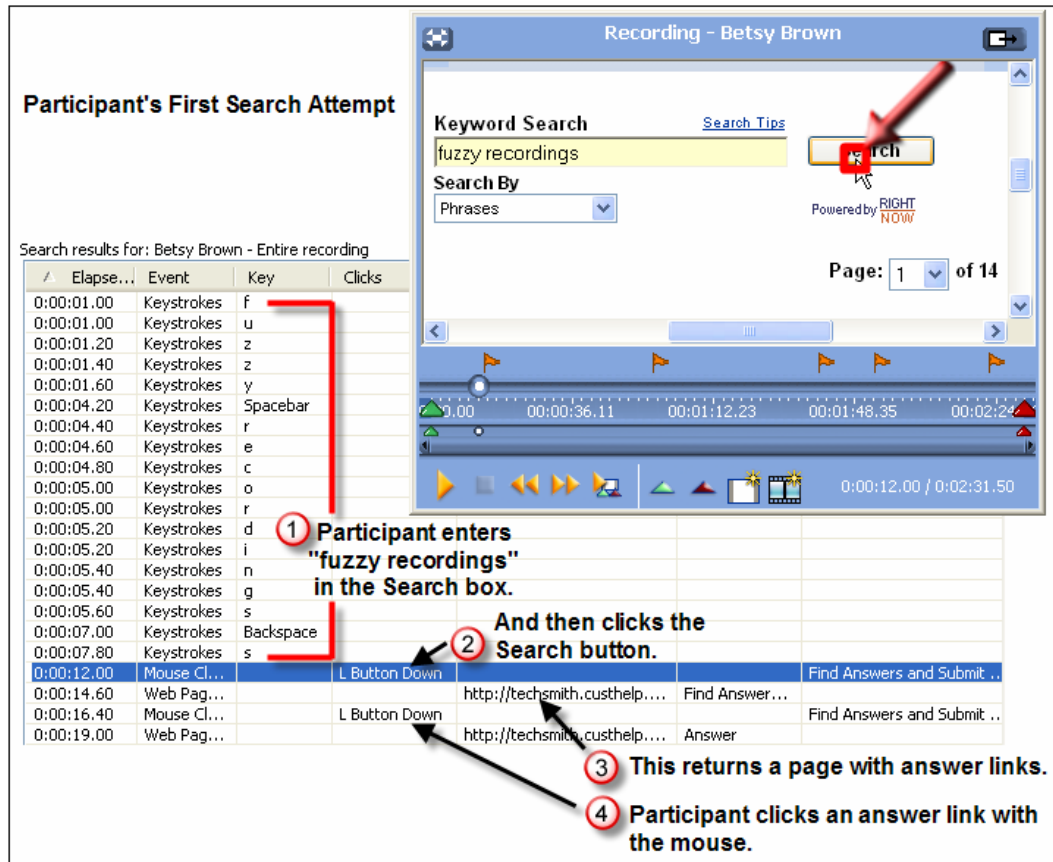
---

She can quickly see from the search results (and the synchronized video) which search terms the participant entered through the keyboard, which Web pages she visited, where she clicked on those pages, and how long she stayed on each page.



## Interpreting the Search Results

The following figure shows the first half of the results list with the screen video shown as an inset. This is the participant's first search attempt. Elizabeth can see from these results that Betsy entered "fuzzy recordings" in the text box and then clicked the **Search** button. This loaded a page of answers, from which she selected a link by clicking on it. This loaded the "Answer" page for that link, but this was not the answer Betsy was trying to find.



The following figure shows the next section of the search results list, with the screen video as an inset. As illustrated, Elizabeth can see that Betsy made a second search attempt using another keyword search. Betsy entered "blank videos" in the text box, and then clicked the **Search** button. From the list of answers, she clicked on the one that seemed most relevant, but this still was not the answer she was seeking. From there, she browsed to two "related answers" that were linked to one another. Finally, as shown in the screen video inset, Betsy returned to the main menu to navigate back to the Support home page.

**Participant's Second Search Attempt**

Search results for: Betsy Brown - Entire recording

#	Elapse...	Event	Key	Clicks
0:00:50.40	Keystrokes	b		
0:00:50.40	Keystrokes	l		
0:00:50.60	Keystrokes	o		
0:00:51.00	Keystrokes	Backspace		
0:00:51.20	Keystrokes	Backspace		
0:00:51.40	Keystrokes	Backspace		
0:00:52.40	Keystrokes	b		
0:00:52.60	Keystrokes	l		
0:00:52.80	Keystrokes	a		
0:00:53.00	Keystrokes	n		
0:00:53.20	Keystrokes	k		
0:00:53.20	Keystrokes	Spacebar		
0:00:53.40	Keystrokes	v		
0:00:53.60	Keystrokes	i		
0:00:53.60	Keystrokes	d		
0:00:53.80	Keystrokes	e		
0:00:54.00	Keystrokes	o		
0:00:54.20	Keystrokes	s		
0:00:55.40	Mouse Cl...		L Button Down	
0:00:57.80	Web Pag...			http://techsmith.custhelp.... Find Answers and Submit Questions
0:01:05.60	Mouse Cl...		L Button Down	http://techsmith.custhelp.... Find Answers
0:01:08.20	Web Pag...			http://techsmith.custhelp.... Answer
0:01:18.80	Mouse Cl...		L Button Down	http://techsmith.custhelp.... Answer - Micr
0:01:20.60	Web Pag...			http://techsmith.custhelp.... Answer
0:01:23.40	Web Pag...			http://techsmith.custhelp.... Answer
0:01:32.00	Mouse Cl...		L Button Down	http://techsmith.custhelp.... Answer
0:01:34.00	Web Pag...			http://techsmith.custhelp.... Answer
0:01:37.40	Mouse Cl...		L Button Down	http://techsmith.custhelp.... Find Answers and Submit Questions...
0:01:40.00	Web Pag...			http://techsmith.custhelp.... Find Answers and Submit Questions...
0:01:40.80	Mouse Cl...		L Button Down	http://techsmith.custhelp.... Find Answers and Submit Questions...

**Participant enters "blank videos"**

**She looks at the answer and two "related answer" links.**

**As shown in the screen video, the participant uses the menu to navigate back to the main support page.**

At this point, Betsy gave up on Task 1, which was to find the desired answer in the ABC, Inc Technical Support database. This point was marked by Jeff as the end of Task 1, and he noted that Betsy failed to complete the task.

The last section of the search results shows Elizabeth that Betsy was able to complete and submit a question to the Technical Support Department without problems, using the *Submit Question* form on the site. It took Betsy 1 minute and 32 seconds to fill out the form and submit it.

From this single search, Elizabeth is able to satisfy several of the analysis goals for this participant. She now knows the following:

1. Betsy made two keyword search attempts.
2. Her search attempts were unsuccessful (Jeff had noted "Failed" in the **Name** field for the "E-End task" Marker).
3. It took Betsy 1 minute and 25 seconds to complete Task 1.
4. The search terms Betsy used to conduct the search were "fuzzy recording" and "blank videos," she clicked the **Search** button to load a list of possible answers, and clicked on the possible answer from that list. When she didn't find the answer, she browsed related answers.
5. It took Betsy 1 minute and 32 seconds to complete and submit the form to request technical support (Task 2).
6. Betsy was able to navigate the site and use it as expected, though she did run into difficulties with the search functionality.

**Conclusion**

Because *Morae* indexes the video with the events, it is very easy to find where specific actions occurred in the video automatically. Elizabeth doesn't have to watch the entire video, or try fast forwarding and rewinding to find when an action happened. By searching for events and then selecting an event, the video instantly moves to the point in time where that event occurred.

Elizabeth can conduct many different searches repeatedly to determine where and when the user was having difficulty or getting confused in the process. This allows her to answer the remaining goals of the study.

By capturing the video and audio of the user, she is able to hear what the user was saying and see the user's facial expressions, both of which provide rich qualitative information about how the user is reacting to the technical support system. Combined with Jeff's Markers noting user frustration and comments, Elizabeth can quickly analyze the qualitative information. Utilizing the search functionality to find information and navigate the video makes the analysis process much faster.

## Presenting the Results

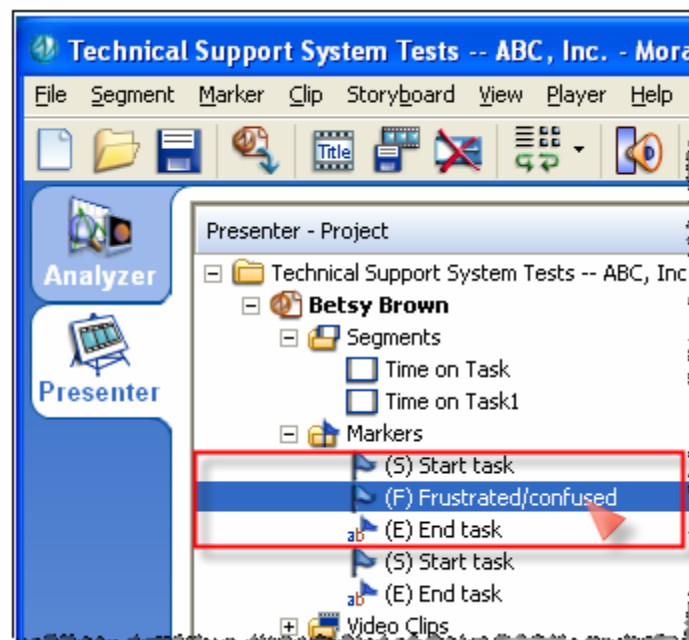
For her client, Elizabeth needs to prepare a PowerPoint presentation and report, as well as two complete highlight videos: an overview for the client to keep and distribute, and an in-depth view of the results for the technical support system design/development team.

To begin, Elizabeth clicks on the *Presenter* tab to access the video assembly and production features of *Manager*. In *Presenter's Project* pane, she has access to the Segments, Markers, and Clips that have already been created in the recording. Now she can use these items as tools for navigating within the recordings and creating the highlight video.

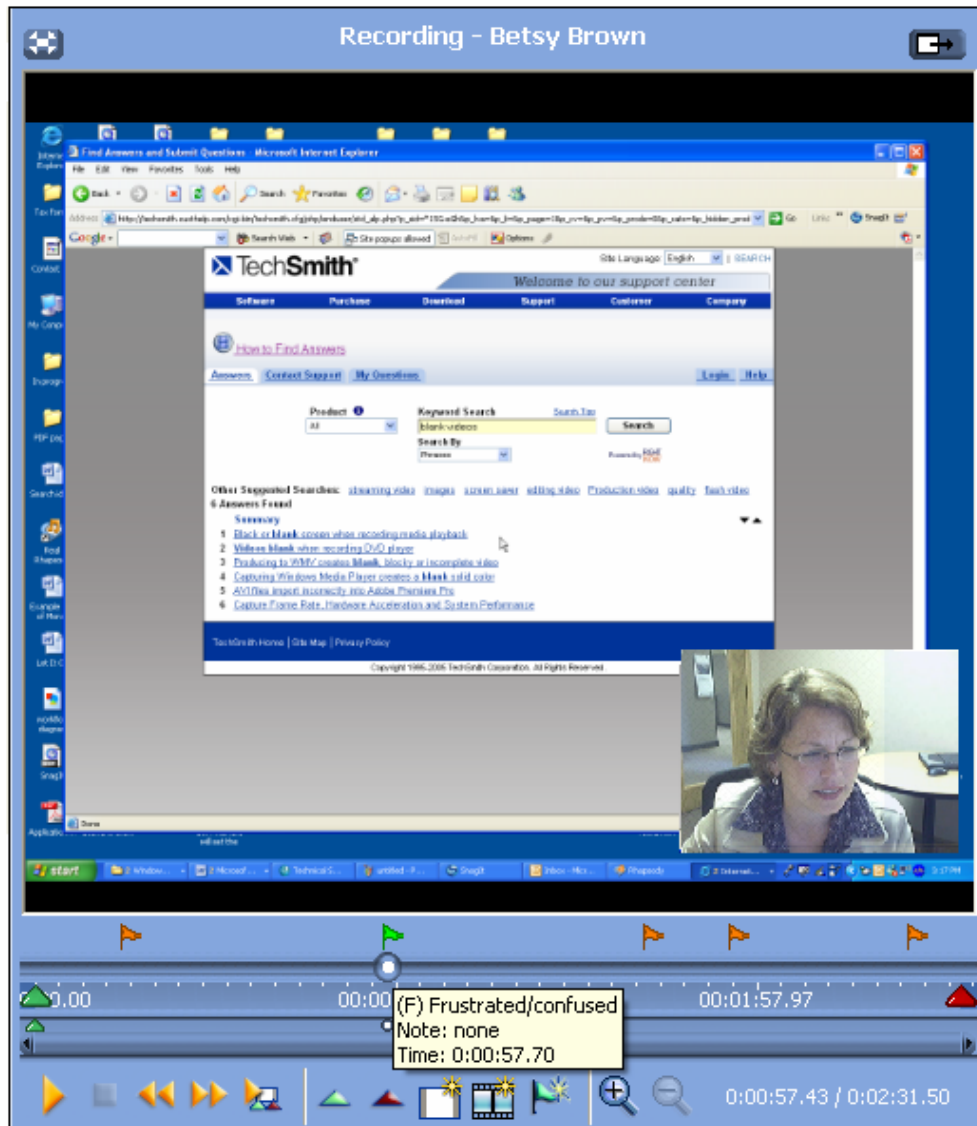
### Creating Video Clips

For the video, Elizabeth wants to pull out small sections of the recordings that illustrate the key moments from each participant's experience. By combining highlights from several participants, she will be able to quickly show the client and stakeholders where participants ran into trouble using their technical support site. This will supplement her PowerPoint presentation, which will include some recommended design changes based on the findings from these tests.


Elizabeth remembers a moment in Betsy Brown's attempt to complete Task 1 that she wants to isolate and include in the video. Jeff had marked this moment with an “**F-Frustrated/confused**” Marker, so she can conveniently relocate it now in *Presenter* by clicking on that Marker in the *Project* pane.





The screen video and camera video automatically move to that point in the recording:

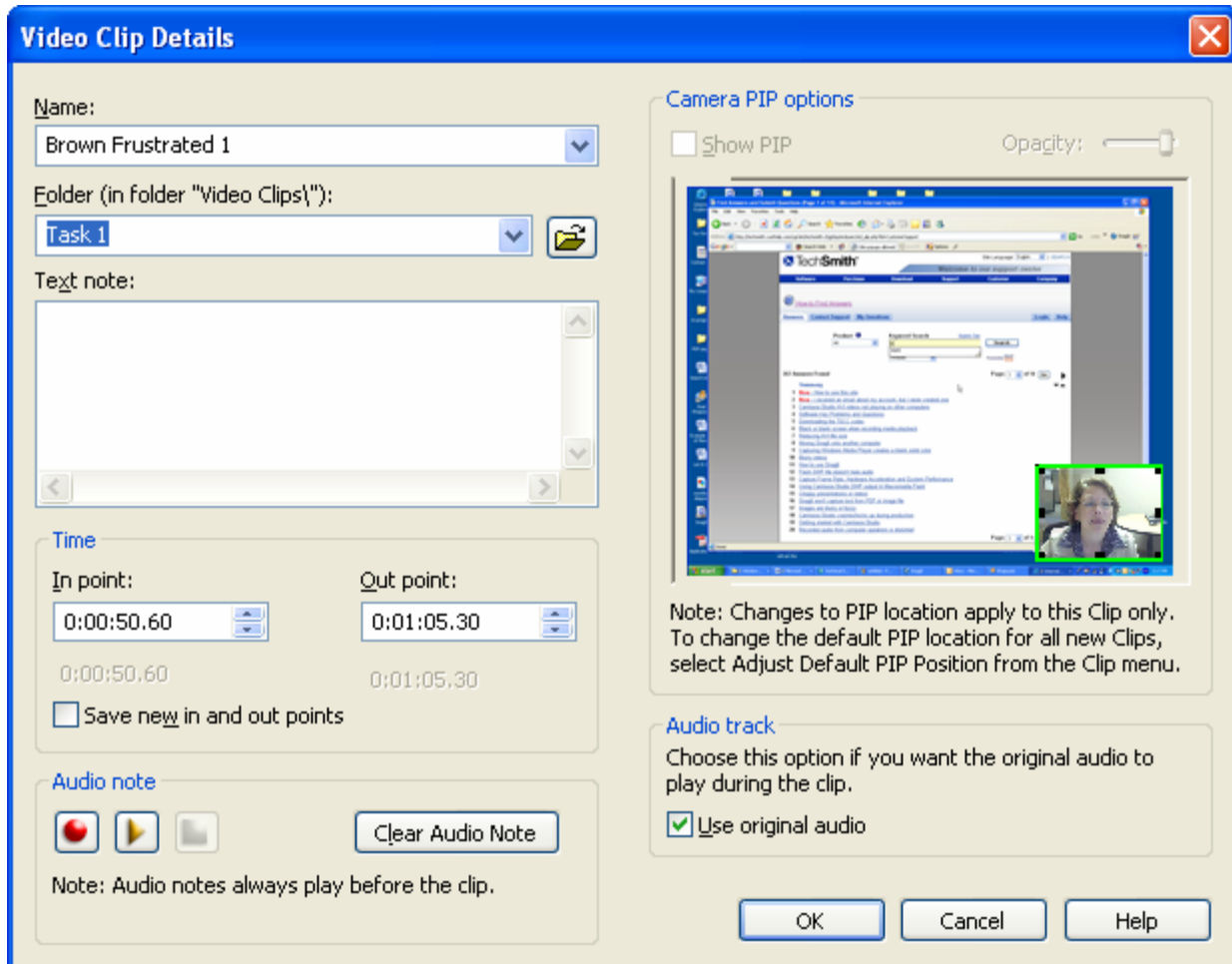


Using the playhead and *Player* controls, Elizabeth locates the exact point in the recording where she wants the Video Clip to begin. She clicks the **Set In Point** button  to mark this point as the beginning.

She watches and listens to the recording until she locates the point where she wants to end the Video Clip. She uses the playhead and *Player* controls to precisely locate that point. Then, she clicks the **Set Out Point** button  to mark this as the end of the Video Clip.

Before creating the Video Clip, she previews her selected section of video by clicking the **Play In to Out Points** button. 

Finally, to create the Video Clip using her selected In and Out points, she clicks the **Create Video Clip** button.  This opens the *Video Clip Details* dialog. In the **Name** field, Elizabeth enters “Brown Frustrated 1”. She chooses to place this Video Clip in the Task 1 folder in her project, so that she can group all of the participants’ Video Clips related to Task 1 in the same location.



Using the *Audio note* controls, she adds an audio note (which will play before the Video Clip begins) as an introduction to the Clip. She leaves the **Use original audio** option selected because she wants the audio from Betsy’s recording to play during the Clip.

Finally, she checks the location of the PIP window over the screen video. It is in the lower right-hand corner, exactly where she wants it to be.

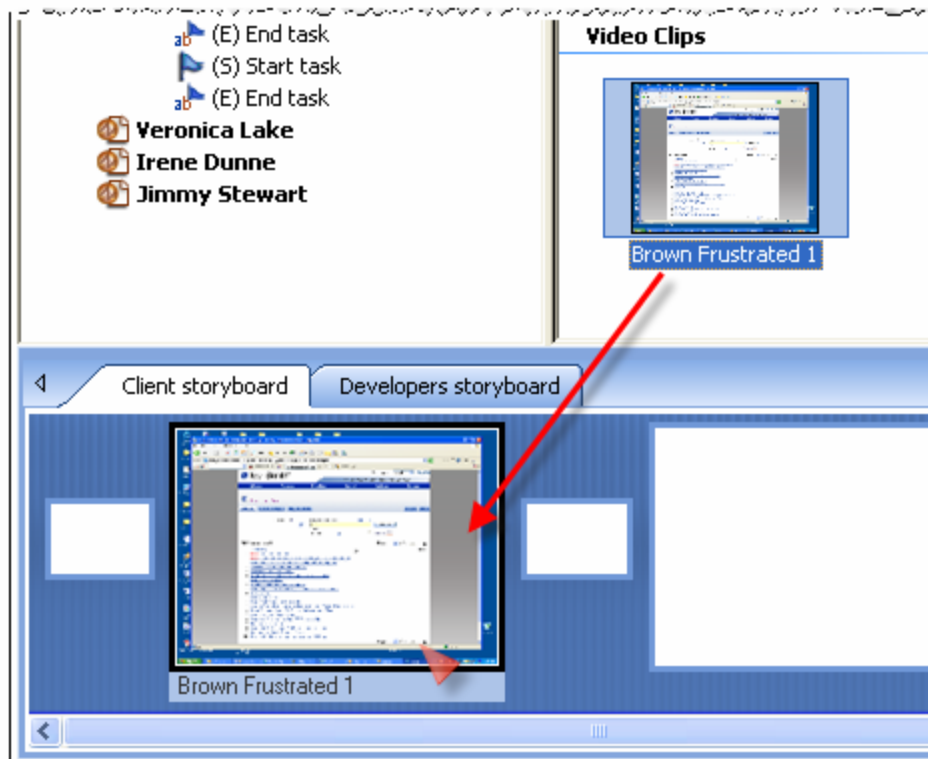
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**More information:** You can move and resize the PIP window and set a default PIP location for all Clips, if desired.

---

Satisfied with the options she has selected, Elizabeth clicks **OK** to create the Video Clip. The new Video Clip automatically appears in the *Clip Bin*.

To add the Video Clip to her highlight video, she drags it from the *Clip Bin* onto the *Storyboard*.

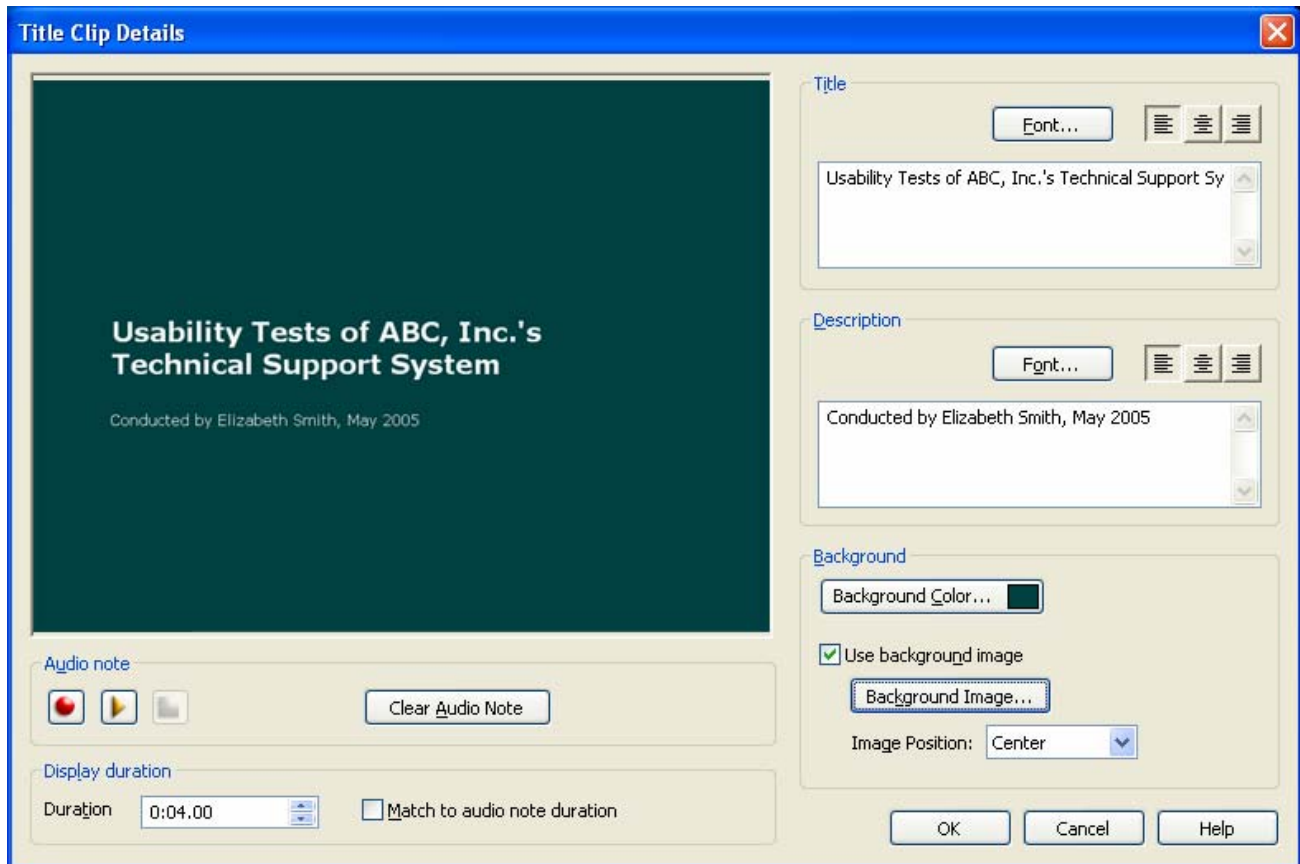


She repeats this process of creating Video Clips and assembling them in the order she wants them to appear in the video.

### Adding a Title Clip

Satisfied with her Video Clip selections and their order on the *Storyboard*, Elizabeth would now like to place a Title Clip at the beginning of the video.

To begin, she clicks the **Create Title Clip** button  on the toolbar. This opens the *Title Clip Details* dialog box, where she can type the text she wants to appear on the title clip. She enters, “Usability Tests of ABC, Inc.’s Technical Support System” in the **Title** field.



Under this, in the **Description** field, she enters “Conducted by Elizabeth Smith, May 2005.” Next, she clicks on the **Background Color** button and selects green.

She leaves the duration at 4 seconds, so the Title Clip will play for 4 seconds before moving on to the first Video Clip. She clicks **OK** to finish editing the Title Clip. The new Title Clip appears in the *Clip Bin*.

She drags the Title Clip to the first position on the *Storyboard*.

## Adding Transitions

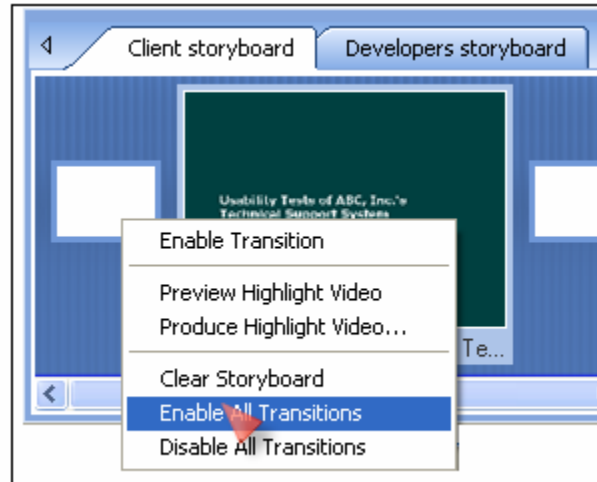
Elizabeth wants the video to fade in and fade out at the beginning and end, and also to dissolve between all of the Clips. She could click on each individual transition button to enable one at a time. But to be more efficient, she enables them all at once by right-clicking on the first transition button and selecting **Enable All Transitions**.

---

**More information:** Adding transitions will increase the file size of the produce video. If this is problematic, you can either not use transitions or disable them during the production process.

---





She previews the entire video before producing it by choosing **Storyboard > Preview Highlight Video** from the main menu bar.

To produce the final video, she clicks the **Produce Highlight Video** button  on the toolbar and steps through the *Production Wizard*.

### Producing Individual Clips for the PowerPoint Presentation

Elizabeth would also like to produce several individual Video Clips so that she can embed them in her PowerPoint presentation.

In the *Clip Bin*, she <Ctrl> + clicks on the set of Video Clips she wants to produce. Next she selects **Clip > Clip Bin > Produce Clip(s)** from the main menu bar. This opens the *Production Wizard*. She steps through the Wizard to produce the set of Video Clips as individual AVI files, which can be easily embedded in her PowerPoint presentation.

# Using Morae: Step by Step

## Overview

To help you get started with *Morae*, this section provides an orientation to the processes involved in successfully recording, analyzing and presenting your data using *Morae*. These processes include:

- *Preparing to Record a Test Session*
- *Setting Up and Connecting Remote Viewer(s)*
- *Conducting the Test Session*
- *Managing Recording Files*
- *Analyzing Recording Data*
- *Presenting Results and Recommendations*

For more detailed information about any of these processes, consult the *Help System* within each of the components of *Morae*.

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## Preparing to Record a Test Session

Each recording you create with *Recorder*, and observe and log with *Remote Viewer*, represents a unique user experience that cannot be repeated. As such, the recording data should be collected carefully and stored and moved safely. Before you record your first test session with *Recorder*, it is important to be sure that the recording system meets the recommended requirements and that you are familiar with *Recorder*'s configuration settings so you can be sure you are capturing exactly the data you want and need.

This chapter offers important technical information that you should read before you begin recording. It will also familiarize you with the processes involved in creating a custom recording configuration, getting *Recorder* and *Remote Viewer* successfully connected, and logging the recording using *Remote Viewer*.

## What You Need to Know Before You Record

There are several important things you need to know before you begin using *Morae*. This section covers the critical points that will both reduce the technical issues you encounter as you get started with *Morae* and improve *Morae*'s overall performance.

### **Recommended System Requirements**

In the *Morae System Requirements* section of this guide, we list both the minimum and the recommended system requirements for each component of *Morae*. We encourage you to install the components on systems that meet the **recommended** specifications rather than just the minimums. This will ensure that you get the most efficient performance from *Morae*.

### **Dedicated Video Card**

*Morae* requires a video/graphics card with dedicated video memory. This requirement is often overlooked, but it is essential for getting acceptable performance during recording. Please contact your PC manufacturer to ensure that your video card has dedicated video memory rather than shared video memory.

### **Hard Drive Space**

It is important to make sure that there is ample storage space available on the hard drive where you will be saving recordings. You can expect recording file sizes to be 10–15 MB per minute, but the actual size will vary depending on many factors. However, you should have extra space available for the file writing and verification processes and also to ensure best performance during recording. If the hard drive is getting low on storage space, the computer will become sluggish because the drive is taking longer to find and save data. As a general rule, you should maintain 5–10 GB of extra hard drive space as a buffer beyond what your *Morae* recording files will use.

We also highly recommend saving your recordings to a local hard drive, at least initially. By saving the recordings locally first, you can eliminate the chance of data loss that can occur when saving over a network or to an external device. Once the file is saved, you can then copy it to your external device.

### **Test Your Setup and Scenario**

Because the data gathered during a usability test can only be collected once, it is vital that you fully test the recording configuration before you begin recording. It is best to do this testing at least one day before the actual recording session, so that any possible complications (such as personal firewalls blocking *Remote Viewer*(s) from connecting, etc.) can be resolved well in advance. We recommend that you run a mock recording for a short period of time. Do not just use the **Test Recording** option in *Recorder*. Test Recording simply does a 10-second recording to verify that the screen, camera, and audio streams are being recorded properly. Conducting a mock recording with your configuration settings the day before will ensure that *Recorder* starts and stops the way you expect it to, and that *Remote Viewer*(s) will be able to connect.

## Disable Firewalls

If you are using *Remote Viewer* over the internet, it is necessary to make sure you have either disabled any firewalls running on the *Recorder*, or configured the firewalls to open ports 5555 and 8080. These two ports must be open for the video to stream from *Recorder* to *Remote Viewer*. There are no firewall adjustments necessary on the *Remote Viewer* side. If *Remote Viewer* and *Recorder* are on the same intranet, you do not need to worry about disabling firewalls.

## About the Remote Viewer Delay

*Remote Viewer* provides two different display options for viewing *Recorder*: screen video only, in real-time, or screen video with audio and PIP streamed, but with a delay of typically 8–12 seconds. The delay is caused by the compression and streaming process required to send all three streams over a network and will vary depending on network speed and bandwidth. If you will be interacting with the participant during the test or are in the same room as the participant, we recommend deselecting the **Include audio and PIP** option in the *Connect to Recorder* dialog box. For more information, see *Why is there a Delay between Recorder and Remote Viewer?* on page 72.

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**Note:** Regardless of the display option you choose (real-time or streaming), any Markers you set will be correctly synched with the recording.

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## Screen Resolution and Desktop Wallpaper


Screen resolution is an important factor that affects recording file sizes, so it is important to consider this before testing. The higher the resolution, the larger your recording file sizes will be. Recording at higher resolutions also increases the impact on computer system performance. We recommend recording at a resolution of 1024 x 768 or less for best performance. If you are running *Recorder* on a system that meets or exceeds our recommended requirements, it should perform well at higher resolutions.

Also, if possible, the background wallpaper on the desktop should be removed and replaced with a solid color, to improve compression when the desktop is being recorded.

### To change your screen resolution:

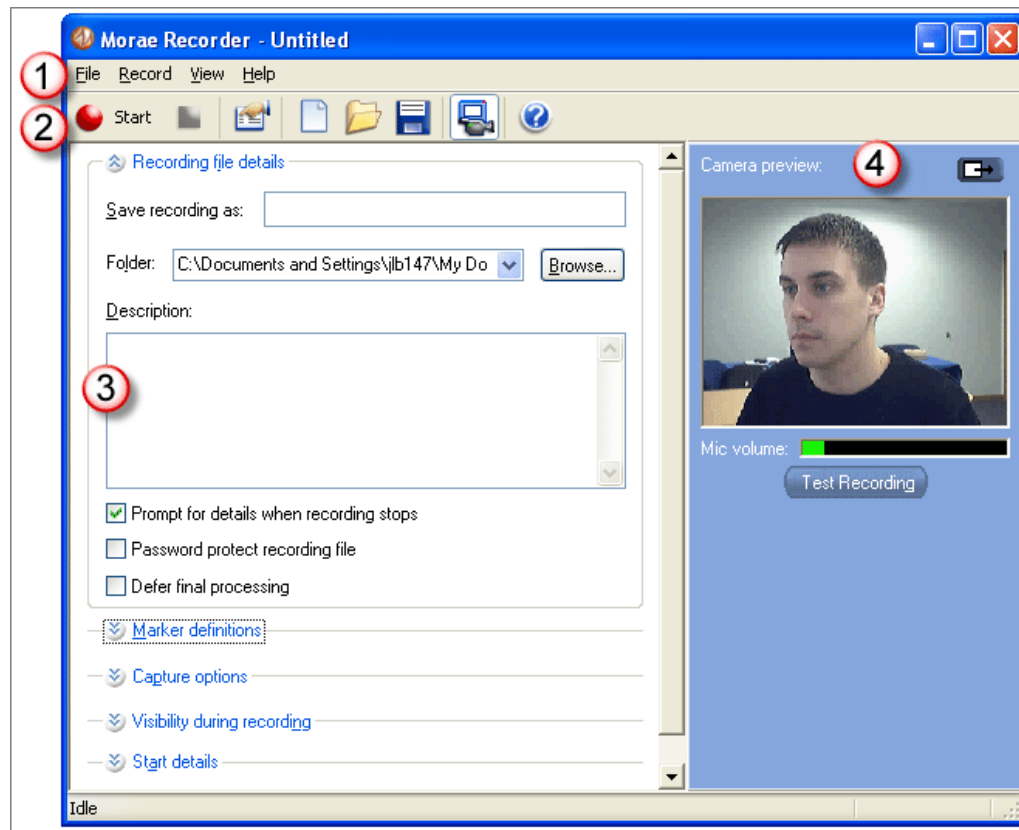
1. Choose Windows **Start > Control Panel > Appearance and Themes > Display > Settings** tab. (If you are in *Classic View*: Windows **Start > Control Panel > Display > Settings** tab).
2. Change the resolution using the slider in the *Screen resolution* group box.

### To remove the desktop wallpaper:

1. Choose the **Settings** button  on *Recorder*'s toolbar, or select **Record > Settings** from the main menu.
2. Select the *Preferences* tab.
3. Enable the **Remove desktop wallpaper during capture** option.
4. Click **OK**.

## Recorder's Interface at a Glance

When you launch *Recorder*, the following interface will appear:




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- 1 **Menu bar.** The main menu bar gives you access to all of *Recorder's* options.
  - 2 **Toolbar.** The toolbar places *Recorder's* most commonly used options within easy reach.
  - 3 **Configuration pane.** The options in this pane let you customize the settings that *Recorder* uses for recording.
  - 4 **Camera preview pane.** This pane displays a preview of the camera video and the approximate microphone volume level. Using the **Test Recording** option, you can record and playback a 10-second test recording session.
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## Recording Using Default Settings

When you open a new configuration in *Recorder*, the *Configuration* pane is automatically loaded with *Recorder's Default Configuration Settings*. If you wish, you can conduct a recording immediately using these settings.

**To record using the default settings:**

1. Launch *Recorder*.
2. Click the **New Configuration** button , or select **File > New Configuration** to restore *Recorder* to the default configuration settings.

**Note:** This step is required because *Recorder* always remembers the last configuration loaded. If the last configuration contained something other than the default settings, you will be recording with those non-default settings.




3. Click the **Start** button.  *Recorder* will minimize to a tray icon. 
4. To stop recording, right-click on the tray icon, and choose **Stop** from the context menu.

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**Note:** If you use the default recording settings, your recordings will be stored in the “My Documents\Morae” folder on the *Recorder* source computer’s system, which is the default output folder.

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### Helpful Tips for Default Recording

To access a menu of <i>Recorder</i> controls	Right-click on the tray icon. 
To make <i>Recorder</i> visible again	Double-click on the tray icon. 
To stop recording	Right-click the tray icon  and choose <b>Stop</b> .

### *Recorder's Default Configuration Settings*

*Recorder's* default settings for each configuration category are described in the following table.

Configuration Category	Options Enabled by Default	Implications
Recording file details	Prompt for details when recording stops	When the recording ends, you will be prompted to fill in the fields in the <i>Recording File Details</i> dialog box.
Marker definitions	Default set of Marker definitions: S – Start task (green) Q – Quote, User comment (purple) X – Error, Unexpected action (yellow) H – User needs help (blue) E – End task (red)	The default set of Marker definitions will appear for use in <i>Remote Viewer's Marker Definitions</i> window and on the Marker menu. These defined Markers will also be available for use in <i>Manager</i> .

Configuration Category	Options Enabled by Default	Implications
Capture options	All capture options	<i>Recorder</i> will capture all data streams: screen video, camera, microphone, keystrokes, screen text, mouse clicks, Web change pages and application events.
	Allow Remote Viewer	<i>Remote Viewer(s)</i> will be allowed to connect to <i>Recorder</i> by default. The default amount of time <i>Recorder</i> will wait for pending <i>Remote Viewer</i> Markers is 60 seconds.
Visibility during recording	Minimize to tray	<i>Recorder</i> will be visible only as a tray icon  during recording.
Start details	Manually start	You must choose the <b>Start</b> button  to begin recording.
Stop details	Manually stop	You must choose the <b>Stop</b> button  to stop recording.



## Recording Using Custom Configuration Settings

By adjusting the settings in the six areas of *Recorder's Configuration* pane, you can customize your recordings to capture exactly the data you need.

*Recorder's Configuration* pane contains six categories of configuration settings. You can change the settings and use them right away for just one recording, or go a step further and save the settings in a *Morae Recorder* configuration (.mrcfg) file that can be used repeatedly.

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**Note:** If you do not save your configuration changes, *Recorder* will not remember them the next time you launch the application.

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To create your own customized configuration, choose the desired settings in each of the six areas of the *Configuration* pane. The steps in this section will lead you through the process of creating a custom recording configuration.

### Step 1: Entering Test and Participant Details

In the *Recording file details* area of *Recorder's* configuration, you'll decide what to name the recording (**Save recording as**) and where to save it (**Folder**).



### Using the Description Field

In the **Description** field, you can include detailed information about the test session or recording file. This information can be viewed later when the recordings are imported into *Manager*, so consider including a description that would be useful to an outside observer or data analyst who might not have been present for the session.

What you include in the **Description** field may vary from test to test, but there are a few pieces of information that are commonly included:

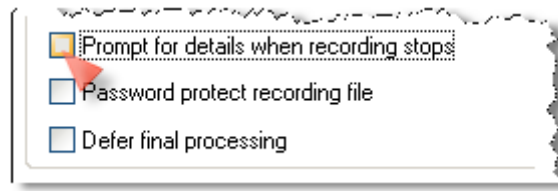
- Participant's name
- Session location

- Task description(s)
- Application or process being tested

The text you enter in the **Description** field is also available in *Remote Viewer* during the recording. To view the Description in *Remote Viewer*, choose **View > Recording Details** once the recording has begun.

### Completing the Details before or after Recording

The *Recording file details* can be filled in before the recording begins. In this case, simply uncheck the **Prompt for details when recording stops** option.



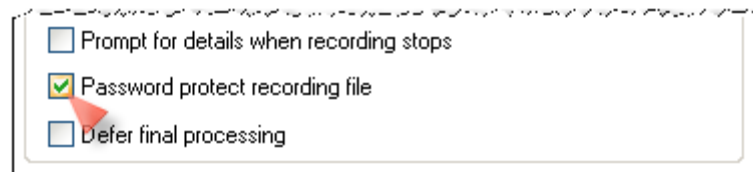
However, if you wish to enter the details (or additional information) after the session has stopped, leave the **Prompt for details when recording stops** option checked and proceed with the recording.

#### Warning!

The recording cannot be saved until you fill in the *Recording file details* area. It is possible to accidentally lose the data from a recording if the test participant, or anyone else, closes the dialog prompting for these details after the recording stops. If you think there's a chance this could happen, you might want to fill in the details prior to recording.

### Password Protecting your Recordings

You can set a password to “lock” the files if your recordings include sensitive material. To do this, make sure that you have selected the **Password protect recording file** option.



When the recording stops, you will be prompted to enter and confirm a password in the *Enter Recording File Password* dialog box.

Passwords are case sensitive and can include letters, numbers, and symbols in any combination. There is no maximum length for passwords.

When you import a password-protected recording file into *Manager*, the *Enter Password* dialog box will appear. Enter the correct password, and choose **OK**. The file will be imported into your Project.

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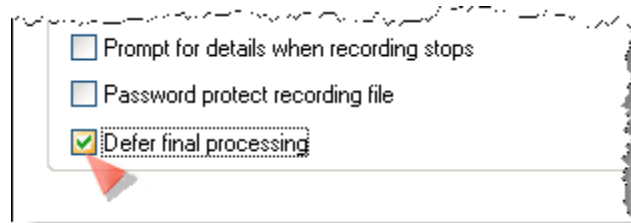
**Warning!** If you forget the password you have chosen, it cannot be retrieved by TechSmith. The file cannot be opened without the password. Please be careful to keep a record of the password that you assign.

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### Deferring the Processing of Recordings

By default, *Recorder* writes out and verifies each recording (.rdg) file immediately after a recording is completed. Depending on the length and content of the recording, this processing can take quite a long time.

*Recorder*'s **Defer final processing** option allows you to put off the processing of the recording file until later.



If you enable this option, the unprocessed recording file is placed into the batch processing queue, and you can start the next recording immediately. When you are ready to process the file, simply choose **File > Batch Process Recordings**.

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**Note:** Deferring final processing does not put your data at an increased risk of being lost or damaged should a crash occur. Recorded data are written to disk immediately during recording whether you choose to defer final processing or not. Final processing simply involves compressing the files into an archive.

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Batch processing may be an advantage when you want to automatically run repeated recordings or conduct several recordings in quick succession without waiting for file processing in between.

### Step 2: Predefining Markers to Use during the Test

Markers allow you to flag specific important points in a recording. In *Morae*, each Marker has a letter (Type) and text definition associated with it. Each type of Marker can optionally also be associated with a color. You can pre-select the Markers that you will want to use in *Remote Viewer* by defining their Color/Type/Definition combinations in *Recorder*'s configuration. These pre-defined Markers are automatically available for use by *Remote Viewer*(s) during the recording (for more information, see *Logging Using Markers* on page 78).

When you import a recording containing Markers into *Manager*, the Markers will be listed in the *Project* pane under that recording, and a flag will appear for each Marker along the timeline in the colors that you have assigned to each Marker type.

For example, you might want to mark the beginning of a task with an **S-Start task** (green) Marker and mark the end of the task with an **E-End task** (red) Marker. Then, when the recording is imported into *Manager*, the green and red Marker flags will be easy to visually distinguish along the timeline.

## Predefining and Color-Coding Markers in Recorder

In the *Marker definitions* area of the *Configuration* pane you can assign short definitions to the Marker types (letters) that you know you will use when viewing and logging a session in *Remote Viewer*. You can also color-code Markers using a system that makes the most sense to you.

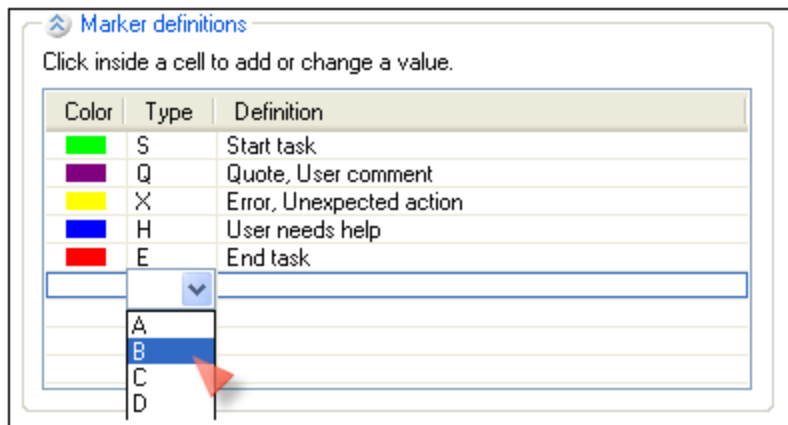
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**Note:** A default set of Marker definitions appears in every new configuration. You may choose to use these, change them, or delete them to create your own custom set of Marker definitions.

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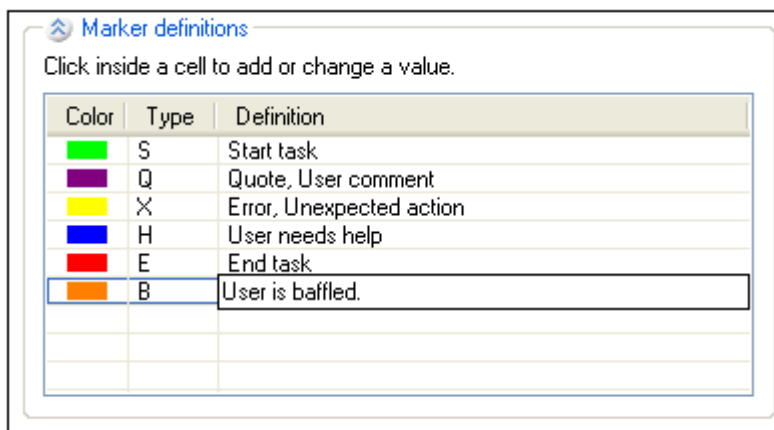
### To Add and Customize a Marker Definition

1. Click in a cell in the **Type** column. A dropdown menu of letters will appear:



2. Select the **Type** letter you wish to define.
3. Click in the **Definition** field next to that Type.
4. Enter the desired definition in the text box that appears.

**Note:** Definitions have a 50-character limit.



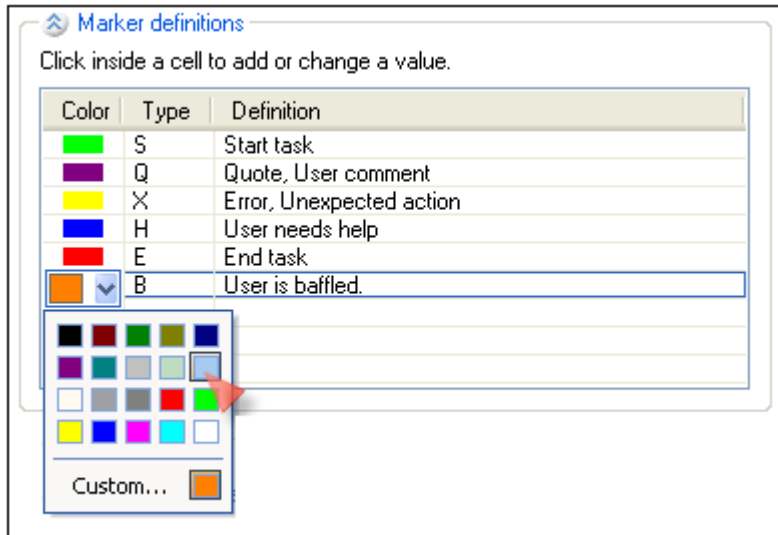

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**Note:** Every defined Marker must have both a **Type** and a **Definition** or the configuration cannot be saved. Additionally, the **Definition** field must contain characters other than blank spaces in order to be valid.

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5. When you are finished typing, click anywhere outside of the text box to exit editing, or press **<Enter>**.

- To associate a color with a Marker type, click in the **Color** cell next to that type and select a color from the palette that appears.



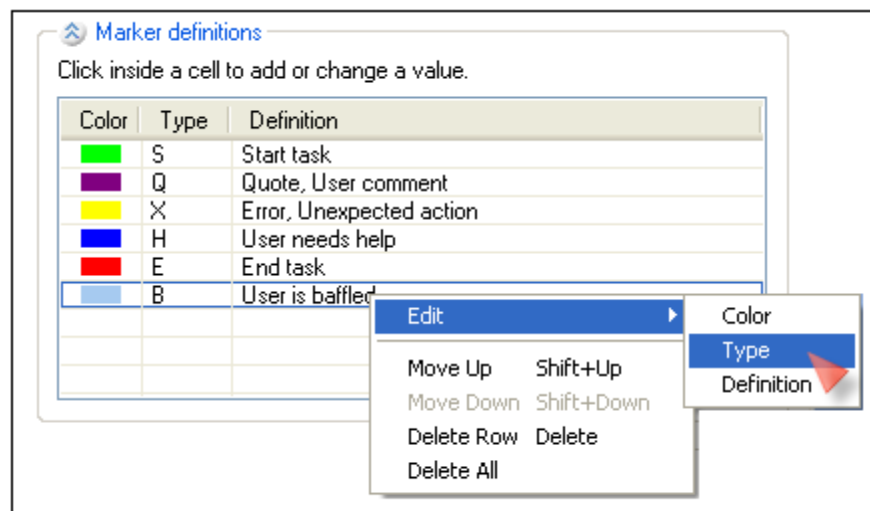
**Note:** The default color for each Marker is orange. If you do not assign another color, the Markers will appear with orange flags along *Manager's* timeline.

- If the color you want to use is not available on the palette, click the **Custom** button to open the *Color* dialog, and select a custom color.

### To Edit a Marker Type

Click in the **Type** field, and choose a new letter from the dropdown.

You can also make edits to the **Type** field by right-clicking on a row and choosing **Edit > Type** from the context menu.



### To Edit a Marker Definition

Click once in the **Definition** cell that you want to change and enter the desired text. You can also make edits to the **Definition** field by right-clicking on a row and choosing **Edit > Definition** from the context menu.

### To Delete an Entire Row

Select the row that you want to delete, and press the <**Delete**> key. Or, right-click within the row you wish to delete, and select **Delete Row** from the context menu that appears.

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**Note:** To delete a Type that you have not defined yet, the process is the same. Right-click on the **Type** field, and choose **Delete Row** from the context menu.

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### To Clear the Marker Definitions Area

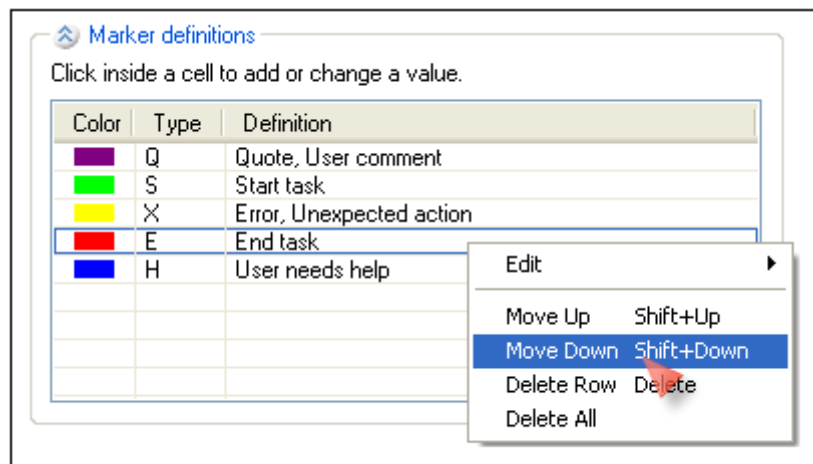
Right-click inside the *Marker definitions* area, and select **Delete All** from the context menu.

### To Change the Order of Marker Definitions

Defined Markers will appear in *Remote Viewer*'s Marker-related menus and *Marker Definition* window in the order you have them listed in the recording configuration. You can move definitions up or down in the list to arrange them in an order that is most convenient for your logging process.

To move a definition up or down in the list, right-click on the row, and choose **Move Up** or **Move Down** from the context menu.

Alternatively, you can click once on the row, and then press <**Shift**> and the <**Up**> or <**Down**> arrow keys.



### Navigating through the Marker Definitions List

To navigate through your list of defined Markers, you can use the <**Up Arrow**> and <**Down Arrow**> keys on your keyboard.

You can also use <**Tab**> and <**Shift + Tab**> to step through the columns and rows in the *Marker definitions* list.

### Advantages of Defining Markers before Recording

Predefining the Marker Types you will use to log your recordings, and using that set consistently across recordings, has two distinct advantages:

1. **It encourages team collaboration during logging.** Each team member using *Remote Viewer* has immediate access to the same set of defined Marker types. This helps to ensure that all observers are using the same Markers for the start and end of tasks, to mark user errors and comments, etc.
2. **It allows you to make the most of automatic Segment creation in *Manager*.** If all observers use the same start and end Markers across recordings, *Manager* can quickly and consistently create “Task” Segments that begin and end with the specified Markers. For more information, see *Automatically Creating Segments* on page 104.

### Step 3: Selecting Streams to Capture

In the *Capture Options* area, you can specify which data streams you want *Recorder* to include in the recording. By default, all of the *Capture options* are enabled.

#### To Select Capture Options

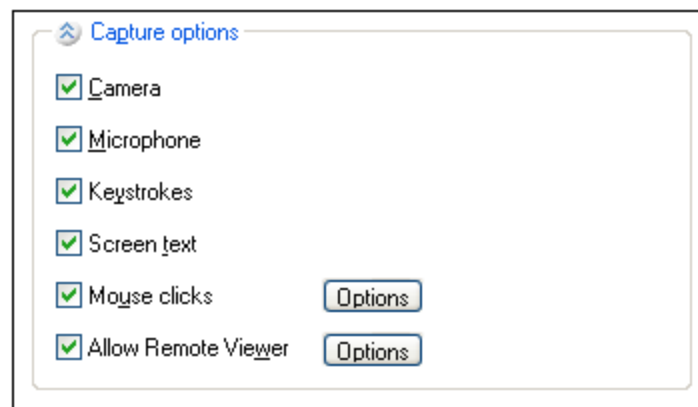
Place a checkmark next to the streams you want to record. *Recorder* will synchronize the data from all of the sources you have chosen.

Screen video and application events (Web page changes and window/dialog events, including when windows/dialogs had focus, were moved or resized) are not included in this list, because they are automatically captured for all recordings.

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**Note:** *Morae* only supports the capture of Web page change data from Microsoft Internet Explorer. Web page change data from any other browser will not be captured.

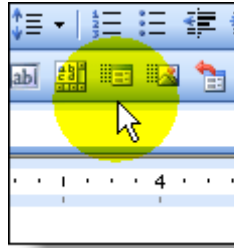
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#### To Add Highlight Colors to Mouse Clicks and Cursor Activity

Adding highlight colors to mouse clicks and cursor activity during the recording can make mouse movement easier to see when you are analyzing a recording in *Manager*. For example, all mouse

cursor movements can be highlighted with a yellow circle to make them more visible when they are viewed in *Manager*.



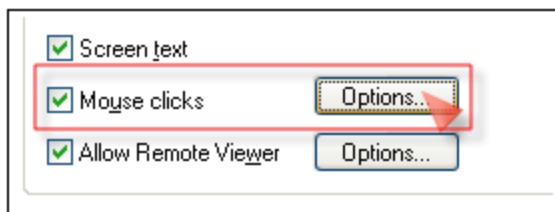
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**Note:** The highlighting does not appear on the user's screen during recording and cannot be seen by observers using *Remote Viewer*. However, the highlight effects will be visible in the recording after it is imported into *Manager*.

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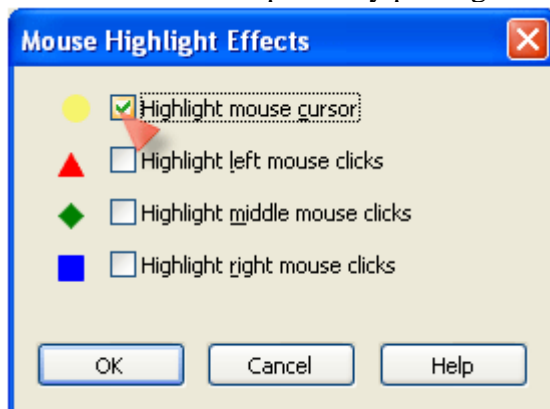
**To add highlight effects:**

1. You can select *Mouse Highlight Effects* options in *Recorder* by clicking the **Mouse Clicks > Options** button in the *Capture options* area.



The *Mouse Highlight Effects* dialog will appear. The icon to the left of each option indicates the type of highlighting that will appear in the recording.

2. Select one or more options by placing a checkmark in the box next to each option.



3. Click **OK**.



### Allowing Remote Viewers Connection

If you plan to connect one or more *Remote Viewer(s)* to *Recorder*, you must select the **Allow Remote Viewer** option in the *Capture options* area of the configuration.

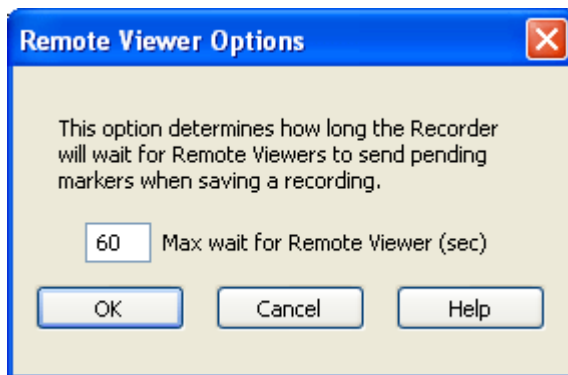


### Adjusting the Amount of Time Recorder Will Wait for Remote Viewer Markers

You can adjust the amount of time *Recorder* will wait for pending (unfinished) Markers from all *Remote Viewer(s)* before ending the recording. By default, *Recorder* will wait 60 seconds for *Remote Viewer* users to finish and send their Markers.

To increase or decrease this wait time:

1. In the *Capture options* area of *Recorder's Configuration* pane, choose the **Allow Remote Viewer > Options** button. The *Remote Viewer Options* dialog will appear:

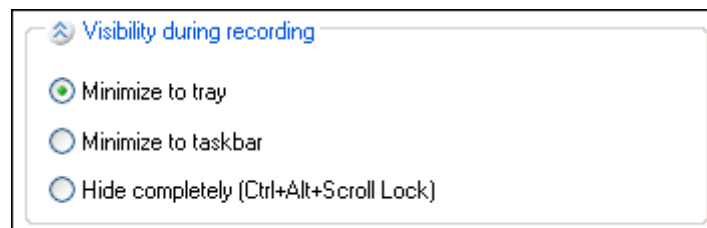




2. Enter the desired wait time, in seconds in the **Max wait for Remote Viewer (seconds)** field.

### Step 4: Deciding about Recorder's Visibility

In this area of *Recorder's Configuration* pane, you can determine how visible you want *Recorder* to be during a recording session.

Click a radio button to select the desired visibility option:



<b>Minimize to tray</b>	Choose this option if you want <i>Recorder</i> to be visible only as a tray icon  once a recording begins. With this option enabled, you can access a menu of <i>Recorder</i> control options ( <b>Start</b> , <b>Stop</b> , <b>Show Recorder</b> , and <b>Exit Recorder</b> ) by right-clicking on the tray icon. To make <i>Recorder</i> visible again, double-click on the tray icon.
<b>Minimize to taskbar</b>	Choose this option to place <i>Recorder</i> on the taskbar while recording, as shown below: 
<b>Hide completely</b>	Choose this option if you want <i>Recorder</i> to be completely hidden. To show <i>Recorder</i> again, simply use the hotkey combination <b>&lt;Ctrl+Alt+Scroll Lock&gt;</b> .

### Step 5: Programming the Start of Recording

Using the options in the *Start details* area of the configuration, you can choose how and when recordings made with this configuration will start. You can elect to start recordings manually, but *Recorder* also offers several flexible options that make it fully programmable for automated starts.

#### Starting Recorder Manually

To start a recording manually:

1. Choose the **Manually start** radio button.
2. When you are ready to begin recording, use the hotkey combination **<Ctrl + Alt + Shift +**

**F9>**, or click the **Start** button .

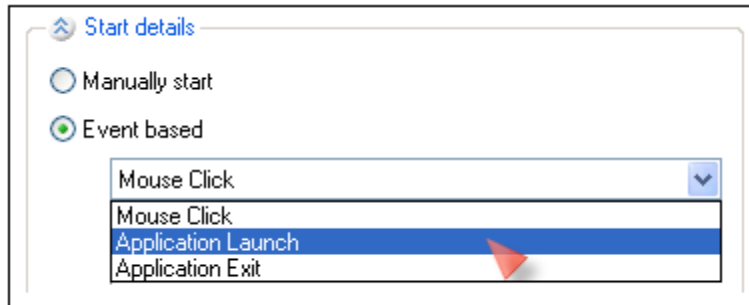
#### Programming Recorder to Start when an Event Occurs

To start recording when a specific event occurs:

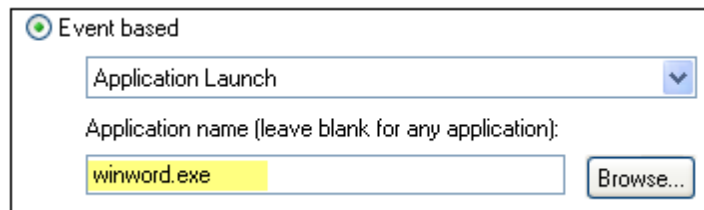
1. Choose the **Event based** radio button.



2. Use the dropdown list to choose the type of event that will cause *Recorder* to start: **Mouse Click**, **Application Launch**, or **Application Exit**.




3. If you choose either the **Application Launch** or **Application Exit** option, you can name a specific application by filling in the **Application name** field.



If you leave the **Application name** field blank, then *Recorder* will start when *any* application is launched or closed.

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**Note:** To specify an application name for an **Event based** start, you must use the exact executable (.exe) name in the **Application name** field. If you do not know the executable name, click the **Browse** button  to locate it.

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### Programming Recorder to Start at a Specific Date and Time

You can set *Recorder* to start at a particular time and, optionally, on a particular date. A **Time based** start can be set up to 49 days in advance of the recording. If you choose a **Time based** start, however, *Recorder* must be running on the source computer at the time the recording is set to begin.

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**Note:** A **Time based** start will only occur for one instance of recording. Once that recording is complete, you must click the **Start** button  again to set *Recorder* to wait for the next **Time based** start. For information about running repeated recordings without intervention between recordings, see *Automating Repeated Recordings* on page 63.

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1. Choose the **Time based** radio button.
2. Fill in the time and date fields for the start time.



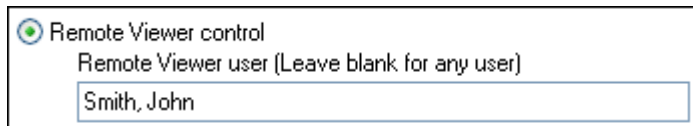
If you leave the box next to the date field unselected, then the recording will start at the specified time today. If this time has already passed for today, the recording will start at the specified time tomorrow.

### Using Remote Viewer to Start Recorder Remotely

Using the **Remote Viewer control** option in the *Start details* area, you can designate a specific person using *Remote Viewer* to start a recording session remotely.


To set up *Remote Viewer* control of *Recorder*:

1. Choose the **Remote Viewer control** radio button.



2. Enter the name of the **Remote Viewer user** who will be starting the recording. If you leave this field blank, any user will be able to start the recording from *Remote Viewer*.


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**Note:** After you have chosen the *Remote Viewer* control start option and completed the rest of the recording configuration, you must still click the **Start** button  **Start** to set *Recorder* to wait for the remote commands from *Remote Viewer*.

**Important:** For the *Remote Viewer* control start option to operate correctly, the name you enter in the **Your name** field in *Remote Viewer*'s *Connect to Recorder* dialog box must match the one you have entered here in the **Remote Viewer user** field.


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### To remotely start *Recorder* from *Remote Viewer*:

Once the setup steps have been completed, the user designated to have remote control of *Recorder* can start the recording by clicking the **Start the recording** button  on *Remote Viewer*'s toolbar.

### Using the Automatic Restart Option

If you want to set *Recorder* to start again after each recording, without requiring you to click the

**Start** button  each time, enable the **Automatically restart Recorder** option. Depending on your other configuration settings, selecting this option may not result in *Recorder* restarting without your intervention between recordings. For more information, see *Automating Repeated Recordings* on page 63.

## Step 6: Programming the Stop of Recording

Using the options in the *Stop details* area of the configuration, you can choose how and when recordings made with this configuration will stop. You can elect to stop recordings manually, but *Recorder* also offers several flexible options that make it fully programmable for automated stops.

The **Manually stop** option is selected by default.

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**Note:** *Recorder* can always be stopped manually, even if you have chosen another stop option.

---

Stop details

☒ Manually stop

☐ Event based

Application Launch

Application name (Leave blank for any application):

Browse...

☐ Time based (Leave unchecked for any date)

3:19:18 PM 8/27/2004


☐ Duration based

Time to run (hours): 2.0

☐ Remote Viewer control

Remote Viewer user (Leave blank for any user)

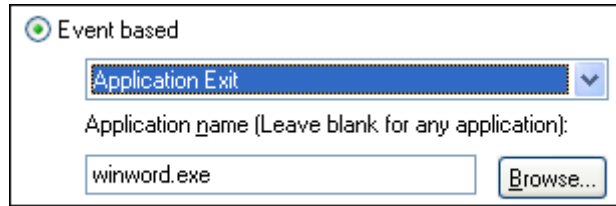
### Stopping Recorder Manually

To stop *Recorder* manually, use the hotkey combination <Ctrl+ Alt + Shift + F9>. Alternatively, right-click the tray icon  and choose **Stop** from the menu.

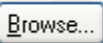
### Programming Recorder to Stop when an Event Occurs

To program *Recorder* to stop when a particular event occurs:

1. Choose the **Event based** radio button.
2. Next, use the dropdown list to choose the type of event that will cause *Recorder* to stop: **Application Launch** or **Application Exit**.
3. You can specify which application by filling in the **Application name** field. If you leave the field blank, *Recorder* will stop when *any* application is launched or closed.




---

**Note:** If you want to specify an application name for an **Event based** stop, you must use the exact executable name in the **Application name** field. If you do not know the executable name, click the **Browse** button  to locate it.

---

### Programming Recorder to Stop at a Specific Date and Time

You can set *Recorder* to stop at a particular time and date for one recording using the **Time based** stop option. A **Time based** stop can be set up to 49 days in advance.

1. Choose the **Time based** radio button.
2. Fill in the time and date fields. If you leave the box next to the date field unchecked, then the recording will stop at the specified time *today*. If the time you enter has already passed for today, the recording will stop tomorrow at this time.



### Programming Recorder to Stop after a Certain Length of Time

If you want to specify an amount of time that the recording should run before stopping automatically, choose the **Duration based** option and select a **Time to run** from the dropdown list. The recording will stop after that amount of time has passed.




---

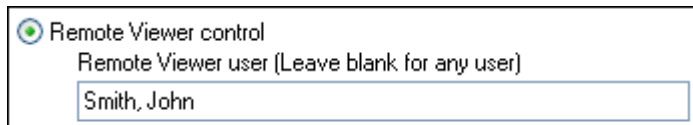
**Note:** Although the **Time to run** dropdown list only shows durations up to 2.0 hours, you can enter a duration of up to 1176 hours (49 days).

---

## Using Remote Viewer to Stop Recording Remotely

Using the *Remote Viewer* control option in the *Stop details* area, you can designate a *Remote Viewer* user to stop a recording session remotely.

1. Choose the **Remote Viewer control** radio button.
2. Enter the name of the **Remote Viewer user** who will be stopping the recording:  
**Note:** If you leave this field blank, any *Remote Viewer* user will be able to stop the recording.



3. The user designated to have remote control of *Recorder* can now stop the recording by clicking the **Stop the recording** button  on *Remote Viewer*'s toolbar.


## Conducting Repeated Recordings using Remote Control

Even if you have selected the remote control start and stop options, you will still need to return to the *Recorder* computer between recordings and click the **Start** button. If you wish to avoid this additional interaction with *Recorder* between recordings, follow the instructions outlined in *Automating Repeated Recordings*. Then, once you click the **Start** button, the *Remote Viewer* user who has control of *Recorder* will be able to start and stop *Recorder* repeatedly without returning to the *Recorder* computer.

## Step 7: Use or Save Your Custom Configuration

Once you have customized the configuration settings in each category, you have several options for using and saving the custom configuration:

### To Use Your Settings Immediately


Choose the **Start** button  on the toolbar, or use the hotkey combination <Ctrl + Alt + Shift + F9>.

---

**Note:** If you have chosen a delayed start (Time or Event based, or *Remote Viewer* control) option, clicking the **Start** button will set *Recorder* to wait for that start time or event.

---

### To Test your Settings before Recording

Run a 10-second test recording by choosing the **Test Recording** button  in the *Camera preview* pane, or choose **Record > Test Recording**. For more information, see *Running a Mock Test before Recording* on page 74.

---

**Note:** Start and stop options are not confirmed in a Test Recording.

---

### To Save your Settings as a Configuration File


Click the **Save Configuration** button  , or choose **File > Save Configuration**. Select a meaningful name and location for your configuration file, so it will be easy to relocate.

---

**Note:** *Recorder* configuration files have the extension .mrcfg.

---


### To open and edit your configuration file

Choose the **Open Configuration** button  , or choose **File > Open Configuration**, and select the configuration (.mrcfg) file you wish to open. The settings will be loaded into *Recorder*.



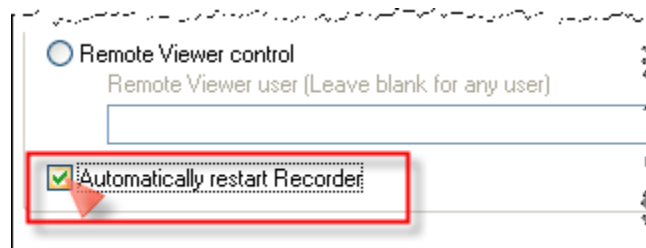
## Automating Repeated Recordings

There may be situations in which you would like to configure *Recorder* to start and stop repeatedly using the same recording settings without the need for human intervention between recordings (i.e., to click the **Start** button). To set up unattended, repeated recordings, follow the steps in this section.

Then, once you click the **Start** button , *Recorder* will silently create repeated recordings automatically, based on the settings you have selected in the *Configuration* pane.

### Step 1: Select Automatically restart Recorder

Select the **Automatically restart Recorder** option in the *Start details* area.



With this option selected, once you click the **Start** button, *Recorder* will repeatedly start and stop recordings based on the Time(s)/Event(s) you have selected in the *Start details* and *Stop details* areas of the configuration.

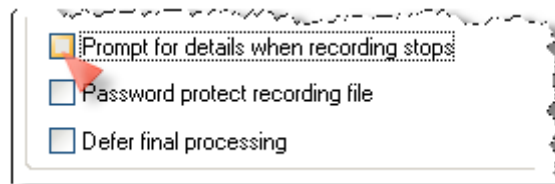
---

**Important!** The following *Start* and *Stop details* options are incompatible with the **Automatically restart Recorder** option: Manual start, Time based start with a date specified, Time based stop with a date specified, and Event based start on a Mouse Click.

---

### Step 2: Deselect Prompt for Details when Recording Stops

Deselect the **Prompt for details when recording stops** option in the *Recording file details* area:



This will prevent the *Recording file details* dialog from appearing (and requiring your attendance) after each recording. Complete the fields in this area before you click the **Start** button.

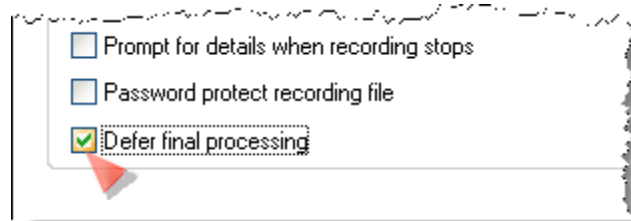
---

**Note:** *Recorder* will sequentially number the recording files by appending the number to the file name you have entered in the **Save recording as** field. For example, if you entered “Test” in the **Save recording as** field, the recordings will be named “test.rdg”, “test-0001.rdg”, and “test-0002.rdg”, etc.

---

**Step 3: Select Defer Final Processing**

Select the **Defer final processing** option in the *Recording file details* area:



This will place the recording files in a queue for later processing. This delays the writing out and verification of the recording file, which usually happens immediately when the recording stops.

---

**Note:** When you are finished with a series of automated recordings, you will need to go back to *Recorder* and batch process the recording files (**File > Batch Process Recordings**). For more information, see *Deferring and Batch Processing Recording Files* on page 86.

---

## Recording Silently

With *Morae Recorder*, it is possible to start and stop a recording without ever displaying the application's interface on the user's desktop. This is called "silent recording" and, as described in this section, there are three ways to accomplish this with *Recorder*.

### **Recording Silently by Automating Repeated Recordings**

*Recorder* allows you to automate the recording process so that no human intervention is required to restart *Recorder* between sessions. If you have this set up correctly, an additional benefit is that *Recorder*'s interface never appears onscreen, allowing you to record silently. For more information, see *Automating Repeated Recordings* on page 63.

### **Recording Silently from the Command Line**

There is a command line option for *Recorder* that allows you to "silently" launch the application, load a configuration, and begin recording. When you use the command line option, the interface for *Recorder* never appears on screen.

The order of command line arguments is:

"[path to Recorder.exe]" "[path to the configuration file]" -start

For example:

"C:\Program Files\TechSmith\Morae\MoraeRecorder.exe" "C:\Morae\myconfig.mrcfg" -start

### **Important Points to Remember**

1. The path to both the *MoraeRecorder.exe* and the configuration file must be in quotes.
2. Arguments must be separated by a space.
3. The "-start" argument must NOT be placed in quotes.

### **Creating a Shortcut for Silent Recording**

You can create a convenient shortcut for this command line option that will automatically launch *Recorder*, load a configuration and start recording.

#### **To create this shortcut:**

1. Locate the *MoraeRecorder.exe*.
2. Right-click on the *Morae Recorder.exe* and select **Create Shortcut** from the context menu.
3. Right-click on the shortcut you created, and select **Properties** from the context menu.
4. On the *Shortcut* page of the *Properties* dialog, the **Target** field displays the command line that will be issued to the application when this shortcut is used.
5. Add the desired arguments to this command line, including the desired configuration file name. If you do not specify a file name, *Recorder* will use its default settings.
6. Add the "-start" argument at the end of the command line.
7. Click **OK**.

When you double-click this custom shortcut, the command line arguments will be executed.

***Recording Silently with the Recorder COM Server***

*Recorder* supports an out-of-process COM server that gives you access to many of its powerful recording features. Because you can use the COM server options to set up custom recording configuration, it is possible to use the server to launch and stop *Recorder* silently. For more information, see *Using Recorder's COM Server* on page 158.

---

## Setting Up and Connecting Remote Viewer(s)

*Remote Viewer* allows you to view the desktop activity on the *Recorder* computer, as well as hear user audio and see camera video Picture in Picture (PIP). Additionally, you can save the audio and video content from *Remote Viewer* in a WMV file for immediate playback after the session is complete.

One or more *Remote Viewer* computers can connect to the *Recorder* source computer over any high-speed (10–100 Mbps) local area or wide area network (LAN or WAN). This section will offer instructions on connecting to and disconnecting from *Recorder*, as well as some basic troubleshooting tips that might help if you have difficulty making a connection.

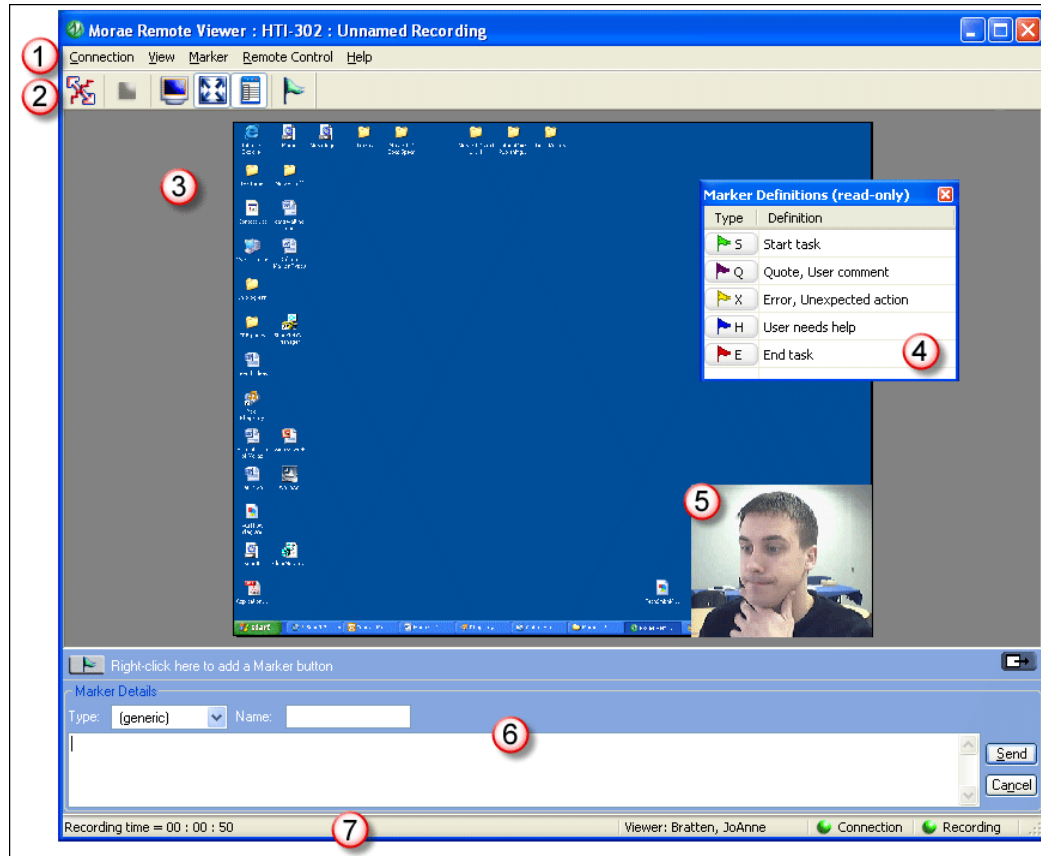
---

**Note:** *Morae* includes one licensed copy of *Remote Viewer*. If you want to connect multiple *Remote Viewer* computers to *Recorder* simultaneously, additional licenses for *Remote Viewer* are available from TechSmith.

---

## Getting Familiar with Remote Viewer's Interface

The following figure offers a brief illustration of the regions of *Remote Viewer's* interface. This figure shows *Remote Viewer* already connected to *Recorder*, with the **Scale to Fit** option enabled.



- ① **Menu bar.** The main menus give you access to all of *Remote Viewer's* options.
- ② **Toolbar.** The toolbar allows you to quickly access several commonly used menu options.
- ③ **Viewing window.** This area displays the desktop activity on the *Recorder* computer.
- ④ **Marker Definitions window.** This window displays the defined Markers that were entered in the *Recorder* configuration file and corresponding quick buttons for each of them.
- ⑤ **Picture in Picture (PIP) window.** The camera video PIP will be displayed in the lower right-hand corner of the *Viewing* window if you have chosen **Include audio and PIP** during connection, and you have enabled **View > Picture in Picture (PIP)**. The PIP window can be moved, resized, and hidden.
- ⑥ **Marker Notes pane.** This pane allows you to create, name, and add optional text notes to Markers and send them during recording.
- ⑦ **Status bar.** The messages and icons in this area confirm the status of the connection to *Recorder* and of the current recording.

## Connecting to Recorder

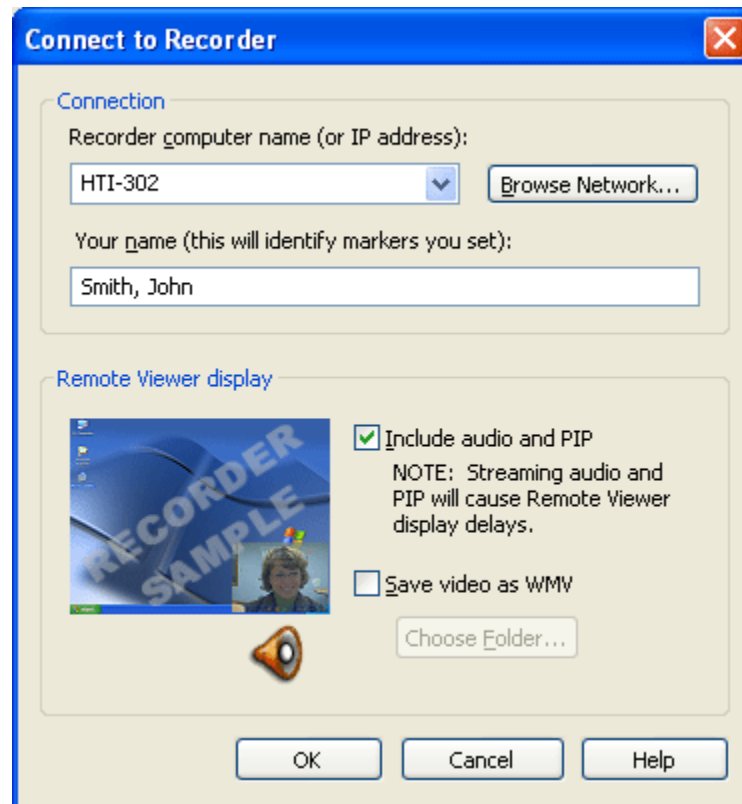
For a connection to occur between *Remote Viewer* and *Recorder*, *Recorder* must be running on the source computer. Also, you must have enabled the **Allow Remote Viewer** option in the *Capture options* area of your *Recorder* configuration. If this option is disabled, you may still be able to connect, but you will not be able to view the video streams.

### Important Information about Compatibility between Versions

The *Recorder* and *Remote Viewer* components must be the same version to successfully connect. For example, version 1.3 of *Recorder* will only accept a connection from version 1.3 of *Remote Viewer*. When incompatible versions of these components attempt to make a connection, an error dialog will appear. If you receive an error, be certain that you have installed identical versions of these components before attempting another connection.

### To Connect to Recorder

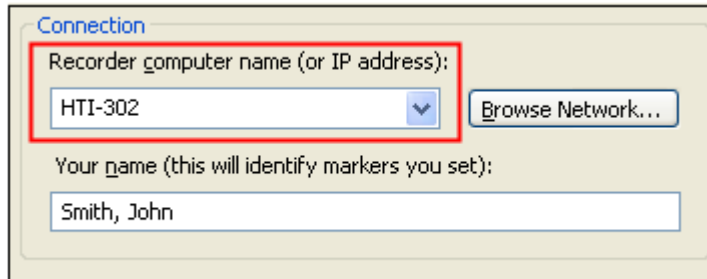
From within *Remote Viewer*, choose **Connection > Connect**. Or, choose the **Connect to Recorder** button  from the toolbar. The *Connect to Recorder* dialog box appears:



### Step 1: Selecting Recorder Computer Name or IP address

Choose the name of the computer on which the *Recorder* is running. To locate the desired computer, do one of the following:

- Type the computer name in the **Recorder computer name** (or IP address) list box provided:

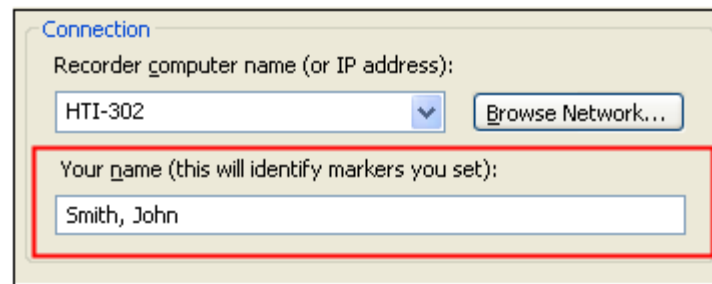


The screenshot shows a dialog box titled "Connection". It contains two main sections. The first section is labeled "Recorder computer name (or IP address):" and contains a dropdown menu with "HTI-302" selected and a "Browse Network..." button to its right. This entire section is enclosed in a red rectangular box. The second section is labeled "Your name (this will identify markers you set):" and contains a text input field with "Smith, John" entered.

- Select the **Recorder computer name** (or IP address) from the recently used options available in the dropdown list.
- Choose the **Browse Network** button and locate the desired computer on the network.

### Step 2: Entering the Name of the Remote Viewer User

Next, type in the name of the person who will be using this *Remote Viewer* computer in the **Your name** field:



The screenshot shows the same "Connection" dialog box. In this view, the "Your name (this will identify markers you set):" section, which includes the text input field containing "Smith, John", is highlighted with a red rectangular box. The "Recorder computer name" section remains unchanged.

The name entered in this field will be associated with all Markers created at this *Remote Viewer* computer (until *Remote Viewer* is disconnected and another name is entered here).

If the person at this *Remote Viewer* computer will be controlling *Recorder*, the name you enter here must match the one designated for remote start in the *Recorder* configuration.

*Recorder* will not allow the simultaneous connection of two *Remote Viewers* with the same user name. If two users try to connect using the same name, a warning dialog will appear.

### Step 3: Selecting the Content You Want Displayed

You have two options for viewing the content being sent from *Recorder* to *Remote Viewer*. You can view just the desktop activity (screen video), or you can view the camera video Picture in Picture (PIP) and hear user audio along with the screen video. Screen video is automatically displayed with either option you choose.



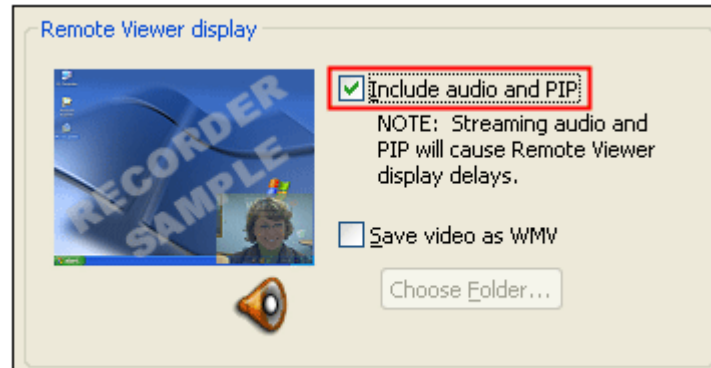
**To see and hear the user's camera video and audio:**

Select **Include audio and PIP**, as shown below. Screen video (video of the desktop activity) is automatically displayed.

---

**Important!** Due to the streaming technology used to send the audio and camera video data streams from *Recorder* to *Remote Viewer*, you will experience a noticeable delay between the time the information is sent from *Recorder* and the time it is received by *Remote Viewer*. For more information, see *Why is there a Delay between Recorder and Remote Viewer?* on page 72.

---

**To view just the screen video:**

Deselect the **Include audio and PIP** option, as shown below. Audio and PIP will not be included. Deselecting this option results in a real-time (not delayed) display of just the screen video content (the desktop activity).

**Step 4: Recording a WMV of the Session Content**

Check the **Save video as WMV** option if you want the streams coming into *Remote Viewer* saved as a WMV file that will be immediately viewable after the session is complete.

---

**Important!** Only those streams coming into *Remote Viewer* will be saved in the WMV file. If you have deselected the **Include audio and PIP** option, only the screen video will be saved in the WMV file. To save all three streams (screen video, camera video PIP, and audio) in the WMV, you must choose **Include audio and PIP** along with the **Save video as WMV** option.

---

Click **Choose Folder** to browse for and select the folder in which the WMV file should be saved. By default, your *Remote Viewer* videos will be saved in the C:\...\My Documents\My Videos folder on the *Remote Viewer* computer.

**Step 5: Initiating a Connection**

Choose **OK**. A connection attempt will be made. If the connection is successful, the status bar will read, "Connected to Recorder" and the *Connection Status* icon will be green. The name of the *Remote Viewer* user will also appear in the status bar.

### **Why is there a Delay between Recorder and Remote Viewer?**

If you select the option **Include audio and PIP** in the *Connect to Recorder* dialog box, a delay will be present between *Recorder*'s transmission of the streamed content and *Remote Viewer*'s display of that content. This delay is due to the compression and streaming of the screen recording, full-motion video (PIP) and high-quality audio. These three streams have to be combined into a single Windows Media stream and then sent across a network to the *Remote Viewer* system. This process requires some buffering to overcome the inherent variability in network data transmission rates. The actual time delay will depend on your network topography, traffic levels, and bandwidth.

If your testing environment demands real-time viewing of the recording content, the best thing to do is uncheck the **Include audio and PIP** option in the *Connect to Recorder* dialog box. By disabling this option, *Remote Viewer* will only see the screen recording video. This requires much less bandwidth and compression, and it also streams at virtually real-time speeds.

### **Problems Connecting to Recorder**

If you cannot establish a connection between *Remote Viewer* and *Recorder*, be sure to check that the following conditions are true:

- *Recorder* is installed and launched on the source computer.
- The **Recorder computer name** (or IP address) that you have entered in the *Connect to Recorder* dialog box is correct. If the computer name alone does not work, you may need to use the domain name or IP address. For additional help with this, see *Choosing a Recorder Computer Name* on page 159.
- No two *Remote Viewer* users are trying to connect with the same user name.
- The *Recorder* and *Remote Viewer* computers are connected to the same LAN or WAN network. If you suspect that there is a problem with the network, contact your system administrator.
- The *Remote Viewer* and *Recorder* components you are using have the same version number.
- There is no firewall on the network. Ask your system administrator whether there is a firewall that might be blocking the connection. The communication protocol used by *Morae* is TCP/IP with listening ports established on ports #5555 and 8080. The system administrator may have to intentionally allow traffic through these ports in order for the *Remote Viewer* component to connect to *Recorder*.

---


**Note:** Windows XP Service Pack 2 includes its own firewall. The first time you run *Recorder*, you will need to select **Unblock** in the dialog that appears.

---

### **Controlling Recorder Remotely through Remote Viewer**

You can designate a specific *Remote Viewer* user (or allow any *Remote Viewer* user) to remotely start and stop a recording through the *Remote Viewer* interface. To set this up, you need to select the correct settings in *Recorder* and enter the name of the designated *Remote Viewer* user (the person who will be controlling *Recorder* remotely) both in the *Recorder* configuration and in *Remote Viewer*'s *Connect to Recorder* dialog. Follow the steps in this section to set up remote control of *Recorder*.

**Select the following options in the *Recorder* configuration:**

1. In the *Capture options*, select **Allow Remote Viewer**.
2. In the *Start details options*, choose **Remote Viewer control**. Then, in this same area, specify the name of the *Remote Viewer* user. If you leave the field blank, any observer connecting with *Remote Viewer* will be able to remotely start *Recorder*.
3. In the *Stop details options*, choose **Remote Viewer control**. Again, specify the name of the *Remote Viewer* user. If you leave the field blank, any observer connecting with *Remote Viewer* will be able to remotely stop *Recorder*.
4. Click the **Start** button  to set *Recorder* to wait for the remote control commands.

**In Remote Viewer**

In the *Connect to Recorder* dialog box, enter the name of the *Remote Viewer* user in the **Your name** field exactly as it appears in the *Recorder* configuration.

Once a connection is established, the **Start/Stop recording** button on the *Remote Viewer* toolbar will be enabled.

**To Conduct Repeated Recordings using Remote Control**

If you have selected the remote control start and stop options, you will still need to return to the *Recorder* computer between recordings to click the **Start** button. If you wish to avoid this additional interaction with *Recorder*, follow the steps outlined in *Automating Repeated Recordings* on page 63. Then, once you click the **Start** button in *Recorder*, the designated *Remote Viewer* user will be able to start and stop *Recorder* repeatedly without returning to the *Recorder* computer.

## Running a Mock Test before Recording

We highly recommend that you create a mock recording to be sure that *Recorder* is capturing data exactly as you have specified in the configuration. Conducting a short mock recording will help you work out any network connectivity issues, as well as test your automated start and stop options. The following are some suggested steps for running a mock recording:

### Step 1: Start Recorder

Either start *Recorder* manually, or, if you have *Recorder* set up to wait for a start time or event, replicate that event/time to make sure *Recorder* begins running as expected.

### Step 2: Connect Remote Viewers to Recorder (Optional)

If you plan to have *Remote Viewers* logging the recordings, you will want to connect one or more of the planned *Remote Viewers* during the mock recording. This will ensure that you have the correct computer names for the *Remote Viewer* machines and that you can successfully connect each on to *Recorder*.

### Step 3: Complete a Test Task

Next, run through a sample task similar to the one your users will be completing. If you wish to test the logging functionality of *Remote Viewer* at this time, you can have a team member practice setting Markers while you complete the first task.

### Step 4: Stop Recorder

Either stop *Recorder* manually by using the keyboard shortcut <Ctrl + Alt + Shift + F9> or, if you have *Recorder* set up to wait for a stop time or event, replicate that time/event to make sure recording stops as expected.

### Step 5: Import the Recording and Run a Search

Save the test recording file and import it into a project in *Manager*. There, you should be able to see that the screen video, audio, and camera video have been recorded correctly. A quick search using the search editor will show you that the other RRT data streams have been captured accurately, as well (for more information, see *Searching for Data in Recordings* on page 116).

### Step 6: Run Recorder's Test Recording

You can use *Recorder's* **Test Recording** option as a second test to ensure that the data streams you selected are being captured. For more information about the **Test Recording** option, see *Using the Test Recording Option in Recorder* on page 157.

---

## Conducting the Test Session

After you have set up *Recorder*'s configuration and tested it to be sure that it is capturing the right data, you can begin recording and logging your test sessions. This section will help you connect one or more *Remote Viewers* during the recording, and will offer some information about disconnecting *Remote Viewer* from *Recorder* and managing your files after you've completed all of your recordings.

The topics in this section include:

- *Viewing and Logging the Test with Remote Viewer*
- *Managing Recording Files*
- *Disconnecting Remote Viewer from Recorder*

## Viewing and Logging the Test with Remote Viewer

Once you have established a connection between *Remote Viewer* and *Recorder*, and recording has started, you will be able to see and hear the content that is streaming from the *Recorder* source computer.

There are a couple of ways to view the recording session. You can choose to use the **Normal** or **Full Screen** views with the **Scale to Fit** option turned on or off.

Additionally, you can hide or view the camera video Picture in Picture (PIP), and move and resize the PIP window according to your preferences.

This section contains the following topics related to remote observation with *Remote Viewer*:

- *Adjusting your View of the Recording Session*
- *Working with Remote Viewer's Picture in Picture (PIP)*
- *Logging Using Markers*
- *Managing Recording Files*
- *Disconnecting Remote Viewer from Recorder*

### Adjusting your View of the Recording Session

*Remote Viewer* allows you to view the content being sent by *Recorder* in two different ways: *Normal* view (the default view) and *Full Screen* view.


#### Normal View

The *Normal* view is the default *Remote Viewer* setting. This view shows the activity from *Recorder*'s source computer within a regular window. Most of *Remote Viewer*'s toolbar, status bar, menu bar, *Marker Definitions* window and PIP window are visible by default. The *Marker Notes* pane may also be visible, depending on your *View* menu selections.

#### Full Screen View

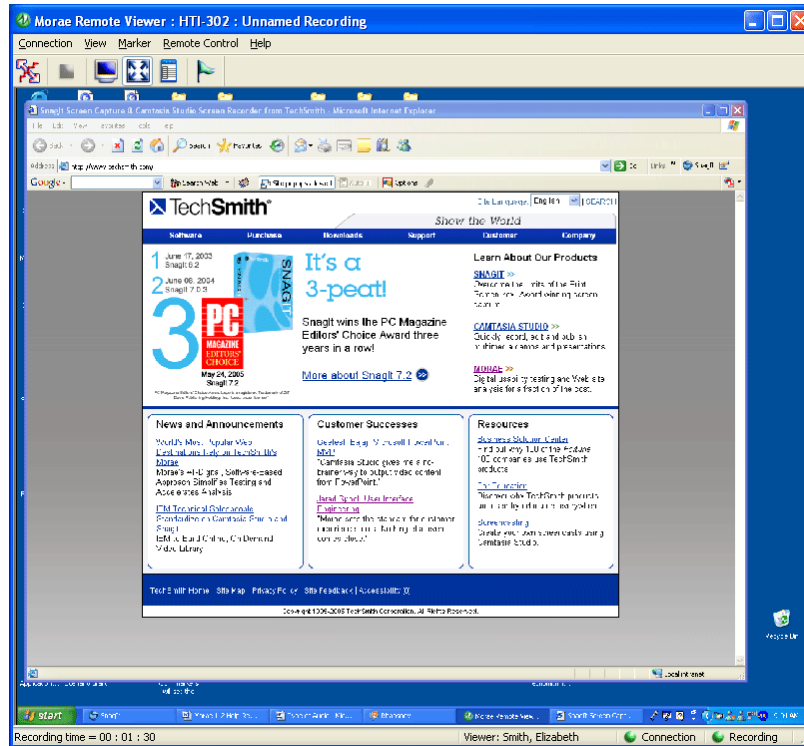
The *Full Screen* view fills the *Remote Viewer* computer's entire screen with the *Recorder* computer's desktop activity, and there is a floating toolbar.

To toggle the *Full Screen* view on/off, do one of the following:

- Choose the **Full Screen** button  on the toolbar.
- Use the **Alt + Enter** hotkey combination.
- Choose **View > Full Screen** from the menu bar.
- Right-click to see a context menu that contains all of the same options that are on *Remote Viewer*'s menu bar. Choose **View > Full Screen** from the context menu.


## Scale the View of the Desktop to Fit your Screen

If the screen resolution setting of the *Recorder*'s source computer is higher than the resolution of the computer running *Remote Viewer*, then choosing the **Scale to Fit** option will fit *Recorder*'s entire desktop image into the *Remote Viewer*'s window, as shown:



This option is available in either *Normal* or *Full Screen* view.

To toggle the **Scale to Fit** option on or off, do one of the following:

- Select the **Toggle Scale to Fit** button .
- Choose **View > Scale to Fit** from the menu bar.
- Right-click to see a context menu, and choose **View > Scale to Fit** from the menu.

## Working with Remote Viewer's Picture in Picture (PIP)

If you selected the **Include audio and PIP** option when establishing a connection to *Recorder*, a Picture in Picture (PIP) window containing the camera video will appear by default in the lower right-hand corner of *Remote Viewer*'s *Viewing Window*.

---

**Note:** PIP is best viewed with the **Scale to Fit** option turned on. If you can't find the PIP window, choose **View > Scale to Fit**, and the PIP window should appear in the lower right-hand corner.

---

## To move the PIP window

Simply click on the PIP window and drag it to the desired location.

### To resize the PIP window

Point at a corner of the window with your cursor, and grab the handles that appear. Drag the corner out or in to make the window larger or smaller.

### To hide the PIP window

Choose **View > Picture in Picture (PIP)** from the menu bar. To view the PIP again, repeat this action.

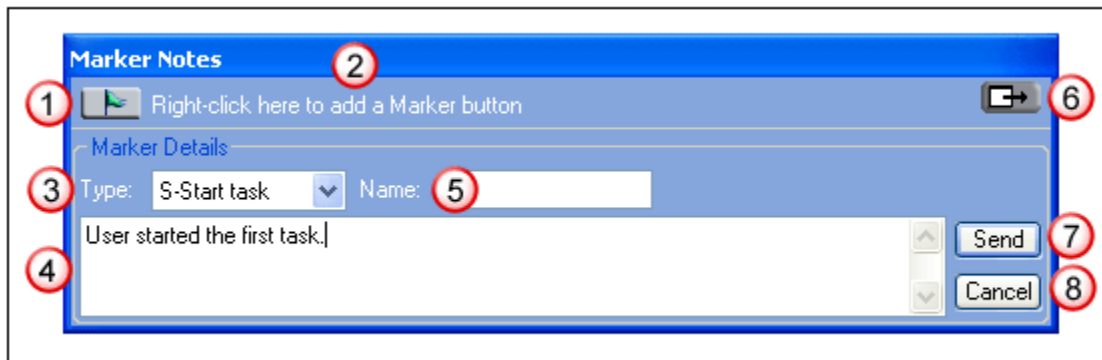
## Logging Using Markers

Markers are ideal for quickly logging important points in a recording, such as the start or end of a task, or a point at which the user made an error. Any observer using a *Remote Viewer* computer can create Markers with optional text notes during a recording. These Markers are sent directly to *Recorder* and saved with the recording. The synchronized video, audio, and text note for each Marker can then be viewed and searched later when you import the recording into *Manager*.

This section will explain Markers in detail and offer instruction on creating Markers, with or without text notes, in *Remote Viewer*.

### Marker Notes Pane at a Glance

The *Marker Notes* pane contains options that allow you to change the Marker Type, enter a name and add an optional text note before sending the Marker.



- 1 **Create a Marker button.** Click this button to initiate a Marker.
- 2 **Marker button toolbar.** Right-click on this toolbar area to add buttons for frequently used Markers.
- 3 **Type.** This field displays the Type selected for the current Marker and any existing definition. To change the Type, select a new letter from the dropdown.
- 4 **Description.** Enter an optional text description for the Marker in this area.
- 5 **Name.** This field allows you to enter a name for the current Marker. Click in this field to enter text.




- 
- 6 **Dock/Undock button.** Choose this button to toggle between the docked and floating states of the *Marker Notes* pane.
  - 7 **Send.** Choose this option to send the current Marker to *Recorder*.
  - 8 **Cancel.** Choose this option to cancel the current Marker.
- 

### Viewing and Hiding the Marker Notes Pane

By default, the *Marker Notes* pane is hidden. It will appear each time you initiate a Marker and hide again when you send the Marker.

To toggle between the hidden and visible states of the *Marker Notes* pane, choose **View > Marker Notes**. Once this option is enabled, the *Marker Notes* pane will remain visible at all times.

### Docking the Marker Notes Pane

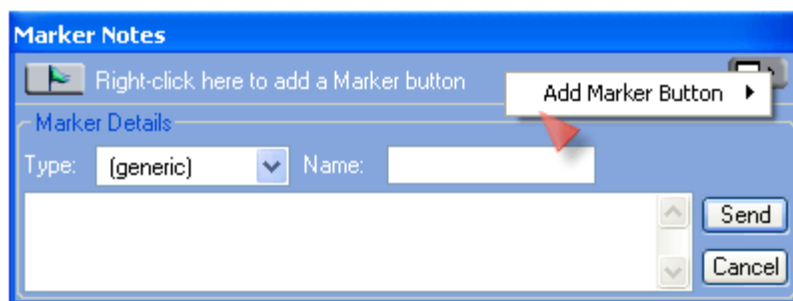
The *Marker Notes* pane is a floating window by default. The *Notes* pane can be docked at the bottom of the *Viewing Window*. To dock the pane, simply click the **Dock/Undock Marker Notes** button , or drag and drop the *Notes* pane at the bottom of the *Viewing Window*.

### Adding Marker Buttons to the Marker Notes Pane

For your frequently used Marker Types, you can easily add a Marker button to the *Marker Notes* pane. Create a custom toolbar of Marker buttons, and use them to assign your most common Marker Types with one click.

#### To add a Marker button:

Right-click on the toolbar area of the pane, and choose a Marker Type for the button from the *Add Marker Button* flyout menu that appears.



A button will be created on the toolbar. The next time you want to create a Marker with that Type, just click the toolbar button, add an optional text note, and click **Send**.

#### To remove a Marker Type button:

Right-click on the button, and choose **Remove Button**.

---

**Note:** Clicking a Marker button initiates a new Marker. These buttons cannot be used to change the Type of the pending Marker.

---

### Creating Markers in a Recording

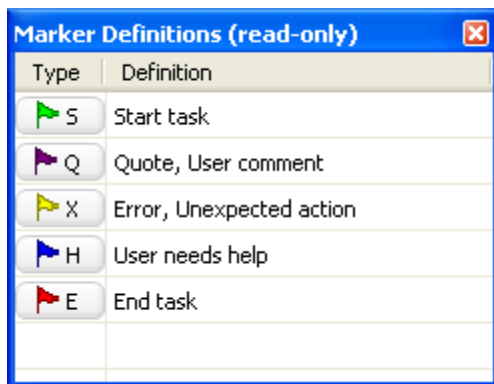
When you create a Marker in *Remote Viewer*, you assign a meaningful label (Type) to a single point in the recording. You can also optionally add a name and text note to the Marker. If you have defined your Marker Types in the *Recorder* configuration file prior to recording, the definition is automatically attached to each Marker of that Type that you set in *Remote Viewer*. For more information on pre-defining Markers in *Recorder*, see *Step 2: Predefining Markers to Use during the Test* on page 49.

You can set an unlimited number of Markers in any recording, and the same Marker Type can be used repeatedly, if desired. If there are multiple *Remote Viewers*, the Markers entered by each observer will be set and synchronized with the recording. Because Marker definitions are recording-specific (defined in the *Recorder* configuration), all *Remote Viewer* users for a recording will have the same set of pre-defined Markers to work with. These definitions cannot be changed in *Remote Viewer*.

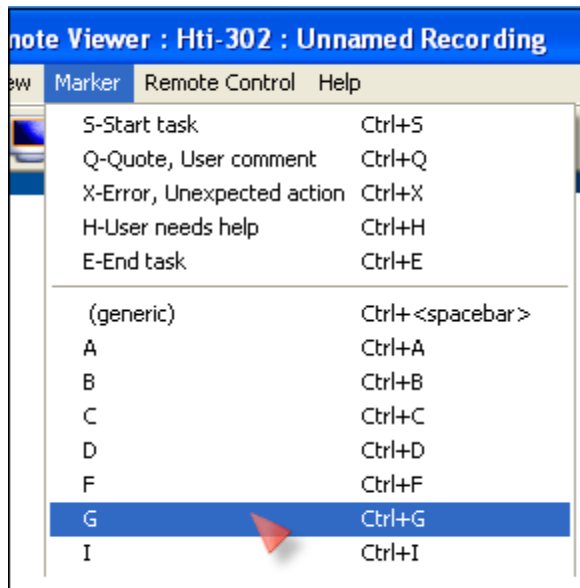
### Initiating a Marker and Choosing the Type

When you see a point in the activity that you wish to mark, do any of the following to initiate a Marker:


- Choose <CTRL+ [letter]> on the keyboard.
- Click a defined **Type** button in the *Marker Definitions* window:



- Choose **Marker** from the menu bar, and select the desired letter (Type) from the menu. Defined Markers will appear at the top of the menu:



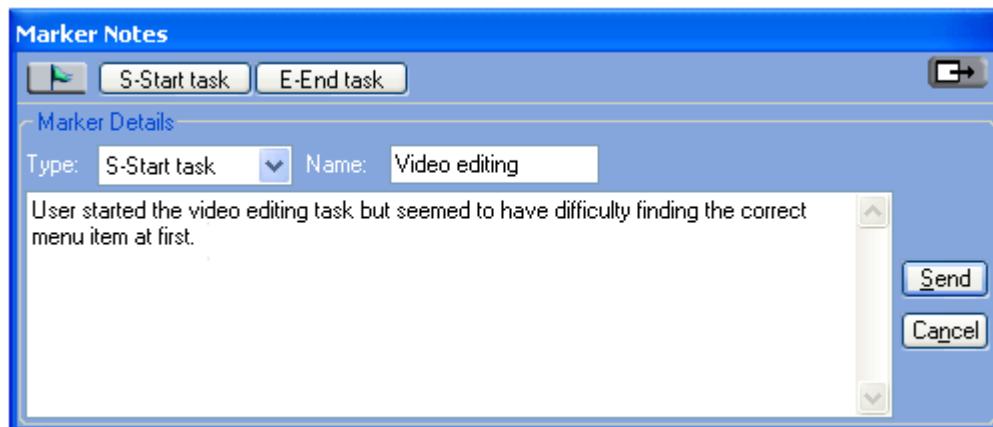
**Note:** If you want to create Markers without a Type assigned, choose the **generic** option from the list of Type letters. You can also create a Marker with the Type **generic** using the **<CTRL + Spacebar>** hotkey combination.

- Click the **Create a Marker** button  from the toolbar, or the *Marker Notes* pane (which initiates a generic Marker), and then select a letter from the Type dropdown, if desired. Again, Markers that you have defined in the recording configuration will appear at the top of the menu.

### Adding a Name and Text Note

If it is not already visible, the *Marker Notes* pane will appear when you initiate a Marker, allowing you to name the Marker, enter an optional text note, and change the Type, if necessary.

Marker names will be visible in *Manager's Project* pane when the recording is imported. If a Marker is defined but has no name, the definition will be displayed instead.



---

**Note:** To start a new line in a text note, press <Ctrl+Enter>.

---

### Sending the Marker

When you are satisfied with the Marker Type, name, and text note, click the **Send** button or press the <Enter> key. The Marker is automatically sent to *Recorder* and stored with the recording.

The Marker will be set in the recording at the time it is first **initiated** (by choosing a Type) not when you click the **Send** button. This is true even if the Marker is not sent to *Recorder* until much later.

After the Marker is sent, a confirmation message will appear in the status bar.

---

**Note:** You cannot send a new Marker while one is pending. You must **Send** or **Cancel** the current Marker before sending the next one.

---

### Tips for Setting Markers Quickly

There are two ways to set Markers quickly, especially if you do not plan to add text notes:

- 1) Use the <CTRL + [Type]> hotkey combination and then press <Enter>.
- 2) Use the Type buttons in the *Marker Definitions* window and then press <Enter>.

### Canceling a Marker

To cancel a marker, click the **Cancel** button in the *Marker Notes* pane or press the <Esc> key on your keyboard.

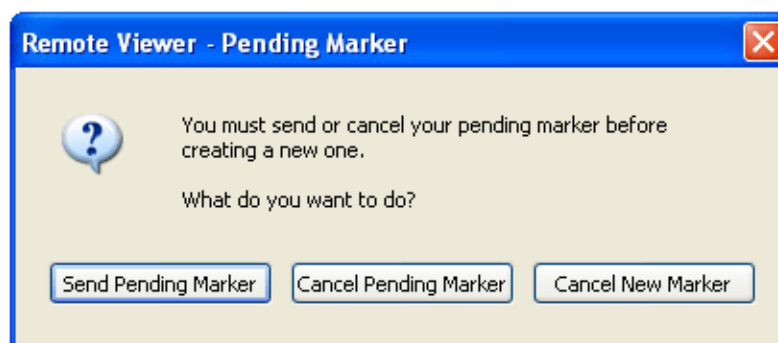
### About Unsent (Pending) Markers

A Marker that has been initiated but not yet sent is considered “pending.” You cannot have more than one Marker in the pending state at a time.

When you initiate a second Marker with one already pending, the second Marker is set at the moment in the recording that you initiated it. However, you cannot send the second Marker until the pending Marker is either sent or cancelled.

### Pending Markers during Recording

During a recording session, if you attempt to initiate another Marker before you have sent the one pending, the following dialog will appear:

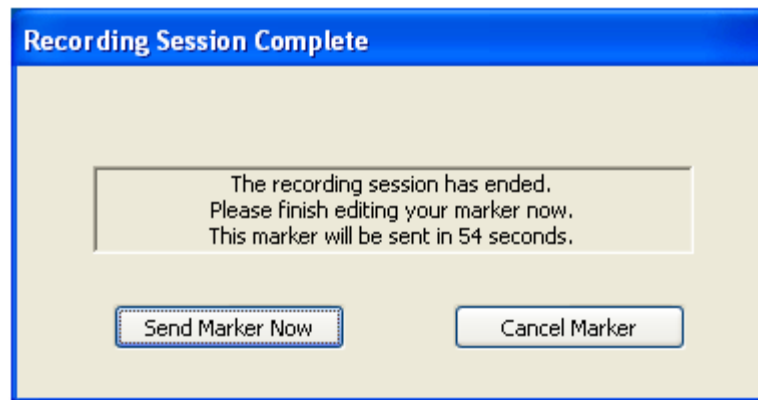


Before you can initiate another Marker, you must choose one of the three options presented:

- **Send Pending Marker** – If you choose this option, the pending Marker will be sent to *Recorder*. You can then enter text for the new Marker.
- **Cancel Pending Marker** – If you choose this option, the pending Marker will be deleted permanently. You can then enter text for the new Marker.
- **Cancel New Marker** – Choosing this option cancels the second Marker you initiated, not the pending Marker.

### Pending Markers after Recording is Complete

If *Recorder* is stopped and you still have a Marker waiting to be sent (pending), a dialog will appear to notify you that you have a certain amount of time to complete or cancel the Marker. A similar dialog will appear if you attempt to disconnect *Remote Viewer* while a recording is in progress and there is a Marker pending.



When the countdown begins, you have two choices:

- **Send Marker Now** — Send the pending Marker immediately and bypass the remaining time.
- **Cancel Marker** — Cancel your Marker immediately. If you do this, the pending Marker will be deleted.

You can continue editing the Marker while this dialog is visible. When the allotted time has elapsed, the Marker will be sent in its current state, completed or not.

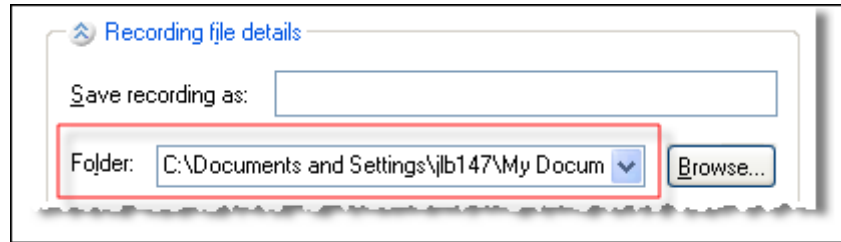
---

**Note:** The length of time you have to deal with a pending Marker can be changed in the *Recorder* configuration for any given recording.

---

## Managing Recording Files

Once a recording is complete, *Recorder* creates one recording (.rdg) file. The file for the current recording is stored in the **Folder** that you specified in the *Recording file details* area of the *Configuration* pane, as shown in the following graphic:



If you did not specify a folder in the configuration, recording files will be saved in a default output folder on the *Recorder* source computer. To view or change the default output folder location, choose **Record > Settings > Preferences** tab. The default output folder is listed in the *Folder Options* group box.

Depending on the storage medium you have chosen or your network configuration, you may have to take additional steps to ensure that *Manager* can access the recording files when you are ready to import them.

### File “Rollover” for Extended Recordings

The maximum size for a recording (.rdg) file is approximately 600 MB. This ensures that no recording file will be too large to transport on CD-ROM. However, if a recording is particularly long, or is less compressed (depending on your codec selections), it may exceed the 600 MB file size. If this happens, *Recorder* will create subsequent “rollover” files so that the recording can continue to be stored in 600 MB parcels. The first rollover file will have the extension “.r02”, and subsequent files will be numbered in sequence.

When you have finished recording, you will need to move the .rdg file and all of its companion rollover files and place them together in a folder that *Manager* can access. Then, when you import the .rdg file into a project, *Manager* will automatically collect all of the associated rollover files.

---

**Note:** If you do not move all of the rollover files to a common folder with the .rdg file, *Manager* will not be able to import the recording.

---

### Recording File Processing and Verification

After you complete a recording, there will be a brief delay as the recording file is written out. A progress dialog will confirm that this is occurring.

Once the file is written out, there will be another brief delay as it is automatically verified by *Recorder*. During verification, *Recorder* examines the file to be certain that it has been written without error. If an error is detected, *Recorder* will notify you and give you the option to either repeat the writing out process or to delete the recording.

## Deferring File Processing

If waiting for file processing and verification to occur between recordings is inconvenient, consider using the batch processing feature. For more information, see *Deferring and Batch Processing Recording Files* on page 86.

## Options for Saving and Moving Recording Files

*Morae* recording files are generally quite large, especially if you record for long periods of time. As a result, these files may not fit on smaller removable storage disks (such as floppy or zip disks). Also, if you record frequently, you may find that the recording files quickly begin to consume hard drive space. For more information about recording file size, see *Morae File Sizes* on page 155.

During recording, the temporary drive you record to should always be the hard drive of the *Recorder* machine. Recording over a network is not recommended because if the network gets busy, the recording can't stream the data fast enough, resulting in file corruption or failure.

Once recording is completed, you have several options for saving and moving the recording files from the *Recorder* machine to a location that is accessible for *Manager*. If *Manager* and *Recorder* are not installed on the same computer, we recommend using one of the following methods for recording file storage and transfer:

Storage Location	Description	Moving files to Manager
<b>Shared network directory</b>	If the <i>Recorder</i> source computer is connected to a network that the <i>Manager</i> computer also has access to, or if the two components are installed on the same computer, simply save the recording files to a folder in a directory that is shared by the components.	Using <i>Manager</i> , browse to the shared location and import the recordings.
<b>Hard drive and then burning to CD/DVD</b>	During recording, you should save the files temporarily to the <i>Recorder</i> source computer's hard drive.	Burn the files to a CD or DVD and then move them to the <i>Manager</i> computer.
<b>Thumb drive or portable external drive</b>	If you connect a thumb drive or portable external drive to the <i>Recorder</i> source computer, you can record directly onto that drive. Most of these drives offer generous storage space at a reasonable price.	When your recordings are completed, simply disconnect the drive and reconnect it to the <i>Manager</i> computer. The recording files can be imported directly into <i>Manager</i> from the portable drive.

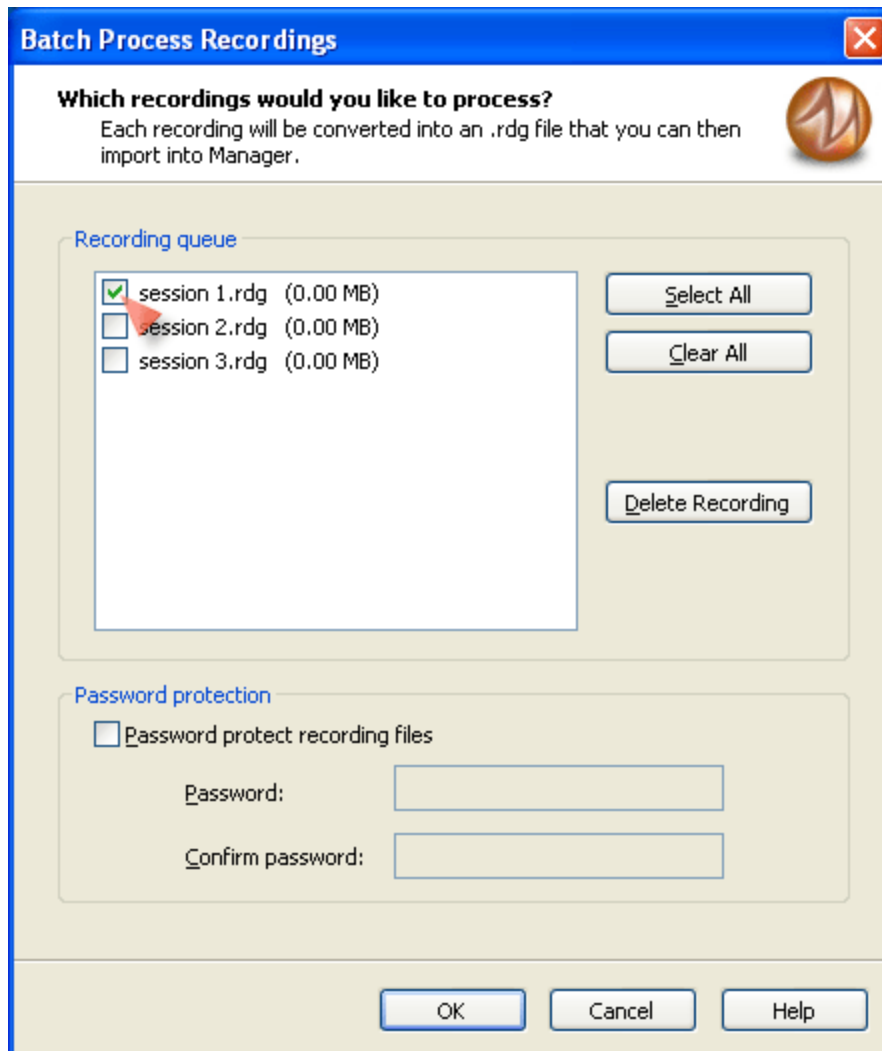
## Deferring and Batch Processing Recording Files

By default, recording (.rdg) files are written out and verified directly after a recording is completed. Batch processing allows you to defer this processing until a later time, and also to process several recordings at once.

Batch processing may be an advantage when you want to automatically run silent recordings (see *Recording Silently* on page 65) or conduct several recordings in quick succession without waiting for processing in between.

### To batch process recording files

1. Select **Defer final processing** in the *Recording file details* area. This places each recording you make (with the current configuration loaded) into the batch processing queue.
2. When you have completed a series of recordings and are ready to process them, choose **File > Batch Process Recordings**. The *Batch Process Recordings* dialog will appear:





3. Place a checkmark next to the files in the *Recording queue* that you want to process now. Those that you do not select will remain in the list.  
**Note:** To delete a file that you never wish to process from the queue, select the recording and click **Delete Recording**.
4. To password protect these files, place a checkmark in the **Password protect recording files** box. Then, enter your password in the **Password** and **Confirm password** fields.
5. Click **Finish** to process the selected recordings.


### Batch Processing Results

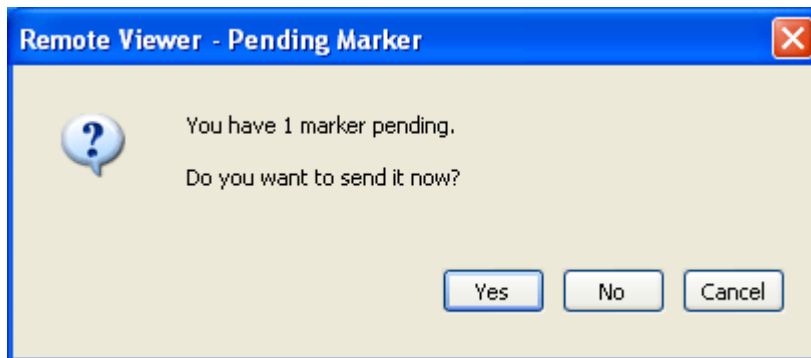
When processing is complete, the *Batch Processing Results* dialog will appear. This dialog gives summary information about each recording file, including whether it was successfully processed and where it has been written out.

**To navigate to a specific recording file**, click **Open Folder** next to the name of that recording file.

## Disconnecting Remote Viewer from Recorder

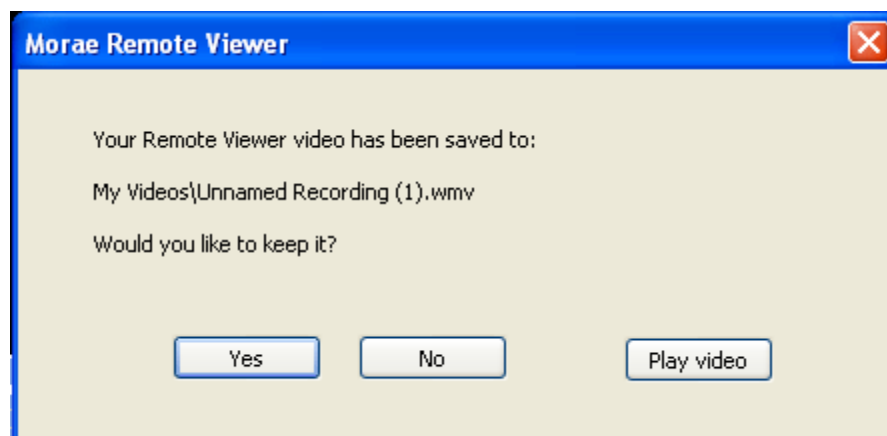
Use the following procedure to disconnect *Remote Viewer* from *Recorder*:

1. From the menu bar, choose **Connection > Disconnect**, or click on the **Disconnect from Recorder** toolbar button .
2. If no unfinished Markers are waiting to be sent (pending), a dialog box will appear asking if you want to disconnect from *Recorder*. To disconnect, choose **Yes**.
3. If there is a pending Marker waiting to be sent, the following dialog box will appear:



4. Choose from one of the three available options:
  - To send the pending Marker immediately, choose **Yes**.
  - To discard the pending Marker, choose **No**.
  - To return to the viewing session without disconnecting, choose **Cancel**.

If you chose the **Save Remote Viewer video as WMV** option before the recording began, then you will also now see a dialog telling you where the video has been saved and giving you the option to keep it, delete it, or play it immediately.



## Analyzing Recording Data

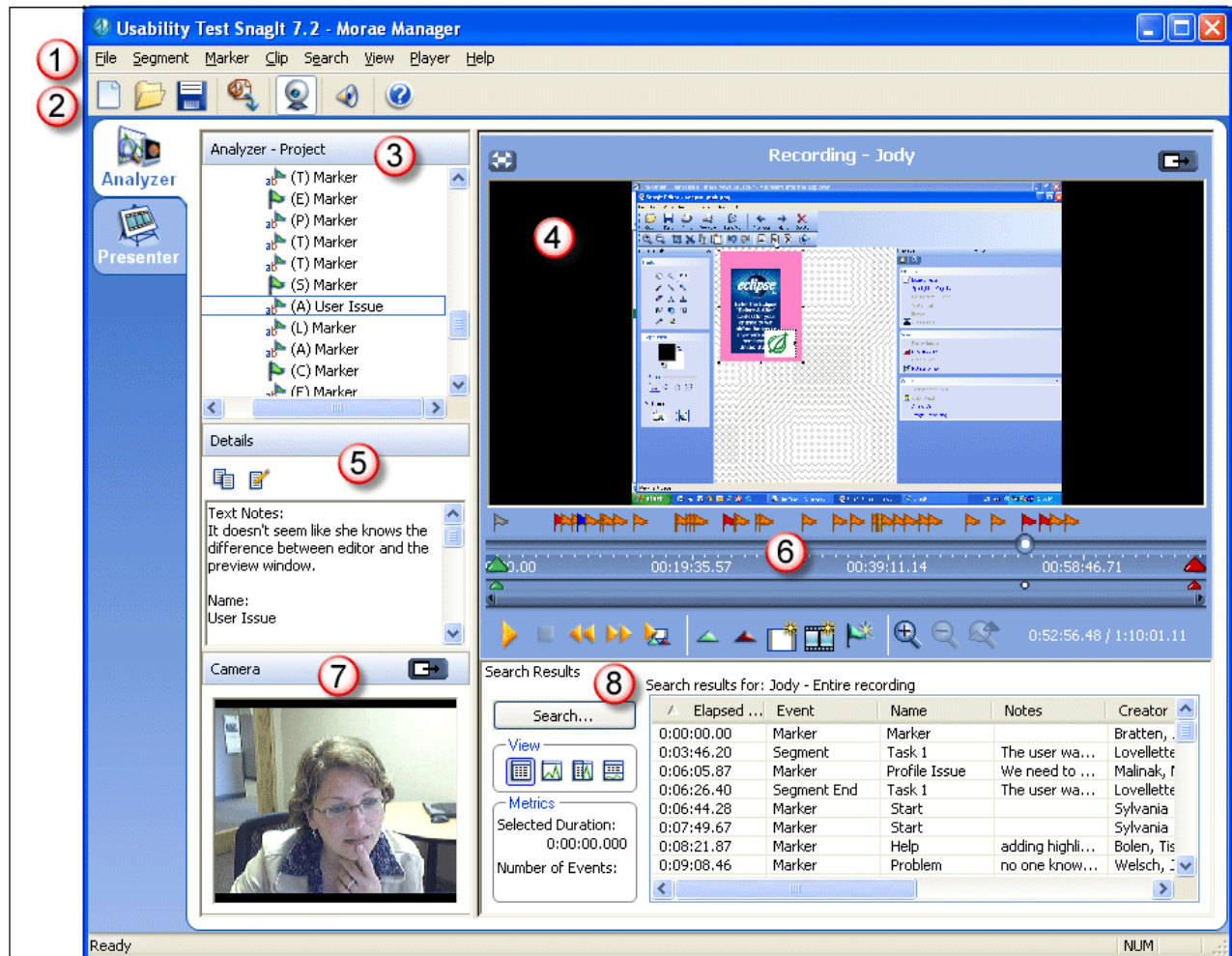
Within *Morae Manager*, the recordings created by *Recorder*, which contain the video and data streams collected by Rich Recording Technology (RRT), can be viewed, searched, and analyzed both qualitatively (for participant verbal and facial expressions) and quantitatively (for number of mouse clicks, Web page changes, time on task, etc.).

For more information about RRT, see *How Rich Recording Technology Works* on page 151.

### Getting Familiar with Analyzer's Interface

*Manager's* *Analyzer* tab allows you to import the recordings created by *Recorder*, organize them, navigate through them, and analyze the Rich Recording Technology (RRT) data streams contained within them.

When you launch *Manager* and click on the *Analyzer* tab, the following interface will appear:



- 
- ① **Menu bar.** The menu bar allows you to access all of *Analyzer's* options.
  - ② **Toolbar.** The toolbar places *Analyzer's* most commonly used options in a conveniently accessible location.
  - ③ **Project pane.** This pane allows you to easily navigate through your recordings, imported videos, Segments, and Markers.
  - ④ **Player window** This area displays the screen video from the selected recording, Segment, or Marker.
  - ⑤ **Details pane.** This area displays valuable information about the selected recording, Segment, or Marker.
  - ⑥ **Player window controls.** These controls allow you to start, stop, zoom in and out, and navigate through the screen video, and to create new Segments, Markers and Video Clips.
  - ⑦ **Camera pane.** This pane allows you to view the camera video that corresponds to the selected recording, Segment, or Marker.
  - ⑧ **Search pane.** This pane contains the options to initiate a search, and to view and navigate through the search results.
-

## Creating a Project

Because *Manager* organizes your recordings by project, you need to create a project before you can import the recordings for viewing or analysis. Once a project exists, you will be able to save and reopen it, and import additional recordings into it, as desired.

This section will show you how to create a new project, and how to import recordings into a project that already exists.

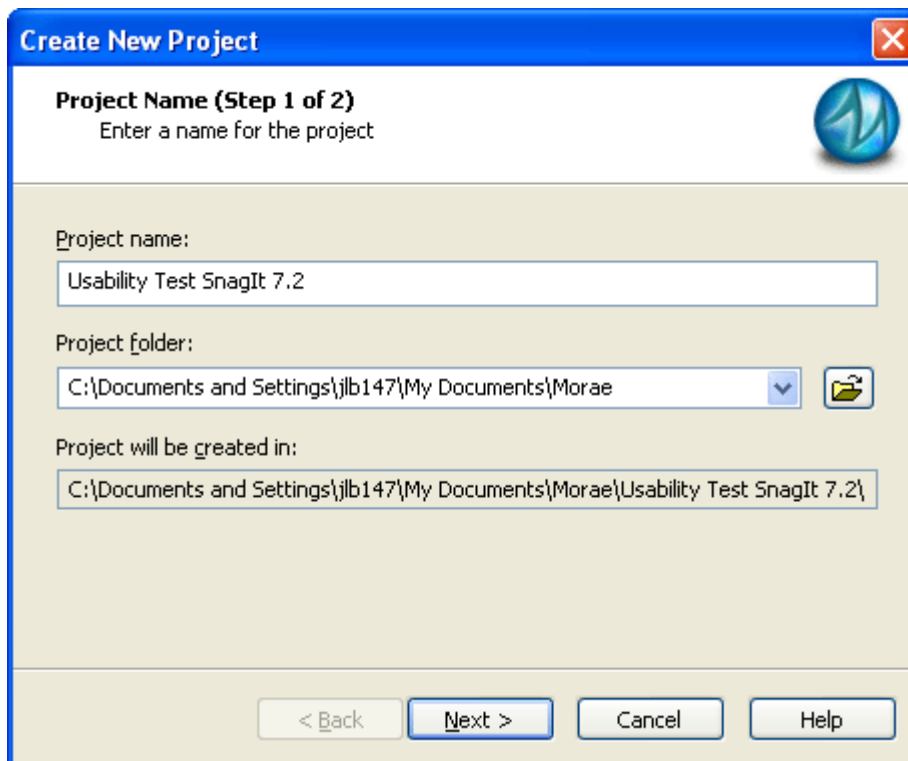
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**Note:** You can only have one project open in *Manager* at a time.

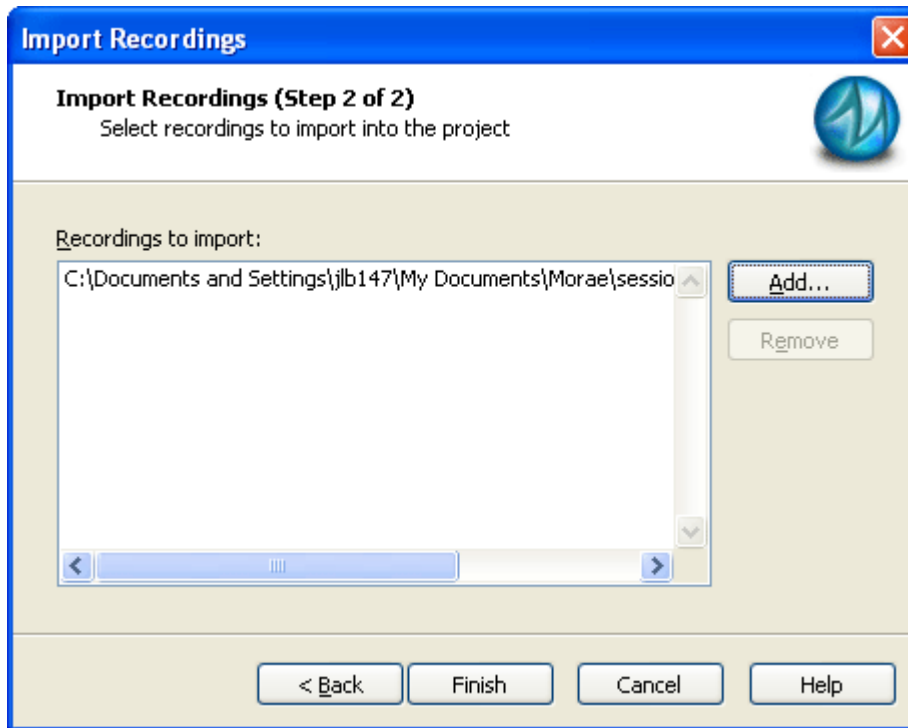
---


### To create a new project in *Manager*

1. Launch *Manager*. The *Welcome Wizard* appears.
2. In the *Welcome Wizard*, choose the **Create a new project** radio button, and click **OK**. The first screen of the *Create New Project Wizard* will be displayed:




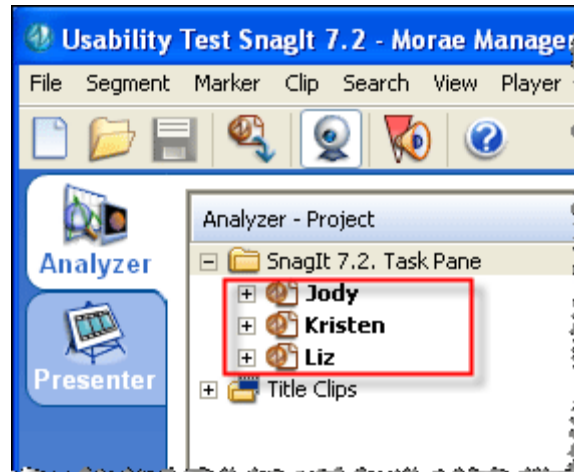
3. Type the desired **Project name** in the field provided.
4. Type the path for, or use the **Browse to project folder** button  to locate, the folder that you want the project to be saved in.
5. Choose **Next**. The second screen in the wizard will appear:



6. Choose the **Add** button  to browse for and select the recording files you wish to import into the project. To select more than one file, **<SHIFT>** + click on the recordings you wish to import.

**Note:** You can import *Morae* recording (.rdg) and/or standard video (.avi, .wmv, .asf) files into a project.

7. Choose the **Open** button to add the recordings to the *Recordings to import* field.
8. Once you have added all of the desired recordings, choose  to exit the wizard.  
**Note:** If any of the recordings you are importing in the new project are password protected, a dialog will appear asking you to enter the correct password before the recording can be imported.
9. The new project containing the selected recordings will be added to *Manager's Project* pane, as shown below (in this figure, "Jody," "Kristen," and "Liz" are individual recording files):






---

**Note:** When you import a recording into a project and begin adding Markers, Segments, and Clips, the original recording (.rdg) file is not altered. Any Markers, Segments, or Clips you create in the project will be saved within the project. The project will be saved as a Morae Project file (.mpr) in your **Default project folder**. To change this folder, choose **File > Preferences**.

---

### Importing Recordings into an Existing Project

After you have created your first project, or if you already have an existing project, you can import additional recordings for analysis without using the *Create New Project Wizard*. Follow these steps:

1. Choose the **Open Project** button  to browse for the existing *Morae* project file (.mpr).
- Note:** To access the .mpr files in an existing project, you may need to select the folder containing the project file and choose **Open**.
2. Select the .mpr file, and choose **Open**. The project will appear in *Manager's Project* pane.
3. Next, choose the **Import Recording** button . The *Import Recording* dialog box appears.
4. Browse to locate the folder containing the desired *Morae* recording file(s) (\*.rdg).
5. Click on the .rdg file or type the **File name** directly into the field provided, and then choose **Open**. To choose more than one file to import, **SHIFT** + click on the desired files, and then choose **Open**.

**Note:** If the recording(s) you choose for import are password protected, a dialog will appear at this time asking you to provide the correct password.

6. The recording file(s) will be imported into the open project and will appear in that project folder in the *Project* pane.

Once you have imported the recordings that you want to include in this project, you can begin using *Manager's* analysis tools to view and sort through your data.

### Importing Video Files into an Existing Project

In addition to *Morae* recording (.rdg) files, you can import regular video files (formats including .avi, wmv, and .asf) into *Morae Manager*. Regular video files, created by an application other than *Morae Recorder*, will not have the same set of searchable RRT data streams (i.e., mouse clicks, Web page changes, application events, etc.). However, you can set Markers and create Segments in these videos, and you can certainly incorporate portions of these videos into your highlight video presentation.

To import a video file, choose **File > Import Video** and locate the video you wish import. Click **Open**, and the video will be imported into the project.



## Organizing Your Project

*Manager's Project* pane allows you to organize your recordings (.rdg files) and imported video files (.avi, .wmv, or .asf). As you analyze your recordings and begin creating Segments, Markers and Clips, these elements will be stored in subfolders under their recordings in the *Project* pane. The *Project* pane is accessible from, and has identical functionality in, both of *Manager's* tabs.

### How Project Elements are Stored in the Project Pane

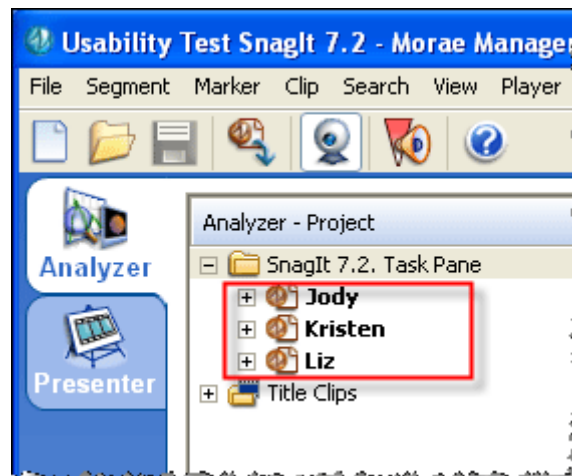
You can only open one project in *Manager* at a time. The name of the project is displayed in *Manager's* title bar. By default, the top-level *Project* folder in your project is automatically given the same name as the *Morae* project (.mpr) file.

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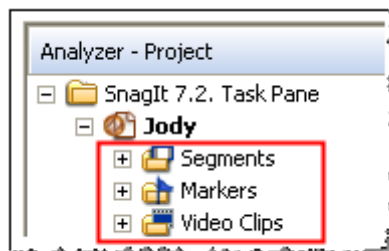
**Note:** You can rename this top-level *Project* folder, but doing so will not rename the *Morae* project (.mpr) file for the project. The title bar will still reflect the name of the .mpr file.

---

Within the top-level folder, you will see the titles of the recordings you have imported into that project. In the following figure, the recording file names are “Jody,” “Kristin,” and “Liz”:



Under each recording in your project, *Morae* creates default subfolders for *Segments*, *Markers* and *Video Clips*. These default folders cannot be deleted. To see the items contained within a folder or recording, click on the expand/collapse button next to each folder.

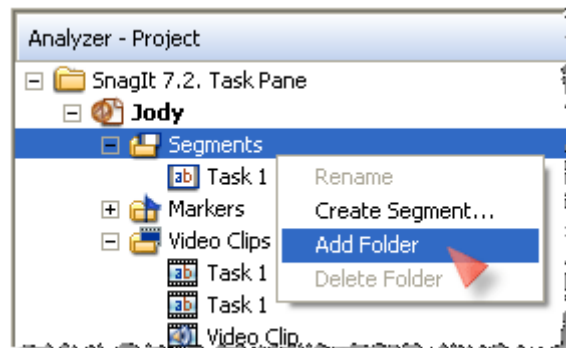


### To Add Folders to the *Project* Pane

New folders can be created under each category in the *Project* pane to add deeper levels of organization. However, each type of element must always reside in a subfolder of that same type. In other words, Segments can only reside in a *Segments* folder; Markers can only reside in a *Markers* folder, etc.

To create additional folders at the *Project* level, right-click on the *Project* folder and choose **Add New Folder**. The new folder will be added above your current *Project* folder.

To create a new subfolder under a *Segments*, *Markers*, *Video Clips* or *Title Clips* folder, simply right-click on the main folder, and select **Add Folder**.



### To Delete Folders from the *Project* Pane

You cannot delete the default *Segments*, *Markers*, *Video Clips* and *Title Clips* folders created by *Morae* within a project.

To delete any other subfolders you have created in the *Project* pane, right-click on the folder and select **Delete Folder**.

### To Rearrange the Order of Recordings in the *Project* Pane

Recordings are arranged in the *Project* pane in the order in which they were initially imported. To place recordings in a different order within the project, drag and drop them into the top-level project folder, in the order in which you want them to appear.

### To Rearrange the Order of Segments, Markers or Clips in the *Project* Pane

The order of Segments, Markers and Video Clips cannot be rearranged. They are always listed in chronological order within their respective folders.

Additionally, Segments, Markers or Video Clips created from one recording cannot be moved to a subfolder under a different recording.

### How Title Clips are Stored

The Title Clips you create will be stored in the *Title Clips* folder. Title Clips are global, which means they are used throughout the project, not specific to a given recording. Although Title Clips cannot

be used in *Analyzer*, they can be created in *Analyzer* and stored in the *Project* pane for later use when you assemble a *Storyboard* in *Presenter*.

## To Select and Play an Item from the Project Pane

### To load an item from the *Project* pane into the *Player*:

Click once on the item in the *Project* pane. The playhead will move to the beginning of the selected item.

























### To play an item from the *Project* pane:

Double-click it, drag it to the *Player Window*, or simply click the **Play** button.

Details related to the selected item will appear in the *Details* pane, and the first frame of any available camera video will display in the *Camera* pane (in *Analyzer*) or as Picture in Picture (in *Presenter*).

## Icons Used for Project Pane Elements

The following table describes the icons used in the *Project* pane.

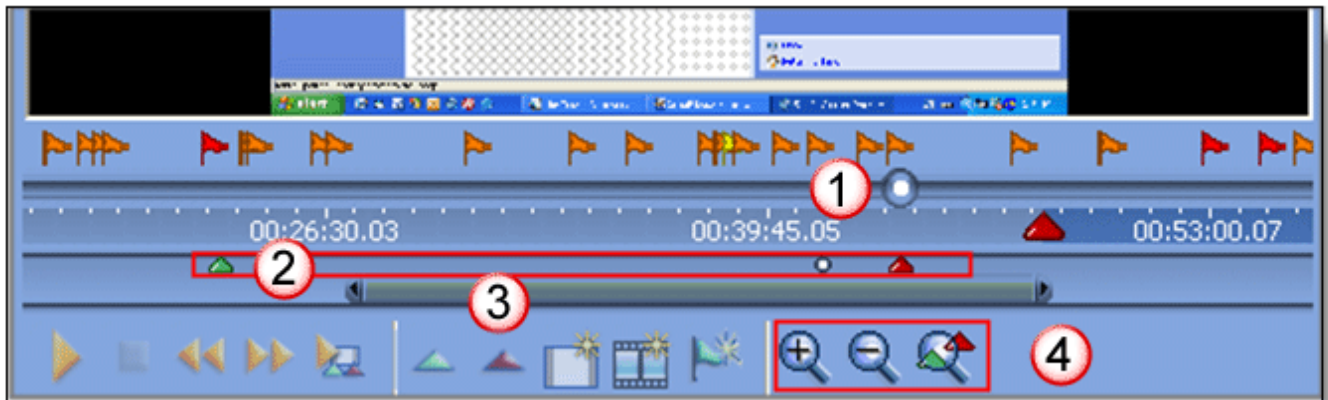
	Project folder		<i>Manager</i> Marker with text and audio note
	Recording (.rdg)		Marker created in <i>Remote Viewer</i> or COM (green)
	Imported video (.wmv, .avi, .asf)		<i>Remote Viewer</i> or COM Marker with audio note
	Segments folder		<i>Remote Viewer</i> or COM Marker with text note
	Segment		<i>Remote Viewer</i> or COM Marker with text and audio note
	Segment with audio note		Video Clips folder
	Segment with text note		Video Clip
	Segment with text and audio note		Video Clip with text note
	<i>Manager</i> Markers folder		Video Clip with audio note
	Marker created in <i>Manager</i> (blue)		Video Clip with text and audio notes
	<i>Manager</i> Marker with audio note		Title Clip folder
	<i>Manager</i> Marker with text note		Title Clip




## Navigating Through Recordings

*Manager's* zooming timeline and *Player* controls make it easy to navigate through recordings and their related elements such as Segments Markers and Clips, and to accurately create new Segments, Markers, and Clips.

### Zooming Timeline at a Glance

The following figure will orient you to the tools available on the zooming timeline.



- ① **Playhead.** The playhead always marks the location on the timeline of the frame currently being displayed in the *Player Window*.
- ② **Zoom guides.** This area of the timeline always shows you where your In point, Out point and playhead are located in the context of the entire recording. The guides are helpful when your zoom level puts one of these timeline elements out of view on the main timeline.
- ③ **Zoom bar.** You can scroll within the zoomed area by dragging the zoom bar left and right. Increase or decrease the zoom level by grabbing and dragging either end of the zoom bar in or out.
- ④ **Zoom controls.** These controls give you quick access to the some of the zooming timeline options, including **Zoom In**  , **Zoom Out**  and **Zoom to In and Out Points**  .

### Scrolling through Frames of a Recording

First, be sure to click on the desired recording, Marker, Segment or Clip in the *Project* pane, to load it into the *Player*.

To scroll through frames of the screen video recording once it is loaded into the *Player*, click and drag the playhead left and right. Use the zoom options described in this section to further fine-tune your scrolling.

### Scrolling along the Timeline

By clicking and dragging the zoom bar left and right, you can scroll along the timeline quickly without moving through frames of screen video.


If you watch the zoom guides as you scroll, you can always quickly locate your playhead and In and Out points along the timeline.

### Zooming In

The **Zoom In** option allows you to magnify a selected portion of the recording to give you a close-up view. Each time you select the option, the timeline extends outward and a smaller portion of the recording is visible on the timeline. You can reverse this with the **Zoom Out** option.

#### To zoom in:

You can use any of the following methods to zoom in:


- **Press the <+> key on your keyboard.** Each time you press the hotkey, the timeline is magnified in increments of 100%. Zooming is centered approximately around the playhead location.
- **Click the Zoom In button  on the timeline.** Each time you click the button, the timeline is magnified in increments of 100%. Zooming is centered approximately around the playhead location.
- **Grab either end of the zoom bar and drag it inward.** If you use the zoom bar to zoom in, the zoom level changes in proportion to the distance you've compressed the zoom bar, rather than incrementally.
- **Choose View > Zoom In from the main menu bar.** Again, each time you choose this option, the timeline will be magnified in increments of 100%. Zooming is centered approximately around the playhead location.

### Zooming Out

The **Zoom Out** option allows you to adjust your view of the timeline to include more of the recording. Each time you select this option, the timeline compresses, and more of the recording is visible on the timeline. You can reverse this with the **Zoom In** option.

#### To zoom out:

You can use any of the following methods to zoom out:

- **Press the <-> key on your keyboard.** Each time you press the hotkey, the timeline zooms out in increments of 100%. Zooming is centered approximately around the Playhead location.
- **Click the Zoom Out button  on the timeline.** Each time you click the button, the timeline zooms out in increments of 100%. Zooming is centered approximately around the playhead location.
- **Grab either end of the zoom bar and drag it outward.** If you use the zoom bar to zoom in, the zoom level changes in proportion to the distance you've expanded the zoom bar, rather than incrementally.
- **Choose View > Zoom Out from the main menu.** Again, each time you choose this option, the timeline zooms out in increments of 100%. Zooming is centered approximately around the playhead location.

### Zooming to the Playhead Position

The **Zoom to Playhead Position** option magnifies the timeline area directly around the current Playhead position with a small buffer on each side. The buffer is a 30-second region of video with the playhead position centered in the region.

To zoom to the playhead position, use either of the following methods:

- Press the <Ctrl + Shift + Plus> key combination on your keyboard
- Choose **View > Zoom to Playhead Position** from the main menu.

### Zooming to In and Out Points

The **Zoom to In and Out Points** option magnifies the timeline so that only portion between the In and Out points is visible on the timeline. This option makes it quick to zoom in to get a closer view of a Segment or Clip.

To zoom to the In and Out Points of a Segment or Clip, use either of the following methods:

- Press the <Ctrl> + <+> key combination on your keyboard.
- Choose **View < Zoom to In and Out Points** from the main menu.

### Zooming the to Entire Recording

The **Zoom to the Entire Recording** option returns the zoom level to 100% to show the entire duration of the recording along the timeline.

To zoom to the entire recording, use either of the following methods:

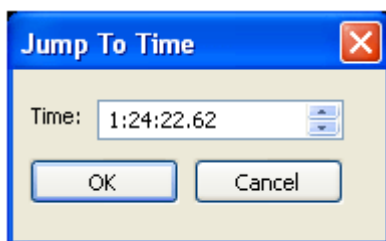
- Press the <Ctrl> + <-> key combination on your keyboard.
- Choose **View> Zoom to Entire Recording** from the main menu.

### Moving the Playhead to a Specific Time

If you need to move the playhead accurately to a specific point in time, and you know the time value at that point, you can use the **Jump to Time** option to place the playhead exactly at that location.

To use the **Jump to Time** option:

1. Choose **Player > Jump to Time**.
2. In the *Jump to Time* dialog that appears, enter the specific **Time** for the desired position of the playhead.

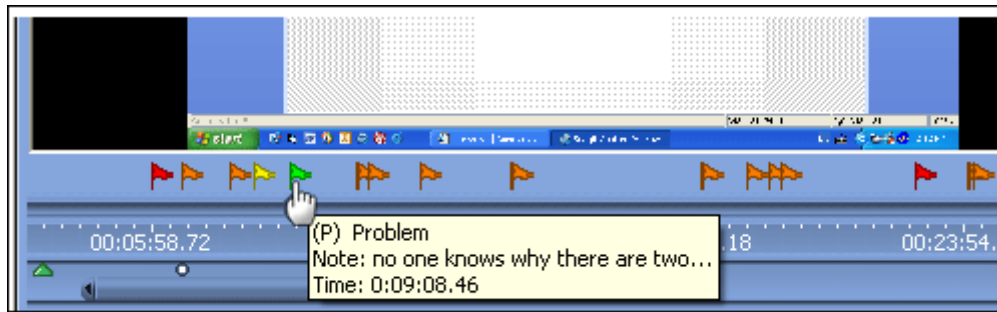


3. Click **OK**.

## Creating and Editing Markers

Each Marker allows you to flag and annotate a specific point in time during a recording. In *Manager*, you can view the *Remote Viewer* Markers that were set during the recording, and you can create new Markers as you review and analyze the video data post-recording.


Markers appear as color-coded flags along the timeline in the *Player Window*. You can easily navigate to marked points in the video by clicking directly on the flags.



If you hover over a Marker flag with your cursor, a tooltip will appear that gives helpful information about the Marker.

Markers for a given recording are sorted in chronological order (by default) within that project's Markers folder in the *Project* pane. When you select a Marker in the *Project* pane, the playhead moves to that Marker's position in the recording.

### To Create a New Marker

1. In the *Project* pane, click once on the title of the recording, imported video, or Segment to which you want to add a Marker. The selected item will load into the *Player Window*.
2. Using the *Player* and timeline controls in the *Player Window*, locate the point at which you would like to add the Marker.
3. To set the Marker at that point, choose the **Create Marker** button  on the *Player*. The *Marker Details* dialog box will appear.
4. Enter the Marker **Name** or select a previously used name from the dropdown.
5. Check the **Folder** field. This is where your Marker will be stored. You can change it by entering a new path directly into the field, or by clicking the **Browse** button.
6. Select or change the **Type - definition**.

**Note:** If the Type was previously given a text definition, either in *Recorder's* configuration or in *Manager's Marker Definitions* window, that definition will be appended to the Type in this dialog, but the text of the definition will not be editable here.

7. Add a **Text note** and **Audio note**, if desired.
8. Choose **OK** to create the Marker.

The new Marker, with the name you have assigned, will be added to the selected *Markers* subfolder under the recording in the *Project* pane. The Marker will also be added, with a flag, to the timeline.

To view the frame of video related to a Marker, click once on the Marker's name in the *Project* pane, or click once on its flag on the timeline.

### To Edit a Marker

Accessing the *Marker Details* dialog for a Marker allows you to change the Marker's name, folder, time, type, text note, and/or audio note.

To access the *Marker Details* dialog for a specific Marker:

1. Right-click on the Marker in the *Project* pane or on the Marker's flag on the timeline.
2. Choose **Edit** from the context menu that appears.

### To Move a Marker

There are three ways to move an existing Marker to a new point along the timeline. This section will describe all three methods. For quick adjustments, we recommend the first method.

#### To adjust the Marker location directly on the timeline:

1. Move the playhead to the desired new position for the Marker.
2. Right-click on the Marker flag, and choose **Move Marker to**.

#### To adjust the Marker location using the timeline and then set the time in the edit dialog:

1. Move the playhead to the desired new position for the Marker.
2. Right-click on the Marker flag, and choose **Edit Marker**.
3. Enable the **Move Marker to** option.
4. Click **OK** to exit the *Marker Details* dialog.

#### To move the Marker to a specific time by setting the time in the edit dialog:

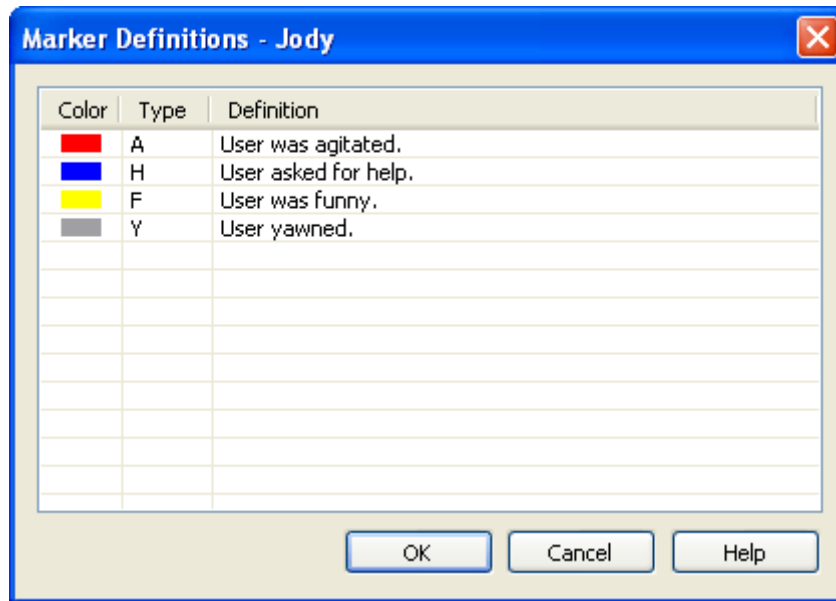
1. Right-click on the Marker flag, and choose **Edit Marker**.
2. In the **Marker point** field, use the arrow controls to set the new time/location for the Marker.
3. Click **OK** to exit the *Marker Details* dialog.

### Viewing and Editing Marker Definitions in Manager

If you pre-defined your Marker types in *Recorder*'s configuration file for a specific recording, you can view and edit those definitions in *Manager*'s *Marker Definitions* window.

To access the *Marker Definitions* window, choose **Marker > Define Marker Types**. The *Marker Definitions* window will appear:





Marker definitions are specific to a recording. This means that each recording in your *Manager* project will have its own set of Marker definitions, which you entered in the *Marker definitions* area of *Recorder*'s configuration (for more information, see *Step 2: Predefining Markers to Use during the Test* on page 49).

If you have used the same *Recorder* configuration for all of the recordings, then each recording will import with that identical set of definitions. However, if you import recordings that were created using different configuration files into the same project, there will be variations in their *Marker definitions*.



## A Note about Compatibility with Previous Versions

The option to define Markers in *Recorder*'s configuration did not exist in versions of *Morae* prior to version 1.2. In these older versions, Marker definitions could be added in *Manager*, but they were applied to every recording brought into the project; they were not recording-specific. These global definitions are remembered by *Manager* when you upgrade to version 1.2 or later. So, when recordings made with these older versions are imported into *Manager*, their Markers default to using any global definitions you set previously in *Manager*. As with any other recording in your project, you can add/edit Marker definitions on a per recording basis for these older recordings using the *Marker Definitions* window in *Manager*.

If you open an older *Manager* project after you upgrade to *Morae* 1.2 or later, any project-wide (global) Markers you set previously will now be copied into the recording-specific Marker Definitions list for each recording.

## Creating and Editing Segments

As you view and analyze your data, you can isolate the sections that contain important activity by creating Segments from those sections. *Manager* allows you to create, play and edit an unlimited number of Segments in each recording.

To create a Segment, you simply specify a starting point (In Point ) and an ending point (Out Point ). Using those points, *Manager* creates a copy of that section of the recording and stores it in your Segments folder. Creating a Segment never alters the original content of your recording.

*Manager* also makes it easy to turn Segments directly into Video Clips that can be used on your highlight video *Storyboard*.

There are two ways to create Segments in *Manager*: automatically using the *Create Segments from Markers* wizard, or manually using the *Player* controls and timeline. This section describes both methods in detail.

### Automatically Creating Segments

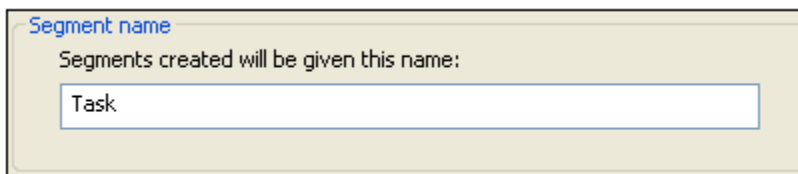
If you want to create Segments between each pair of start and end Markers you have set in a recording, *Manager's Create Segments from Markers* wizard can automate that process for you. However, to get the most out of this feature, some preplanning steps are required:

1. Before you record, decide upon the start and end Marker types you will be using for automatic Segment creation.
2. Define your start and end Marker types in the recording configuration.
3. Communicate with team members about the start and end Markers you want them to use when they are logging the recording with *Remote Viewer*.

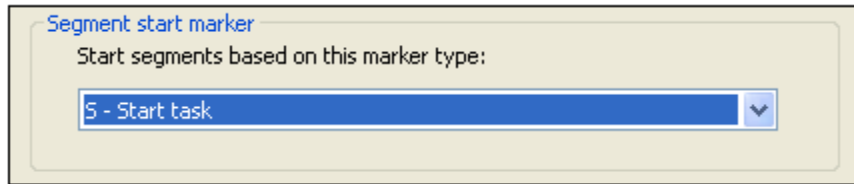
If you follow these steps, *Manager* will be able to quickly and accurately create Segments that begin and end with your designated Marker types.

### To Automatically Create Segments

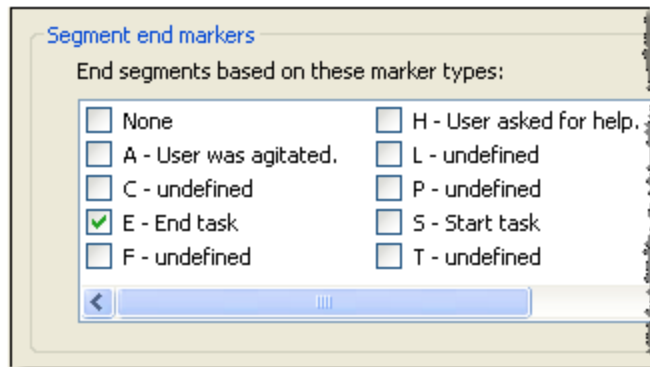
1. Choose **Segment > Create > Segments Based on Markers**. The first screen of the *Create Segments from Markers* wizard will appear.
2. Enter a *Segment name* for all of the Segments that will be created (for example, "Task"). Although all of the Segments will be given this name, they will be numbered incrementally, and you will be able to rename them later in the *Project* pane.



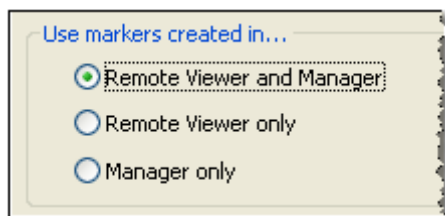
3. Choose the *Segment start marker* from the dropdown menu (for example, "Start task"). *Manager* will look for this Marker Type to start each Segment it creates.



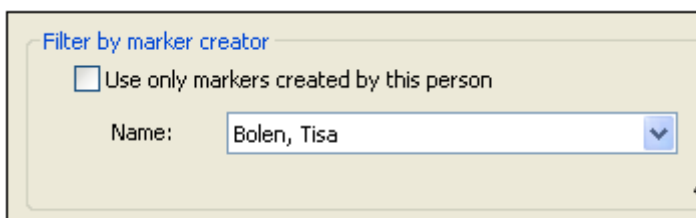
- Place a checkmark next to the Markers you want *Manager* to look for to end each Segment. You can choose more than one Marker Type.



- Click **Next** to continue to the next screen in the wizard.
- In the *Use markers created in* group box, select which Markers to include: those created in *Remote Viewer* and *Manager*, those created in *Remote Viewer only*, or those created in *Manager only*:



- In the *Filter by marker creator* group box, you can optionally choose to create Segments based on only the Markers set by a particular person. To do this, check the **Use only markers created by this person** option, and choose the person's **Name** from the dropdown list.



- Click **Finish**. *Manager* will create your Segments.

The automatically created Segments will appear underneath the recording in the *Project* pane.

## Manually Creating Segments

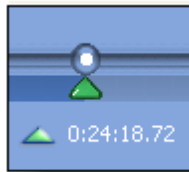
To manually create Segments using the *Player* controls and timeline, follow the steps in this section.

### Step 1: Set an In Point

1. In the *Project* pane, click once on the recording from which you want to create a Segment.
2. Use the *Player* controls and/or the timeline in the *Player Window* to locate the starting point (the In Point) of your Segment.
3. Drag the playhead to the desired starting point for the Segment.
4. Set the In Point at this location by clicking the **Set In Point** button in the *Player* controls:

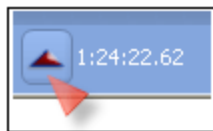


The start time of the Segment will appear in the area adjacent to the **Set In Point** button, and a green In Point arrow will appear below the timeline:

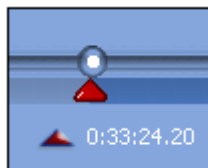


### Step 2: Set an Out Point



1. Next, use the *Player* controls and/or timeline to locate the ending point (the Out Point) of your Segment.
2. Move the playhead to the desired ending point.
3. Set the Out Point by clicking the **Set Out Point** button in the *Player Window*.



The end time of the Segment will appear in the area adjacent to the **Set Out Point** button, and a red Out Point arrow will appear below the timeline:





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**Note:** Clicking the **Set In Point** or **Set Out Point** buttons will set the points to their current locations on the timeline. Prior to creating the Segment, you can still adjust these points by clicking and dragging the **In Point**  and **Out Point**  arrows along the timeline.

---

### Step 3: Preview your Segment

1. To preview your selected section of the recording before creating the final Segment, choose **Player > Play In to Out Points** from the menu bar, or click the **Play In to Out Points** button  in the *Player Window*.
2. If you are not satisfied with your selection, adjust and reset your In and/or Out Points.
3. To create the final Segment, choose the **Create Segment** button  from the *Player* controls or choose **Segment > Create > Segment** from the main menu. The *Segment Details* dialog will appear.

### Step 4: Complete the Segment Details

1. Enter the Segment **Name**.
2. Select the desired **Folder** for the Segment to be stored in within the *Project* pane.
3. Add a **Text note** and an **Audio note** to the Segment, if desired.


**Note:** You can also fine-tune the Segment's In and Out points using the options in the *Time* group box. For more information, see *Editing Segments* on page 107.

4. Choose **OK** to create the Segment.

### Step 5: View the Finished Segment

The new Segment, with the name you have assigned, will be added underneath the *Segments* folder in the *Project* pane.

#### To view the Segment:

Double-click the Segment's name in the *Project* pane, or click once on the Segment, and choose the **Play** button  in the *Player Window*.

#### To edit the Segment:

Right-click on the Segment name in the *Project* pane, and select **Edit**.

### Editing Segments

The *Segment Details* dialog box appears any time you create a new Segment or edit an existing Segment. The *Segment Details* options allow you to name the Segment, choose a folder, add text and audio annotations, and fine-tune the In and Out points of the Segment.

**To access the *Segment Details* dialog box,** use either of the following methods:



- Right-click on any existing Segment, and choose **Edit** from the context menu that appears.

- Select an existing Segment in the *Project* pane, and choose **Segment > Edit** from the menu bar.



### To Adjust the In and Out Points of a Segment

There are three ways to adjust a Segments In and/or Out Points once the Segment has been created. This section will describe all three methods. For quick adjustments, we recommend the first method.

#### To adjust the In and/or Out Points directly on the timeline (this is the quickest method):

1. Select the Segment in the *Project* pane.
2. Move the green In Point arrow  and red Out Point arrow  to the desired new positions on the timeline.
3. Choose **Segment > Save New In and Out Points** from the main menu.

#### To adjust the In and/or Out Points using the timeline and then set the time in the edit dialog:

1. Select the Segment in the *Project* pane.
2. Move the green In Point arrow  and red Out Point arrow  to the desired new positions on the timeline.
3. Right-click on the Segment in the *Project* pane, and choose **Edit**.
4. Choose the **Save new in and out points** option.
5. Click **OK** to exit the *Segment Details* dialog.



#### To move the In and/or Out Points to specific times by setting the times in the edit dialog:

1. Select the Segment in the *Project* pane.
2. Right-click on the Segment, and choose **Edit**.
3. In the Start and End fields, use the arrow controls to set the new times/locations for the Segment.
4. *DO NOT* select the **Save new in and out points** option.
5. Click **OK** to exit the *Segment Details* dialog.

## Adding Text and Audio Notes to Segments and Markers

You can easily add text and audio notes to any of your Segments or Markers in *Manager*.



### Adding Text Notes

When you add a text note to a Segment or Marker, the icon for that item in the *Project* pane will change to reflect that a text note is present ( or ). The text note can also be viewed in the *Details* pane when you click once on a Segment or Marker. Text notes have no character limit, and their contents are fully searchable using *Manager's Search Editor*.

#### To add or edit a text note:

1. Right-click on the Segment or Marker in the *Project* pane and choose **Edit**.
2. In the *Marker Details* or *Segment Details* dialog box, type the desired text note in the **Text note** field.
3. Choose **OK** to exit the *Details* dialog box.

### Adding Audio Notes





Using a peripheral microphone, you can add audio notes to your Segments and Markers. Once the audio note has been added, the icon for the Segment or Marker in the *Project* pane will change to reflect that an audio note is present ( or ). By default, the system microphone is used for audio notes in *Manager*.

---

**Note:** If you create a Video Clip from a Segment that has an audio note, the audio note becomes part of the Clip. If you do not want the audio note to be included in your highlight video, you can clear it and/or rerecord it within the *Video Clip Details* dialog box. For more information, see *Adding Audio Annotation to Video and Title Clips* on page 109.

---

#### To add or edit an audio note:

1. Right-click on Segment or Marker in the *Project* pane, and choose **Edit**.
2. In the *Segment Details* or *Marker Details* dialog box, click the **Record** button  to begin recording the audio note.
3. Speak clearly into the chosen microphone.
4. When the recording is complete, click the **Stop** button. 
5. The **Play** button  will now be enabled; choose it to play back your audio note.
6. To clear an audio note, choose the **Clear Audio Note** button . The note will be erased immediately.
7. Choose **OK** to exit the *Details* dialog box.



## Creating and Editing Video Clips

Video Clips are very similar to Segments, in that they both allow you to isolate sections of your recordings that contain important activity or data. However, Segments cannot be placed on the *Storyboard* for inclusion in your highlight video. Dragging a Segment to the *Storyboard* causes a new Video Clip based on your Segment to be created. *Storyboards* can only be assembled using Video Clips and Title Clips.

*Manager* allows you to create, play and edit an unlimited number of Video Clips from each recording. You can copy your Segments directly into Video Clip form. Or, you can create new Video Clips that are not associated with Segments by selecting a recording and then choosing unique In and Out points for the Clip.

This section covers the basic processes involved in creating and editing Video Clips.

### Creating Video Clips

To create a Video Clip, you need to specify both a starting point (In Point ) and an ending point (Out Point ). Using those points, *Manager* creates a copy of that section of the recording and stores it in your *Video Clips* folder in the *Project* pane.

You can create Video Clips during your analysis for later use in your highlight video. And *Manager* makes it very easy to convert your existing Segments directly into Video Clips, should you wish to do that.

---

**Note:** The Video Clips you create **do not alter the original session recordings**. Video Clips are simply copies of selected sections of the recording that you wish to either produce individually or include in your final highlight video.

---

There are several ways to create a Video Clip in *Manager*:

1. **Create a Video Clip on the Timeline.** Select a recording or existing Segment, then select In and Out Points and use the **Create Video Clip** option.
2. **Create a Video Clip from a Segment.** Select a Segment, and choose the **Create Video Clip from Segment** option.
3. **Drag a Segment to the Clip Bin or Storyboard (Presenter only).** Select a Segment in the *Project* pane and drag it to the *Clip Bin* or *Storyboard*.

This section describes each method in detail.

### To Create a Video Clip on the Timeline

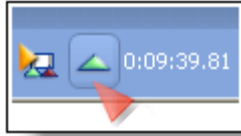
This method can be used to create a Video Clip from a selected recording. It can also be used when you want to begin with a selected Segment and make a Video Clip from just a portion of that Segment.

#### Step 1: Locate and Set the In Point and Out Point

1. In the *Project* pane, choose the desired recording or Segment by clicking once on your selection.

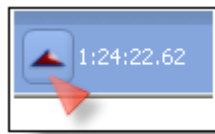


2. Use the *Player* controls and timeline to locate the desired starting point (the In Point) for your Video Clip.
3. Move the playhead to this location.
4. Click the **Set In Point** button to designate this frame as the beginning of the Video






Clip.

5. Continue to seek through the video until you locate the frame that will be the end point (Out Point) of your Clip.
6. Move the playhead to this location.
7. Choose the **Set Out Point** button to select this frame as the end of the Video



Clip.

## Step 2: Preview and Adjust your Selections

1. View the selected section, which will become your Video Clip, by choosing the **Play In to Out Points** button. 
2. Make any adjustment to the In and Out Points by clicking and dragging the **In Point**  or **Out Point**  arrows along the timeline.

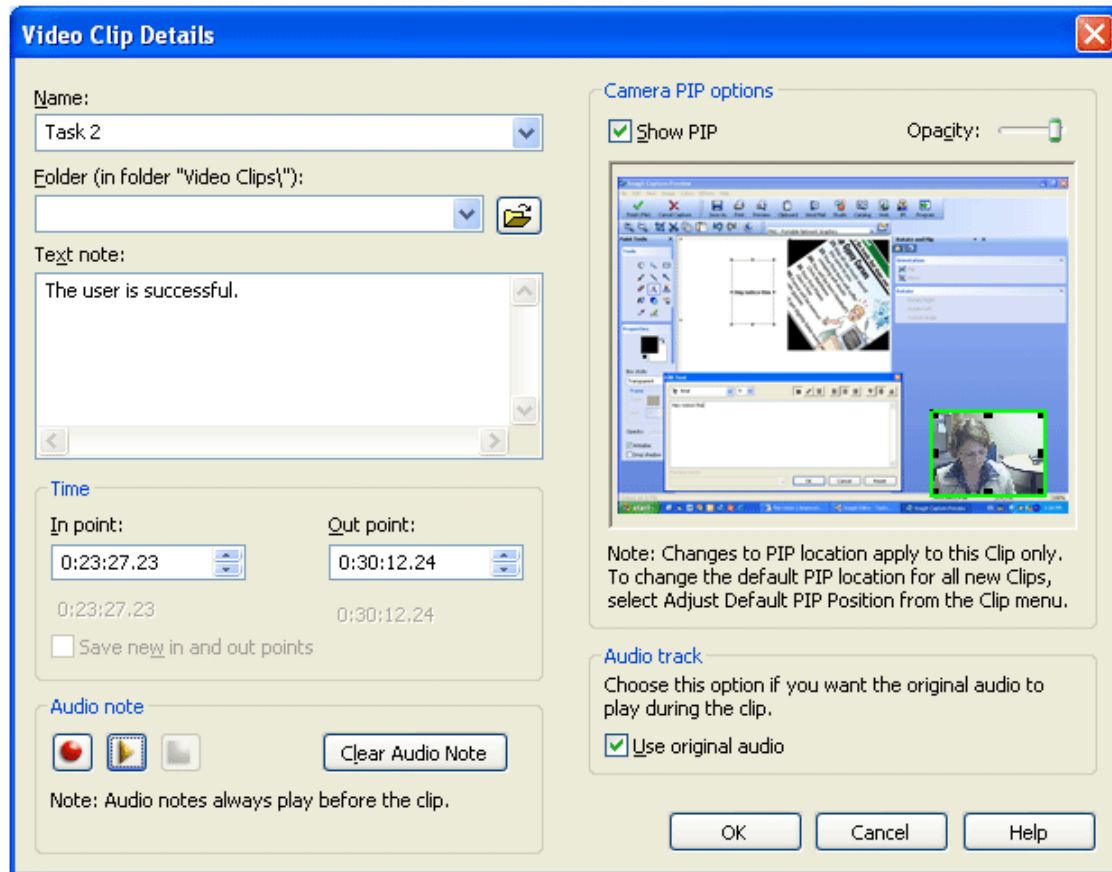
## Step 3: Name the Clip and Add a Text Note

When you are satisfied with the In and Out Point selections, choose the **Create Video Clip** button



in the *Player* controls. The *Video Clip Details* dialog box will appear.

Enter a **Name** for the Video Clip, and add a **Text note**, if desired.



#### Step 4: Add Audio

To record an audio note that will play with the Video Clip, use the recording controls in the *Audio note* group box. The audio note will play prior to the Video Clip (the Clip will remain still on the first frame until the audio note is complete).

To include the original audio from the recording, enable the **Use original audio** option in the *Audio track* group box. The original audio will play during the Video Clip.

#### Step 5: Adjust PIP Options

To include camera video PIP over the screen video, choose **Show PIP**.

Use the **Opacity** slider to make the PIP window more or less transparent over the screen video.

Move and resize the PIP window, as desired.

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**Note:** The changes you make to PIP options will only apply to this Video Clip.

---

#### Step 6: Create the Video Clip

Choose **OK** to create the Video Clip and exit the dialog box.

### **To Create a Video Clip that is Identical to a Segment**

1. Select the Segment in the *Project* pane.
2. Right-click and choose **Create Video Clip from Segment**. The *Video Clip Details* dialog appears.
3. Complete the fields in the *Details* dialog.
4. Click **OK**.

### **To Create a Video Clip by Dragging a Segment to the Clip Bin or Storyboard**

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**Note:** This method only applies creating Video Clips in *Presenter*.

---

If you have an existing Segment from which you want to create an identical Video Clip, click on the Segment in the *Project* pane to select it, and then click and drag it to either the *Clip Bin* or the *Storyboard*.

If you drag the Segment to the *Clip Bin*, the Video Clip will be added to that location and also to your *Video Clips* folder in the *Project* pane.

If you drag the Segment to the *Storyboard*, the Video Clip will be added to the *Storyboard*, but will not be added to your *Video Clips* folder in the *Project* pane. If you wish to store a copy of this Video Clip, click on it in the *Storyboard* and drag it to the *Clip Bin*. A copy will be created there, and also in the *Video Clips* folder.

### **Editing Video Clips**

To edit an existing Video Clip, follow these steps:

1. Right-click on the Video Clip in the *Project* pane or *Clip Bin* or on the *Storyboard*.
2. Choose **Edit** from the context menu that appears. The *Video Clip Details* dialog box will open.
3. Make the desired changes to the options in this dialog box.
4. Choose **OK** to accept the edits and exit the dialog box.

---

**Note:** Edits made to a Clip that has already been placed on the *Storyboard* will not be applied to the copy of that Clip in the *Clip Bin*.

---

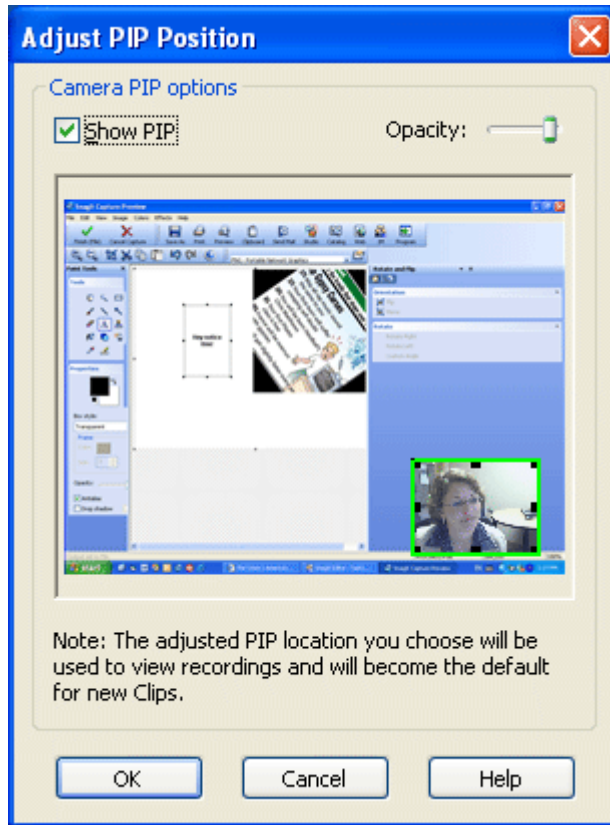
### **Working with the Camera Video Picture In Picture (PIP)**

For each Video Clip that has corresponding camera video, you can choose whether to include the camera video as a Picture in Picture (PIP) image over the screen video. The camera video PIP feature is flexible. You can use a default PIP location and size for every Video Clip in the highlight video, or you can customize the PIP location and size on a Clip-by-Clip basis.

### **Setting Default Camera Video PIP Location, Size and Opacity**

The options in the *Adjust PIP Position* dialog box allow you to select camera video PIP options that will apply to all new Video Clips that you create. In this box, you can choose to show or hide the camera video PIP and also determine the default location and size of the camera video PIP over the screen video.

1. Select a Segment or recording in the *Project* pane.
2. Choose **Clip > Adjust Default PIP Position**. The *Adjust PIP Position* dialog box appears:



3. **To include the PIP over all future Video Clips**, place a checkmark in the **Show PIP** box. To hide the PIP for all future Video Clips, remove the checkmark.
4. Use the **Opacity** slider to adjust the transparency of the PIP image over the screen video image.
5. Preview the appearance, size, and location of the PIP in the preview area.
6. **To move the PIP**, click on the green PIP square and drag it to a new location.
7. **To resize the PIP**, grab the handles on the PIP square and drag them to make the PIP larger or smaller relative to the screen video. The aspect ratio of the PIP window is locked so its proportions cannot be distorted by dragging.
8. When you are satisfied with your changes, choose **OK**.

The PIP size and location you have set will become the default for any new Video Clips, unless you change them on a Clip-by-Clip basis, as described in the next section.

### Customizing the PIP Location and Size for an Individual Video Clip

Although there is a default camera PIP location and size for Video Clips, you can also customize these options on a Clip-by-Clip basis.

#### To change the Camera PIP Options for a specific Video Clip:

1. Right-click on the desired Video Clip in the *Project* pane, *Clip Bin* or *Storyboard*.

- 
2. Choose **Edit** from the context menu that appears. The *Video Clip Details* dialog box will open. On the right-hand side of the dialog box, you'll see the *Camera PIP options* group box.
3. Make any desired changes to the options:

**To hide the PIP:**

Remove the checkmark from the **Show PIP option**. This option is enabled by default.

**To make the PIP more or less transparent:**

Move the **Opacity** slider to adjust the transparency of the camera video PIP over the screen video image.

**To move the PIP:**

Click on the green PIP square and drag it to a new location.

**To resize the PIP:**

Grab the handles on the PIP square and drag them to make the PIP larger or smaller relative to the screen video. The aspect ratio of the PIP window is locked so its proportions cannot be distorted by dragging.

- 
- 
- 
4. Click **OK** to exit the dialog. Your changes will be applied only to the selected Clip.

## Searching for Data in Recordings

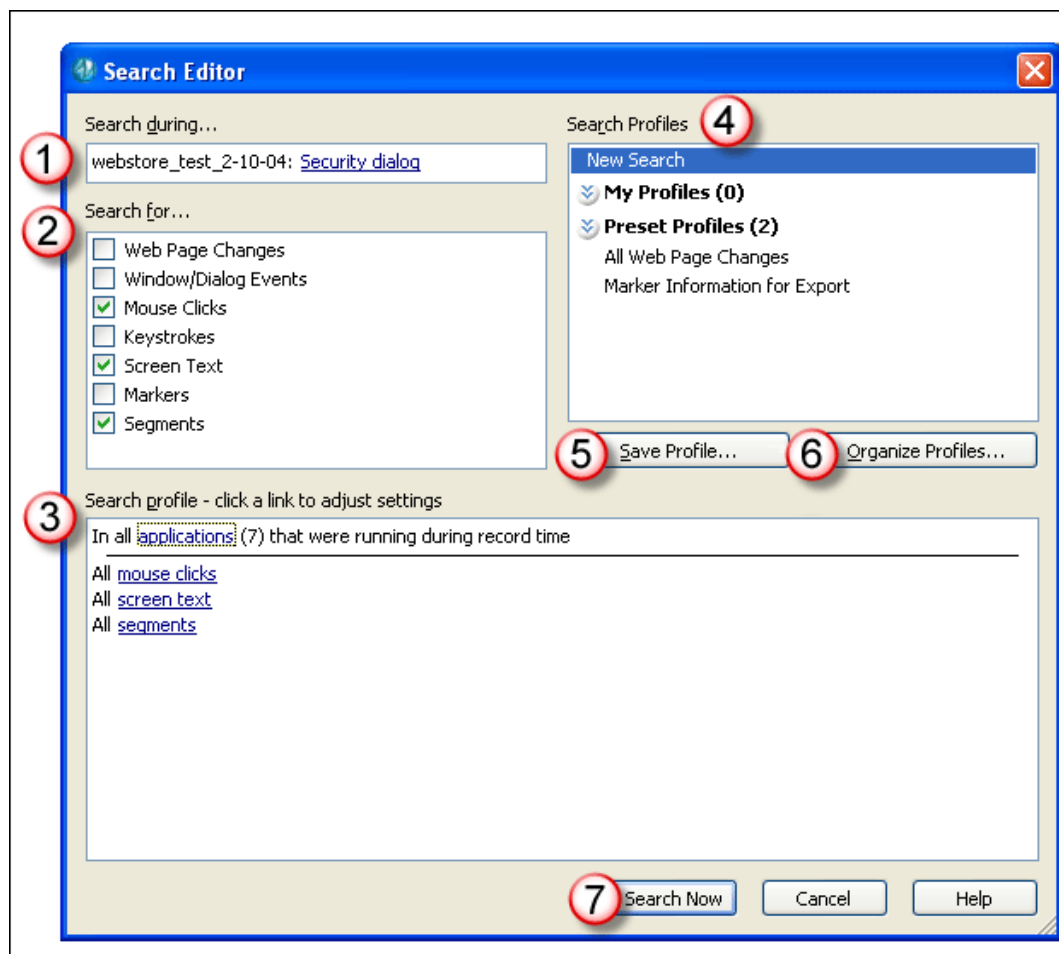
### Overview

*Morae* recording (.rdg) files are unique because they are composed of multiple, rich data streams collected by TechSmith's Rich Recording Technology (RRT). *Manager's Search Editor* is the perfect companion for these recording files because it allows you to quickly create custom searches that give you access to the RRT data streams, which include Web page changes, window/dialog events, mouse clicks, keystrokes, screen text, Markers and Segments. For more information, see *How Rich Recording Technology Works* on page 151.

This section will offer an overview of the *Search Editor* and describe the processes involved in using this powerful tool for analysis.

### Search Editor at a Glance

*Analyzer's Search Editor* is briefly illustrated in the figure below. To access the *Search Editor*, either click the **Search** button in the *Search Results* pane, or choose **Search > Run Search** from the main menu.



- 
- 1 **Search during.** This field displays the currently selected time span for the search. To adjust this time span, click on the hyperlink in the field.
  - 2 **Search for.** This pane contains seven search categories that allow you to refine your search. Place a checkmark next to each category that you want to include in the search.
  - 3 **Search profile.** This pane contains the current search profile. Click on the “applications” hyperlink to adjust the number of applications you want to include in the search. The applications include only those that were running on the *Recorder* source computer during the selected time span.  
For each category you have selected in the *Search for* pane, a hyperlink appears in the *Search profile* pane allowing you to access additional options for that category. As you select categories to search for and refine the options in those categories, the wording in this pane will change to reflect your choices.
  - 4 **Search Profiles pane.** This pane contains a list of your saved search profiles and custom profile groups. This pane also contains the **New Search** and **Last Search** options, which allow you to quickly clear the *Search Editor* to create a new search, or run the profile from the last search again.
  - 5 **Save Profile.** This button gives you access to the *Save Search Profile As* dialog box, which contains the options that allow you to save and name profiles, and add new groups to your profile list.
  - 6 **Organize Profiles.** This button gives you access to the *Organize Search Profiles* dialog box, which contains the options that allow you to arrange, delete, rename, import, and export search profiles.
  - 7 **Search Now.** When you are satisfied with the current *Search profile*, click the **Search Now** button to conduct the search and view your results.
- 

### Creating a Search Profile

As you define the time span for your search, choose the types of events or information you are searching for, and choose the applications to include in the search, you are creating a customized search profile that can be used just once or saved and used repeatedly.

This section will explain, step by step, how to create a search profile.

#### Step 1: Select the Time Span for the Search

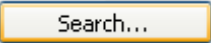
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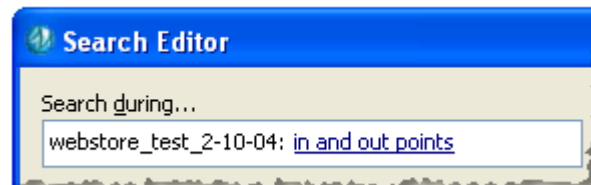
**Note:** When you save a search profile, it will include all of the settings you have chosen in the *Search Editor* **except for the time span** (in the **Search during** field).

---

1. In the *Project* pane, select the time span in which you want to conduct the search. You can choose to search during any of the following:
  - **An entire recording** — Click on the desired recording in the *Project* pane.
  - **A Segment** — Click on the desired Segment in the *Project* pane.
  - **Between the In and Out points** — Use the timeline and Player controls to set your In and Out point arrows at the desired locations.

**Note:** If you do not make a specific selection, the default time span will be between the current **In** and **Out** points on the timeline.

2. Once you have selected your time span, click the **Search** button  in the *Search results* pane, or choose **Search > Run Search** from the menu bar.
3. The *Search Editor* window will appear, and the time span you have chosen will be displayed in the **Search during** field. To change the time span, click the hyperlink in this field.

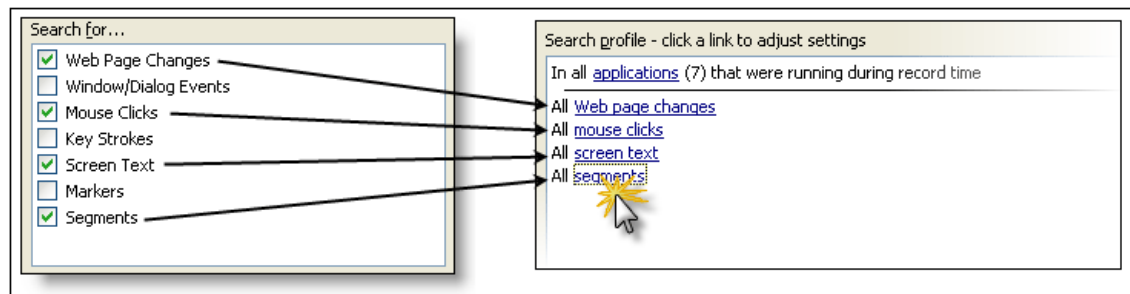


## Step 2: Choose What to Search For

Once you have specified a time span in which to conduct the search, you will need to further define the search by selecting the events you want to look for. These events can include: Web page changes, window/dialog events, mouse clicks, keystrokes, screen text, and Marker and Segment information.

1. To select a category to include in the search, place a checkmark in the box next to that category in the *Search for* field.

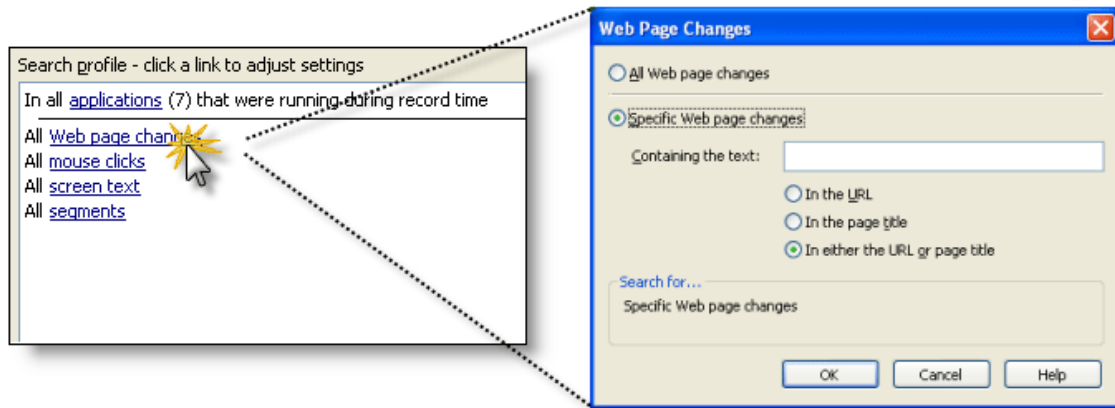
For each element you choose, a corresponding hyperlinked phrase will appear in the *Search profile*.



2. Click on the hyperlink to open an options dialog box for that category. For example, clicking on the Web page changes hyperlink in the *Search profile* area opens the *Web Page Changes*



options dialog box.



3. Choose the desired options for each category. The options available will vary depending on the search category you choose. See *Search Categories*, below, for more information about these options.

Once you exit the options dialog box, your *Search profile* will reflect your choices.

### Search Categories

The following table summarizes the options available within each search category.

Web Page Changes	Includes all Web page changes (when a Web page was loaded into the browser) or only Web page changes that contain specific text in the URL and/or the page title.
Window/Dialog Events	Includes all windows or dialogs that were resized, moved, or received focus, with the option to adjust the search depth (low, medium or high) and specify the title of the window or dialog.
Mouse Clicks	Includes all mouse clicks, with options to specify which mouse button was clicked (left, middle, right), if a modifier key was also used, and mouse clicks that occurred in a specific window/dialog.
Keystrokes	Includes any keystroke or keystroke combination.
Screen Text	Includes specific text that appeared on the screen, with options to match the case and adjust the search depth (low, medium, or high).
Markers	Includes all Marker information, or specific Markers (by type, text, or where the Marker was created).
Segments	Includes all Segment information, or specific Segments (by the text contained in the name and/or notes).

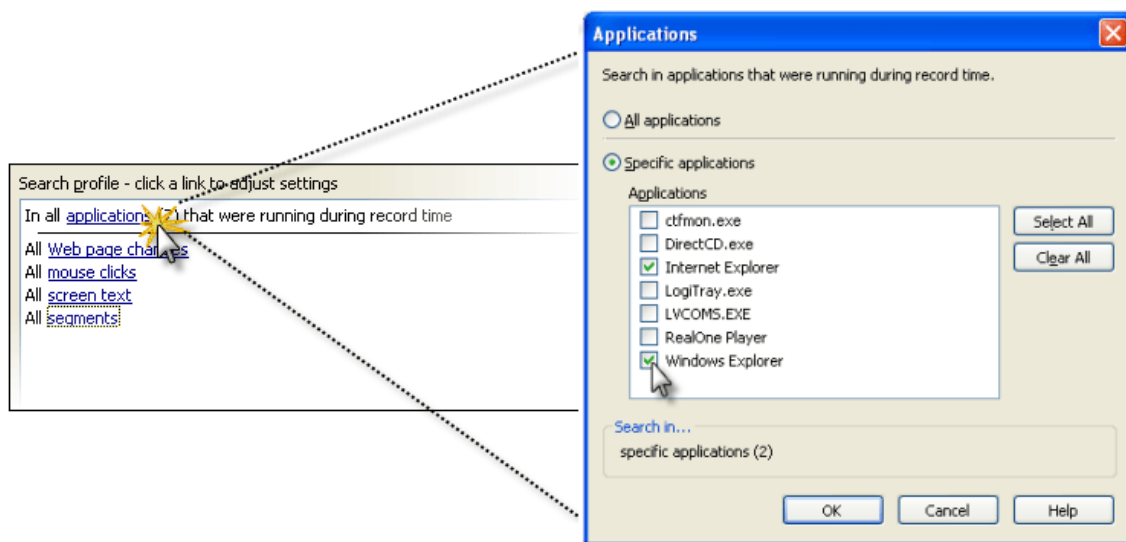
### Step 3: Define the Applications to Include in the Search

In this step, you can specify the application or applications in which to search. The list of applications will include only those that were running on the *Recorder* source computer during the time span you selected for the search.

For example, if you want to search for activity or events that occurred within just Internet Explorer during the time span you selected, then you would place a checkmark next to Internet Explorer in this step.

#### To select applications to include in the search:

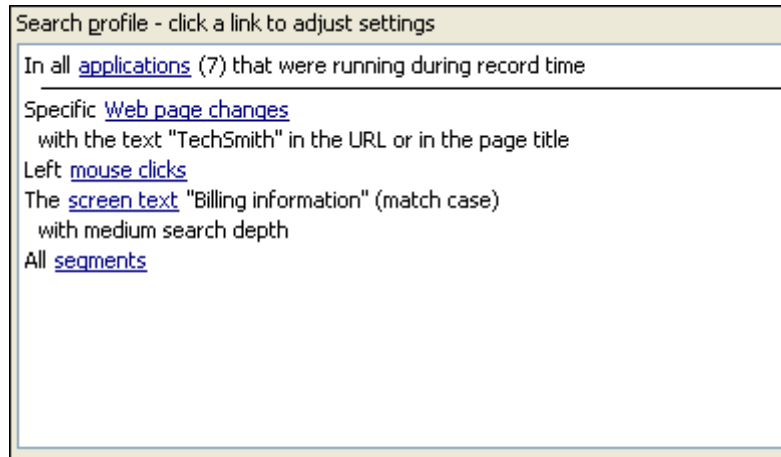
1. Click on the applications link in the *Search profile* field. The *Applications* dialog box will appear.



2. Choose the **Specific applications** radio button.
3. Place a checkmark next to the applications you wish to include in the search.  
**Note:** If you do not select specific applications to include, all of the applications that were running during the time span you chose will be included by default.
4. When you are finished making your selections, choose **OK** to exit the dialog box.
5. Your selections will be indicated in the *Search profile*.  
**Note:** If you have chosen only one application to include in the search, the name of this application will appear in the *Search profile*. If you have chosen multiple applications, the number of applications will be shown in the *Search profile*.

### Step 4: Review and Adjust the Search Composition

After you have completed Step 3, the criteria for the search profile you have created will be shown in the *Search profile* pane:



Read each line carefully to be sure that you have included all of the desired search parameters. To adjust the options related to any part of the search, click on the corresponding link in the search profile.

### Step 5: Conduct the Search

To conduct the search, click the **Search Now**  button. The *Search Editor* window will close, and your search results will appear in the *Search Results* pane.

### Repeating the Last Search

Once you have run at least one search, the **Last Search** option will appear in the *Search Profiles* pane. The search profile settings from your last search are saved under the **Last Search** option, allowing you to quickly repeat that search within different recordings or Segments.



### To repeat your last search:

1. Choose the **Last Search** option.
2. Adjust the time span (by clicking the link in the *Search during* field in the *Search Editor*).
3. Change any of the other search settings, if desired.
4. Click **Search Now** to conduct the search.

You can also conduct the **Last Search** without reentering the *Search Editor* dialog box by using the hotkey combination <Ctrl + Alt + R>.

Simply click on a new time span (recording or Segment) in the *Project* pane, or use the timeline to set unique In and Out points for the search. Then, press <Ctrl + Alt + R> to run that same search on the new time span.

## Conducting a New Search

The **New Search** option in the *Search Profiles* pane allows you to clear all of the settings in the *Search Editor* and begin creating a new search profile. Simply click the **New Search** option, and then proceed with creating the new search profile.

## Working with Search Profiles

The *Search Editor* not only allows you to create powerful, customized searches, but it contains options that let you save, organize, import and export your most valuable search profiles and profile groups. If you find that you use certain search profiles repeatedly and often, then the options described in this section will help you get through your data and on to your results much more quickly.

## Saving Search Profiles

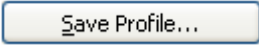
Once you have created and run a couple of searches, you may find that you use one or more of them repeatedly. To make the analysis process more efficient, you can save your most commonly used search profiles within the *Search Profiles* pane. There are two options when saving search profiles. You can either save the search settings with a new name, or you can overwrite an existing profile with new search settings.

---

**Note:** When you save a search profile, it includes all of the settings you have chosen in the *Search Editor* except for the time span (in the *Search during* field).

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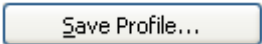
### To save a new search profile:

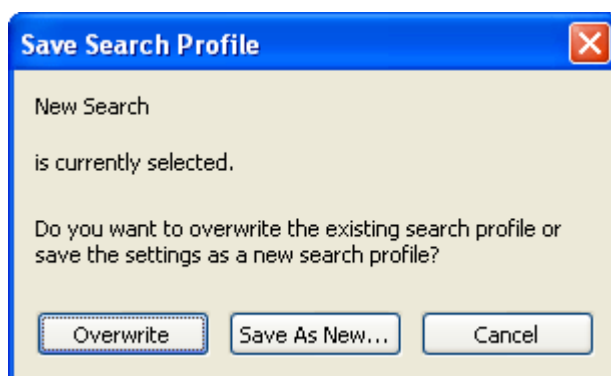
1. Create a search profile by selecting the desired search settings.
2. Choose the **Save Profile**  button. The *Save Search Profile As* dialog box appears:



3. Click on the group you want to save the search profile in.
4. Enter a name for the search profile in the **Name** field, and click **Save**.

#### To overwrite an existing profile with new search settings:

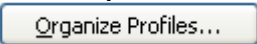
1. In the *Search Profiles* pane, select the existing profile that you wish to overwrite.  
**Note:** You cannot overwrite the *New Search* or *Last Search* profiles.
2. Click the **Save Profile** button.  The *Save Search Profiles* dialog appears.

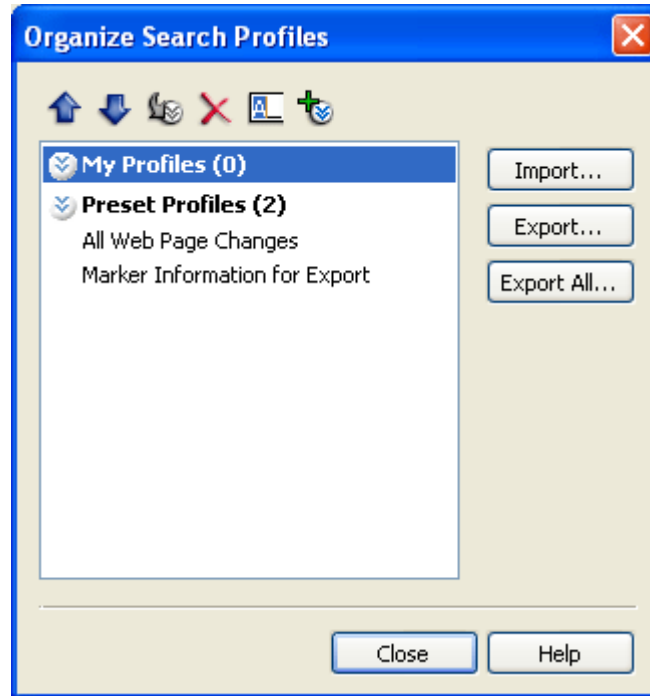


3. Click **Overwrite**.
4. The new search settings will now be saved under the existing profile's name.







## Organizing Search Profiles

Once saved within the *Search Profiles* pane, your search profiles can be placed in groups, moved up or down within a group's list, renamed or deleted. New custom-named groups can also be added.

To access the options that allow you to organize your search profiles, choose the **Organize Profiles** button  in the *Search Editor*. The *Organize Search Profiles* dialog box will appear:



The toolbar in this dialog contains the options you'll need to organize your search profiles:

<b>To move a profile or group up</b>	Select the profile or group to highlight it, and click the <b>Move up</b>  button.
<b>To move a profile or group down</b>	Select the profile or group and click the <b>Move down</b>  button.
<b>To move a profile into a group</b>	Select the profile and click the <b>Move to group</b>  button. The <i>Move Search to Group</i> dialog appears. Select a group to move the profile into and click <b>OK</b> .
<b>To delete a profile or group</b>	Select the profile or group and click the <b>Delete</b>  button.
<b>To rename a profile or group</b>	Select the profile or group and click the <b>Rename</b>  button.
<b>To add a new group to the list of search profiles</b>	Click the <b>Add group</b>  button. The <i>Add Group</i> dialog box appears. Enter a name for the group and click <b>OK</b> .

## Exporting a Single Profile or a Group of Profiles

Using the **Export** and **Export All** options in the *Organize Search Profiles* dialog box, you can quickly export one search profile or an entire group of profiles into a *Morae Manager* Search Profile (.mgrsrch) file. This is a convenient way to share or move your most commonly used search profiles.

### To export one search profile or a profile group

1. In the *Organize Search Profiles* dialog box, click on the name of a search profile, or the name of a group to highlight it.
2. Click on the **Export** button. A default *Save As* dialog will appear.
3. Browse and select the desired location for the file in the **Save in** field.
4. Keep the default file name or enter a new file name in the **File name** field.
5. Choose **Save** to export the search profile or group.

### To export all of your search profiles

You can quickly export all of the search profiles using the **Export All** option. To do this, follow these steps:

1. In the *Organize Search Profiles* dialog box, click on the **Export All** button. A standard *Save As* dialog will appear.
2. Browse and select the desired location for the file in the **Save in** field.
3. Enter a name in the **File name** field.
4. Choose **Save**. All of the existing search profiles will be exported into a single *Morae Manager* Search Profile (.mgrsrch) file.

## Importing Search Profiles

You can import the contents of a *Morae Manager* Search Profile (.mgrsrch) file, which may contain one search profile, several search profiles, or a group of profiles. To do this, follow these steps:

1. Within the *Organize Search Profiles* dialog box, click on the **Import** button. A standard *Open* dialog box will appear.
2. Browse to locate and select the *Morae Manager* Search Profile (.mgrsrch) file that you want to import.
3. Click **Open**. The profiles and groups will appear in your *Search Profiles* pane, available for immediate use.

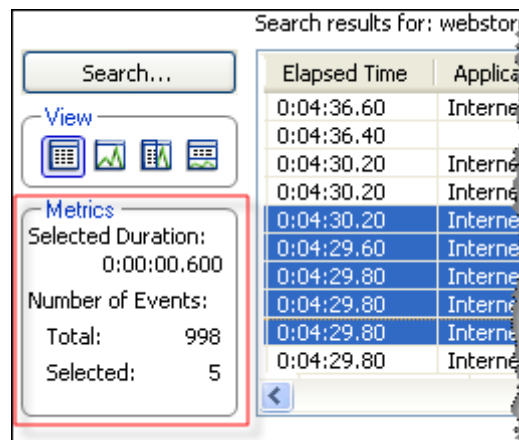
## Viewing Search Results

Once you have conducted a search, your results will be displayed in the *Search Results* pane. This section describes the features of the *List* and *Graph* views, and how to use these features to calculate metrics, navigate through your results, and export the critical results to a spreadsheet program for further analysis.

### Metrics





The *Metrics* area, which is present in all of the views, contains a dynamic calculator that displays three different values. The **Selected Duration** field displays the duration between the first and last result in a group you have selected.

In the *Number of Events* group, the **Total** field displays the total number of results in the list, and the **Selected** field displays the total number of results currently selected.



### Changing Views

Before you begin sorting through your search results, it is helpful to understand the different ways these results can be viewed in the *Search results* pane. In the *View* group box, there are four options:

-  **List.** Displays the search results in a detailed List view.
-  **Graph.** Displays the search results in a line or histogram graph format.
-  **Tile Vertically.** Displays a combination List/Graph view of the results with the list on the left and graph on the right.
-  **Tile Horizontally.** Displays a combination List/Graph view of the results with the list on top and the graph on bottom.



## List View

In the List View, the results of your search are displayed in a detailed list format. The columns that appear in the List View will depend on the search criteria you selected. Columns that contained no data for a particular set of search results will automatically be excluded from the List View display. The List View columns will always appear in a specific default order from left to right, unless you rearrange them.

- **To move a column**, simply click on the column header and drag the column to the new location.
- **To sort a column in ascending or descending order**, click once on the column header. Click again to reverse the order.

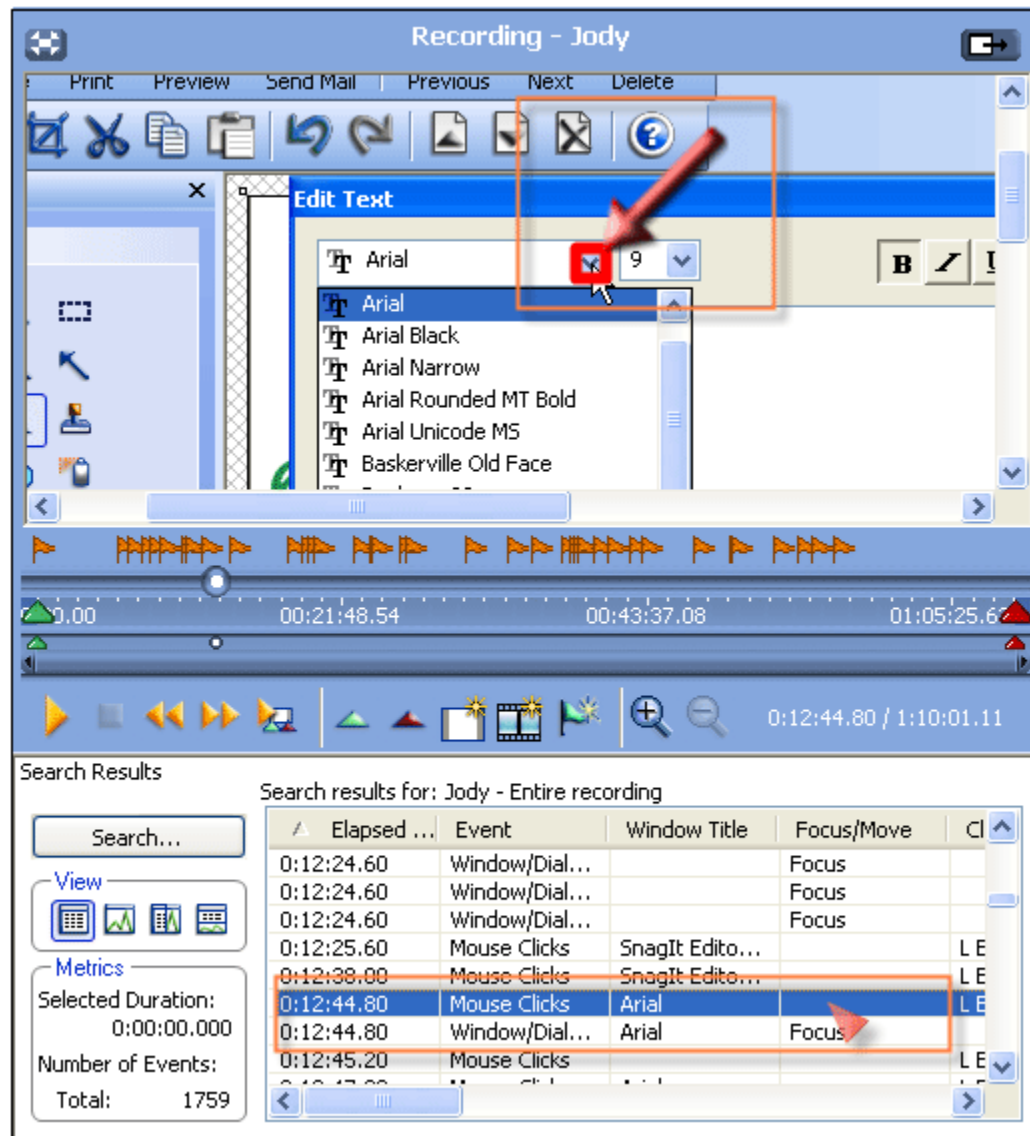
Search results for: webstore\_test\_2-10-04 - 0:00:00.00 to 0:04:54.35

Search...	Elapsed Time	Application	Event	Time/Date	Parent
View	0:00:58.20	Internet Exp...	Screen Text	15:55:37 / F...	TechSmith Corpora...
	0:00:58.40	Internet Exp...	Screen Text	15:55:37 / F...	TechSmith Corpora...
	0:00:58.40	Internet Exp...	Screen Text	15:55:37 / F...	TechSmith Corpora...
	0:00:58.60	Internet Exp...	Window/Dialog Events	15:55:37 / F...	TechSmith Corpora...
	0:00:58.60	Internet Exp...	Mouse Clicks	15:55:37 / F...	TechSmith Corpora...
	0:00:58.80	Internet Exp...	Window/Dialog Events	15:55:38 / F...	TechSmith Corpora...
	0:00:58.80	Internet Exp...	Screen Text	15:55:37 / F...	TechSmith Corpora...
	0:00:58.80	Internet Exp...	Screen Text	15:55:37 / F...	TechSmith Corpora...
	0:00:58.80	Internet Exp...	Screen Text	15:55:37 / F...	TechSmith Corpora...
	0:00:58.80	Internet Exp...	Screen Text	15:55:37 / F...	TechSmith Corpora...
	0:00:58.80	Internet Exp...	Screen Text	15:55:37 / F...	TechSmith Corpora...

Metrics  
Selected Duration: 0:00:00.000  
Number of Events: Total: 998 Selected: 1

## List View Navigation

To navigate through your results using the List View, simply click on a result in the list, and the screen video and camera video will jump to that point in the recording. The selected event will also be highlighted with a red box and an arrow in the *Player Window*, as shown in the following figure:



## Navigation Tips

- Use the **up and down arrows** on your keyboard to quickly move through the list of results.
- Use the **left and right arrows** to scroll left or right while viewing a particular result (or click and drag the scroll bar).
- To select a group of consecutive results **Click** on the first result and **Shift-click** on the last result in the group. All of the results in between will also be selected.
- **Ctrl-click** to select specific, nonconsecutive results
- If you select more than one result in the list, the first item in the list (the selected item) will be displayed in the *Player Window*.

**Playing Search Results in the List View**

When a result is played from the List View, it appears as a single frame of screen video in the *Player Window*, with the important event highlighted with a red box and an arrow. When you play a list of results, they appear as a series of these single frames played one after the other, similar to a slide show.

**To play all of the results in order:**

Right-click anywhere in the list view area and choose **Play Results** from the context menu. The results in the list will play from top to bottom.

**To play the results from the one you have selected to the end of the list:**

Right-click on the selected result, and choose **Play from Selected Event**.

**To play the rest of the screen video from the selected result forward:**

Double-click on the result that you want the video to play forward from.

**Exporting Results from the List View**

The results from any search can be exported directly from the List View into a comma-delimited file that can then be opened and manipulated in other applications, such as Microsoft Excel. Even if your results did not include all of the available List View columns, all of the columns will be included in the exported file. The columns will also always appear in their default order even if you have rearranged the columns in your List View. There are two options for exporting results: export all of the results, or only selected results.

**To export all results:**

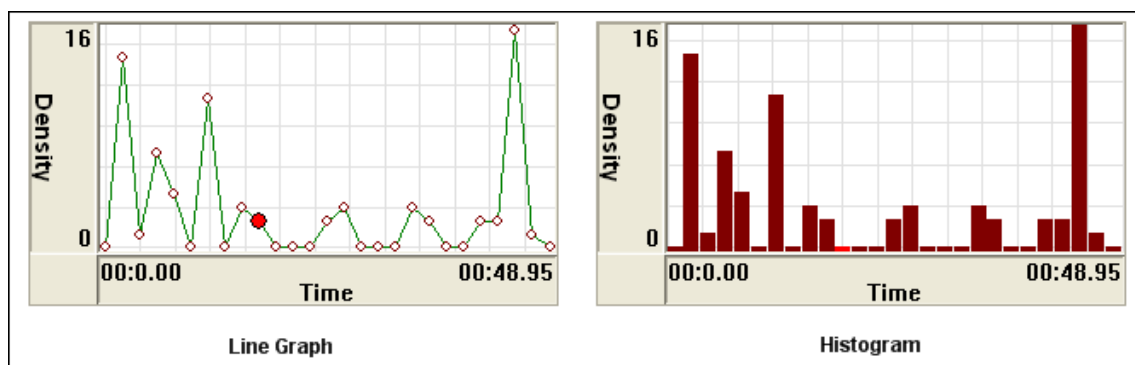
Right-click on the List View, and choose **Export Results** from the context menu. The *Export Data To* dialog will appear. Choose a location and name for the file (a .csv file) and click **Save**.

**To export only certain results:**

1. Select your results either by Shift-clicking or Ctrl-clicking on the desired results.
2. Right-click on the List View, and choose **Export Selected Results** from the context menu. The *Export Data To* dialog will appear.
3. Choose a location and name for the file.
4. Click **Save**.

## Graph View

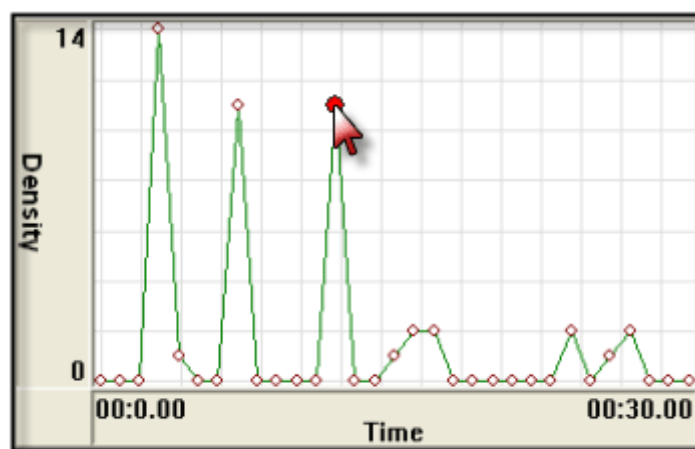
In the Graph View, the results of your search will appear as a density graph, in either line or histogram format, depending on the option you choose in the *Graph Options* dialog box. The Graph View illustrates the distribution of your search results over time. At a glance, you can see where activity occurred and, sometimes more importantly, where there was no activity at all.



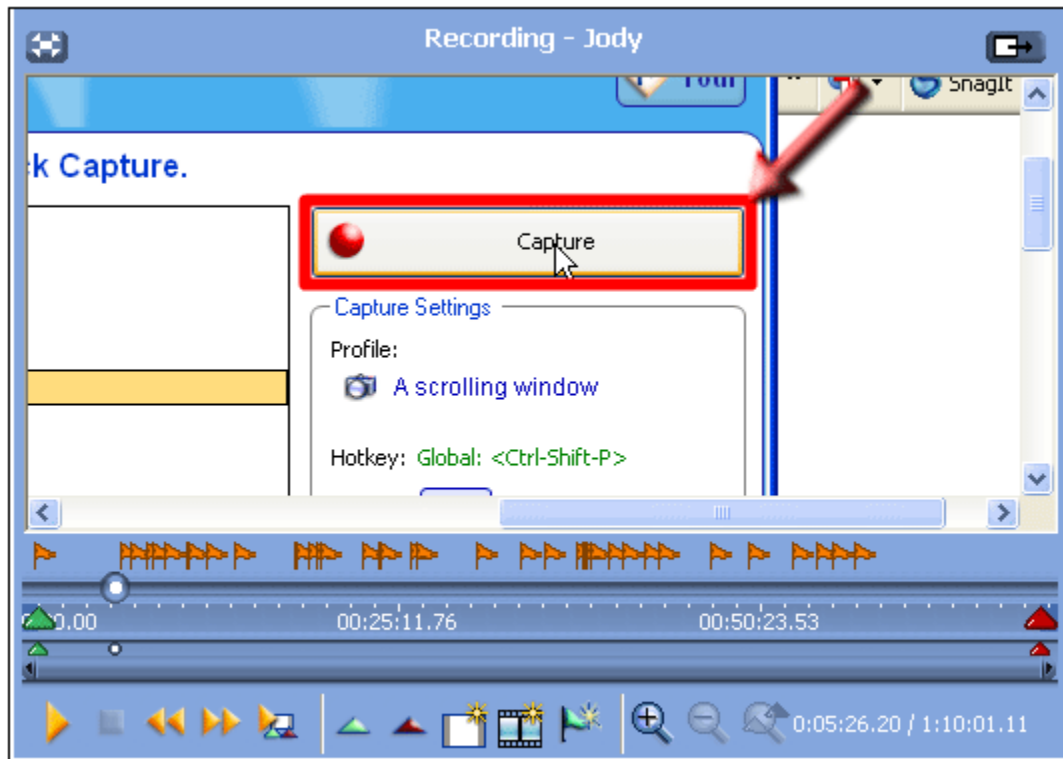
The x-axis of the graph is Time, which is the duration of the entire recording or the section of the recording you searched in. The y-axis is Density, which is the number of events that occurred at any point in time. Each circle (on a line graph) or bar (on a histogram) marks the number of events that occurred at that sampling point in time. The sampling interval, which is the space between circles or the width of each bar, is determined by the resolution (or scale) of the graph.

## Graph View Navigation

To navigate through your results using the Graph View, simply click on any sampling point to view the first event for that sampling point, as shown:



The screen video and camera video will jump to that point in the recording. The event will be highlighted with a red box and an arrow in the *Player Window*:



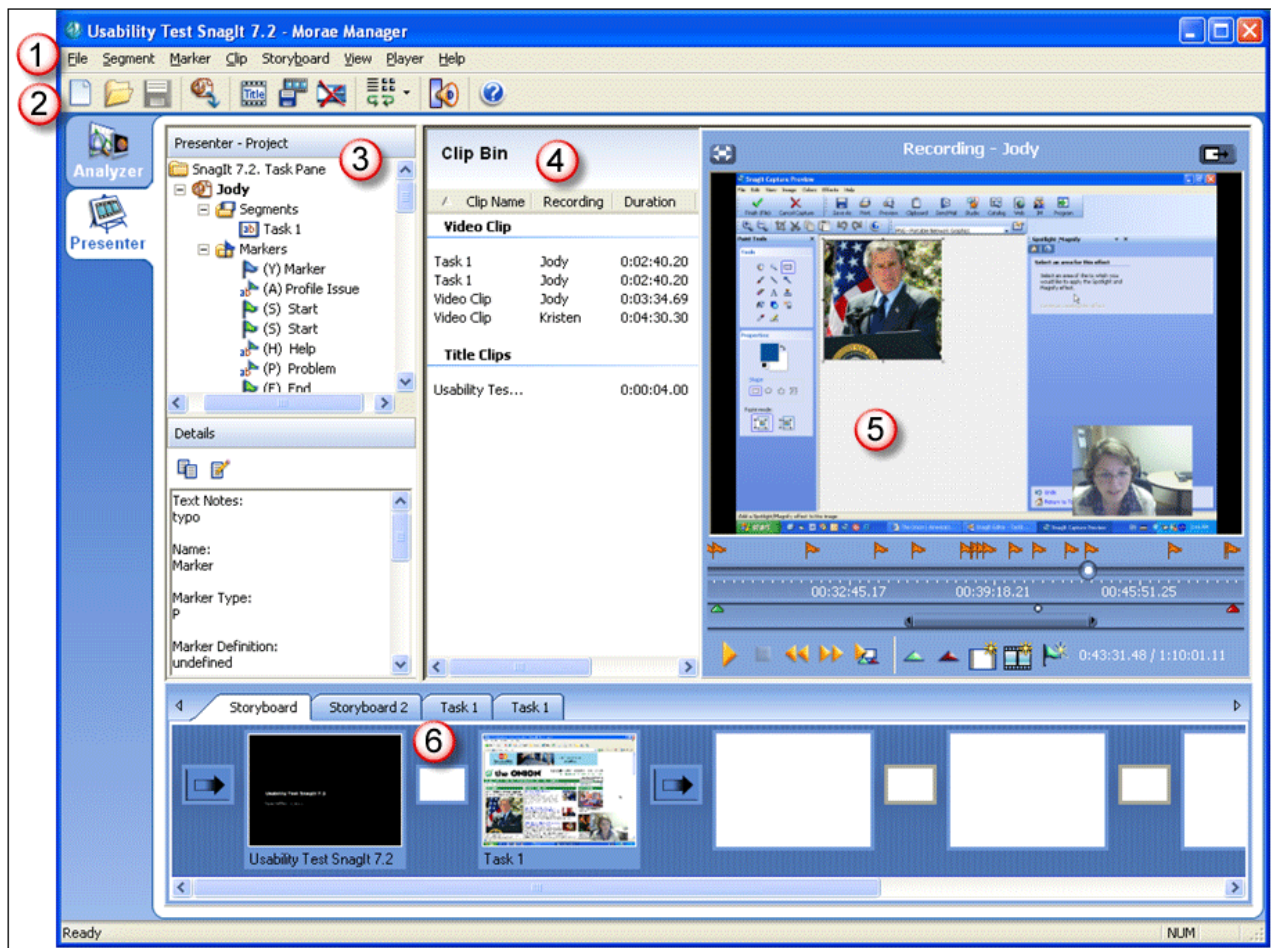
## Presenting Results and Recommendations

When you are ready to organize the results of your analysis into a highlight video for presentation, select *Manager's Presenter* tab. Because *Analyzer* and *Presenter* share the *Project* pane, you can view all of the recordings, Segments, Markers and Clips that you created in *Analyzer*. But now, using *Presenter's Clip Bin* and *Storyboard*, you can view, edit, and sort your Clips, and assemble them into the desired order for your video presentation.

You can also create Title Clips, which can be used to introduce the Video Clips, and add transitions between Clips on the *Storyboard*. Finally, you can produce one or multiple *Storyboards* in AVI or WMV format for easy presentation and distribution to your stakeholders.

### Getting Familiar with Presenter's Interface

When you select *Manager's Presenter* tab, the following interface appears:



- 
- ① **Menu bar.** The menu bar gives you access to all of *Presenter's* options.
  - ② **Toolbar.** The toolbar gives you quick access to *Presenter's* most commonly used options.
  - ③ **Project pane.** This pane allows you to navigate through recordings, Segments, and Markers.
  - ④ **Clip Bin.** This area allows you to store and organize the Title and Video Clips you create for possible use in your video.
  - ⑤ **Player Window.** This area displays the screen video from the selected recording, Segment, Marker, or Clip.
  - ⑥ **Storyboard.** This area lets you organize Clips in the desired order for your highlight video.
-

## Creating and Editing Title Clips

In addition to the Video Clips you have created and set aside for inclusion in your highlight video, you may want to create some Title Clips to introduce your video, or to act as static transitions between Video Clips. You can fully customize the color, text and duration of the Title Clips, and you can also add audio narration and a background image.

Title Clips are stored in the global *Title Clips* folder in the *Project* pane. You can create Title Clips from the right-click context menu within the *Project* pane, the *Clip Bin* or the *Storyboard*. You can also initiate a new Title Clip by choosing **Clip > Create > Title Clip** from the main menu.


This section describes the processes involved in created and editing Title Clips.

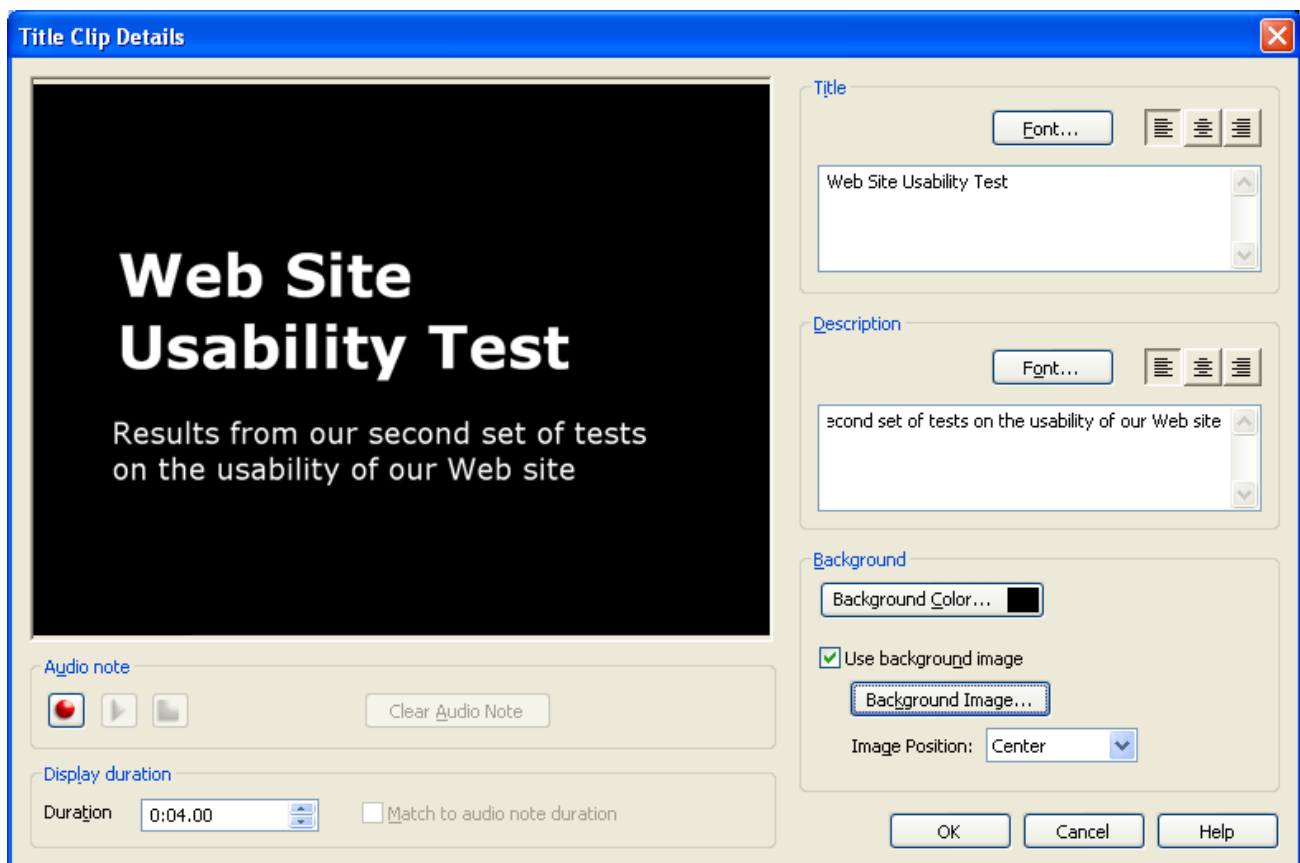
### Creating Title Clips

Regardless of your location in *Manager* when you initiate a new Title Clip, the process for customizing and creating the Clip includes the following steps:

#### Step 1: Open a New Title Clip

Choose **Clip > Create > Title Clip** from the menu bar. In *Presenter*, you can also click the **Create**

**Title Clip** button.  The *Title Clip Details* dialog box appears:





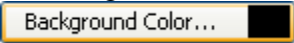
**Step 2: Enter a Title and Description**

Type a **Title** in the box provided. Use the **Font** and alignment options in the *Title* group box to customize the appearance of the title text.

If desired, enter a **Description**, which will appear underneath the title. Use the **Font** and alignment options in the *Description* group box to customize the appearance of the text.

**Step 3: Choose the Background Color and Image**

To change the color behind the text, which is black by default, click the **Background Color** button

. Select the desired color from the *Color* dialog box (or use the **Define Custom Colors** button to choose a custom color). Choose **OK** to accept the color you have chosen and exit back to the *Title Clip Details* dialog box.

To add an image to the background of the Title Clip, enable the **Use background image** option, and then click the **Background Image** button. A dialog will appear allowing you to browse for and select the image. Use the **Image Position** dropdown to adjust the position of the image on the Title Clip.

**Step 4: Add an Audio Note**

To record an audio note that will play with the Title Clip, use the recording controls in the *Audio note* group box. For more information, see *Adding Audio Annotation to Video and Title Clips* on page 136.

**Step 5: Adjust Clip Duration**

To adjust the length of time the Title Clip is displayed (the Display Duration), use the spinner controls on the **Duration** field to increase or decrease the length.

If there is an audio note on the Title Clip, the display duration must be equal to or longer than the duration of the audio note. You can enable the **Match to audio note duration** option if you want the Title Clip to be displayed exactly as long as the audio note is playing.

**Step 6: Create the Title Clip**

When you are satisfied with the appearance and sound of the Title Clip, choose **OK** to create the Title Clip. The new Title Clip will appear in the *Clip Bin* and in the *Project* pane under the *Title Clips* folder. To use it, drag it to the desired location on the *Storyboard*.

**Editing Title Clips**

To edit any existing Title Clip:

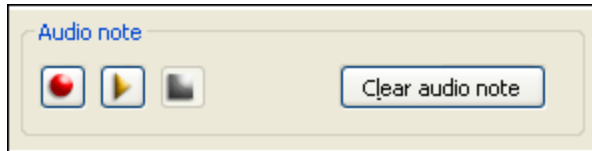
1. Right-click on the desired Title Clip.
2. Choose **Edit** from the context menu. The *Title Clip Details* dialog box will appear.
3. Make the desired changes to the options in this dialog box.
4. Choose **OK** to accept the edits and exit the dialog box.





## Adding Audio Annotation to Video and Title Clips

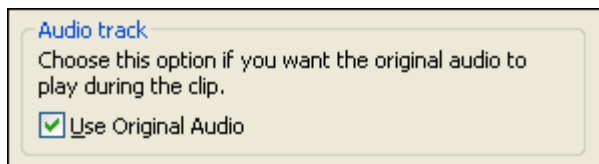
You can add an audio note to any Video or Title Clip. Audio notes can be added either when you first create a Clip or later, when you edit the Clip.

### To Add an Audio Note to a Video or Title Clip

1. Right-click on the Video or Title Clip in the *Project* pane, *Clip Bin* or *Storyboard*, and choose **Edit**.
2. In the *Video Clip Details* or *Title Clip Details* dialog box, locate the *Audio note* group box:



3. Click the **Record** button  to begin recording the audio note.
4. When the recording is complete, click the **Stop** button. 
5. The **Play** button  will now be enabled; click it to play back your audio note.
6. To erase the audio note, choose the **Clear Audio Note** button .
7. **For Video Clips:** Choose **Use original audio** if you want the original audio from the recording to play during the Clip. Disable this option to play silence during the Clip.



8. Choose **OK** to exit the *Details* dialog box.

### More Information about Audio Notes

By default, the system microphone is used for audio notes in *Manager*. For information about how to select a different microphone and adjust the volume of the selected microphone, see *Switching Microphones and Adjusting the Volume of Audio Notes in Manager* on page 137.

Audio notes added to Segments will carry through to Video Clips created from those Segments. For example, if you added an audio note to a Segment in *Analyzer*, and then switched to *Presenter* and created a Video Clip from that Segment, the audio would automatically become part of the Video Clip.

If you do not want the audio note from the Segment to be included in your highlight video, you can clear it and/or record another audio note for the Video Clip.

**To clear and/or record a new audio note:**

Right-click on the Clip, and choose **Edit**. Then, use the audio note tools in the *Video Clip Details* dialog box to clear the audio note and/or record another one.

**About the Audio Tracks on a Video Clip**

There are two possible audio tracks for any Video Clip:

1. *Original audio track* – the audio that is part of the original recording.
2. *Audio note track* – the audio note that you intentionally recorded for the Video Clip.

The *audio note track* will play *prior to* the Video Clip. The Video Clip will remain still until the audio note track has finished playing.

If the **Use original audio** option is enabled in the *Video Clip Details* dialog, the audio track from the recording will play *during* the Video Clip. In most situations, you will probably want the original audio track from the recording to play during the Video Clip. If you wish to play silence during the Video Clip instead, disable the **Use original audio** option.

**Switching Microphones and Adjusting the Volume of Audio Notes in Manager**

In *Morae Manager*, audio notes for Markers, Segments, and Clips are recorded using the system's default microphone. This microphone selection and its volume cannot be adjusted from within *Manager*. If you are having difficulty recording audio notes, you may need to check that the system default microphone is set to the one you are using during recording.

**To adjust your system's default microphone settings (in Windows XP)**

1. Go to *Windows Start > Control Panel > Sounds and Audio Devices*. The *Sounds and Audio Devices Properties* dialog box appears.  
**Note:** If you are in *Category View*, you will need to go to **Sounds, Speech, and Audio Devices** and also click on the **Sound and Audio Devices** link to access this dialog box.
2. Choose the *Audio* tab.
3. In the *Sound recording* group box, use the dropdown list to set the **Default device** to the microphone you want to use for recording audio notes in *Manager*.
4. To adjust the volume for this microphone, click on the **Volume** button in the *Sound recording* group box. Use the volume slider to increase or decrease the volume.

---

**Note:** If you have *Morae Recorder* installed on the same machine as *Manager*, keep in mind that changing the default microphone device may also change the device you have selected for recording with *Recorder*.

---

## Sorting and Viewing Clips

Presenter's *Clip Bin* offers a few sorting and viewing options for your Video and Title Clips that are not available in the *Project* pane. For example, while Video Clips must be organized on a per recording basis in the *Project* pane, the *Clip Bin*'s views allow you to see all Video Clips from all of your recordings in one location. You can then sort them by name, recording, duration, etc.

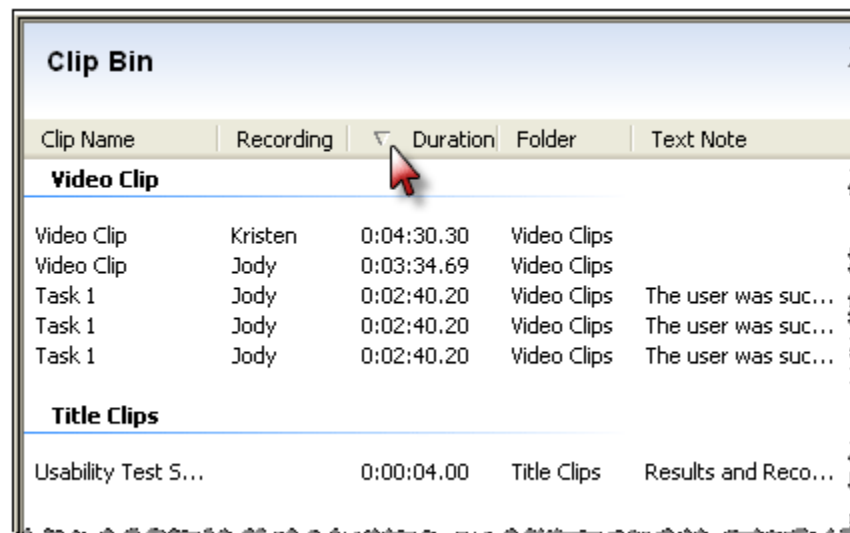
This section will briefly describe the two *Clip Bin* views, List and Thumbnail, and offer information about the sorting options available in these views.

### Clip Bin List View

The *Clip Bin*'s List View shows all of the Video and Title Clips you've created in detailed list format. The list contains five columns along the top: *Clip Name*, *Recording*, *Duration*, *Folder* and *Text Note*.

#### To sort the List View:

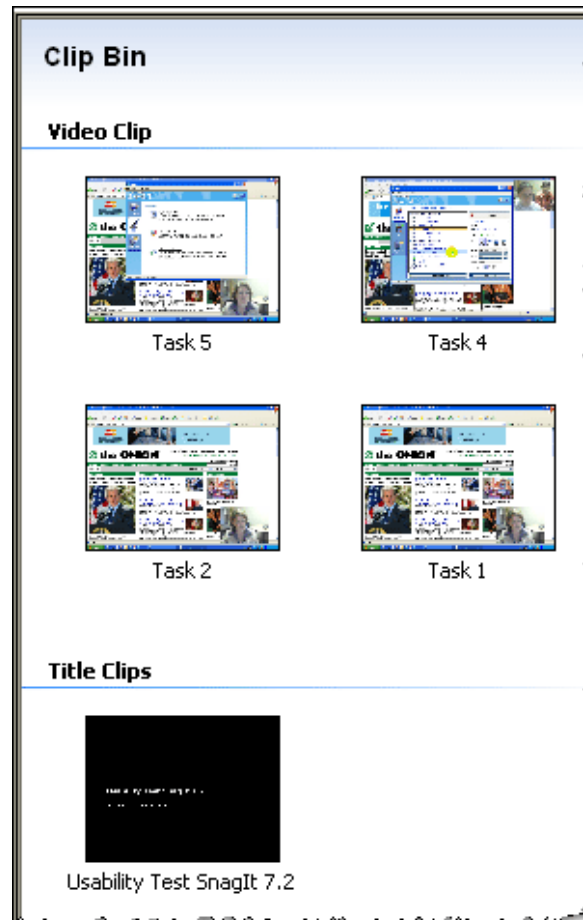
By default, the List View is sorted alphabetically by *Clip Name*. However, any of the columns can be sorted in ascending or descending order by clicking the heading name, as shown below.



Clip Name	Recording	Duration	Folder	Text Note
<b>Video Clip</b>				
Video Clip	Kristen	0:04:30.30	Video Clips	
Video Clip	Jody	0:03:34.69	Video Clips	
Task 1	Jody	0:02:40.20	Video Clips	The user was suc...
Task 1	Jody	0:02:40.20	Video Clips	The user was suc...
Task 1	Jody	0:02:40.20	Video Clips	The user was suc...
<b>Title Clips</b>				
Usability Test S...		0:00:04.00	Title Clips	Results and Reco...

### Clip Bin Thumbnail View

The *Clip Bin*'s Thumbnail view shows first-frame thumbnails of all of the Video and Title Clips you have created.



### To sort the Thumbnail View:


By default, the Thumbnail View is sorted alphabetically by *Clip Name*. Right-click in the *Clip Bin*, and choose the desired option from the **Sort By** menu. Or, choose **Clip > Sort By** from the main menu, and select a category to sort by: **Clip Name**, **Recording**, **Duration**, **Text Note** or **Folder**.

### To change the size of the images in this view:

Right-click in the *Clip Bin* and choose the desired option from the **Thumbnail Size** menu. Or, choose **Clip > Thumbnail Size** from the main menu, and then select the size: **Large**, **Medium**, or **Small**.

### Changing Clip Bin Views

There are three ways to toggle between the List and Thumbnail Views in the *Clip Bin*:

- Click the **Switch Clip Bin View** toolbar button  to toggle between the List and Thumbnail Views. Alternatively, click on the button's dropdown arrow and select a view.
- Choose **Clip > View** from the main menu, and select a view from the flyout menu.
- Right-click in the *Clip Bin*, and choose **View** from the context menu. Select a view from the flyout menu.

## Assembling a Video Using the Storyboard

In *Presenter*, the *Storyboard* pane is prominently displayed at the bottom of the screen. The *Storyboard* is the staging area you will use to assemble your Title and Video Clips in the order that you want them to play back in your highlight video.



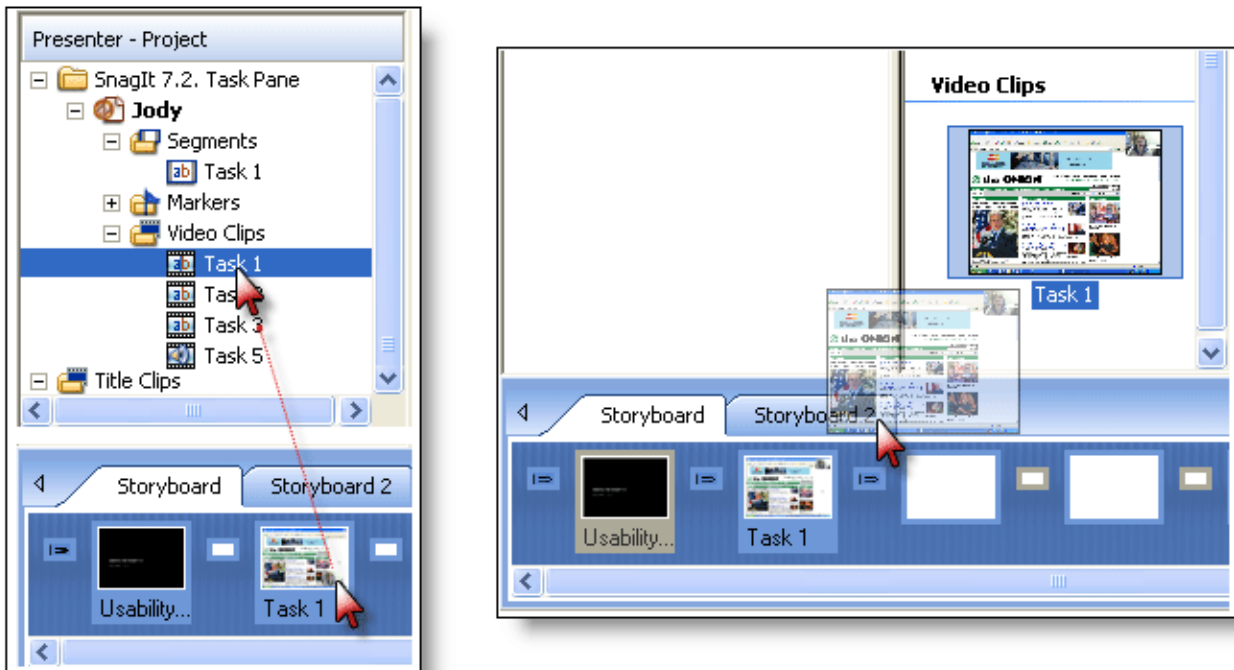
- 
- 1 Storyboard tabs.** Multiple *Storyboards* are represented in this tabbed view. Click on the tabs to switch between *Storyboards*. For more information, see *Creating Multiple Storyboards* on page 146.
  - 2 Transition buttons.** Click any active button to enable or disable the transition. For more information, see *Using Transitions* on page 145.
  - 3 Clip placeholder.** To add a Title or Video Clip to the *Storyboard*, drag the Clip to an empty Clip placeholder.
- 

### ***Adding and Arranging Clips on the Storyboard***

Video and Title Clips can be easily added to your *Storyboard* from the *Project* pane or the *Clip Bin*. Clips can also be created directly on the *Storyboard*. This section briefly describes the processes involved in adding Clips to the *Storyboard* and rearranging them once they are there.

#### **To Add a Clip to the Storyboard**

Select the Video or Title Clip from the *Project* pane or *Clip Bin*, and drag it onto the *Storyboard*. If it is a Video Clip, the first frame will appear as a thumbnail image on the *Storyboard*.




---

**Important:** The Clips in the *Project* pane and the *Clip Bin* are linked. Edits that you make to a Clip in the *Clip Bin* or *Project* pane apply in both places. When you drag a Clip to the *Storyboard*, however, a copy of the Clip is created. This copy is not linked to the original Clip in the *Project* pane or the *Storyboard*. If you edit a Clip once it is on the *Storyboard*, the changes will not apply to the copy in the *Clip Bin* or *Project* pane.

---

### To use a Clip more than once on the Storyboard

Drag the Clip repeatedly from the *Project* pane or *Clip Bin* onto the *Storyboard*.

### To insert a Clip before another Clip

Drop the Clip on top of the one you would like it to precede.

### To move a Clip that is already on the Storyboard

Click and drag the Clip from its current position to the desired position.

---

**Tip!** For easy access to Clip-related menu options, right-click on a specific Clip to see a context menu.

---

### To move multiple Clips to the Storyboard

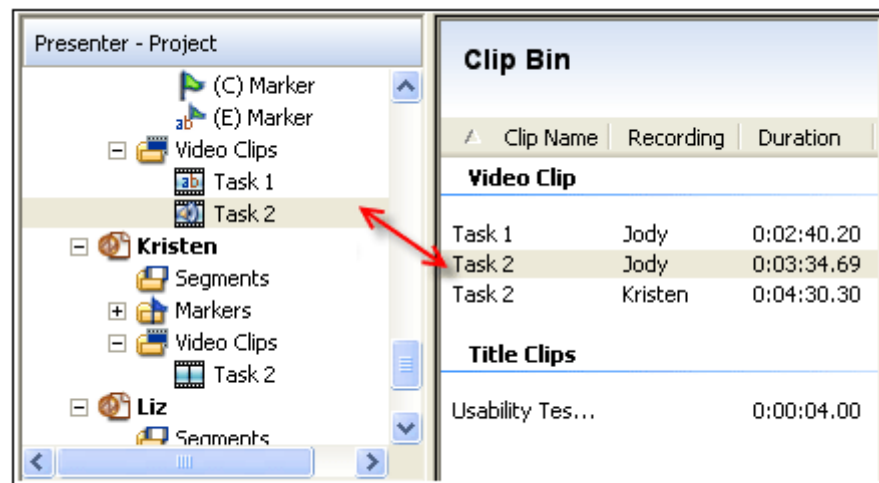
You can <Ctrl + Click> or <Shift + Click> on a group Clips in either the *Project* pane or the *Clip Bin* and then drag them to the *Storyboard*. They will be placed on the *Storyboard* in the order that they were listed in the original location.

## Editing the Storyboard

When you move your Video and Title Clips to the *Storyboard*, or if you create them there, they become an integral part of the *Storyboard* for your video. As such, Clips on the *Storyboard* behave differently than Clips located in the *Clip Bin* or *Project* pane. This section highlights some important details about working with Clips once they are on the *Storyboard*.

### Editing Clips on the Storyboard

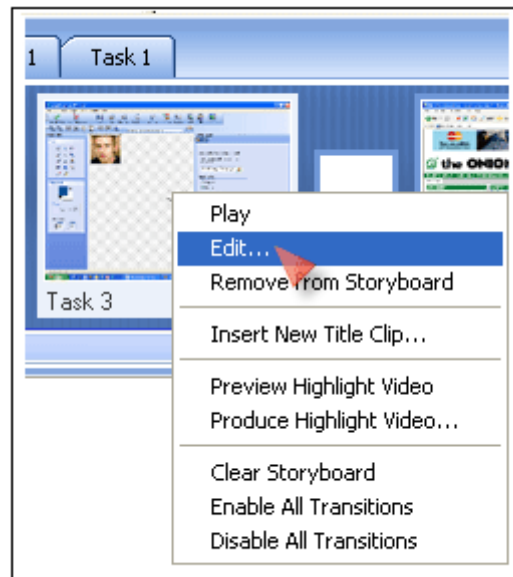
Clips stored in the *Project* pane are identical, and linked, to Clips stored in the *Clip Bin*. Edits made to a Clip in either of these locations will be applied to that Clip in both locations.



When you click and drag a Clip to the *Storyboard*, a copy of the Clip is made that is **no longer linked** to the Clip stored in the *Clip Bin* or the *Project* pane. Consequently, if you edit that Clip once it is on the *Storyboard*, the edits will not be applied to the copy of that Clip that exists in the *Clip Bin* or *Project* pane.

To edit a Clip that is on the *Storyboard*, right-click on the Clip, and choose **Edit** from the menu that appears:

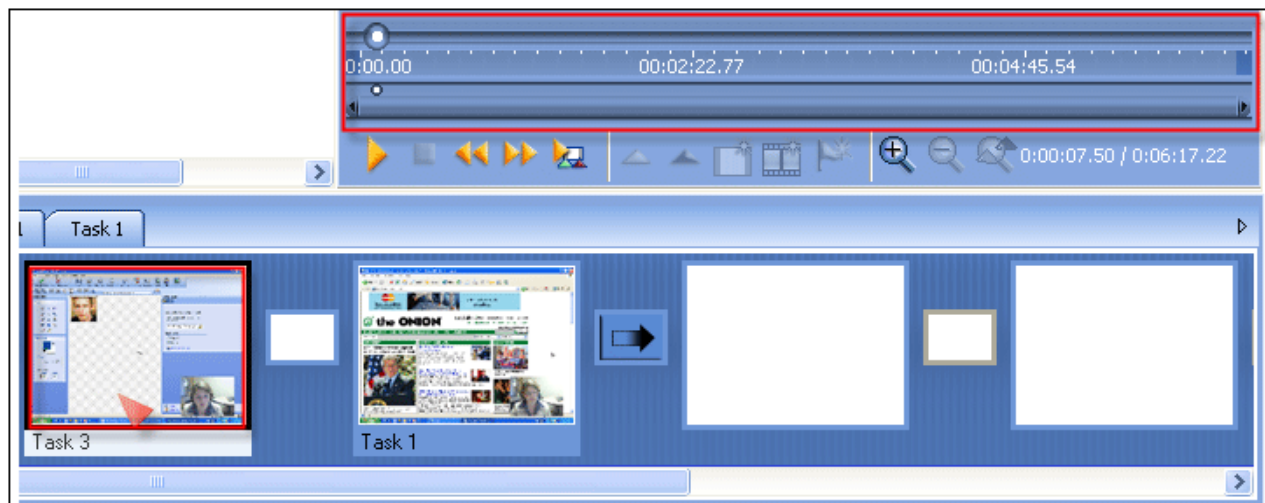




After you edit a Clip on the *Storyboard*, if you wish to keep a copy of the edited clip, simply click and drag it from the *Storyboard* back into the *Clip Bin*. A copy of the Clip will be made there and also within the *Video Clips* folder under the recording the Clip belongs to in the *Project* pane.

### Changing Video Clip In and Out Points

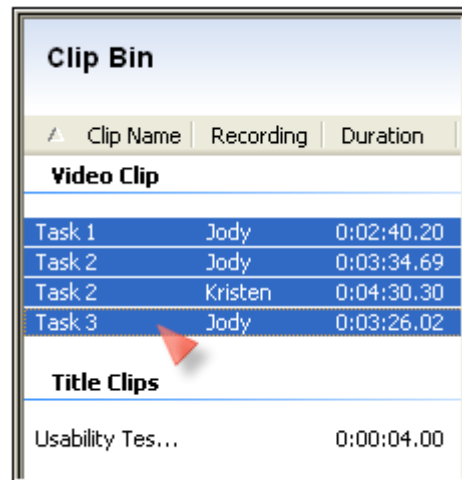
Once a Video Clip is on the *Storyboard*, you can no longer use the timeline controls to graphically adjust the In and Out points of the Clip. When you click on a Clip on the *Storyboard*, the timeline becomes a representation of the entire duration of the *Storyboard*, rather than displaying the duration of that individual Clip.



You can, however, manually adjust the In and/or Out points of a Video Clip on the *Storyboard* within the *Video Clips Details* dialog for that Clip. To access this dialog, right-click on the desired Clip and select **Edit**. Change the In and/or Out Point(s) using the arrow controls.

### Selecting and Dragging Multiple Clips

You can select multiple clips in the *Clip Bin* or *Project* pane, using <Shift + Click> or <Ctrl + Click>, and move them to the *Storyboard*.



They will be placed on the *Storyboard* in the order in which they were listed in the original location.

You can also select multiple Clips on the *Storyboard* and move them to the *Clip Bin*. You cannot, however, move multiple Clips from the *Storyboard* directly to the *Project* pane.

### Deleting Multiple Clips

You can select multiple clips in the *Clip Bin* or *Project* pane, using <Shift + Click> or <Ctrl + Click>, and then delete them by pressing the <Delete> key.

### Moving Clips on the Storyboard

To rearrange the order of Clips on the *Storyboard*, simply click and drag each Clip to the desired new location.

You can also select multiple Clips on the *Storyboard* using <Shift + Click> or <Ctrl + Click> and move them as a group to a new location on the *Storyboard*.

### Previewing Clips on the Storyboard

When you use the **Preview Highlight Video** option, the *Storyboard* will visually highlight the Clip currently being played, so that you can always tell where you are on *Storyboard*.

To preview your highlight video, right-click on the *Storyboard*, and choose **Preview Highlight Video**. Or choose **Storyboard > Preview Highlight Video** from the main menu.

## Using Transitions

Transitions are animated effects that allow you to fade in at the beginning of a video, dissolve smoothly between Clips, and fade out at the end of the video. If you do not enable a transition between Clips, the first Clip will cut abruptly to the next.

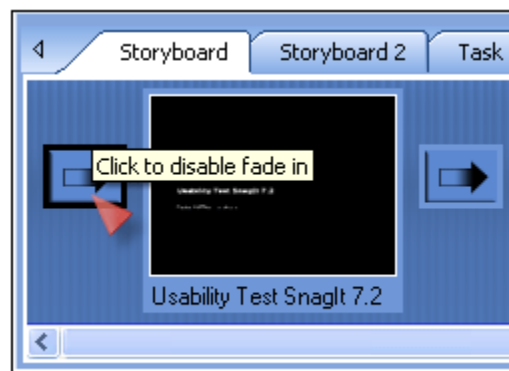
### Enabling Fade In/Fade Out Transitions

You can enable a fade in transition (fade from black) before the first Clip on the *Storyboard* and a fade out transition (fade to black) after the last Clip. All fade in and fade out transitions are 3.5 seconds in duration. This duration cannot be adjusted.

The fade out transition placeholder will automatically adjust its position as you add Clips to the *Storyboard*, so that it always remains to the right of the last Clip.

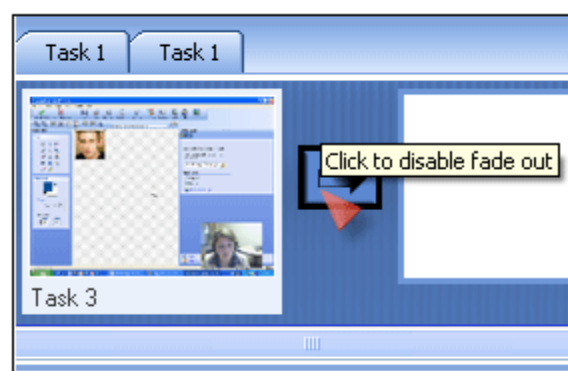
#### To enable the fade in transition:

Click on the placeholder button before the first Clip on the *Storyboard*.



#### To enable the fade out transition:

Click on the placeholder button after the last Clip on the *Storyboard*.



### Enabling Transitions between Clips

The standard transition between clips is a dissolve (fade) effect that is three seconds in duration. This duration cannot be adjusted.

#### To enable a transition between two Clips:

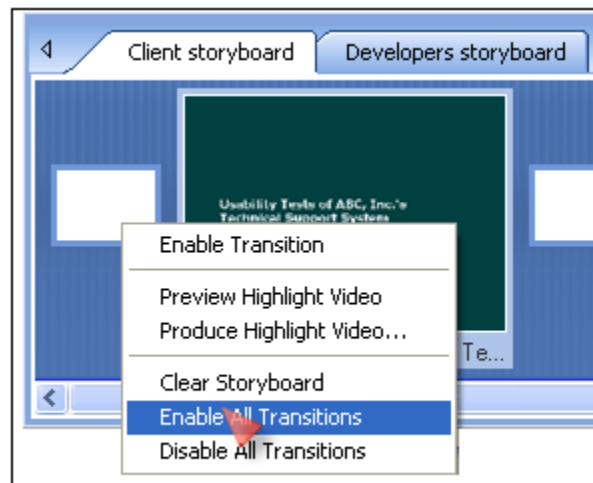
Click on the transition placeholder button between the Clips. Alternatively, you can right-click on the button, and select **Enable Transition** from the menu.

#### To disable a transition between two Clips:

Click again on the placeholder button between Clips. Alternatively, you can right-click on the button and deselect **Enable Transition** from the menu.

### Enabling/Disabling All Transitions

To quickly enable all transitions, including fade in, fade out, and all transitions between Clips, right-click on any transition placeholder, and choose **Enable All Transitions**.



To disable all transitions at once, right-click on any transition placeholder button, and choose **Disable All Transitions**.

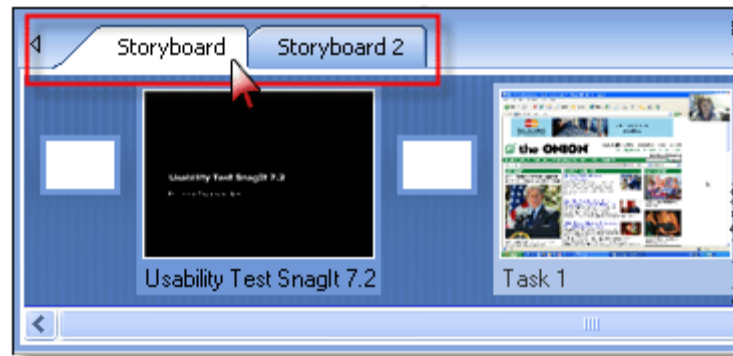
---

**Note:** The options for enabling/disabling transitions are also available on the *Storyboard* main menu.

---

### Creating Multiple Storyboards

*Presenter* allows you to create and manage multiple *Storyboards* inside one project. Multiple *Storyboards* are presented in a tabbed view within the *Storyboard* pane. To navigate from one *Storyboard* to another, simply click from one tab to the next.

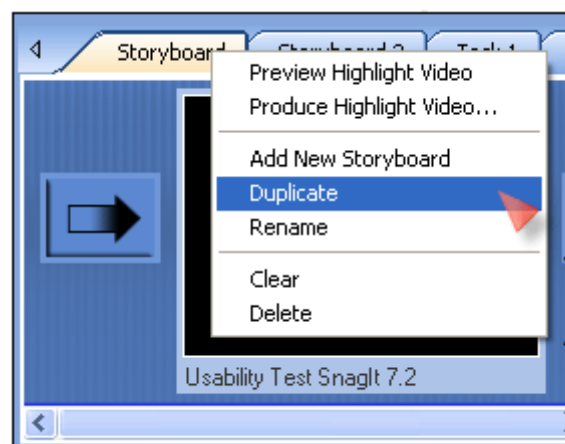


### To add a new *Storyboard*

Right-click in the *Storyboard* pane, and choose **Add New Storyboard**.

### To add, remove, copy, rename or clear the contents of the *Storyboard*

Using the options on the main *Storyboard* menu, you can easily add, remove, copy, rename or clear the contents of a *Storyboard*. Many of these options are also available in the context menu that appears when you right-click on a *Storyboard* tab:



### *Previewing the Storyboard*

Once you have arranged your Video and Title Clips in the desired order for your highlight video, you can use the **Preview Highlight Video** option to see and hear how your highlight video will playback before you go through the production process.

Choose **Storyboard > Preview Highlight Video** (or right-click on the *Storyboard*, and choose **Preview Highlight Video**) to play the Clips in their current order on the *Storyboard*.

If you are satisfied with your *Storyboard* contents, continue with *Producing a Video*.

## Producing a Video

Using *Presenter's Production Wizard*, you can quickly turn Video Clips and *Storyboards* into AVI or WMV files. The *Production Wizard* allows you to produce either an individual Video Clip or *Storyboard*, or batch produce multiple Clips and *Storyboards*.

### Producing Video Clips


To produce one or more Video Clips, select the Clip(s) in the *Clip Bin*, then right-click and choose **Produce Clip(s)**. This will open the *Production Wizard* at *Step 2: Video Encoding Options*, which will lead you through the rest of the steps in the wizard.

---

**Note:** To select multiple Video Clips in the *Clip Bin*, click on your first selection and then <Shift> + Click on the second, and so on.

---

### Producing Storyboards

To produce one or more *Storyboards*, click the **Produce Highlight Video** button  or choose **Storyboard > Produce Highlight Video** from the menu bar.

This will open the *Production Wizard* at *Step 1: Storyboards to Produce*, which will lead you through the four-step production process.

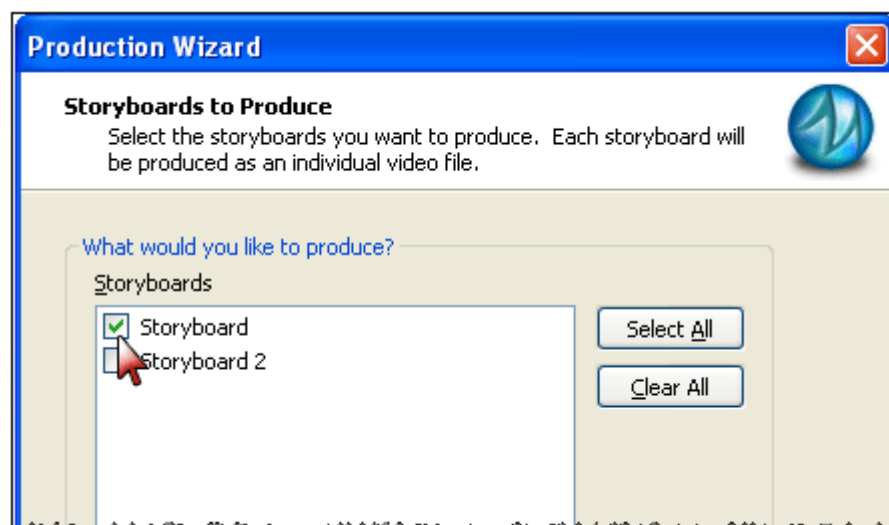
#### Step 1: Choose Storyboards to Produce

In this step, place a checkmark next to one or more *Storyboards* that you want to produce as WMV or AVI videos. Once you have made your selections, click **Next** to continue.

---

**Note:** If you entered the *Production Wizard* by choosing **Produce Clip(s)**, you will skip this screen and start at *Step 2: Video Encoding Options*.

---



## Step 2: Choose Video Encoding Options

The second screen in the *Production Wizard* is the *Video Encoding Options* dialog box. The options in this dialog box allow you to determine how the video will be compressed during production.

There are three video compression options. Choose the option that best fits your production situation:

- **Full Motion Video** (produces a WMV file) — This option provides a good compromise between file size and video quality.
- **Lossless Video** (produces an AVI file) — This option provides the highest quality video, but may increase the size of your recording file, especially if the video contains areas with a lot of motion, such as Picture in Picture (PIP).
- **Custom** (produces an AVI file) — This option allows you to completely customize your production configuration.

Once you have made your selections, choose **Next** to continue.

## Step 3: Choose a Video Size

The third screen in the *Production Wizard* is the *Video Size* dialog box. The options in this dialog box allow you to set the size of the produced highlight video. We recommend using the default setting, which is **Largest video size**.

Once you have entered the desired options in this dialog, choose **Next** to continue.

## Step 4: Produce the Video

The final step in producing a video is the actual rendering. This process assembles all of the audio, video, and images into one video file based on the sequence you have established on the *Storyboard*.

The *Produce Video* dialog box allows you to enter the destination folder name and file name for the video. If you want to use the original name of the Clip or *Storyboard* as the file name, choose **Use clip titles or storyboard names**.

In the *File size options* group box, you choose to **Disable transitions to decrease file size**.

Finally, select whether to **Show production results** to see a summary of what happened during the production process.

Once you have set all of the *Produce Video* options, you are ready to start the rendering process. Within the *Produce Video* dialog box, click the **Finish** button. The rendering will begin immediately.

# Tips and Best Practices

## Overview

This section contains supplementary information on several topics related to using *Morae*. These topics are derived from some of the most frequently asked user questions. We hope these tips and best practices will help you to become more comfortable and efficient while using *Morae*.

The topics covered in this section include:

- *How Rich Recording Technology Works*
- *Using Codecs in Morae*
- *Adjusting Volume in Recorder*
- *Using the Test Recording Option in Recorder*
- *Using Recorder's COM Server*
- *Choosing a Recorder Computer Name*
- *Changing the Default Project Path*
- *Two Ways to Use Morae AVIs in PowerPoint*
- *Morae Quick-Use Checklist*



## How Rich Recording Technology Works

During recording, Rich Recording Technology (RRT) collects and fuses two types of information: video input (camera video, screen video, and microphone audio) and data input (keyboard entry, screen text, mouse clicks, and system and application events). *Morae Remote Viewer* input is optional. The video streams are precisely correlated in time with the data streams. For example, where the data streams identify when a particular toolbar button is pressed in a specific application, the screen recording shows the user pressing the toolbar button. The synchronized video and data streams are saved in a recording file that can be opened within *Morae Manager*.

As illustrated in the following figure, when the recording file is opened and indexed by *Morae Manager*, users can conduct a search of the data input streams, select one of the search results, and then see a specific event highlighted visually in the indexed screen video, which is displayed in the *Player Window*.

- 1 The user selects an event from the list of search results.
- 2 The playhead moves to that point in the screen video.
- 3 The Player Window displays the visual record of that event with the event highlighted.

**Search Results**

Search...

View: [Icons]

Metrics: Selected Duration: 0:00:00.000  
Number of Events: Total: 1528, Selected: 1

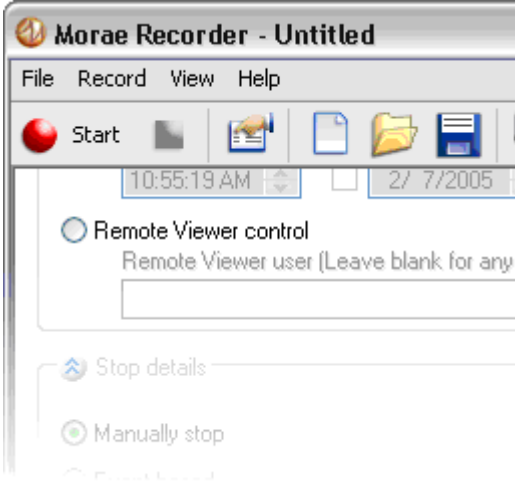

Elapsed ...	Event	URL	Window Title	Focus
0:06:02.80	Window/Dialog Events			Focus
0:06:02.80	Window/Dialog Events			Focus
0:06:02.80	Window/Dialog Events			Focus
0:06:02.80	Window/Dialog Events			Focus
0:06:10.20	Mouse Clicks		FolderView	
0:06:12.20	Mouse Clicks		FolderView	
0:06:12.40	Window/Dialog Events		FolderView	Focus
0:06:13.60	Window/Dialog Events			Focus
0:06:13.60	Mouse Clicks		Save As	
0:06:17.20	Mouse Clicks		FolderView	

## Using Codecs in Morae

The word “codec” stands for compressor/decompressor. A codec is used to compress videos down to smaller sizes, or decompress videos for playback. In the simplest terms, a codec is just the algorithm used to create a video. By default, Windows comes with many different codecs that can be used in *Morae*. Each codec has its own set of strengths and weaknesses. Certain codecs are better to use than others in certain situations, because of the way they compress content. This section will cover some of the most commonly used codecs, discuss what kind of content they are suited for and explain how to select different codecs in *Morae Recorder* and *Manager*.

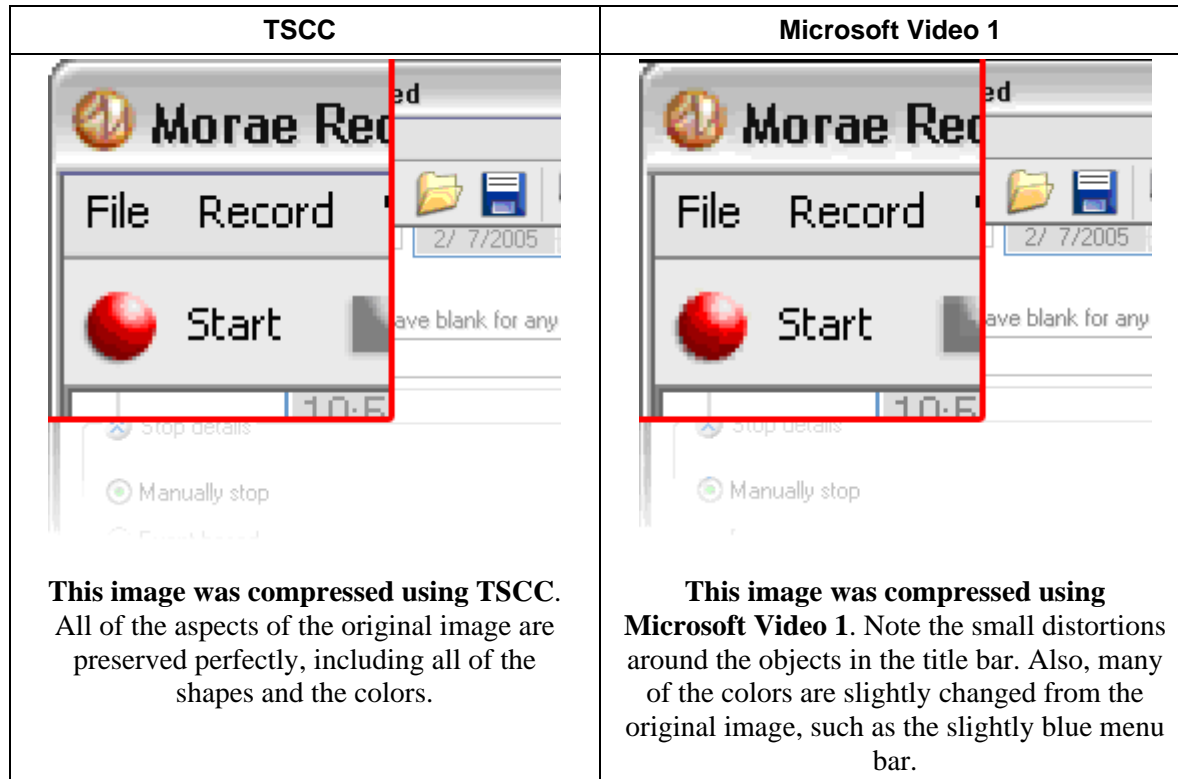
### TechSmith Screen Capture Codec (TSCC)

The TechSmith Screen Capture Codec (TSCC) is the default codec used for recording screen video. This codec was created by TechSmith specifically for screen recordings of standard Windows content. TSCC is lossless, meaning that any recordings made with TSCC will always be 100% perfect quality. However, TSCC is designed for content that consists mostly of solid blocks of color. For instance, Microsoft Excel, Notepad, Word, and other Windows applications are mostly built from solid colors. If TSCC is used to compress video from a camera, gradients, dithered images, or other content that does not contain solid blocks of color, then the TSCC codec will not compress the video well at all. In some cases, such as video from a camera, the file sizes of the recordings may be close to that of an uncompressed video. It is very important to only use TSCC to compress the content that it is intended for. Using TSCC to compress the webcam video in *Morae* is never suggested, as the recording will often be as large as an uncompressed video. Please see the images below for examples as to what content is best for TSCC compression.

Ideal Image	Worst Case Image
 <p>The solid blocks of color in this image make it an ideal candidate for TSCC compression.</p>	 <p>Since there are no solid blocks of color within this image, TSCC would not be a good choice for compression.</p>

### Microsoft Video 1

Microsoft Video 1 is a standard video codec that comes with Windows and provides mid-range compression, with a relatively small amount of quality loss. However, there is a certain level of quality loss when using Microsoft Video 1, as illustrated below.



In addition to Microsoft Video 1 being lossy, it also does not compress videos nearly as well as some of the more modern video codecs, such as Microsoft Mpeg 4 V2 or, in some situations, TSCC. Using the image above, displayed in a video for 10 seconds, the TSCC compressed video was almost half the size of the video compressed with Microsoft Video 1. However, this is because TSCC is designed specifically for this type of content – mostly large, solid blocks of color. When creating a 10 second video with the tree image used earlier, the TSCC compressed video was nearly 60% larger than the Microsoft Video 1 compressed video. This makes Video 1 a decent alternative to TSCC when real world video, gradients, or dithered images are being recorded.

### Microsoft Mpeg 4 V2

The Microsoft Mpeg 4 V2 codec is very effective at compressing most types of video but sometimes with notable quality loss. This codec, however, will often produce the smallest file sizes when working with real world video, such as the tree image, or when recording applications with many gradients or dithered images. Microsoft Mpeg 4 V2 is also ideal for any application that contains a lot of movement on the screen. However, this codec's major downfall is the quality loss involved. While this can be controlled through the quality settings, the loss may sometimes be much more pronounced than a codec like Microsoft Video 1. Please see the example below:

Microsoft Mpeg 4 V2	Microsoft Mpeg 4 V2
 <p>Microsoft Mpeg 4 V2 often has small distortions throughout the entire image, even in solid blocks of color, rather than distortions only around objects or changes in color. However, it does a good job of maintaining general color accuracy during compression.</p>	 <p>Distortions within the image are much more difficult to notice, however, when working with real world images.</p>

While Mpeg 4 V2 may have more quality loss than other codecs, it makes up for this downside with its fantastic compression. When using Mpeg 4 V2 to compress a 10 second video of the tree image, the file size was 37% of the size of the TSCC compressed video and 45% of the size of the Microsoft Video 1 compressed video. Mpeg 4 V2 is the ideal codec for real world images, gradients, and dithered images.

Unfortunately, Microsoft Mpeg 4 V2 is not always distributed within Windows anymore. Most systems should have this codec available for use but not all may. If Microsoft Mpeg 4 V2 is not listed as a codec on your system, it may not be installed. Currently, Microsoft is not distributing a standard Video for Windows version of this codec, so it is not possible to install the codec from Microsoft's Web site. However, there are viable third party options that are very similar to Microsoft Mpeg 4 V2, such as the DivX codec.

### DivX

DivX is an advanced codec created and distributed by [DivX.com](http://divx.com). DivX provides excellent compression with great quality, comparable and often better than Mpeg 4 V2. For general information on this codec, please visit: <http://www.divx.com/support/what.php>

DivX is an excellent alternative to those who do not have Microsoft Mpeg 4 V2. However, it is not a free codec and must be purchased for full use.

---

**Note:** DivX is not supported for the Web cam recording in *Morae*. DivX can only be used for the screen recording.

---

## Morae File Sizes

### **Recorder RDG File Size**

As a general rule, you can expect to get around 10 to 15 MB per minute in a *Morae* RDG file. This is the closest and only estimation available. However, due to the many varying factors that determine file size, this estimation may or may not be completely accurate.

While there are many factors that play a direct role in the file size of an RDG file, the actual content being recorded plays the most active role. By default, *Morae Recorder* utilizes a lossless compression codec named TSCC (TechSmith Screen Capture Codec), which greatly compresses any content that contains mainly solid blocks of color. An example of such content would be a standard Windows application, such as Word or Excel. However, TSCC does not do a good job of compressing real world images, dithered images, gradients, or other images that generally lack solid blocks of color. Because the compression is so dependent upon the content within the recording, there is no way to create an estimation of file size that would be accurate for all recordings.

### **Morae Highlight Video File Size**

The file size of highlight videos can vary greatly depending on the video format that is selected for production. AVI highlight videos are generally much larger than WMV files, but with higher-quality playback due to the TSCC codec. If you produce a video using AVI format and also select to use the TSCC codec, then the same compression rules used for RDG files also apply to an AVI highlight video that uses TSCC.

If you produce your highlight video in WMV format, the file size will be much smaller but at the cost of some video quality. However, the *Morae* WMV files are often around 3 to 4MB per minute, which often makes the tradeoff well worth the small amount of quality loss. If you need to distribute your highlight videos over the web, via email, or through other limited space or low bandwidth mediums, WMV would be the best format to use.

## Adjusting Volume in Recorder

In *Recorder*, you can monitor the audio input level from the microphone prior to recording using the **Mic volume** indicator in the *Camera Preview* pane. A reading in the green to yellow range indicates a normal audio volume, whereas a reading in the orange to red range warns you that the input volume is too high. The key to good-quality audio recording is to keep the input level as high as possible without exceeding the range of values that can be stored digitally when encoded. A Mic volume level that is frequently in the red range indicates that the input level is too high. This will result in distorted audio recording. The input level also depends on your particular microphone, how close you are to the microphone and the volume of the speaker's voice during recording.

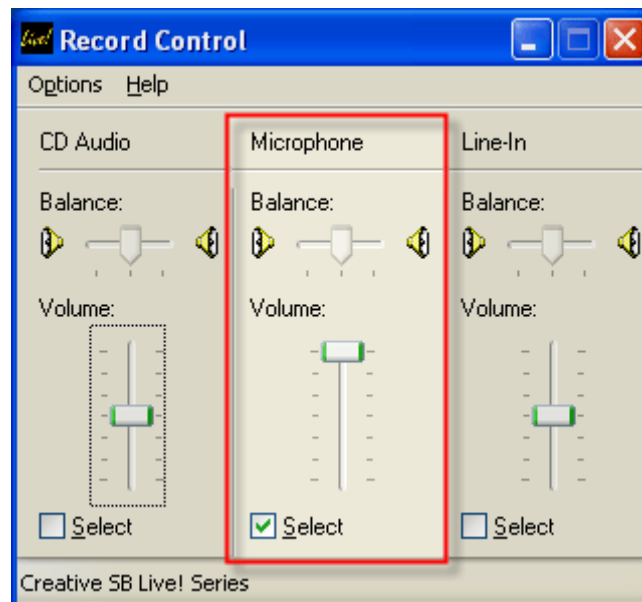
If your audio input level is consistently too high (in the orange to red range on the Mic volume indicator), you can adjust it using the **Microphone** options in the *Record Control* dialog box.

---

**Note:** This is not a Windows standard dialog box. The appearance and options in this dialog box may vary according to the sound card installed on the *Recorder* source computer.

---

To access this control from within *Recorder*, choose the **Record > Settings > Audio** tab and then click on the **Volume** button.



Place a checkmark in the **Select** box under the **Microphone Volume** slider. Use the slider to increase or decrease the volume input level.

## Using the Test Recording Option in Recorder

*Recorder's Test Recording* option recording includes all of the data streams for the *Capture options* you have chosen in the *Configuration* pane. *Recorder* will notify you of any problems with the current configuration so that you can correct them prior to beginning an actual recording session.

When the 10-second test recording is complete, the screen video, camera video Picture in Picture (PIP) and audio streams will immediately play back. The test playback will confirm whether *Recorder* is accurately capturing camera video, screen video, and audio. This test also silently checks the other configuration settings you have chosen. It will not check any start and stop settings you have selected.

If you are satisfied with the test recording and have not received any error messages, you can proceed to record using those settings.


---


**Note:** A Test Recording does not confirm your start and stop option settings.

---

### To Run a Test Recording

Open the configuration (.mrcfg) file that you plan to use for the recording, or manually configure the settings as desired.

1. Click the **Test Recording** button  in the *Camera Preview* pane.

**Note:** If the *Camera Preview* pane is not visible, click the **Camera Preview** button  on the toolbar to make it visible.

2. A dialog box will appear, asking if you want to continue with the test recording. Choose **Yes** to continue.
3. The *Recorder* UI will minimize to a tray icon. The test recording will begin immediately and will proceed for 10 seconds. The message in the *Camera Preview* window will read “Recording in progress” and the status bar will confirm that a recording is being made.
4. During the test recording, be sure to create some sound and desktop activity for *Recorder* to capture (i.e., speak into the microphone and actively interact with the source computer).

At the end of the 10 seconds, the test video will play back and will include the screen video, camera video PIP, and audio from the temporary 10-second test file.

When the playback is complete, the window will close automatically. The test recording will not be saved for later viewing.



## Using Recorder's COM Server

Starting with version 1.2, *Morae Recorder* supports an out-of-process COM server that gives you access to many of its powerful recording features. This functionality can be accessed through any programming environment that supports COM. These include Visual Basic, Visual C/C++, Visual Studio.Net, Delphi, and C++ Builder.

The COM Server is built into *Morae Recorder*. To start using it:

1. Install *Recorder* on the desired system. This automatically makes the COM server available to other applications.
2. Next, read the *Recorder* COM Server documentation. This documentation is located in the *Recorder* COM server folder on the *Recorder* installation CD. The *Recorder* COM Server documentation can also be downloaded as a PDF from the TechSmith Web site.
3. Finally, examine and try out the sample programs (also included in the *Recorder* COM server folder) on the *Recorder* installation CD.

Following these steps should quickly give you the information you need to begin developing with the *Recorder* COM Server.



## Choosing a Recorder Computer Name

When you are connecting to *Recorder* over a network, the **Recorder computer name** that you need to supply in *Remote Viewer's Connect to Recorder* dialog box will vary depending on your network setup.

If you are using the machine name only (for example, MyComputer) and you cannot successfully connect, try using either the fully qualified domain name or the IP address of the *Recorder* machine, as described below.

### Use the Fully Qualified Domain Name

If the network does not recognize *Recorder's* machine name, it may be because it is not listed in your DNS server. In this case, consult your network administrator for the machine's fully qualified domain name, and enter that into the **Recorder computer name** field.

**Example:** MyComputer.techsmith.com (where “MyComputer” is the machine name and “techsmith.com” is the domain name).

### Use the IP Address

If you are unable to connect to *Recorder* using the fully qualified domain name, you will need to enter the IP address of the *Recorder* machine.

When you connect to a LAN, your machine is assigned an IP (internet protocol) address. This address identifies your computer from the other computers on the network. The IP address can either be static, meaning that it never changes, or dynamic, meaning that each time you dial-in or login, the computer is assigned a new address for that session.

Ask your network administrator whether the network uses static or dynamic IP addressing. If IP addresses are assigned dynamically, you may need to check the IP address for the *Recorder* computer each time that it is logged on to the network.

### To Find a Computer's IP address (for Windows 2000 and XP):

1. Go to *Windows Start > Run*
2. In the *Run* dialog box, type **cmd** to bring up a command line.
3. At the command line, type **ipconfig**. The Windows IP Configuration for that machine will be displayed.
4. Type this IP address into the **Recorder computer name** field in *Remote Viewer's Connect to Recorder* dialog box.

**Example:** An IP address has the following format: 10.8.2.42.

### ***How to Find the Recorder Computer Name***

1. Go to the *Recorder* source computer and right-click on the My Computer icon.
2. Choose **Properties** from the context menu that appears. The *System Properties* dialog box will display.
3. In Windows XP, choose the *Computer Name* tab and look in the **Full computer name** field. (If you are running Windows 2000, choose the *Network Identification* tab to find the same information.)

---

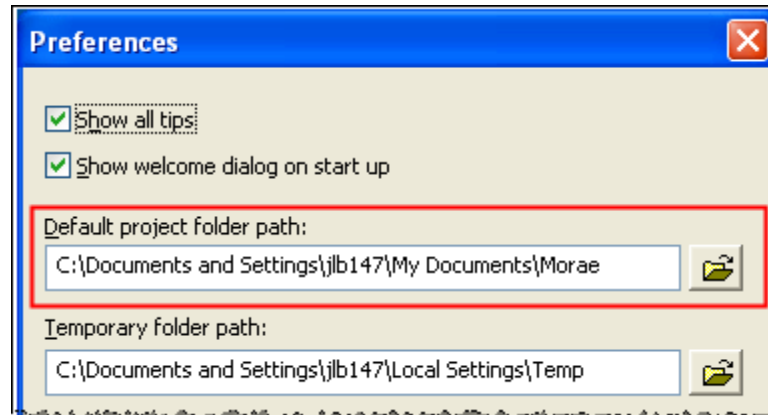
**Note:** Depending on the network setup, you may need to use the computer's domain name or IP address. For more information, see *Choosing a Recorder Computer Name* on page 159.

---

## Changing the Default Project Path

While you are working within a project, *Manager* transfers a large amount of data to and from the default project folder. For the best performance from *Manager*, be sure to choose a default project folder that is located on a local drive (on the same machine).

To change your **Default project folder path** in *Manager* choose **File > Preferences**, and then click the **Browse** button next to the **Default project folder path** field to browse for and select a new location.



## Two Ways to Use Morae AVIs in PowerPoint

### Overview

There are two ways to present a *Morae*-created AVI using Microsoft's PowerPoint, whether it is an entire highlight video or an individual video clip. You can either use *Morae Player* to playback the videos in your PowerPoint presentation, or you can embed a *Morae* AVI directly into the PowerPoint presentation.

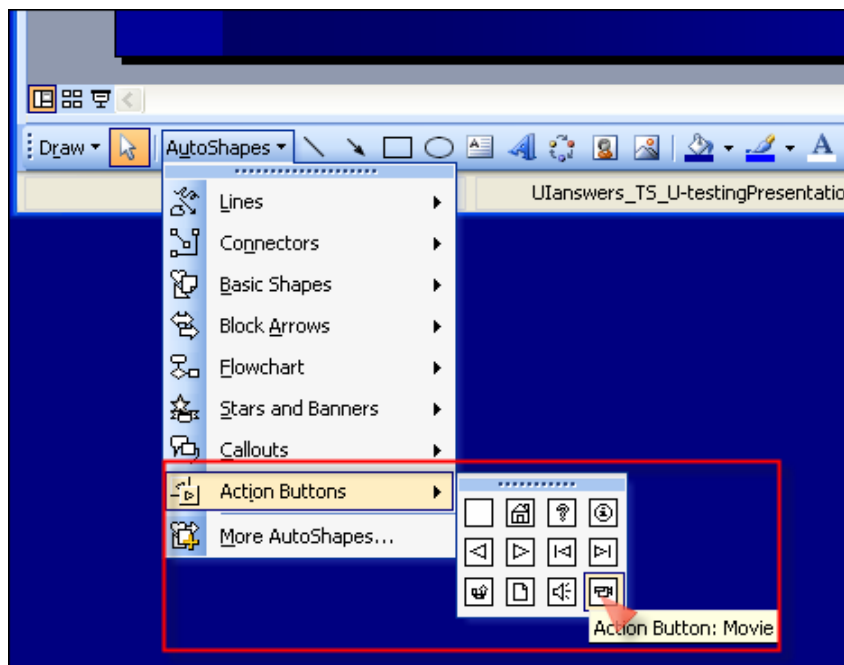
For the best playback quality, we highly recommend using the first technique.

### Using Morae Player to Play Videos in Your PowerPoint Presentation

Embedding AVIs into PowerPoint can degrade the quality of the video due to scaling. This problem can easily be avoided by using *Morae Player* to display your videos from within the PowerPoint presentation. *Morae Player* will not scale your AVIs and will always display them perfectly, so that you don't have to worry about poor-quality playback during your PowerPoint presentation.

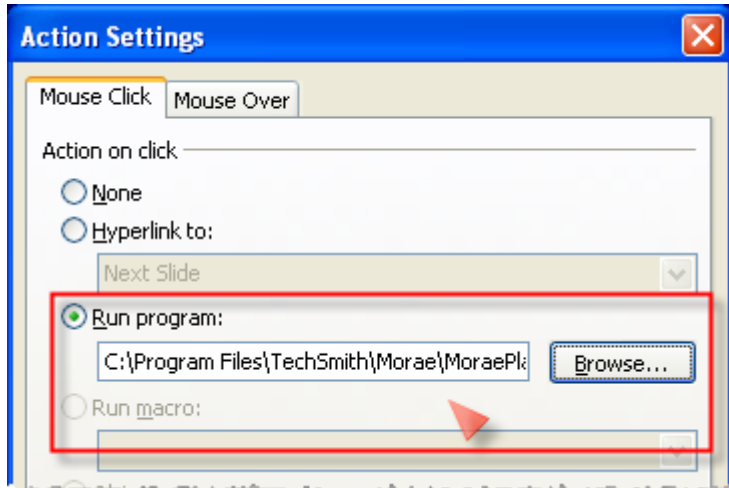
To use the *Morae Player* as your video *Player* in PowerPoint, you must make a button that will call *Morae Player*. You can then assign the necessary command line arguments so that it will play your video. Follow these steps to create a button on one of your PowerPoint slides that will play your video in *Morae Player*:

1. Choose **AutoShapes > Action Buttons** from the *Drawing* toolbar at the bottom of the screen and select an Action Button from the flyout menu. In this example, we'll use the **Movie** button.



2. Click on the slide to insert the chosen button.

3. The *Action Settings* dialog box will appear. (If it does not appear, right-click on the button and choose **Action Settings** from the context menu that appears.)
4. Select the **Run Program** option. This will allow you to call *MoraePlay.exe*, which is the executable for *Morae Player*.



5. Enter the path for *MoraePlay.exe* in the **Run Program** field, or use the **Browse** button to locate the *MoraePlay.exe*.

**Note:** The default location of *MoraePlay.exe* is:  
 C:\Program Files\TechSmith\Morae\Moraeplay.exe

6. Place the AVI file you want to play inside the same folder as the *MoraePlay.exe*.

**Note:** In order for this to work properly you must save your PowerPoint presentation and the AVI you want to play inside the same folder as *MoraePlay.exe*.

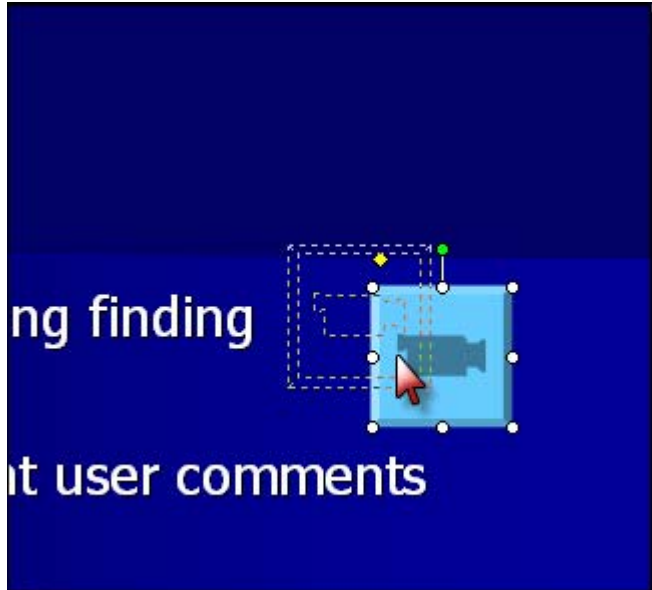
7. Enter any desired command line arguments in the **Run Program** field along with the name of your video (see *Available Command Line Options for Morae Player*, later in this section). Let's say your video is named "myvideo.avi." This means that you will need to enter the following into your **Run Program** field:

```
Moraeplay.exe /F /E myvideo.avi
```

When you click the Action Button, these commands will call *Morae Player* to run full screen (/F), play "myvideo.avi," and exit when finished (/E).

8. Click **OK** in the *Action Settings* dialog box.

9. To move the Action Button to the desired location on the slide, simply click and drag it.



10. Now, when you play your PowerPoint slide show, the button will be active. Click on it to play your AVI.

### Available Command Line Options for *Morae Player*

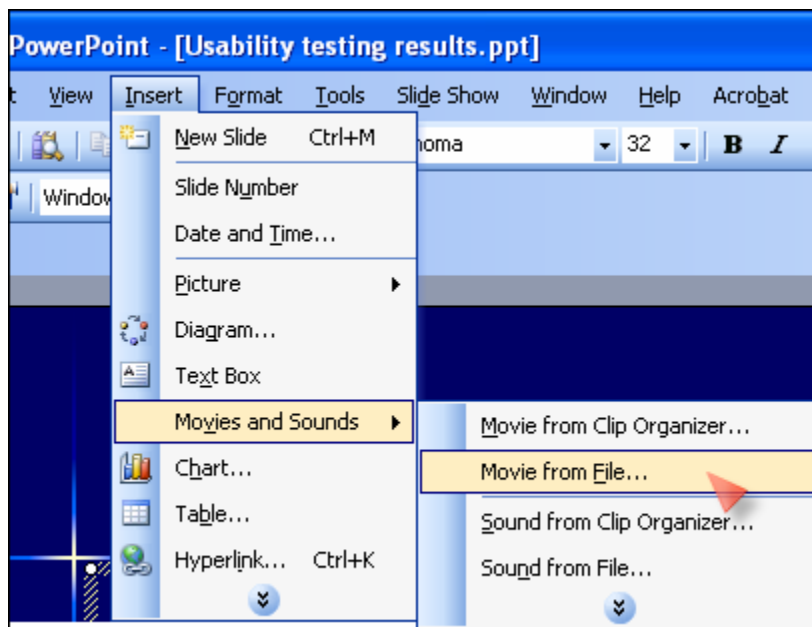
The following table describes all of the command line options available for *Morae Player*. Use these options to adjust how the *Morae Player* behaves when called.

Command Line Option	Description
/A	Launches with “Always on top” option.
/BC RGB(255,0,255)	Sets background color; the default is black.
/D	Launches without allowing “dragging” by the video area.
/E	Exits after playing the video.
/F	Launches in Full Screen mode.
/M	Launches without a menu bar.
/MX	Launches without its window maximized.
/open	Opens the specified video (<file>) but does not play it.
/play	Immediately plays the specified video (<file>); this is the default setting.
/R	Repeats the video indefinitely.
/S	Launches without a status bar.
/ST	Stay on last frame after <i>Player</i> .
/T	Launches without a title bar.
/TB	Launches without a tool bar.

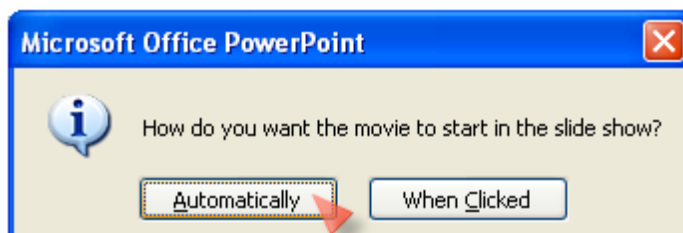
## Embedding a Morae Video in Your PowerPoint Presentation

**Note:** When embedding AVIs into PowerPoint the quality of the video may be degraded due to scaling. This problem can easily be resolved by using *Morae Player* to display your videos from the PowerPoint Presentation. See *Using Morae Player to Play Videos in Your PowerPoint Presentation* on page 162.

1. In Microsoft's PowerPoint, open the presentation in which you would like to embed the video.
2. Move to the slide where you would like to add your video.
3. Select menu options **Insert > Movies and Sounds > Movie from File**.



4. PowerPoint's *Insert Movie* dialog appears. Use this dialog to browse through your desktop's files and folders. Highlight the video you would like to embed and click **OK**.
5. A PowerPoint dialog will pop up and ask you how you want the movie to start:



- Select **Automatically** if you would like your video to play automatically.
- Select **When Clicked** if you want the video to start in the slide show after you click it.

6. The first frame of your *Morae* video should appear on the slide in which you chose to embed your video.

---

**Tip!** If you right-click over your embedded movie file and select menu option **Edit Movie Object** you can edit play options such as looping and rewinding.

---

### Guidelines for Embedding Morae AVI Files

- AVIs are typically large files, but are of high quality, which is important when you need to convey precise details.
- Scaling may occur when an AVI is embedded, it can degrade the quality of the video playback. To avoid this issue, see *Using Morae Player to Play Videos in Your PowerPoint Presentation* on page 162.
- Embedding an AVI can quickly increase the file size of your PowerPoint presentation.
- Embedding AVIs in your presentation is not recommended when planning to share via the Web unless you know your viewers all have high-bandwidth connections to the Internet. TechSmith recommends distribution via CD-ROM or corporate intranet.



## Morae Quick-Use Checklist

### Recorder

#### Installing and Configuring Recorder

- ☐ Run the installation setup on your desired recording computer if it is the first time *Recorder* has been used.
- ☐ Restart the system.
- ☐ Open *Recorder*.
- ☐ Select the desired options in the *Recorder* configuration area.
- ☐ Check your camera preview and audio levels.
- ☐ Run a test recording to verify everything is working properly.
- ☐ Save your configuration as a file if you would like to use it again later.

#### Recording

- ☐ Click the **Start** button to begin.
- ☐ Run your session.
- ☐ Stop *Recorder* (depending on your visibility settings, you can right-click the tray icon or maximize *Recorder* from the task bar, and click **Stop**).
- ☐ Save your recording, if you have not already. Note the location where you save the recording file so you can easily find it later when you are ready to move it or import it into *Manager*.

#### Moving Files and/or the Recorder Application

- ☐ If the testing computer does not have *Manager* on it, you will have to take your .rdg files to the *Manager* computer for analysis. Common ways to do this would be via removable drive, network drive, CD, or DVD.
- ☐ When moving .rdg files, be sure you also move any .ro1, ro2, etc. files that are in the folder with the .rdg file you are moving. These files are recording rollover files that are created when the size of the .rdg file exceeds 600 Mb.
- ☐ If you would like to move the *Recorder* application to another computer, you must uninstall it from its current computer and restart that system.

## Remote Viewer

### Installing Remote Viewer

- ☐ Run the installation on your desired computer if this is the first time *Remote Viewer* has been used.
- ☐ Open *Remote Viewer*.

### Connecting to Recorder

- ☐ Type in the *Recorder* computer's name or IP address.
- ☐ Type in your name as you would like it to appear for Markers and notes.
- ☐ To display the camera video and audio with *Recorder's* screen video, choose the **Include audio and PIP** option.  
**Note:** Selecting this option will result in a few-second delay between *Recorder* and *Remote Viewer*.
- ☐ Select the WMV option if you would like to record a local Windows Media video of your *Remote Viewer* session.
- ☐ Click **OK**.
- ☐ The recording session will appear, or you will get a message telling you that *Remote Viewer* is waiting for *Recorder* to start.

### Setting Markers

- ☐ While viewing, the easiest ways to initiate a Marker are by clicking the **Create a Marker** button, or by simply pressing <Ctrl + [letter]> on the keyboard.
- ☐ Add a name and text note, if desired.
- ☐ Send the Marker by pressing the <Enter> key or clicking the **Send** button.

### Disconnecting from Recorder

- ☐ You can disconnect from the session at any time by clicking the **Connect/Disconnect** icon.
- ☐ When the session ends on the *Recorder* side, you will receive a "Recording completed" message.
- ☐ You will now be able to view the WMV file if you selected that option when you connected.

### Moving the Remote Viewer Application

If you would like to move *Remote Viewer* to another computer, you must uninstall it from its current computer.

## Manager

### Installing Manager

- ☐ Run the installation setup on your desired computer if it is your first time using it. This is more important with manager because it cannot be moved as easily as *Recorder* or *Remote Viewer*.
- ☐ Open *Manager* (follow the activation wizard if this is your first time using *Manager*).

### Creating a Project

- ☐ To work on a project, select **Create a new project** or **Open an existing project**.
- ☐ Follow the wizard through the naming and file importing process. When you have selected all of the files you want to import, click **Finish**.
- ☐ If you decide that you need another recording file, you can import it by clicking the import recording icon, or by choosing **File > Import Recording**.
- ☐ If your files have rolled over, or created one or more .ro files, you will need to make sure you import these files along with their corresponding .rdg file.

Once you have your .rdg files imported, you will be able to do event searching, Segment creation and other analysis in *Analyzer*.

The *Presenter* will allow you to do further editing of your Clips, like adjusting the PIP. After you have arranged your *Storyboard*, you will be able to produce your highlight video.

### Producing a Highlight Video

- ☐ To produce your videos, click the **Produce Highlight Video** button or go to **File > Produce Highlight Video**.
- ☐ You will be given three file options in the *Production Wizard*: **Full motion video** (WMV), **Lossless video** (AVI) and **Custom** (AVI). The WMV will be a good mix of quality and size, while the AVI will have perfect quality but an overall larger size.
- ☐ If you produce an AVI and want to wrap it with the *Morae Player*, you can do this through the **File > Pack and Show** option. This is a good way to make sure the final recipient of the video file has everything they need to view it.
- ☐ To share your final video, you can move it to a network drive or use third-party software to burn it to a CD or DVD.

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