



Usability News is a free web newsletter that is produced by the Software Usability Research Laboratory (SURL) at Wichita State University. The SURL team specializes in software/website user interface design, usability testing, and research in human-computer interaction.

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## A Review of Morae™ 2.0 for Usability Testing

by [Sav Shrestha](#)

**Summary:** TechSmith's recent release, Morae™ 2.0, features a new graphing tool, integrated satisfaction survey, and embedded task definitions. The editable marker log in Observer and the improved timeline controls in the Manager improve operator efficiency. This article highlights these and other new features of the new 2.0.

### INTRODUCTION

In our last issue of [Usability News \(9.1\)](#) we provided a review of the usability testing software called Morae™ (version 1.3). Since then, a new version (2.0) has been released. This release of Morae 2.0™ addresses many of the issues we raised in our article and has exceeded our expectations. The new release improves upon the existing features as well as adds some new tools that make this a valuable upgrade.

For the uninitiated, Morae™ is a tool that can record onscreen activity along with camera video and audio. These capabilities give it the muscle to capture every aspect of the user experience and performance while interacting with any interface on the computer, including software interfaces and websites. Morae™ 2.0 comes with the Recorder, Observer (formerly Remote Viewer), Manager, and Player. The Observer has the ability to remotely connect to the Recorder and observe the user's onscreen activities along with the camera view (picture-in-picture PIP) and audio. This makes remote viewing very easy. The Manager is used to import the recordings, add and/or edit markers to segment different tasks within a recording, and combine different segments across different recordings to produce highlight videos. The highlight videos can be used to compliment the recommendations suggested on the written report. Player is simply a media player that is capable of playing the rendered highlight videos.

Morae™ 2.0 offers a set of new features as well as numerous improvements over its previous versions.

### The Recorder

The Recorder interface is quite different from the 1.3 version (Figures 1a & 1b). The settings are categorized into study settings, recording settings, and machine settings rather than all being presented on one page. One major difference, other than the layout, is that under the Study Settings the tasks can be defined so that markers can be anchored with the appropriate task while flagging in the Observer. This is a very useful feature although it would be even better if the experimenter could store pre-defined random orders of the tasks by participant. It would also be nice if there was an option to copy and paste the task definitions all at once from Word/Excel. A satisfaction survey (SUS or a customized survey) can also be administered directly from Morae™ (Figures 1c & 1d). The results from

the survey can then be directly graphed using the Manager.

One downside of the new Recorder is that it stores the path where the files are written under the Machine Settings, which is not intuitive to find. This path setting would be more accessible if placed on the top level of the application. Also, the configuration files are now project dependent unlike in the previous version. It would be helpful if Morae™ stored all the configuration files in one location and allowed the user to choose a configuration previously made or to create a new one from within Morae™ without having to browse through the Windows file structure to find the configuration file. Saving the configuration file is not as intuitive either since clicking "OK" on the study setup does not save the configuration file (nor is the user prompted to do so). Even though the configuration files are project specific, it would be nice to set up some attributes as defaults for all studies (like the mouse pointer and the mouse click feedback).

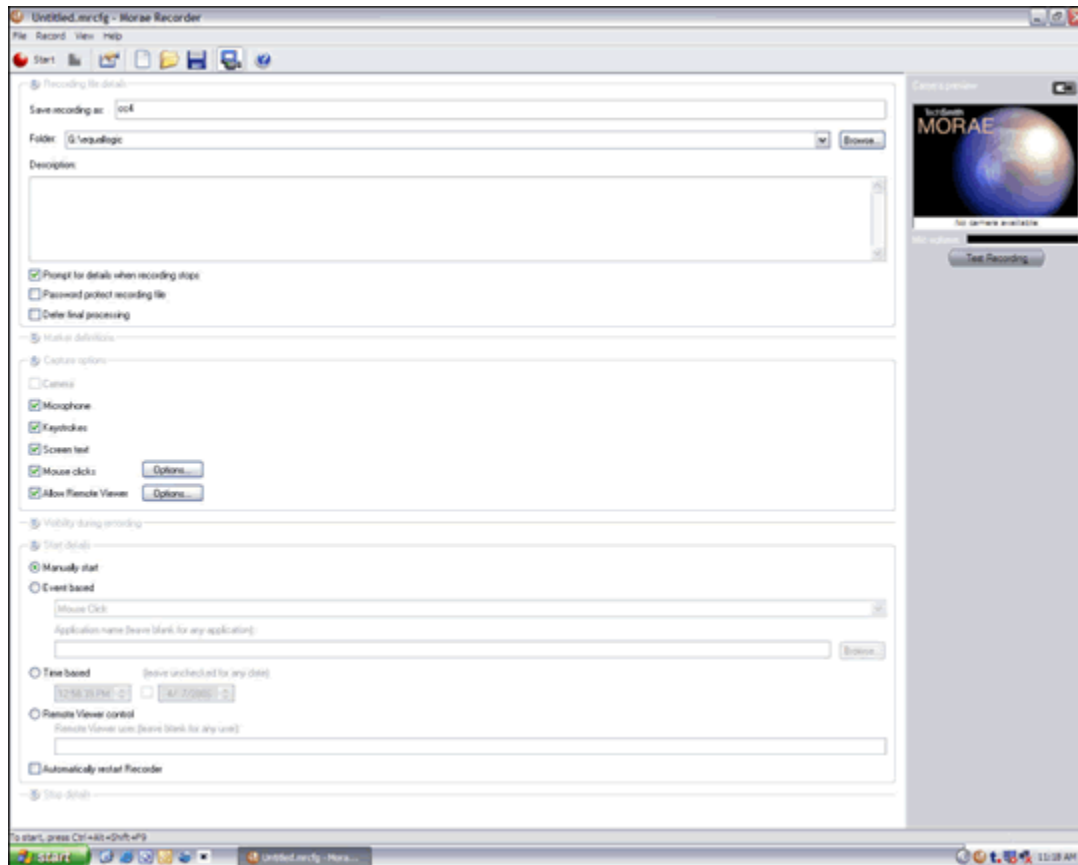


Figure 1a. Morae™ Recorder (Version 1.3)





Figure 1b. Morae<sup>TM</sup> Recorder (Version 2.0)

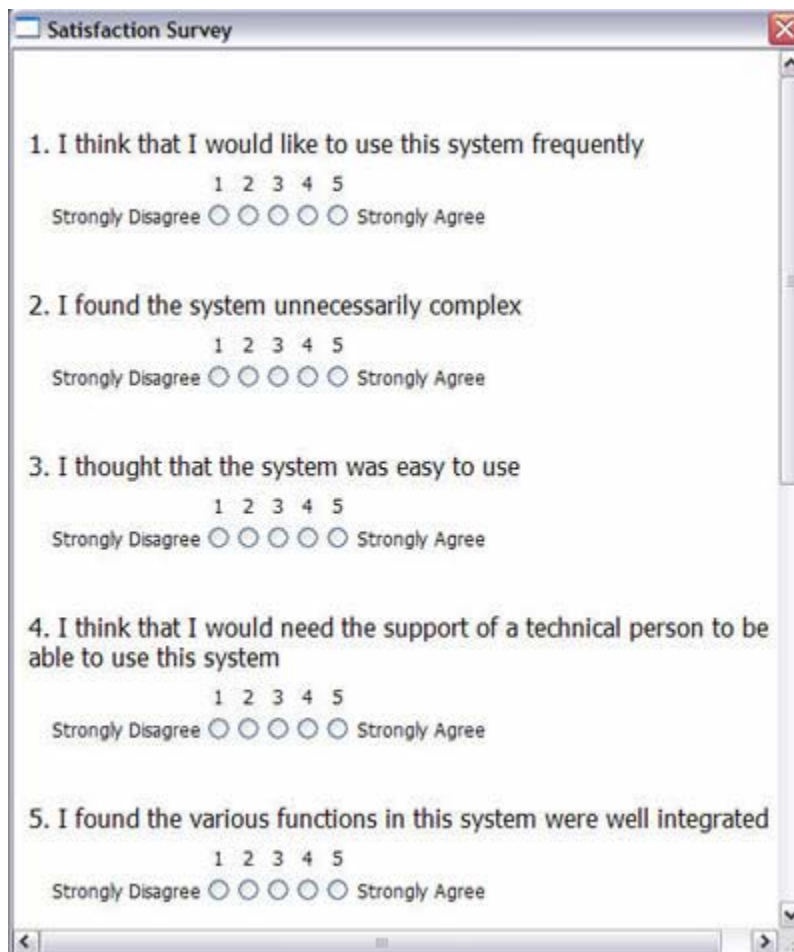
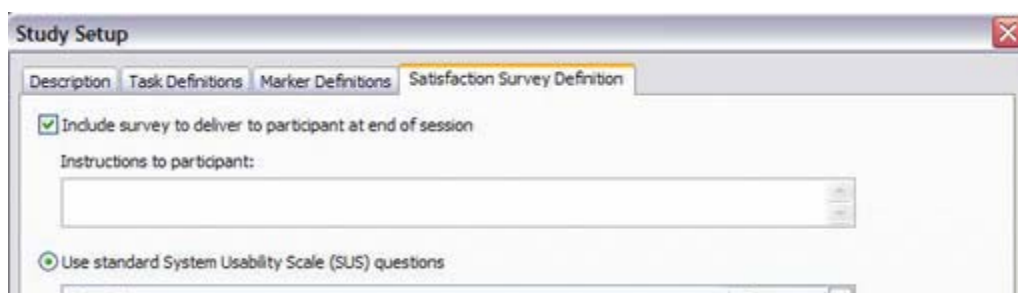


Figure 1c. Morae<sup>TM</sup> Recorder – Satisfaction Survey (Version 2.0)



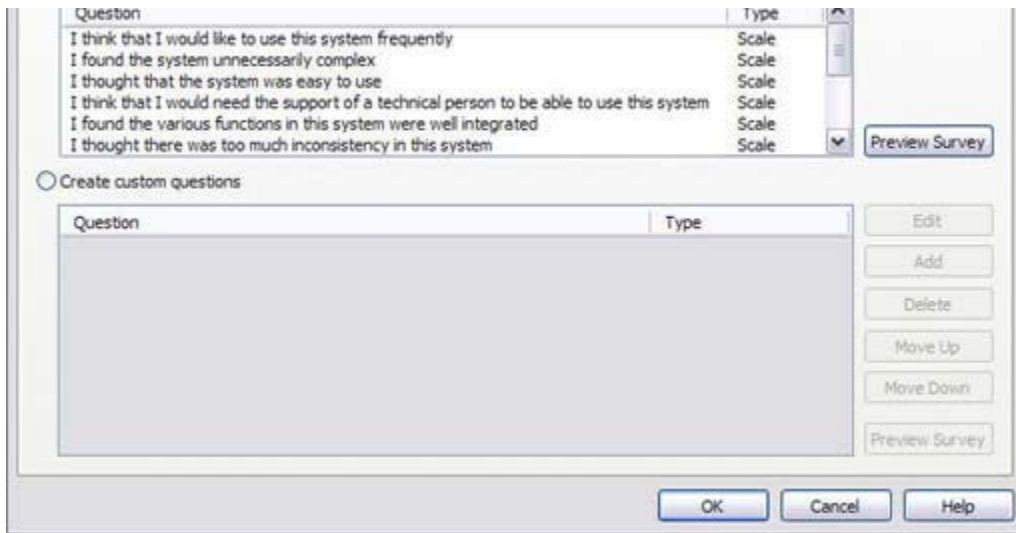


Figure 1d. Morae™ Recorder – Satisfaction Survey setting (Version 2.0)

## The Observer

The Observer is the new application that replaces the 1.3 Remote Viewer (Figures 2a & 2b). It allows observers (or loggers) to remotely view a session and set markers in real time (Figure 2a). Ideally, the start and end task markers should appear in the order set in the task definitions (Figure 2b), but this does not always happen. Sometimes when a new task is logged, it does not use the same order defined in the Recorder. This is particularly annoying if the tasks are randomized. Also if a task is incorrectly logged, the logger cannot go back and change it; it needs to be completely removed. If notes specific to the marker are placed by the logger, the same note propagates down the list to every other marker that follows until it is removed manually.

One feature that would be useful in the Observer would be a "screen snap" feature, which would allow the observer to take a picture of the participant's screen in real time. This would be helpful to experimenters who may want to show a screen shot in a written report of the usability analysis.

Time	Marker Type	Task	Note	Score
00:08:04.59	S-Start task	Task 1-Default task provided by Techsmith, Inc.	end test task 1	Completed with ease
00:09:12.60	E-End task	Task 1-Default task provided by Techsmith, Inc.	end test task 1	Completed with ease
00:09:37.40	S-Start task	Task 2-Default task provided by Techsmith, Inc.	start test task 2	Completed with difficulty

Figure 2a. Morae™ Observer – Marker Log (Version 2.0)

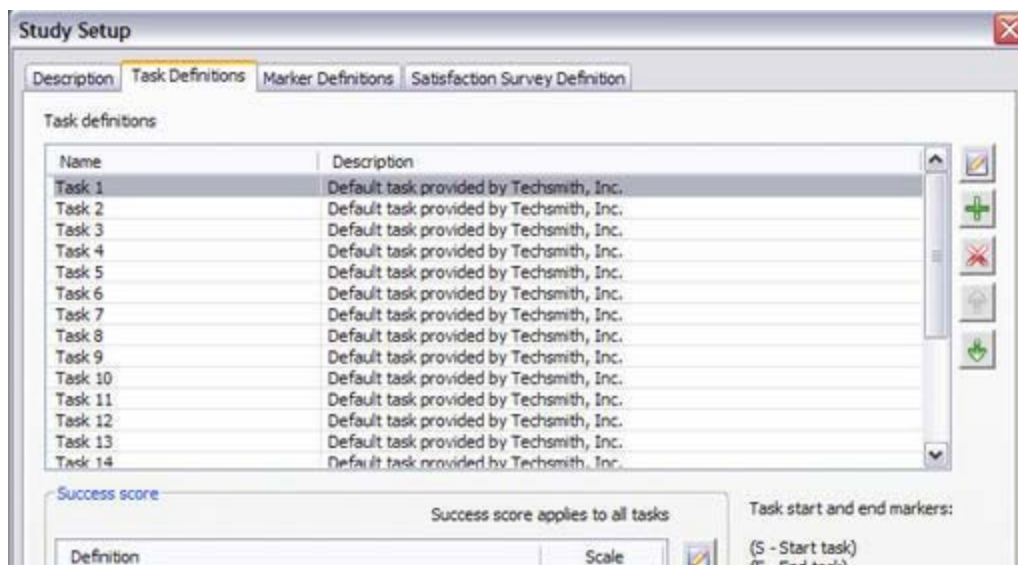




Figure 2b. Morae™ Recorder – Task Definition (Version 2.0)

## The Manager

The primary difference in the new Morae™ Manager is the presence of a new graph tab (Figure 3a & 3b). Graphs can be made for time on task, mouse clicks, satisfaction survey (SUS), or task score. Data can be graphed by participant or by task. In addition, improvements have been made to the timeline (Figure 3c & 3d) which allow flags to be set more efficiently.

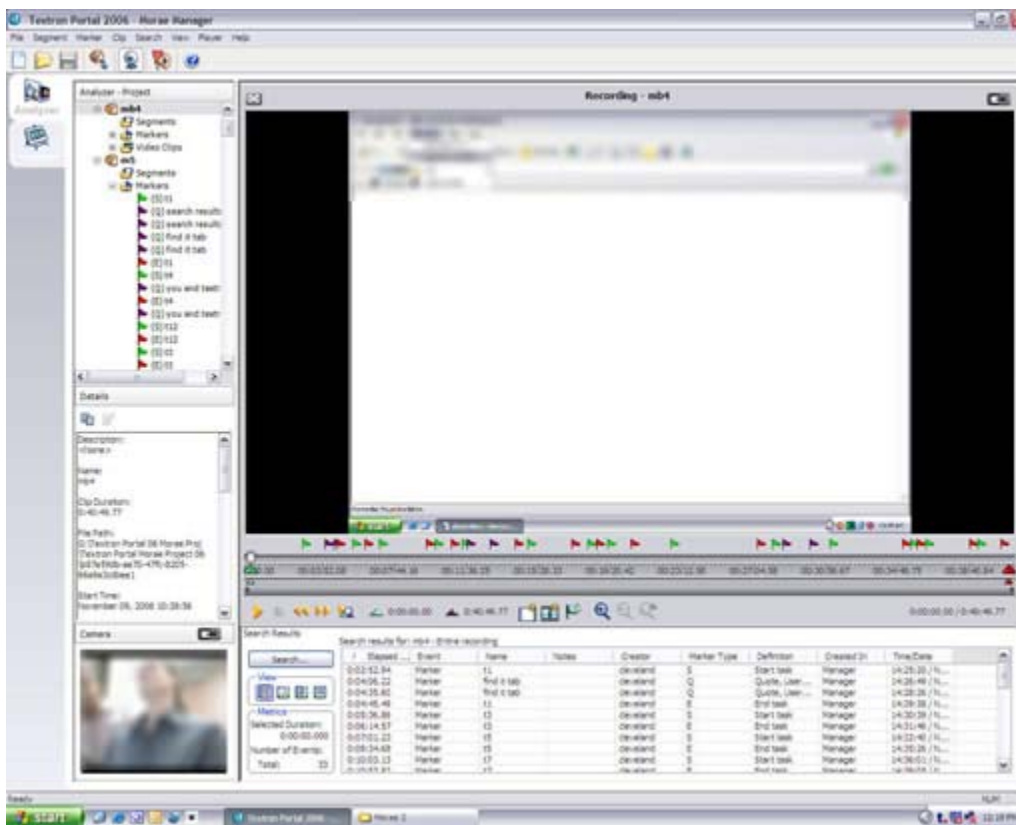
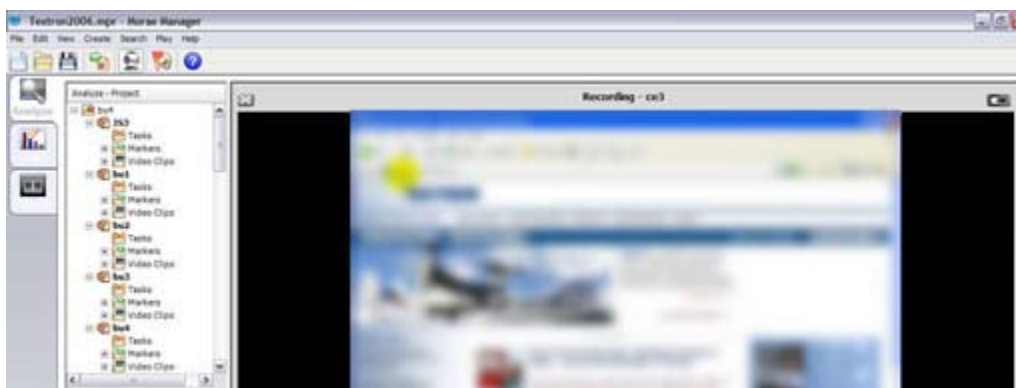


Figure 3a. Morae™ Manager (Version 1.3)



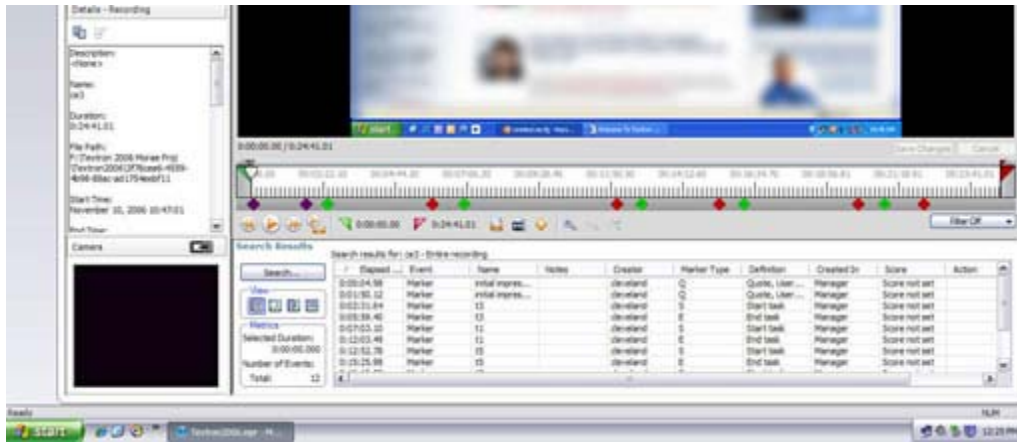


Figure 3b. Morae™ Manager (Version 2.0)



Figure 3c. Morae™ Manager – Timeline (Version 1.3)



Figure 3d. Morae™ Manager – Timeline (Version 2.0)

The Play button is now a toggle (Figure 3d) between play and pause, and can also be activated by pressing the spacebar. The rewind and forward functions are still missing from the timeline controls. The interval markings have been improved in visual appearance and flags are replaced by easily selectable diamonds. When the mouse is over a marker, the marker still turns green regardless of the marker type. This can be a problem when the markers are very close to each other and they need to be selected. When the marker is deleted, the play head moves to the next marker position on the timeline. This can be a nuisance when the timeline is zoomed. The zoom bar is also difficult to see because it is the same color as the rest of the timeline. This is challenging when the timeline needs to be dragged forward or backward using the zoom bar.

One noteworthy feature is the ability of the new Manager to move a marker to the play head position (current frame that is playing). This is a huge timesaver. The timeline also offers a filter which enables viewing selected marker types, among other criteria. This is useful when creating clips from a segment. However, when a marker is selected and the Set Selection Start button is clicked, both the Set Selection Start and the End are placed on the same marker position. If the Manager would place the Set Selection End on the next marker position then it would save the user from extra mouse clicks.

One feature the Manager is missing is a visual link between the timeline and the list of markers. The chronological list of markers and comments on the search results window should be highlighted according to where the play head is on the timeline (Figure 3b). When the recordings with the markers and comments are imported it is useful to see where on the timeline the comments are located. Also, when those recordings are imported, the task classification (marked by the logger as "Task 1...Task2...etc) is lost and the markers show up only as Start/End Task markers on the Analyze-Project window.

A notable improvement in the Manager is the ability to segment a task into sections. It is not

uncommon for users to take breaks within a session or to be temporarily distracted (i.e., a cell phone). In such a scenario, Morae™ now allows that segment from the timeline to be removed from the task so the time on task can be calculated without the distraction.

## CONCLUSION

Morae™ 2.0 (now 2.01\*) offers significant improvements over the previous version (see Table 1). The new graphing tab in Manager, editable markers in Observer, task definition and built-in/customizable satisfaction survey in the Recorder, and most importantly, the improvements on the timeline functions and interface make this version of Morae™ a useful upgrade.

**Table 1. Morae™ 2.0 Upgrade features**

Recorder	Observer (formerly Remote Viewer)	Manager
<p>Improved interface</p> <p>Settings segregated into:</p> <ul style="list-style-type: none"> <li>• Study Details</li> <li>• Machine Details and</li> <li>• Recording Details</li> </ul> <p>Tasks can be defined within Manager</p> <p>Satisfaction survey (SUS or custom) can be defined within manager</p>	<p>Improved interface</p> <p>Improved task logging with editable markers</p> <p>Success can also be recorded</p>	<p>Improved overall interface</p> <p>New graphing tab added with flexible graphing ability</p> <p>Timeline interface and look improved</p> <p>Marker flags replaced by easily selectable diamonds</p> <p>Ability of the marker to be moved to the play head position</p> <p>Timeline control has play-pause toggle</p> <p>Timeline control now has keyboard shortcuts</p> <p>Time on task can now be more accurately measured</p>

\*The SURL team highly recommends the new 2.01 upgrade which fixes some serious memory management problems in the 2.0 release.

## REFERENCES

Morae™, TechSmith ©2004 (<http://www.techsmith.com/morae.asp>)

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