

Independent Software Consultants Limited

MasterClass 2.0 User Guide

Demonstration Version

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1. Welcome

Welcome to MasterClass, the computer program designed for trainers who don't have time to program computers, yet who still want to create training courses and presentations which are as eye-catching and effective as the latest multi-media technology will allow. MasterClass records results too, giving feedback to both student and trainer.

This is a demonstration version of MasterClass. It has all the functionality of the full system, except that the size of course which can be saved has been restricted to ten tasks. We hope that this is sufficient for you to be able to convince yourself of the power of MasterClass. Please call us if you would like more information or help.

1.1 About your MasterClass Documentation

This manual is divided into two parts, of which this is the first, outlining MasterClass and its features in general. The second part is devoted to tutorials showing how to put together different kinds of courses. The Reference Manual is separate, and is also available on-line, offering a detailed description of each function in the menus and dialog boxes.

1.2. New Features of MasterClass 2.0

MasterClass is designed to help you put together training courses and presentations in the

shortest possible time without the need to learn a programming or authoring language. This version of MasterClass runs under Microsoft Windows 3.1 and is designed to make the most of its features. Simply clicking and dragging the mouse is all that is needed to define the tasks making up a course. Text, drawings, pictures, sound and video can all be used. When the student presses buttons on the screen in answer to a question, the replies can be logged as 'right' or 'wrong' for an automatic training report to be generated at the end of the course. This new version of MasterClass has lots of new features to help trainers create the most effective training courses:

Full support for Kodak's Photo CD,

Fractal decompression to store more images in less disk space,

Built-in animation tools,

Support for Microsoft's Video for Windows - video direct from your computer disk with no extra hardware,

Support for Intel's DVI digital video technology - high quality video from computer disk,

Support for Autodesk Animator and Animation Works Interactive animation files,

Check boxes, radio buttons, edit boxes, grids and variables for more sophisticated question and answer screens for the student,

Lots of new tools for developers to help cut down the time taken to create courses.

1.3. ISC Support Services

We are determined to give our users the best possible support when using our products - we're glad you're using them and want to make sure you carry on doing so. If you have any problems either telephone our offices between 09:00 and 17:30 UK time Monday to Friday or fax your query to us anytime. In doing so you will be communicating directly with the people who build the software, so we should be able to sort your problem out quickly.

ISC can also provide MasterClass and multi-media training, either at our offices or at your site. This can be tailored to your individual requirements - if you want to learn about making the most of Photo CD, but not video tape, for example, that's fine. If you really don't have time to build your own training courses, we can provide a full range of services using as much or as little of your in-house expertise as you wish to use. Contact us for details.

2. Getting Started

2.1 System Requirements

MasterClass will run on any IBM PC compatible computer which is happy running Windows 3.1. This usually means at least a 386sx type processor with 4MB of RAM. If you intend to do a lot of fractal compression and image manipulation, the faster the machine the better. MasterClass itself takes up about 1.3 MB for the developer system. However, pictures, sound and particularly digital video files can take up substantially more than this, especially while developing courses, so a large hard-disk is always a good idea.

MasterClass doesn't need any additional hardware to be able to create effective courses. Nevertheless, it also lets you take advantage of many of the emerging standard technologies to enhance your courses. The following items can be added:

CD ROM drive for reading Kodak Photo CDs and for playing back courses created on CD. Make sure that the drive is Kodak Photo CD 'multi-session' (or at least 'single-session') compatible,

Graphics card supporting more than the usual VGA 16 colours - for instance 256 colours. The more colours you can show on the screen the more realistic photographs will look. Many computers now come with graphics cards capable of this, but Windows may only be configured for VGA - consult your computer manual for details. Otherwise a cheap graphics card such as the Paradise Windows Accelerator card can be installed in a spare slot,

Windows compatible sound card, such as a SoundBlaster, for recording voice-overs and sound effects and playing them back in your courses from the computer disk without the need for tape,

Video overlay card such as Screen Machine for displaying live video from a video tape or camera within your presentations,

Computer controllable VHS VCR, such as the Panasonic 7350, or video disk player, for adding video material at precise points to your courses,

Digital Video card such as cards based on Intel's DVI technology for recording and playback of video from the computer disk.

2.2 Installing the software

Insert the MasterClass Program diskette in a floppy drive of your computer with Windows running. From Program Manager select Run from the File menu and type in A:SETUP or B:SETUP depending on which drive the diskette is in. You will then be taken through the simple installation steps. If all is well you will get a message saying that the installation has been completed successfully.

If you are upgrading from a version of Course Production Manager (CPM) you may wish to place the MasterClass file in the CPM directory or delete the CPM directory after installing MasterClass elsewhere - MasterClass has all the functionality of CPM and lots more besides - but you could be cautious and check for yourself!

2.3 Testing your hardware configuration

As discussed above, MasterClass can be used with a wide range of hardware add-ons. Bringing them all together in a course can seem daunting, so it is best to check each item individually before attempting to use them within MasterClass to confirm that all is well. This will also help us in providing technical support to you. For example, if you have a SoundBlaster audio card, test it out with the Sound Recorder which comes with Windows 3.1 in the Accessories group. Refer the instructions which came with your hardware items for more details. To check if your system is configured to display 256 colours or more, load the SPRING.BMP image, found on the MasterClass Examples disk into Paintbrush from the Accessories group - the image should appear with good colour (blue sky etc.) If not, Windows is probably not set up for 256 colours, even though your graphics card may be capable of displaying this number of colours (see the notes on system requirements above).

3. MasterClass Basics

3.1. The MasterClass Development Environment

To start MasterClass just double click on its icon in the usual Windows way. The key features of the Development Environment are as follows:

The menu bar contains all the tools for opening, checking, running and saving courses, setting preferences and arranging the interface,

The tool bar is a short cut way of getting at some of the menu options, for example to test a course. It can be configured to show only the ones you find most useful,

The icon window shows pre-packaged functions ready for incorporation into your course - just drag them from here to the course window,

Several course windows can be opened at one time, so that parts of one course can be copied to another, or several related courses can be developed at the same time and inter-linked,

The status bar both indicates the progress of the saving and loading of courses and gives a brief description of the menu options as the mouse is dragged through them.

3.2. How to Build a Course

At the heart of MasterClass is the idea that courses consist of a series of tasks - things which will happen during the course. A task consists of up to three parts - events, actions and responses. These act as the building blocks of a course and are shown in the icon window. The event, action and response icons in the Icon Window can be expanded to reveal the list of ones available by clicking once on the appropriate icon in the icon window, e.g. clicking the 'Action' icon shows the possible actions as icons below it.

Start a new course by selecting New from the File Menu or by selecting the button from the button bar. A new course window will appear on the left hand side of the MasterClass window. To add a task to a course click on the Task icon in the icon window. Hold down the left mouse button and drag the Course icon in the course window. The new task will be added to the end of the course. Drop the task on top of an existing task to insert the new one before it.

Once you have a task in the course, click once on its icon in the course window. It will expand to reveal its structure. The two basic activities in building a course are as follows:

1. Click, drag and drop tasks, actions etc. into your course window. You can have several actions and responses in one task.
2. Double click on any event action or response to define what it is going to do. A dialog box appears showing what options you have for that particular object. For example, double-clicking on a graphics action in a course brings up the following set-up dialog box:

4. Events, Actions and Responses

4.1 What are Events?

Events are designed to be used when it necessary for part of the course to be activated by some occurrence - a message from another windows application or a variable defined in the course reaching a certain value, or a menu option being selected by a student. They deliberately interrupt the flow of the course.

If a task has a Contents event, then when the student selects the Contents menu option in a course then this task is carried out. Similarly with the Exit task for the Exit menu option. In this way the general flow of the course can be interrupted and the user given the chance to jump to another part of the course, or shown a score summary.

Demons and DDE events are advanced features. Demons detect a combination of variable values being reached - for instance a student reaching a particular score during the course. DDE events trigger their associated tasks when a particular message is received from another Windows application. In this way training courses can be integrated into spreadsheets and word processors.

Since events are used infrequently they do not automatically appear in the structure of the task. However, dragging and dropping an event icon onto the task will add it to the structure.

4.2 What are Actions?

Actions are the most visible part of MasterClass. They take care of displaying things to the student, from simple text to digital video in the Presentation Window. Despite the range of actions available, they are all set-up in the same way - drag an action from the icon window and drop it onto the appropriate task. Double click on the action icon in the course and a dialog box appears showing the unique characteristics to be chosen for that action - the position of the picture, its file name etc. You can have several actions in one task. They will be performed in the order in which they are shown in the course window, top to bottom. They will all be carried out before any response attached to the task is performed.

Here is a brief description of what the actions do. A fuller description and step by step instructions on how to set them up can be found in the reference section of the manual.

User Info

This shows a dialog box to the student asking for name and ID.

Window

Use this action to define the size of the window the presentation will use, whether it runs full screen, has a menu bar and so on.

Graphics Image

This action is used for displaying pictures and drawings, stored in a variety of formats, such as bitmaps on the computer's disk or Kodak PhotoCD from a compact disk. You can define where in the Presentation Window the picture will appear and also any effects such as wipes, dissolves etc.

Text

This action displays text in any font colour and size you choose. The text can either be entered into the action itself, or read from a file.

Graphics Shape

Sometimes it is useful to be able to add a box, line or border to a screen without having to create a picture file for it. This is what this action allows you to do, as well as defining styles and colours for the lines and boxes.

Print

Anything other actions have displayed in the presentation window can be printed out using this command. The same print facility is available to the student via the 'Print' menu option, if the trainer has included this in the course.

Video

If you have a video overlay card to show the signal from a VCR or camera on your computer screen then this action can be used to position the video in the presentation window.

Audio

With a Windows-compatible sound card (see System Requirements above) you can play back sound files from your computer disk. In addition you can select tracks from an audio CD in a CD-ROM drive or play MIDI music files if you have a compatible device (the SoundBlaster card has MIDI support built-in).

Tape Control

If you have a video tape recorder or video disk player which has MCI software support, you can control it through this action. For instance going to a particular part of the tape and going to 'play'. In conjunction with the 'Video' action the video picture can then be shown to the student.

DDE

Dynamic Data Exchange is a powerful way for Windows programs to communicate with each other. Thus from this command you can ask an application such as Microsoft Excel to load up a particular spreadsheet and carry out certain actions. Usually the whole 'macro' language of the package being controlled can be used as DDE commands. Refer to the application's reference manual for details of its DDE command set.

Run

This allows you to run another program at certain points in the course. For example the Windows calculator could be called up when the student has calculations to perform during the course. DOS programs can be run as well.

Animation

Animations created using Autodesk's Animator software can be incorporated into courses.

MCI Video

Digital video stored on computer disk can be played back using this option. Both Microsoft's Video for Windows and Intel's DVI formats are currently supported.

MCI Command

Microsoft's Multimedia Control Interface is a general way of issuing commands to perform multimedia functions. Usually MasterClass does all the work of using these commands for you - the Actions take care of it. However, this action is there if you want to issue MCI instructions directly from the course yourself.

Run Another Course

Courses can be built as a series of modules stored as individual MasterClass courses. They can then be linked together by this action. This helps in the construction and maintenance of large courses.

Variables

As an advanced feature, variables can be used in a variety of ways. Sophisticated scoring schemes can be created by assigning different values to variables depending on which answer the student selects.

Write To File

MasterClass keeps track of basic scoring automatically. This can then be used by the MasterClass Analysis Module. However, variable values can also be written out to a file using this action for use in other packages, such as spreadsheets.

Simulator

If you have the TQC Process Simulator Link Module, you can set-up process control parameters and goals from this action and run the simulations themselves.

4.3 What are Responses?

Having let the actions build the screen to show to the student - for example a picture with some text on it, the responses are then used to specify how the student is to respond to those actions. This can range from pressing a button on the screen to move to the next picture, through to typing answers to questions displayed. Each response is linked to another task which will be carried out when that response is activated. Buttons and regions can also be assigned 'right' and 'wrong' for logging student results.

Here is a brief description of what the responses do. A fuller description and step by step instructions on how to set them up can be found in the reference section of the manual.

Branch

Use this to go immediately to another part of the course without waiting for a response from the student.

Pause

Wait for a period of time, defined in seconds, before moving on to another task.

User Input

Wait for the student to press any, or a particular, key or click the mouse button.

Frame Location

This response is used in conjunction with the Tape Control action to wait for the tape or disk to reach a particular point.

Hyper Region

Use this response to create rectangular hot-spots in the presentation window. If the student clicks the mouse on this spot the course will move on to the task jump defined in the response. In this way photographs can be made interactive, for example. Clicks in a region can be logged as 'right' or 'wrong' for student scoring.

Grid

If a lot of hyper-regions are needed, for instance on top of a map, the grid response provides an easy way to do this. A rectangle can be defined and divided into a number of rows and columns. Each element of the grid, when clicked on, can lead to a different task in the course.

Push Button

This is one of the most commonly used responses. It places a button with text at a point on the screen. When the student presses it the course moves on to the specified task. Button pushes can also be logged as 'right' or 'wrong' for student scoring.

Editor Input

This displays a standard window edit box on the screen so that the student can type in answers which can be assigned to variables for later use.

Check Button

Check boxes can be used to allow the student to select one or more possible answers.

Conditional Branch

This response checks the value of variables, such as student score, and will branch to a different part of the course if a particular expression is true.

Action Complete

This is used in conjunction with the certain actions, such as Movies, Animation and MCI, to wait for the action to complete before moving on to another task.

A task can have several responses. The one which is carried out is the one whose conditions are met first. For example if there is a Pause response and a User Input response attached to the same task, if the time period defined in the Pause expires before the user has pressed the correct keys the course will branch to the task specified in the Pause response rather than the one specified in the User Input one.