

**README FOR DIRECTRT RESEARCH SOFTWARE™ v2004**  
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[www.empirisoft.com](http://www.empirisoft.com)

send questions to [support@empirisoft.com](mailto:support@empirisoft.com)

Note this file is located in the main DirectRT directory for future reference or in case you want to read it after the installation is complete. All of the information in this file is also contained in the DirectRT manual located in the DirectRT help folder (DirectRTmanual.pdf). If you do not already have Acrobat Reader (required for opening pdf files such as the manual) a free copy can be downloaded from:  
[www.adobe.com/products/acrobat/readstep2.html](http://www.adobe.com/products/acrobat/readstep2.html)

This file contains important information regarding the installation and running of DirectRT. It is recommended that this file be read before attempting to use the program.

## **Contents**

1. System requirements for DirectRT
2. Disabling DirectRT's security
3. Optimizing Windows for DirectRT
4. How to get started--the on-line tutorial

### **1. System Requirements for DirectRT**

In order to execute input files, DirectRT requires that Microsoft's DirectX Version 7 or later be installed. If you don't already have it, there is a link to the download on our download page here:

<http://www.empirisoft.com/download.htm>. Note that if you have Windows ME, 2000, or XP you will already have DirectX Version 7 or later installed. DirectX installation may be necessary only for Windows95 and Windows98.

DirectRT should run very well on any high-end PC system running Windows 95, 98, ME, 2000 or XP. DirectRT will not run on Windows NT because NT does not support DirectX beyond version 4 (7 or later is required). It is strongly recommended that systems running DirectRT have at least 64mb of memory, a graphics card with at least 4mb of video memory and a processor speed of at least 300mhz. The log files that DirectRT produces will show you whether or not the computer in question can handle your experimental design.

You can tell which version of DirectX is installed on your machine by typing 'dxdiag' from the run command on the Start menu. If DirectX is installed, doing this will tell you which version you are currently running. If you have version 7 or later installed, you can click on the 'Display' tab to ensure that there are no problems or warnings given with regard to the compatibility between DirectX and your display adaptor (video card). If there are no warnings, then all should be ok. If you'll be using sound with DirectRT, you can do the same with the 'Sound' tab.

Finally, it is also necessary to have a spreadsheet application installed (e.g., Excel) if you plan to edit or view the DirectRT input and output files on that machine-or if you plan to try the DirectRT on-line tutorials. All input and output files are created and saved in .CSV format which is editable from any standard spreadsheet application. See File Format for more details. You do NOT have to have a spreadsheet application installed simply to run the experiments and gather data. Note that users in a few countries may have to set their 'Regional Settings' in the Windows Control Panel to that of the United States in order to correctly view and edit .csv files in Excel.

### **2. Installation**

To install DirectRT, first make sure you have DirectX version 7 or later installed (see above). Then double-click on the downloaded file drt2002.exe. The installation program will guide you through the set-up procedure. After the setup is complete, follow the security instructions below to gain authorization for each workstation to run DirectRT. If for some reason you need to reinstall DirectRT, or if you are upgrading to a newer version, you do not need to uninstall the previous version.

### **3. Security**

To help control unauthorized distribution and use of DirectRT, it has been secured with ATX™ software protection. DirectRT will not run on any machine until this security has been disabled. To disable the security follow these steps:

Install and run DirectRT.

You will receive a message that the current workstation requires authorization to use the software, and a code number will be displayed.

E-mail the code that appears to support@empirisoft.com. If you are an authorized user, you will receive a translation of this code which will be a registration number unique for the machine on which you have installed DirectRT (usually the same day). DirectRT should now be fully functional. If you are not yet an authorized user, you may still request a code which will allow you to use and evaluate DirectRT for up to 21 days. Important: ATX™ codes are unique to every machine. Be sure to get authorization for each machine that will be using the software. If you have any difficulty at all with this procedure, please contact us for assistance at support@empirisoft.com. Note that trial users can request a code that will enable DirectRT for 21 days.

#### **4. System Settings**

**True colors.** To allow for the full range of colors usable by DirectRT, it is recommended that you use 16, 24, or 32 bit color. Many systems are set by default to 8 bit, which provides for only 256 colors (colors or color ranges may appear as dots, patterns, or solid regions). To set this option, right click anywhere on the desktop and then select properties. Choose settings, and then select the highest color range possible. 24 and 32 bit color ranges are both capable of displaying close to the full range of colors detectable by the human eye.

**Show file extensions.** DirectRT frequently makes use of file extensions. These are the three-letters following the period on file names (e.g., .txt, .csv, .bmp). For this reason, it is advisable that you don't instruct Windows to hide these from you. To set this as a default, open any folder and select 'View' from the pull down menu. Select 'Options,' and then 'View' again. Deselect the option to have Windows 'Hide MS-DOS extensions...'

#### **5. How to get started**

When you first run DirectRT successfully, press F1 to access the help documentation and an overview of how the program works. If you find the help files overwhelming at first, run the on-line tutorial by clicking 'DirectRT Samples' from the 'Help' menu. These tutorial lessons were designed to walk you through the creation and execution of basic DirectRT experiments. This is a very easy way to get started. There is also a complete user's manual and reference guide located in the DirectRT help folder. This file can be printed if you prefer to have a hard copy of this sort of thing (approx. 100 pages, 8 1/2 x 11). It contains all the information located in the help and on-line tutorial files. It is called DirectRTManual.pdf.

You can also access the samples directly if you like-they're located in the 'samples' folder of the DirectRT directory. When creating your first input files you may wish to copy an appropriate sample folder and simply modify it to meet your needs.

Note: You will need a spreadsheet application installed such as Excel in order to view or edit the input and data files-even with the tutorials.

#### **Contacting Us**

If you have questions not answered in the help documentation, please feel free to contact us at support@empirisoft.com.

Thank you for trying DirectRT!