

# ReactLab™

## System Requirements and Installation Guide

### Introduction:

The ReactLab™ family of programs have been written in Matlab (the MathWorks, Inc) and compiled using the Matlab compiler. This produces standalone executables that do not require Matlab to run. They do however require the Matlab Compiler Runtime (MCR) to be installed alongside the deployed executable. This is included in the ReactLab™ downloadable installation package, but must be installed in a separate step prior to running ReactLab™ products.

Whilst the core analysis functionality is provided by ReactLab™, all data and results are managed in Excel Workbooks. Excel is launched by ReactLab™ when it is started as an ActiveX server allowing workbook contents to be passed to and from the ReactLab™ application as required.

### System Requirements:

Windows XP SP3 or later, Any Intel or AMD processor supporting SSE2 instruction set (in practice a 2.0 GHz dual core or higher is recommended), at least 1GB of disk space and 1GB of RAM (2GB recommended). The current application builds are 32 bit only so will run on both 32 and 64bit Windows installations.

### Additional Software Requirements:

Microsoft® Excel 97 (or later). Note restricted worksheet column limit in Excel prior to 2007 limits number of data columns (measurement wavelengths) to 256. This restriction does not apply to Excel 2007.

The ReactLab™ manuals require a PDF reader such as Adobe 9 or Foxit reader 3.0.

### Trial Download procedure:

Both ReactLab™ Kinetics and ReactLab™ Equilibria can be downloaded for a 30 day fully functional trial. The trial period commences when the program is first executed. It can be copied and installed on any number of PC's.

The download for each application comprises an application setup file. This should be run with administrator privileges. An installation wizard will guide you through the installation process.

By default the installation will create a Jplus Consulting directory in C:\Program Files or C:\Program files (x86) (on 64bit Windows) directory and place the applications in a

subfolder named ReactLab EQUILIBRIA or ReactLab KINETICS along with the corresponding PDF manuals and Excel examples subfolder.

Another subfolder titled MCR is also created in the Jplus Consulting folder in which the MCRInstaller application is placed. This installation utility must be run to install the MCR.

Desktop shortcuts to the installed ReactLab™ applications are created as well as a shortcut to the MCR installer.

### **MCR Installation**

This must be carried out before attempting to run any ReactLab™ application. Launch the MCRInstaller.exe from the desktop icon or directly from the installation directory. A wizard will guide you through the installation process. It will prompt to install the Microsoft Visual C++ redistributable library VCREDIST\_x86 which it also requires. This is included. Following this the MCR itself will be installed in the folder C:\Program Files\MATLAB\MATLAB Compiler Runtime\v713. The v713 refers to the MCR version number. This is currently required by ReactLab™ applications.

Please note if MATLAB itself is installed on the host computer the MCR does not necessarily need to be installed, provided the version in use is Matlab 7.10.0 (2010a). Older versions of Matlab will not be compatible and the MCR v713 will need to be installed. Note: this will not interfere with the pre-existing Matlab installation.

Once the MCR has been installed it will be launched automatically when any installed ReactLab™ application is subsequently run.

### **Running ReactLab™ EQUILIBRIA or ReactLab™ KINETICS**

Double click the appropriate desktop shortcut to start a ReactLab™ application. A product splash screen will appear prior to the main application launch. For the trial software a dialog appears inviting purchase or license key entry. This will not appear on the fully licensed product. A second dialog will also warn when less than 10 days of the trial period remain. Before the ReactLab™ GUI appears the Matlab MCR is launched in the background and must initialize.

**Warning:** on slower machines the initialization of the MCR can take several seconds or longer.

When the ReactLab™ GUI appears please proceed to operate the software in accordance with the User guides provided in the installation directories. By default pressing the 'load excel file' button will open the directory containing the folder of example workbooks. Please note the Excel template worksheets are in part protected from modification. This can be lifted with the Excel unprotect option. We strongly urge making copies of the originals or archiving the originals elsewhere. Whilst the benefit of the Excel interface is significant the potential open access to the content does make format corruption a risk.

## **Obtaining a Permanent License**

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