



INSTRUCTION SHEET

HachLink™ 2000 Installation and Quick Start Guide

Software Highlights

HachLink 2000 allows users to download data from two or more Hach instruments simultaneously, create customized graphs, export data directly to Microsoft® Excel, and send data or graphs to others with Microsoft® Outlook.

Instrument Compatibility

Sensor Type	Instrument Supported*
Electrochemical	<i>sens</i> ion™2, <i>sens</i> ion3, <i>sens</i> ion4, <i>sens</i> ion5, <i>sens</i> ion6, <i>sens</i> ion7, <i>sens</i> ion8, <i>sens</i> ion156, <i>sens</i> ion378, EC20, EC30, EC40, DO175, and CO150, HSA-100
Spectrophotometer	DR/4000, DR/3000, DR/2010, DR/2400, DR/2500
Colorimeter	DR/820, DR/850, DR/890
Turbidimeter	2100AN, 2100AN-IS, 2100N, 2100N IS
Other	BODTrak™ Apparatus

* To determine instrument connector requirements, install the software and refer to the **Help** menu.

System Requirements

- PC with a 486/100 MHz or higher processor
- Windows 95, 98, 2000, or NT 4.0 operating systems
- 32 MB RAM
- Hard drive with 20 MB or more free space
- 3½ in. floppy disk drive or CD-ROM drive
- VGA graphics with 640 × 480 or higher resolution, 256 colors
- Mouse or other pointing device
- 9-pin serial port (or 25-pin serial port with 9-pin adapter)

Installing HachLink from Floppy Disks

Note: Installing HachLink 2000 will not overwrite previous versions of HachLink.

1. Insert **Disk 1** into the floppy drive.
2. Click the **Start** button and select **Run** from the menu.
3. Type **a:\setup.exe** (where a:\ is the disk drive) in the **Run** dialog and click **OK**.
4. Follow the instructions as they appear on the screen.

Installing HachLink from a CD-ROM

1. Insert the CD into the CD-ROM drive. The CD will automatically run.
2. Follow the instructions as they appear on the screen.

Goals of the Quick Start Guide

The sections below will show you how to:

- Assign an instrument to a port
- Disconnect an instrument from a port
- Open an existing data file
- Create and customize a set of graphs
- Put the data into a Microsoft® Excel spreadsheet

Assigning an Instrument to a Port

1. Using the appropriate cable (see the Help menu in HachLink), attach one end of the cable to your Hach instrument and the other end to the serial port on the computer. Note the computer's port number.
2. In HachLink, click on the port number where the instrument is connected (*Figure 1*). The **Parameters for Serial Port** dialog will open.
3. On the **Instrument/Data Options** tab, choose the instrument that is connected to the PC from the **Instrument Type** pull-down menu. After selecting the instrument, the tab will change to reflect available options for that instrument. Try selecting a few different types of instruments to see how the options change.

Now select the **Tabular Data/Graphs** tab. It allows you to put data in tabbed format or free format. Data in *tabbed format* is already parsed (split into data items and separated with tab characters) and ready to graph. Data in *free format* is in one string. If you select the free format option, you cannot go back to tabbed format or create a graph.

The Specify Data/Graphics tab will look different depending on the instrument you selected. For example:

- a. If you selected a *sension3* pH meter, you may choose to create a pH or mV graph.
 - b. If you selected the DR/4000, you may create graphs for wavelength scan, time course measurement, and wavelength check, and up to 12 graphs according to Program Number.
 - c. Or, if you selected a DR/800 instrument, you can create up to 12 graphs according to Program Number. Just select the program number from the pull-down menu.
4. Click **OK** after you have selected your Hach instrument.
 5. Send the data from your instrument to HachLink. See your instrument manual for more information on sending data.

If data doesn't transfer from the instrument to the computer:

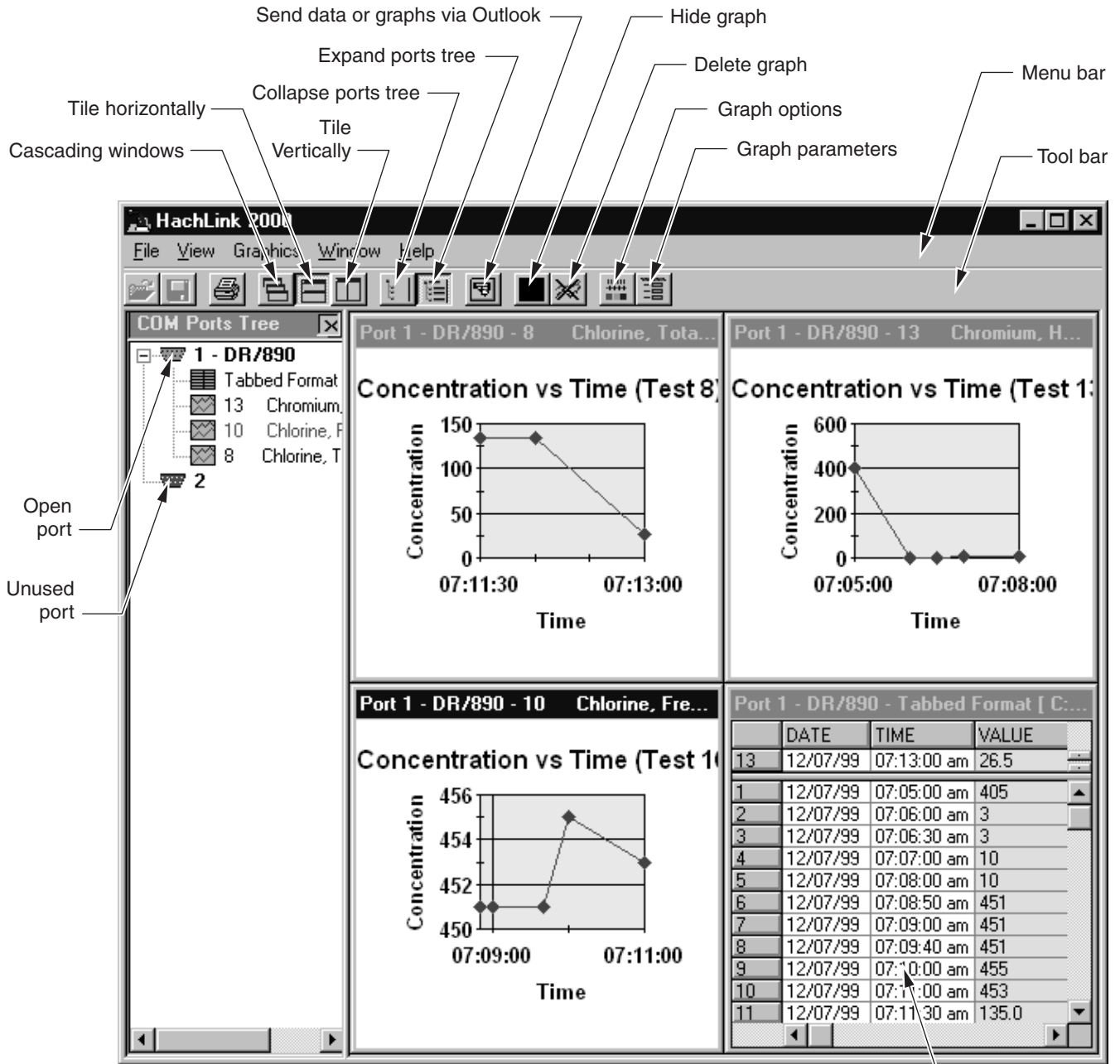
- Make sure to use the proper Hach cable or an appropriate alternative cable.
- Make sure that you specified the correct instrument for the port.
- Make sure that you selected the proper port.

Removing an Instrument from a Port

1. In HachLink™ click on the port that you want to disconnect. The **Parameters for Serial Port** dialog will open.
2. On the **Instrument/Data Options** tab, click the **Stop Data Transfer and Release this Port** button.
3. Select **OK**. The port is now open and can be used with a different instrument.

HachLink™ 2000 Installation and Quick Start Guide, continued

Figure 1 HachLink Main Window



Double click in this window to export data to Excel

Opening an Existing Data File

Now you are going to experiment with a data file supplied with HachLink.

1. Click on an unused port number. The **Parameters for Serial Port** dialog will open.
2. On the **Instrument/Data Options** tab, choose the DR/890 instrument. Click **OK**.
3. Select **Open** from the **File** menu.
4. Select the data file named **C:\Program Files\Hach\HachLink_2000\DR890tab.txt**.
5. Click **OK**. The data may take a few seconds to appear in the main window.

Changing Graph Attributes (Graph Parameters versus Graph Options)

Graph Parameters defines information for each individual graph.

For example, it defines MCL ranges, x-axis limits, and labeling information. To change Graph Parameters, right-click **the graph you want to change**. Select the **Graph Parameters** from the pop-up menu. The following options will appear:

Labels/Legends—Label the selected graph.

Time Scaling—Define the appearance of the x-axis for the selected graph. Show a graph based on a specified time interval or all the data available.

Y-Axis Scaling—For the selected graph, use Auto Scale or User Scale with user-defined upper and lower limits.

MCL Limits—Set minimum or maximum control limits for relevant parameters on the selected graph.

Grid Lines—Use default grid line spacing or set custom spacing.

Note: *On the Graphics Parameters dialog, select OK to apply changes and close the dialog window, select Apply to apply changes and keep the dialog window open, or select Cancel to cancel changes and close the dialog window*

Graphics Options defines the look of all the graphs.

For example, it defines the background color of all graphs, the line widths on all graphs, and the symbol style of each data point. All graphs have the same look. To change Graphics Options, right-click the **any graph**. Select **Graphics Options** from the pop-up menu. The following options will appear:

Curves—Specify the appearance of the data lines on the graph.

Grids—Specify the appearance of the grid lines.

MCL Limits—Specify the appearance of the MCL lines.

Graph Color—Specify the color of the graph background.

Labels/Legends—Include or exclude axis labels and graph legends.

Fonts—Change the font of the axis labels, the graph title, and graph legends.

Putting Data into Microsoft® Excel Spreadsheet

Double-click the table that contains your data. Excel will launch automatically and HachLink will export the data directly to the spreadsheet. This feature is designed to work with Excel 97 and 2000.



FOR TECHNICAL ASSISTANCE, PRICE INFORMATION AND ORDERING:

In the U.S.A. – Call toll-free 800-227-4224

Outside the U.S.A. – Contact the HACH office or distributor serving you.

On the Worldwide Web – www.hach.com; E-mail – techhelp@hach.com

HACH COMPANY

WORLD HEADQUARTERS

Telephone: (970) 669-3050

FAX: (970) 669-2932