

U2CI™ Software Application

Version 2.0.5

OPERATION MANUAL

For bluDock™ Enabled Digital Handhelds

Wireless Data Transfer



**MYRON L
COMPANY**

Water Quality Instrumentation
Accuracy • Reliability • Simplicity

BENEFITS AND FEATURES



*Transfer data stored in Ultrameter II™, Ultrameter III™, PoolPro™ and DIGITAL DIALYSATE METER™† handheld instruments to U2CI application via Bluetooth*** wireless technology*

Reduce Data logging errors

Reduce Data logging time

Share saved water sample data

Lose the clipboard and still easily comply with record-keeping requirements

BLUDOCK Accessory Package Includes:

bluDock™, U2CI Software CD, Operation Manual, Quick Start Installation Guide and dongle for downloading data to Mac or PC platforms that do not have built-in Bluetooth® capabilities.

PRODUCT HIGHLIGHTS

- Transfer data wirelessly with accuracy, reliability and simplicity.
- Easy to install software from CD or website: http://myronl.com/main/U2CI_Application_DL.htm
- The U2CI™ application will operate on Windows XP, Vista and 7*; and Macintosh OSX**. If you are running an older operating system, contact the Myron L Company.
- Exports to Office software (Word*, Excel*, Works*, etc.) using universal formatting (.csv) files.

- Automatic organization of data (record number, type of measurement, value and instrument measurement, solution type, temperature, date and time stamp)
- Associate all data from a particular instrument by assigning a instrument name.
- Control instrument time and date.
- Clear instrument memory.

For further information, please contact the Myron L Company (see back cover).

NOTE: The bluDock module is a registered Bluetooth*** device.

*™ Microsoft **™ Macintosh ***®Bluetooth SIG

†WARNING: DIGITAL DIALYSATE METER MEASUREMENT DATA TRANSFERRED TO A PERSONAL COMPUTER USING THE WIRELESS COMMUNICATION OPTION IS FOR RECORD-KEEPING PURPOSES ONLY AND IS NOT INTENDED FOR USE IN MAKING TREATMENT OR DIAGNOSTIC DECISIONS.

LIMITED WARRANTY

All Myron L bluDocks have a Two Year Limited Warranty. Warranty is limited to the repair or replacement of the bluDock only, at our discretion. The Myron L Company assumes no other responsibility or liability.

PLEASE NOTE:

Because of our commitment to product improvement, the substance and style of this manual may change. When changes are made, the updated manual is posted for download in PDF format from the Myron L Website: **www.myronl.com**

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SYSTEM REQUIREMENTS

Computer running on Microsoft® Windows XP™, Windows Vista™ and Windows 7™. For Macintosh® OSX operating systems, contact the Myron L Company.

WARNING: USERS THAT HAVE PREVIOUSLY INSTALLED 1.x.x U2CI™ MUST UNINSTALL IT PRIOR TO INSTALLING U2CI REV 2.x.x.**

Before installing the new U2CI 2.x.x, Windows users must open the “Start” menu, select “Control Panel”, then select “Add or Remove Programs”. Scroll to “U2CI”; select it and click on “Remove”. No System Reboot is required.

Mac OSX users should select “Go” in the Finder menu bar, select “Applications”, and then scroll down to the U2CI folder. Drag the folder to the trash.

****VERY IMPORTANT** — If you are unsure of how to uninstall and install programs on your machine, contact your IT Department or System Administrator for assistance.

NOTE: If you have a uDock™, U2CI software versions 2.0.3+ are backward compatible. However, the instrument name feature is inoperable.

64-BIT VISTA/WINDOWS 7 USERS: After installing on a Vista machine, some users may need to right click the U2CI icon and select “Properties”, then select “Compatibility”, and then check the box under “Compatibility Mode” to run this program in Compatibility mode for Windows XP™ (Service Pack 2/3).

Installation and use of U2CI Rev 2.x.x requires user acceptance of the End User License Agreement (EULA). A copy of the EULA is on the software CD and can be downloaded from the Myron L website:

http://myronl.com/main/U2CI_Application_DL.htm

SPECIAL NOTES

The bluDock module is a registered Bluetooth® device.

Bluetooth is a registered trademark of Bluetooth SIG.

EXAMPLE SCREENSHOTS ARE OF WINDOWS XP AND MAC OS 10.4.11 OPERATING SYSTEMS. THE APPEARANCE OF THE INSTALLATION DIALOG BOXES WILL VARY ACCORDING TO THE OPERATING SYSTEM YOU ARE ON.

Save all work and exit all applications prior to installation of this software.

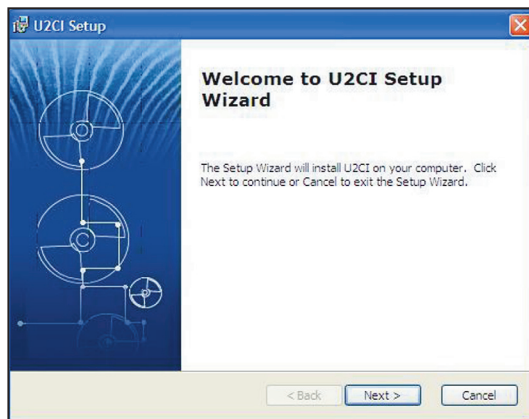
I. U2CI Installation

A. U2CI Installation for Windows Users

INSTALL U2CI SOFTWARE *BEFORE* PAIRING THE bluDock™ WITH YOUR PC. (Review warning on page 1 before starting install.)

U2CI Executable and Support Files Installation:

1. Insert U2CI software CD into CD drive or download the U2CI Application & Documents software package for Windows from the Myron L website Download Center:
http://myronl.com/main/U2CI_Application_DL.htm.
If Auto Install does not start, go to Start\ My Computer\ U2CI and double click on the U2CI icon under Devices with Removable Storage. Or you can right click the U2CI icon, select “Open” and double click on U2CI.MSI.
2. Click “Next” in the U2CI Setup Wizard Welcome dialog box to begin U2CI software installation.

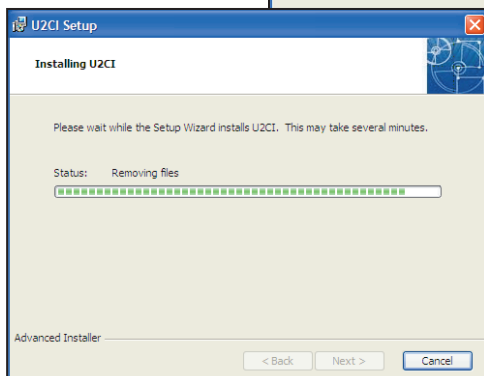
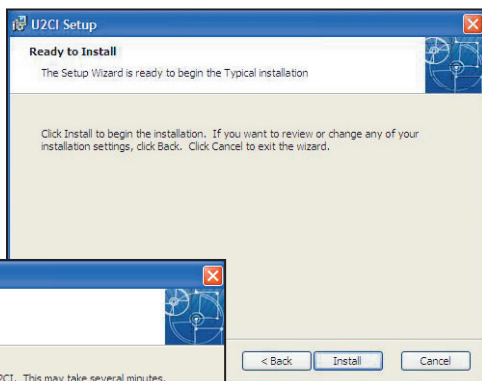
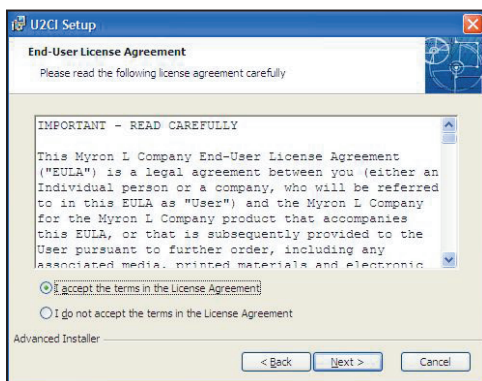
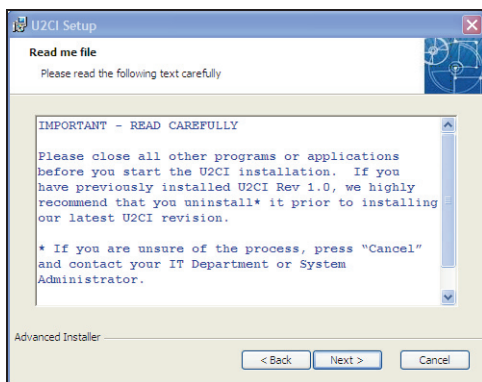


3. Close all other programs and applications. Then click "Next".

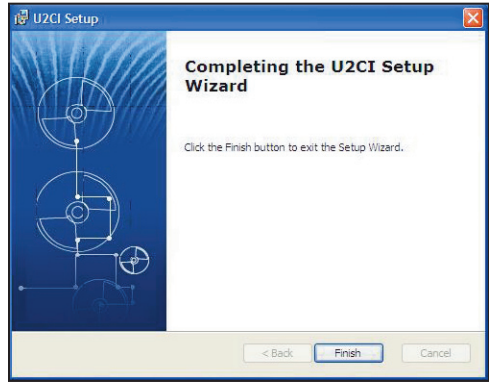
4. Read the EULA. If you do not agree to the terms of the EULA, click "Cancel" and exit the installation. If you agree to the EULA, check the "I accept the terms in the license agreement" box. Then click "Next".

5. Click "Install" in the "Ready to Install" dialog box.

A status bar will display the installation progress.



6. Click “Finish” in the “Completing the U2CI Setup Wizard” dialog box when installation is complete.



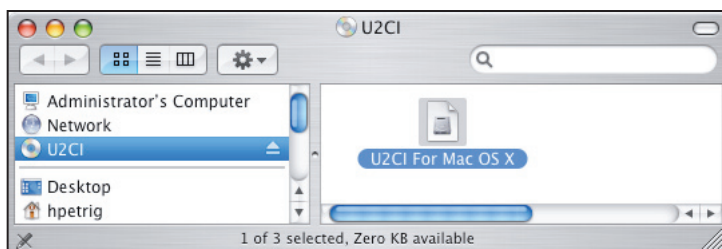
B. U2CI Installation for Macintosh OS X Users

NOTE: STUFFIT EXPANDER may be required. If you do not have it, you can download it for free from the web:
<http://my.smithmicro.com/mac/stuffitexpander/download.html>

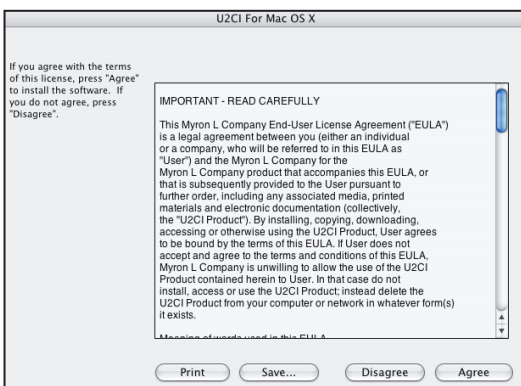
INSTALL U2CI SOFTWARE *BEFORE* PAIRING THE bluDock™ WITH YOUR MAC. (Review warning on page 1 before starting install.)

U2CI Executable and Support Files Installation:

1. Insert U2CI software CD into CD drive or download the U2CI Application & Documents software package for Macintosh OS X from the Myron L website Download Center:
http://myronl.com/main/U2CI_Application_DL.htm
2. Double-click on the U2CI CD icon then double-click the U2CI For Mac OS X executable icon on the U2CI CD.



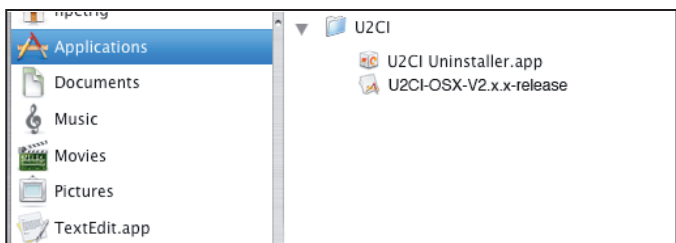
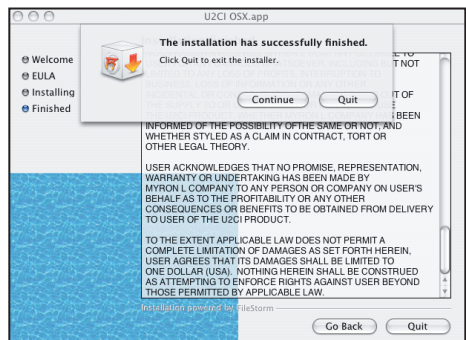
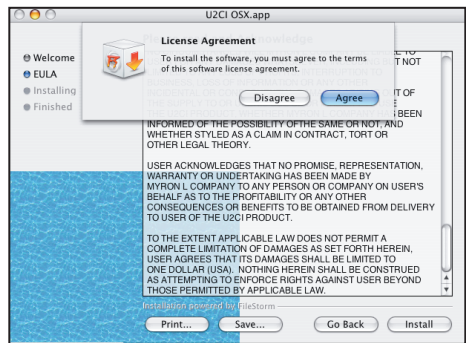
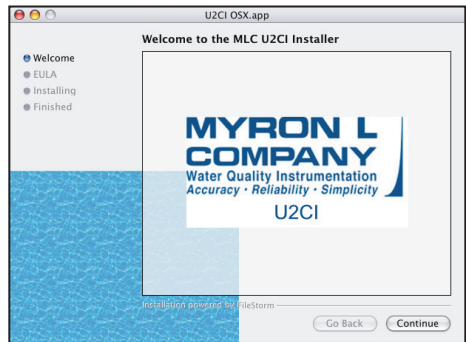
3. Click "Agree" on the EULA dialog box.
4. Double-click the U2CI OSX.app icon.



5. Click “Continue” on the “Welcome to the Mac U2CI Installer” screen.
6. Read the EULA. If you do not agree to the EULA, you cannot install the software. Click “Print” or “Save” to print or save a copy of the EULA for your records.
7. Click “Install” on the EULA screen.
8. Then click “Agree” in the License Agreement dialog box to continue.
9. Click “Quit” to complete software installation process.

Close the U2CI Mac OSX window.

The software has been copied to a U2CI folder under Applications.



II. Enabling Data Transfer

A. Setup Hardware

1. For a computer without Bluetooth® capability:


If you don't have the dongle that came with the BLUDOCK, one can be ordered from the Myron L Company. Order Model # BDDO.

Plug in your dongle and install per manufacturer's instructions.


2. For computers with Bluetooth capability/computers with Bluetooth dongle installed:

First time use of the bluDock:

- a. Press any parameter button to turn the instrument on.

- b. Put the instrument in "PC On" mode by pressing the  key until "PC OFF" is displayed.



- c. Then press the  key.

NOTE: "PC Ini" may momentarily be displayed while initializing.
"PC On" will be displayed.



- d. Add bluDock to your Bluetooth devices per your operating system procedure.



The bluDock device passkey is 1234.

- e. After pairing, note the number of the port assigned by the computer.

NOTE: Windows XP will assign outgoing and incoming ports. Note the number of the outgoing port.

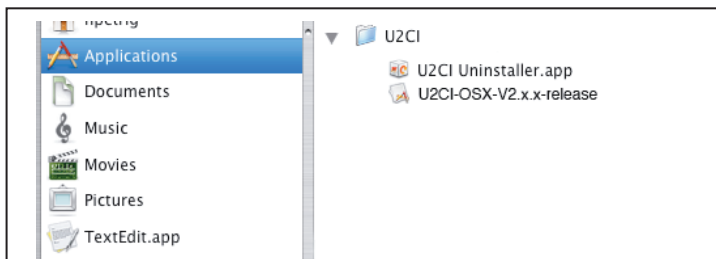
NOTE: The instrument will automatically power down after 60 seconds. If the instrument powers down during pairing, repeat step 2.

B. Launch the U2CI Software

If you are on Windows, double-click on the U2CI icon on the desktop, in the Start menu or under Start\All Programs\U2CI.

U2CI executable and program files are located in
C:\Program Files\U2CI.

If you are on Mac OSX, select Go from the Finder menu bar. Click on Applications. Scroll down to the U2CI folder. Open the folder and double-click on “U2CI-OSX-V2.x.x-release”.

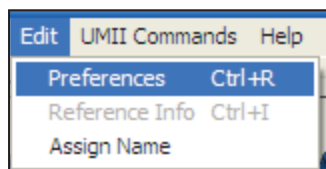


Drag the U2CI-OSX-V2.x.x-release icon to the system dock to create a shortcut on the dock or right-click on the file and select “Make an Alias” to create a shortcut on the desktop.

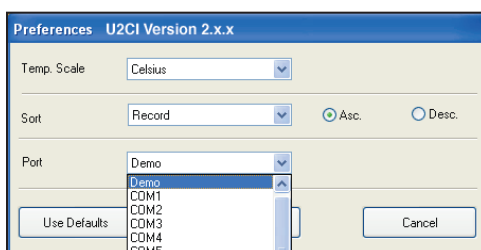
C. Select Port Preference

1. Open the Edit drop-down menu and select “Preferences”.

2. In the Port section of your Preferences window, select the port assigned to the bluDock during operating system Bluetooth device pairing. The dropdown menu displays COM ports 1-100, None and Demo. None is selected by default when no instrument is paired. Demo allows you to explore the functionality of the U2CI application with a demo file.




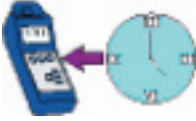


If you can't send commands to the instrument after selecting the COM port, make sure the instrument is in “PC On” mode. If you still can't send



commands to the instrument, make sure the instrument is paired with your computer. Check your port assignment in your operating system's Bluetooth device manager. Re-open the application. Go to Edit, select Preferences, and then select the port assigned to the bluDock.

3. Click “Save”.
4. Put the instrument in “PC On” mode. (See section II.A.2.a-c.)

You may NOW use the icon buttons or the “UMII Commands” drop down menu to send commands to the instrument. (See Section III.C. UMII Commands.)

Icon	Command
	Download Data
	Set Date and Time
	Erase Memory
	Disconnect

III: U2CI Menu Summary

NOTE: FUNCTIONALITY IS THE SAME FOR WINDOWS AND MAC OPERATING SYSTEMS. SCREENSHOTS ARE OF WINDOWS XP™.

THE U2CI MAIN MENU INCLUDES THE FOLLOWING DROP-DOWN MENUS: FILE, EDIT, UMII COMMANDS AND HELP. THIS PART DESCRIBES EACH MENU AND ITS SUBMENUS' FUNCTIONS IN DETAIL.

A. File

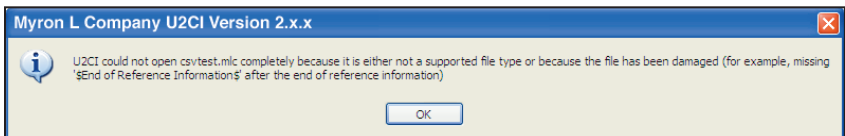
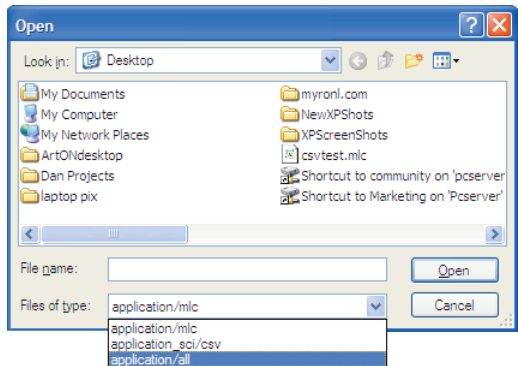
1. Load (Ctrl / ⌘ + L)

This will “load” a data file in the main window screen. If the user chooses this submenu, the standard open file dialog will be displayed.

The file types supported by the

U2CI are .mlc and .csv formats. If the user chooses the “Open” button, the corresponding data file will be loaded into the U2CI main window. If the user chooses the “Cancel” button, the open dialog will be closed and no file will be loaded.

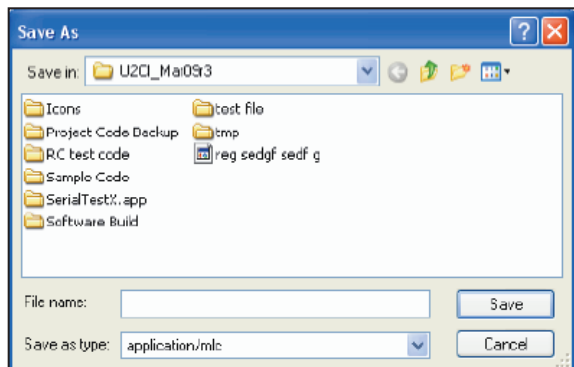
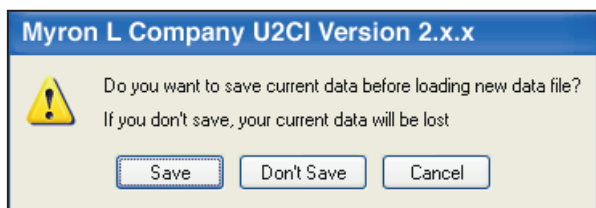
If a loading error occurs (for example, wrong data file type or damaged data file), the U2CI will display the following warning message.



After loading the data file, the corresponding filename will be displayed on the right-top corner above the reference information field, and the reference information (if there is any) will be displayed in the reference information field.

If the user chooses to load a data file and the current data has not been saved, the U2CI will display a warning message.

If the user chooses the “Save” button, then the standard “Save As” dialog box will be displayed. **This is the same as the “Save” dialog box on Mac OSX.**



If the user chooses the “Don’t Save” button, the

current data will not be saved and the standard open file dialog will be displayed. The selected file will replace the current data in the U2CI main window screen.

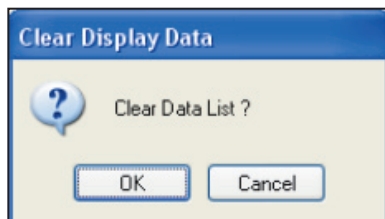
If the user chooses the “Cancel” button, the loading operation will not be executed and the current data will not be changed.

2. Clear Data (Ctrl / ⌘ + D)

This will clear the current data in the main window screen as well as its reference information and file name. When there is no data on the screen, this submenu will be grayed out.

If the user selects “Clear Data”, a message will be displayed asking you to confirm your decision.

If the user chooses the “OK” button, the U2CI will check if the current data is saved or not. If it is not saved, the U2CI will prompt the user to save the data before clearing it.



3. Save (Ctrl / ⌘ + S)

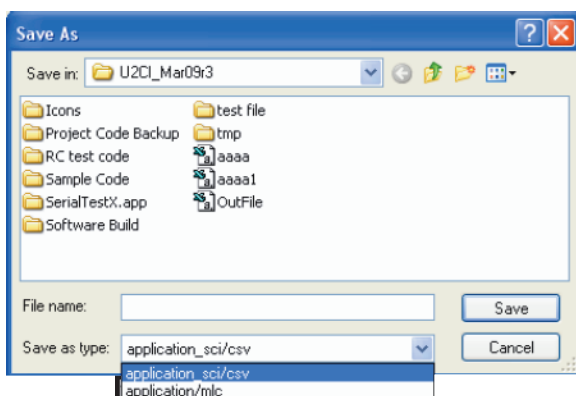
On the File menu, click “Save”. This will save the data in .mlc format, i.e., the truncated data that is displayed in the U2CI main window screen and on the instrument’s display.

MLC data format is used by the Myron L Company’s U2CI application software. Saving your data in a .mlc format enables you to load the data file back into the U2CI software at a later date.

4. Save As

On the File menu, click “Save As”.

In Windows a dialog box will provide you with a choice to save the data in either .mlc format or in .csv



format. If the .csv format is chosen, then the data will be saved as the scientific data format without truncating any data. CSV (comma separated values) data format can be read by many spreadsheet programs, e.g., Microsoft Excel™. **In Mac OSX this function is the same as “Save”.**

Important Information about Data Format for Spreadsheet Applications:

NOTE: When importing your .csv formatted data into Microsoft Excel™, the reading values will default to a scientific format. To view in “Number” format, you must:

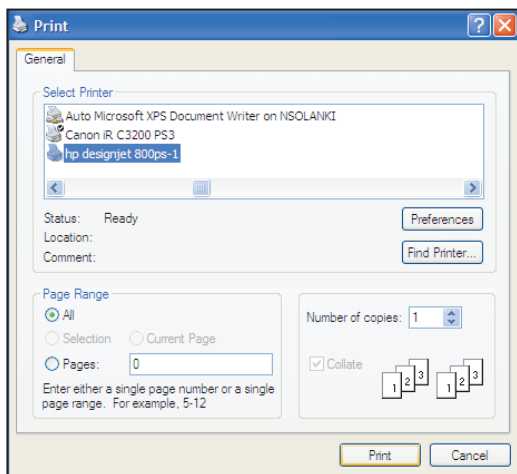
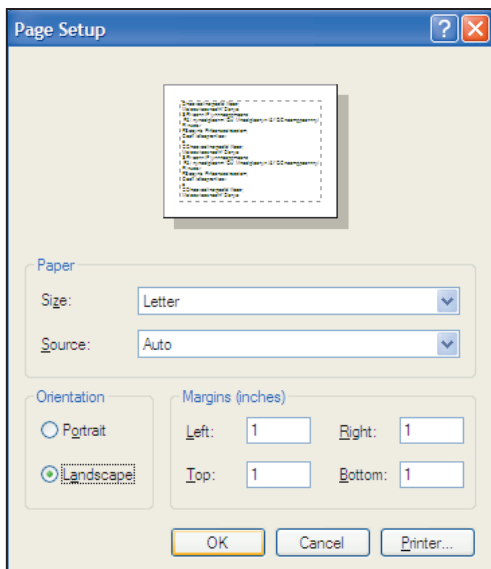
- Select the cells containing the reading values.
- Click on the Format pull-down menu.
- Select “Cells”.
- Under the Number tab, select “Number” from the “Category:” populated list.
- Click “OK”.

5. Print (Ctrl / ⌘ + P)

This submenu will be active only when there is data displayed in the main window screen. When the user chooses to print the data, a standard Page Setup dialog will be displayed.

The user can set up the page according to his or her needs. We recommend using the landscape orientation. Then click the “OK” button.

A standard Print dialog will be displayed. If the user chooses “Print”, the corresponding data list as well as the reference information and the file name will be printed out.



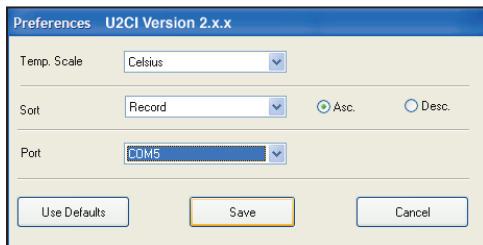
6. Quit (Ctrl / ⌘ + Q)

This will quit the U2CI application, the same as closing the U2CI main window. If there is any unsaved data in the main window screen, the user will be prompted to save the data.

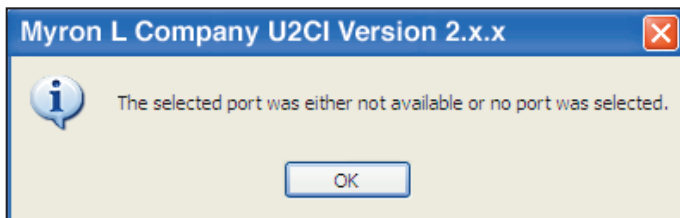
B. Edit

1. Preferences (Ctrl / ⌘ + R)

When the user chooses this submenu, the preference window will be displayed:



- a. “Temp Scale” – Choose whether you want to display the temperature in Celsius or Fahrenheit.
- b. “Sort” – Choose how you want to arrange and display the data. You can choose to sort by “Record”, “Date”, “Time”, “Measurement”, “Solution”, “Temperature”, “Value”, or “Unit”.
“Asc” or “Desc” – Choose whether you want to arrange the data in ascending order or in descending order. For example: You can choose to sort the data by “Date” in descending order and the data will be displayed by date with the most recent date at the top.
- c. “Port” – Choose the communication port assigned to your bluDock during device pairing. None, Demo and ports 1-100 are displayed. If you choose “None” in the preference window, the U2CI will display the following message:



Windows XP™ Tip: Instrument must be in “PC On” mode to view com port assignment in Bluetooth device manager. Open Start\Control Panel\Bluetooth devices and click on the Com Ports tab to see which outgoing port has been assigned to the bluDock.

The U2CI also provides a “Demo” mode in the port list to demonstrate how the U2CI works when the bluDock is not connected.

Preferences are displayed below all data along the bottom of the U2CI application window.

There are three buttons on the preference window in the U2CI, which are: Use Defaults, Save and Cancel.

- d. The “Use Defaults” button will re-set the preferences to the original values during installation.
- e. The “Save” button will save the preference information that the user has selected and apply the current preference information to the data on screen.
- f. The “Cancel” button will cancel the operation. If this button is selected, the preference window will disappear, and the current display will not be changed.

2. Reference Info (Ctrl / ⌘ + I)

When there is no data displayed in the main window screen, both the Reference Info submenu and the Reference Information field will be grayed out. They are activated only when there is data displayed on the screen. When you load a data file, the filename appears above the Reference Information field. The user can then edit and modify the corresponding reference information.

When the user chooses the Reference Info submenu, the “OK” button will be visible under the reference information field. After editing the reference information, you must click “OK” to save any edits and exit the field. The maximum number of characters allowed in the reference information field is 100.

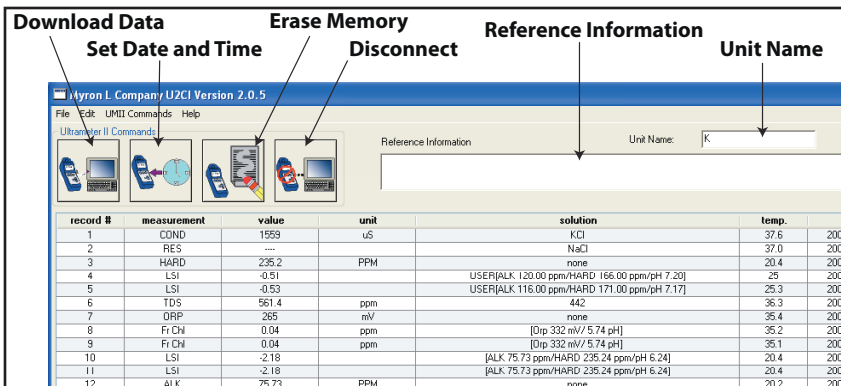
unit	solution	temp.	date	time
uS	NaCl	17	2004.04.17	22:10:42

3. Assign Name

You can assign a name to an instrument so that the instrument name is always associated with data downloaded from that instrument. The instrument name is saved in the data files.

Select Assign Name from the Edit menu. The cursor will appear in the Instrument Name field above the Reference Information field in the U2CI application window. The “OK” button will be visible next to the Instrument Name field. Click “OK” to save any edits and exit the field. The maximum number of characters is 8. The instrument name is also stored in the instrument’s firmware.

C. UMII Commands



UMII Commands: You may use the icon buttons (shown above) or the UMII Commands drop down menu to send commands to the instrument.

1. Download Data

Click the Download Data icon or select “Download Data” from the UMII Commands drop-down menu to download data from the instrument to your computer.

The U2CI will display a message box.

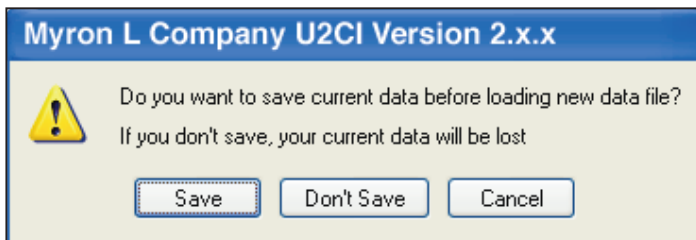
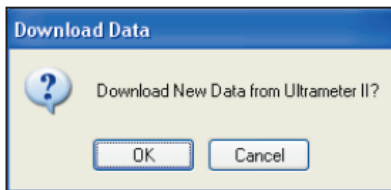
Click “OK”.

NOTE: The instrument will shut itself off automatically after 60 seconds of inactivity.

If it has powered down

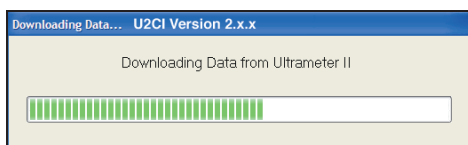
before you start to download new data, a prompt will tell you there is no response from the instrument. The same prompt appears if the instrument is not synced with the system. Ensure the instrument is in “PC On” mode and properly paired with your system. (See II. Enabling Data Transfer, pg. 7.)

If you have previously downloaded data in the same session, a prompt will appear asking whether or not you want to save the current data before downloading new data. Click “Save”.

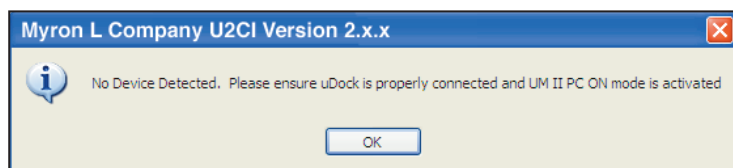


If the bluDock is properly connected and the instrument is in “PC On” mode, the U2CI will begin to download data from the instrument.

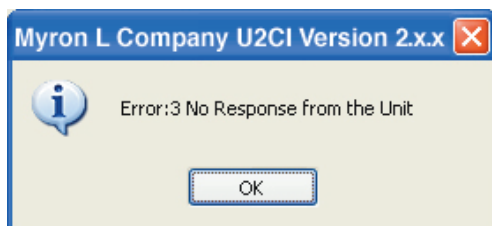
The download progress bar will appear while downloading.



If your bluDock is not properly connected or your instrument is not in “PC On” mode, the U2CI will display a warning message.

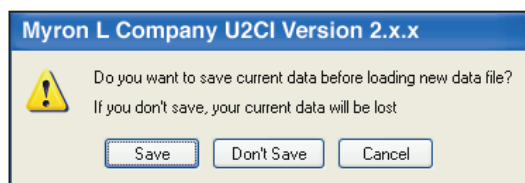


In the event that the transmission is interrupted or the data set is not completed within the timeout period, e.g., the bluDock signal is blocked or moves out of range during transmission, the instrument is not properly paired, or the instrument is not synced with the system, the U2CI will display a message indicating there was no response from the instrument.



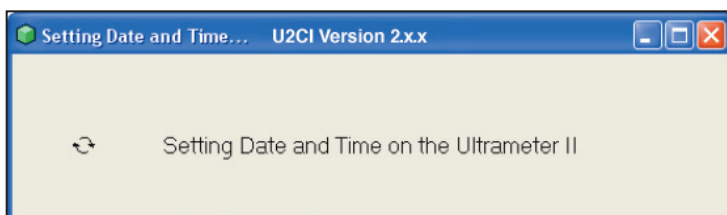
If there is a problem and the download process cannot be started within the instrument’s automatic timeout period, the U2CI will display a message indicating there is no response from the instrument. In this case, put your instrument back into “PC On” mode and try again.

The U2CI will also protect the unsaved data in the main window screen by displaying a warning message when the user tries to download new data from the instrument.



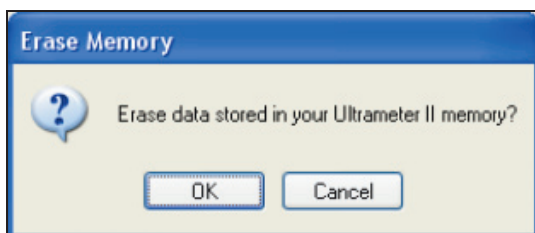
2. Set Date and Time

This will set the date and time on your instrument. If the bluDock is properly connected and the instrument is in “PC On” mode, the Date and Time status bar will be displayed. Please note: The date and time is taken directly from your computer. To ensure accuracy, verify that your computer’s Date and Time are correct.



3. Erase Memory

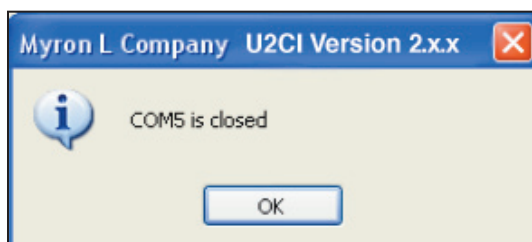
This will erase the data stored in the instrument’s memory. If the bluDock is properly connected and the instrument is in “PC On” mode, a dialog box will prompt you to confirm your decision to erase data stored in the instrument’s memory.



4. Disconnect

This will close the communication port between the U2CI and the instrument. We recommend that you disconnect after each session to ensure that the com port is closed.

A message will display indicating the corresponding communication port that will be closed.



D. Help

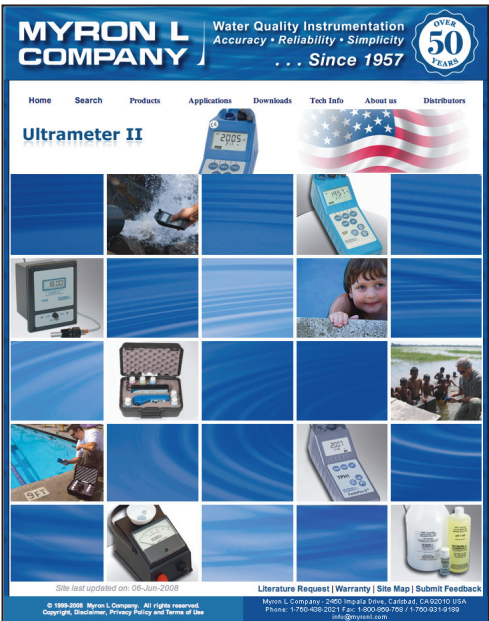
1. U2CI Info

When the user chooses this submenu, the version, build date, etc., will be displayed in the U2CI Information dialog box.



2. Myron L Company

When this submenu is clicked, it will link the user to the Myron L Company website (if an Internet connection is available): <http://www.myronl.com/>



IV. Data Displayed

The loaded or downloaded instrument data is displayed below the UMII Commands icons and the Reference Information field. All information recorded with the measurement is displayed.

A. Record

The record number is the measurement data position in the instrument's memory. You can overwrite a location in memory, so the record number is not necessarily chronological in order.

B. Measurement

The measurement indicates the parameter measured, such as conductivity, resistivity, TDS (MIN/SALT displays as TDS), pH, ORP, free chlorine, alkalinity, hardness, or LSI. Because temperature is recorded with each measurement, it is not reported here.

C. Value

The value is the measured numerical value of the reading.

D. Units

The units column indicates the units of measure of the measured numerical value.

E. Solution

For conductivity, resistivity, mineral/salt and TDS measurements, the solution is the solution mode the measurement was made in, which determines the temperature compensation and TDS conversion algorithms used by the instrument.

For free chlorine measurements, the solution field contains information used by the instrument in the ORP mV to ppm free chlorine conversion: the ORP mV value at equilibrium and the measured solution pH.

For LSI measurements, the solution field indicates whether the value is a hypothetical value calculated in the LSI Calculator function or a measured value as determined by the LSI titration function. For the LSI Calculator value, USER displays along with the alkalinity, hardness and pH values used in the calculation. For the LSI titration value, the alkalinity titration value, hardness titration value, and pH measured value used to compute LSI display.

F. Temperature

The temp. is the temperature of the solution, recorded at the same time the measurement was made.

G. Date

This is the date the measurement was made. The date is displayed in the format yyyy-mm-dd.

H. Time

This is the time of day the measurement was made. The time is displayed in the format hh:mm:ss.

V. Other Features in U2CI

A. Application Window Options

The U2CI main window can be minimized, maximized or resized according to the user's needs.

B. Active Menus and Fields

When no data is loaded in the U2CI application window, the following menus and fields will be grayed out:

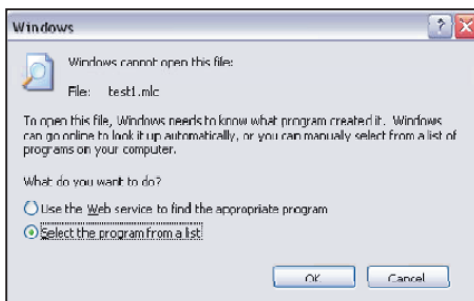
- Clear Data
- Save
- Save As
- Print
- Reference Information

They will be activated only when there is data displayed in the main window screen.

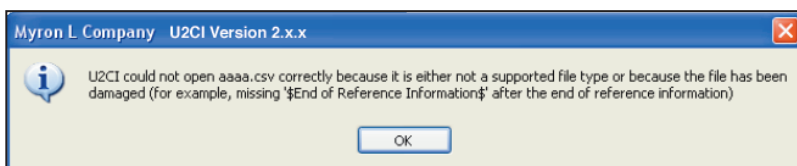
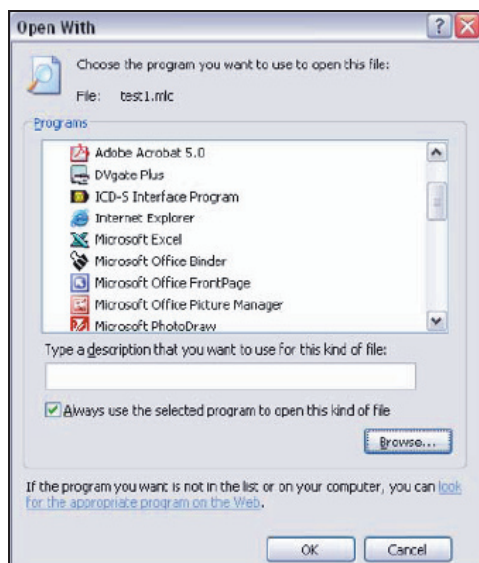
C. Windows .mlc File Association

The U2CI supported data file (.mlc) format can be opened by the U2CI automatically. To have the U2CI open the .mlc file, you must first associate the .mlc file with the U2CI program. To do this, double-click the .mlc file.

A dialog box will prompt you to locate the program that created the file. Select "Select the program from a list" and click "OK".



In the next window that will be displayed, check “Always use the selected program to open this kind of file. Then click “Browse...” Select the U2CI program and click “Open”. If you chose the default location for the software during installation, it is in C:\Program Files\Myron L Company\U2CI\U2CI-WIN-v2.x.x-release.exe.



If the user tries to open a non-supported data file or a damaged data file with the U2CI, then the U2CI application will give a warning message.

D. U2CI supports tooltips

When you move the mouse over a UMII command icon or the Reference Information field, a tooltip with descriptive text will display.

VI. Troubleshooting

Symptom	Solution
No Device Detected	1. Verify your preference setting is set to the correct port. 2. Verify the instrument is in "PC On" mode.
Preference settings don't save	Vista users update to Service Pack 2 or run in compatibility mode.
Error: 1 Can't Read Port File	Setup files are corrupted. Reinstall U2CI application software.
Error: 2 Couldn't Open Com port	Unplug dongle, if applicable, and ensure correct COM port is selected.
Error: 3 No Response from the Instrument	Verify the instrument is in "PC On" mode then try download again. Device not synced with computer. Try waiting 20 seconds while in "PC On" mode to sync or re-pair device with computer.
Error: 4 Broken Communication	Ensure instrument is in "PC On" mode then try download again.
Error: 6 Can't Clear File	Call Myron L Company for technical support.
Error: 11 Can't Read name File	Name file corrupted. Reinstall U2CI application software.
Error: 12 Can't Set time Successfully	Ensure instrument is in "PC On" mode then retry Set time.
Error: 13 Can't Set date Successfully	Ensure instrument is in "PC On" mode then retry Set date.

VII. Notes

VIII. Addendum

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