Upgrading your GC's firmware to 2.0

A firmware upgrade is available for gas chromatographs currently installed with version 1.*x*. **This upgrade must be accompanied with an upgrade of MON 20/20 to version 2.0**.

The 2.0 firmware provides the following ease-of-use enhancements:

- The GC Archive window was redesigned with the following changes:
 - By default the window shows the five most recent chromatograms per stream.
 - You can see all the chromatograms in the GC by clicking **All**.
 - The GC usually deletes the oldest chromatogram to make room for the newest one, but you can omit a chromatogram from this process by selecting it and then clicking **Protect**. Protected chromatograms will not be deleted. In the GC Archive window they are marked with an icon (∩) for easy identification.
 - The GC can store a year's worth of final calibration and validation chromatograms. The GC Archive window has a Final Calibration tab to display final calibration chromatograms only and a Final

Validation tab to display final validation chromatograms only.

Chromat	ngrams Protected Chromatograms	inal Calibration Final Valida	tion	
Str	eam # Stream Name	Anly Type	- Date	Time
<mark>∩</mark> 1	C6+ Cal Gas	Anly	2/11/2011	3:30:09 PM
Π 1	C6+ Cal Gas	Anly	2/11/2011	3:19:02 PM
A 1	C6+ Cal Gas	Anly	2/11/2011	3:13:58 PM
1	C6+ Cal Gas	Anly	2/11/2011	3:01:38 PM
2	C9+ Cal Gas	Anly	2/9/2011	2:43:04 PM
2	C9+ Cal Gas	Anly	2/9/2011	2:38:04 PM
2	C9+ Cal Gas	Anly	2/9/2011	2:33:04 PM
2	C9+ Cal Gas	Anly	2/9/2011	2:28:04 PM
A 2	C9+ Cal Gas	Anly	2/9/2011	2:23:04 PM
<u>-</u> 1	C6+ Cal Gas	Anly	2/8/2011	3:22:55 PM
3	Stream 3	FVal	11/12/2010	11:28:09 AM
Jse shift/	ctrl key for multiple Chromatogram selec	tion.		All
DOWN	ioda ana savo solocited chiomatograma	Prote	et Download &	Show Close

- The new SW Auto Zero event, available in the *Timed Events* table, allows you to re-calibrate a chromatogram after an FID gain change or a spectrum gain change.
- By default, if you run more than one validation per day, the GC will only keep the last final validation chromatogram. This option can be changed via the Systems dialog.
- By default, if you run more than one calibration per day, the GC will only keep the last final calibration chromatogram. This option can be changed via the *Systems* dialog.
- Using MON 20/20 to halt the GC will not trigger the GC Idle Alarm. This alarm will only be triggered by the following situations:
 - If the GC is made idle through the Foundation Fieldbus module.





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- If the GC is halted because of an Analyzer Failure System Alarm, which is typically triggered by low carrier pressure.
- When installing an optional analog output card, you must configure the GC to recognize them by going to MON 20/ 20 and slecting I/O Cards... from the *Tools* menu. Then you should restart the

I/0	Cards		
	Label	Card Type	
1	I/O Slot A	Analog Output Module 🛛 💌	
2	U/O Slot B	None Analog Durput Module Communication Module - RS232 Communication Module - RS232 Discrete Durput Module Discrete Input Module	
		Save	OK Cancel
Selectio	n field (For Help, press F1)		11.

GC.

To upgrade a gas chromatograph's firmware, do the following:

- Start MON 20/20 and save the following categories of data to the PC because this information will be deleted from the GC during the upgrade:
 - Configuration
 - Archive reports and results
 - Chromatograms
- 2. Do the following to save a copy of the GC's configuration file:
 - a. Select **Save Configuration (to PC)...** from the *File* menu.

b. Note the name of the file and the location of the file, then click **Save**.

Note: You can change the file's name and/or location if you wish.

- 3. Print a configuration report. This is necessary because after installing the new firmware you will have to cold-boot the GC. The GC's configuration file will be lost. While some of the information can be restored from the configuration file that you saved in Step 1, other information will be unrecoverable. You can use the configuration report to manually reconfigure the modules whose information was lost.
 - a. Select **GC Config Report...** from the *Logs/Report* menu. The *GC Config Report* window displays.
 - b. Select the check boxes for the following options:
 - Analog inputs
 - Analog outputs
 - User-defined calculations
 - System alarms
 - Communication
 - Ethernet Ports
 - LOI Status Variables
 - FFB PV Mappings

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· U	ption	Select	-	Output
Analog Inputs		 Image: A set of the set of the		
Analog Outputs		~		C Ele
Average Calculation	IS			
Component Data				Printer (with formfeeds)
Control Calculations				inter (martonineeds)
Discrete Inputs				Contractor of the
Discrete Outputs				Printer (without formfeeds)
Detectors				
Heaters				C Screen
Limit Alarms				
Communication		~		
Streams				
System				
Timed Events				🔽 Use default printer
User-Defined Calculations		V		
Valves				
FFB PV Mappings		~		
System Alarms		 Image: A set of the set of the		
Validation Data				
Ethernet Ports		~		
LOI Status Variables	3	×		
Stream Sequence			-	

These are the modules whose configuration information will be lost after the coldboot.

- c. Click **Start (F4)**. The report will be printed.
- 4. Upgrade the firmware by doing the following:
 - a. Select **Upgrade Firmware...** from the *Tools* menu. The *Upgrade Firmware* window displays.
 - b. Click **Open**. The *Open Download File* dialog displays.
 - c. Locate and select the firmware file. Click **Open**.

- d. Click **Upgrade**. MON 20/20 will install the new firmware and then cold-boot the GC.
- 5. Restore the GC's configuration by doing the following:
 - a. Select **Restore Configuration (to GC)...** from the *File* menu.
 - b. Locate and select the appropriate configuration file and click **Open**.
- 6. Use the configuration report to manually re-configure the following modules:
 - Analog inputs
 - Analog outputs
 - User-defined calculations
 - System alarms
 - Communication
 - Ethernet Ports
 - LOI Status Variables
 - FFB PV Mappings
- 7. Reload the data to the gas chromatograph that was saved to the PC prior to the upgrade.

The gas chromatograph is now fully upgraded.