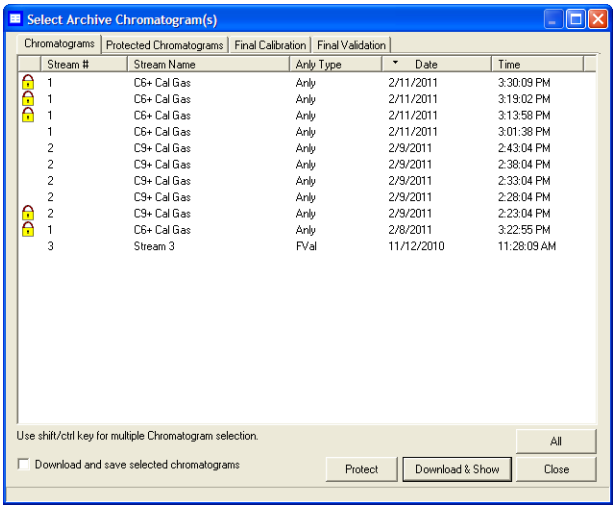
Upgrading your GC's firmware to 2.0

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:

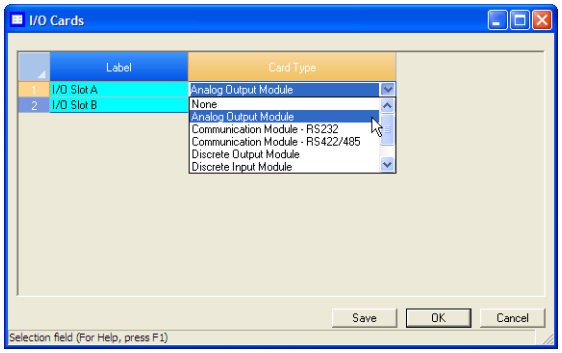
- The *GC Archive* window was redesigned with the following changes:
  - By default the window shows the five most recent chromatograms per stream.
  - You can see all the chromatograms in the GC by clicking **All**.
  - The GC usually deletes the oldest chromatogram to make room for the newest one, 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.



- 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.

- 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

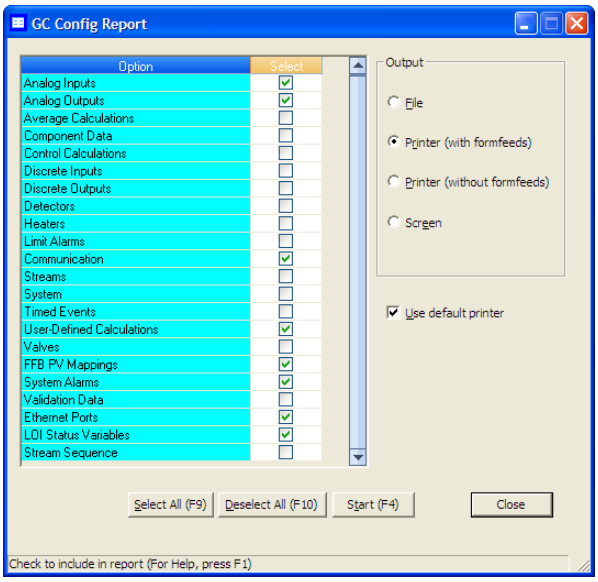


GC.

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

1. 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 re-configure 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



These are the modules whose configuration information will be lost after the cold-boot.

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.