This summarizes the software release notes for the standard VistaNET-enabled GCC software using the 8086 SBC. This document will be updated as additional releases are made.

Please see similar 803V0xx-___ documents for VistaNET specialty GCs and see "2020 Standard GGC Software" for all non-VistaNET GCs and Controllers.

1. Version 1x General Summary:

- VWS and serial host link support split from VistaNET (803V029). Adds EPC and Vista II I/O configuration.
- Supports SBC Part Number: 800B003-512512 (Vista II) or 733B007N-512512 (3100).

1R. (03/21/02) ECN 21864 803V029-1R **CURRENT VERSION**

- Firmware improvements to the GCC.
- Changed the ramp rate minimum limit on the DTC to 0.1.
- Changed default names on the DTC to zone 1 and zone 2.
- Changed the copyright date on the Background screen to 2002.

1P. (03/26/01) ECN 21666 803V029-1P

- Corrected a problem where the Zone Specific Alarms for the 5 Zone Temperature PCB were not always being displayed.
- Corrected a problem in the TCF commands for Do Nxt Str = and Skp Nxt Stre =.
 They were only using 20 streams; they now use up to 32 streams.
- Fixed Chromatogram information going to the GCCRUI. The labels on the components on the Benchmark Stream were showing up as RF and not as % or PPM.
- Changed the Copyright on the Background display to 2001.

1N. (06/09/00) ECN 21365 803V029-1N

 Corrected a problem with the 20V7 hostlink messages going to the HIU. The analyzer number was incorrect with regards to the master/slave analysis. The 20V7 specification states that the detector will always be one when a unit is run as a master/slave analyzer.

1M. (04/06/00) ECN 21316 803V029-1M

 Concentration alarms in the GCC were not setting the Data Valid code in the message that was sent to the HIU.

1L. (03/07/00) ECN 21284 803V029-1L

Total unknowns sent to the HIU was incorrect for a normalized analysis.

1K. (02/23/00) ECN 21220 803V029-1K

- Corrected a problem in which the units on the unknowns with the chromatogram getting sent to the GCCRUI were incorrect.
- Corrected a problem in which the first entry in the Subscriber List was always displaying a timeout of 5000 ms.
- Added functionality to the Skip on Alarm TCF so that when Skip on Low Temp is selected the unit will check the Low Temp Alarm on Zone 1; if active, it will skip the next TCF.
- Corrected a problem with the dual detector GCC in which the Alarm Status Pane of the GCCRUI was always active because the GCC was always sending the Chroma I/O PCB # text to the Alarm Pane regardless of whether the GC was in alarm or not.
- Corrected a reversal of the header labels on the Temp Config Table screen and the 5 Zone Names and Limits screen.

1J. (11/30/99) ECN 21179 803V029-1J

 Unit was not always recovering correctly from powerfail; the failure mode caused the unit to quit communicating with the front panel.

1H. (10/15/99) ECN 21129 803V029-1H

- Changed the way the print report frequency counter works; when set to 1 prints every report, set to 2 skips every other report, set to 3 skips two reports, etc.
- Added more informative help to the alarm masking section of the help screens.
- Changed the names of the temperature high and low alarms coming from the EPC to note that they are EPC specific alarms.
- Changed the name of the Calibration Flow alarm to Low Standard Sample.
- Corrected a problem in the code concerning the setting of dates from the GCCRUI in leap years, which was causing the date at the GCC to be off by one day.
- Corrected a problem where the incorrect value was being sent to VistaStorage.
 Instead of the uncorrected peak area being sent, the peak area at crest was being sent to VistaStorage.
- This release of the code also has all the 386 SBC support; however, all the code to make the 386 run has been conditionally compiled out of this release.

1G. (6/29/99) ECN 21028 803V029-1G

- Sensor Held alarms were not working correctly. They were tracking the active alarms.
- When printing the regular report from a GCC that was running different methods on different streams, the analysis results were not matching up to the correct stream.
 The problem was most visible when printing the regular report from the GCCRUI.

1F. (6/15/98) ECN 20690 803V029-1F

- Alarm masks were not working correctly. Did not match RUI.
- Bit field in report to HIU now sends indications instead of alarms.
- Alarms for slope detect during noise calculation, and slope detect during forced gating were not working.
- Filled in missing alarms to VistaSTORAGE.
- In VistaSTORAGE report, if a component was missing but was updated by Basic, would show up as zero.
- Now defaults VistaNET subscriber list timeout to 5000ms.
- Added option in Control Parameters to not clear alarms at the end of analysis.
- Chroma board test from RUI would fail RAM/ROM test.

1E. (3/20/98) ECN 20604 803V029-1E

- Manual detector screen was not working for multiple detectors on chroma board.
- Unit would crash if the total components and unknowns going to VistaSTORAGE was > 48.
- Unit would crash if the total components and unknowns going to HIU was > 190.
- Now supports remote stream select digital inputs for all 32 streams.
- Flameout digital input now defaults to normally open.
- When ignition mode is changed, now turns off the flame and the H2 digital outputs.
- Added program revision to the options text to the RUI.
- For chromatogram storage, default points per second to save is now 4.
- For chromatogram storage, on reprocess without saving all 32 points per second, changed wording of error message to 'Not all 32 points per second saved.'
- More accurate calculations of memory available.
- Print report on alarm change was not working correctly.
- Now aborts analysis on temperature board no zero crossing.
- Changed copyright date to 1998.
- Common hardware and software digital outputs were not masking correctly.

1D. (9/30/97) ECN 20445 803V029-1D

- If ignitor for FPD is auto or auto with timeout, then it behaves as follows:
 - 1. If the temp zone associated with the FPD is greater than 110 C, or the temp zone number is set to zero, then the ignitor is turned on for three seconds.
 - 2. The unit then waits fifteen seconds before checking the state of the flame.
 - 3. If the flame is lit then the ignition sequence is complete, else it repeats the sequence up to six times.
 - 4. If the flame is still out the ignition sequence is terminated and the H2 is shut off. The operator can manually request ignition to restart the sequence.
- New multi-linear correction for sulfur zone of the five zone temperature controller.
- Changed "Subscriber Table" to "Subscriber List".
- Basic MID\$ command would sometimes go beyond the end of the source string.
- Now supports E2 image to RUI larger than physical E2. Needed for TWA in VistaBASIC.
- Would sometimes get reports on printer even when printer turned off.
- Calibration and benchmark reports to HIU were incorrect.
- Some alarms in the HIU report were missing.
- Response to HIU poll message left out detector 2.
- On regular and raw data text reports at the RUI and VistaREPORTER the second header showed up twice.
- Test printer would inhibit screen updates till printer output finished. Very noticeable at 300 baud.
- If all subscribers of a type time out, then client mailbox is purged.
- Added interblock delay to all multiblock messages.
- LPRINT messages to RD now show up as analysis reports instead of analyzer events.
- VistaBASIC integer arrays did not work correctly when passed as a parameter to a built-in.
- No longer gives retention time alarms for calculated components.
- Downloading tables from RUI with large VistaBASIC tables would interfere with peak detection.
- Report on alarm change was not working correctly at the VistaREPORTER.

1C. (7/8/97) ECN 20401 803V029-1C

- LPRINT command in BASIC now echoed to RDs in subscriber list.
- Would sometimes get invalid report request from RUI. Resulted in garbage report at RUI and error messages at RDs.
- Can now run BASIC manually without compiling.
- Added hidden command to restore 2020-8 series VistaNET E2 and give default digital input and output tables.
- Long powerfails were not asking for fresh VNSA tables. (This change did not make it to Singapore (SAC).)

1B. (5/14/97) ECN 20325 803V029-1B

- Removed the 19 from the year field on the set time and date screen. Y2K Compliant!
- Analysis messages to VistaSTORAGE did not have the correct peak start and end flags. Master detector was always set to true.
- Was not sending the correct status messages to VistaSTORAGE.
- If peak terminated by slope detect off now then a bad slope sensitivity was sent to VistaSTORAGE. Was causing VistaSAM to give a run-time error.
- Added BASIC built-ins: STR_NAME\$, UCT_TO_TIME\$, TIME_UCT, INJT_UCT and PREV_INJT_UCT.
- Size of BASIC COMMON! area is now adjustable. Added screen behind the password for setting.
- RCV MSG\$ BASIC built-in changed to RCV DATA\$.
- BASIC would crash the unit if an expression got too complex.
- BASIC now gives a run-time error on divide by zero.
- SPACE BASIC built-in will now do up to 128 spaces.
- E2 now saves version id. Will not restore older versions.
- EPC and five zone temp controller sometimes dropped because of bad communications. GCC now gives several tries before dropping.
- Analysis validity in report to HIU was wrong.
- Peak rejection was not working with negative peaks.
- Stream table is now always 32 streams.

1A. (3/4/97) ECN 20259 803V029-1A

- The 2020-9A will continue the standard non-VistaNET GCC support for the VWS and other serial host links. The 803V029-1A will begin the standard GCC support for the VistaNET.
- VistaNET release of Vista II digital input and output configuration.
- Support for EPC.
- RAI Vista Basic built-in would give bad readings if done during an auto-zero.
- When saving essential VistaNET addresses to E2, would not give an error message if bad checksum.
- Domains added to controller status screen.
- On controller status screen, when statistics got too large they would show as asterisks.
- Added VistaNET help screens.
- Now have additional alarming capabilities on the components. Have added concentration high-high and low-low, retention time and response factor high and low. Have also added eight Vista Basic settable alarms. These alarms have user definable names.
- The following Vista Basic commands have been added:
 - 1. SET_BASIC_COMP_ALARM(Method_Number, Comp_Number, Basic_Number) Sets the Vista Basic component alarm. Basic Number is 1-8.
 - 2. GET_PRESS(Zone) Returns the pressure of the zone for the EPC or the old style 2 zone pump board.
 - 3. PUT_PRESS(Zone, Set Point, Ramp Rate) Sets the set point and ramp rate for a zone of the EPC or the old style 2 zone pump board.
 - 4. GET_TEMP(Zone) Returns the temperature of the zone for the 5 zone board.
 - 5. PUT_TEMP(Zone, Set Point, Ramp Rate) Sets the set point and ramp rate for a zone on the 5 zone board.
 - 6. PK_WIDTH(Destination Array, Peak Number, Percent of Height) Returns the peak front width, back width and asymmetry at the peak percent of height.
- Raw chromatogram storage now monitors amount of memory used for associated reports.
- On raw chromatogram status screen, can now look at more than just the first seven spectrums.
- Analog/digital host link, that uses the recorder bargraph output, is back.
- Some problems with zone specific temperature and pressure board alarms.