

VMM 3120 Application Release Notes (916607)

Parker Vansco Software Product Number: 916607

Description: VMM Application Code (as described in the [VMM Embedded Software Topic](#)) for use with VMM 3120 hardware.

VMM System Version 7

Version 1.03 build 31 (May 22, 2018, Case 47026)

- ▶ VMM System Version 7.3.
- ▶ Supports [VMM 3120](#) hardware (9160xx).
- ▶ Minimum VMMS build number allowed: 725.

Production release.

Changes from V0.23 build 30:

- ▶ Version number changed to V1.03 build 31. (Case 47026)

Version 0.23 build 30 (March 21, 2018, Case 47027)

- ▶ VMM System Version 7.3.
- ▶ Supports [VMM 3120](#) hardware (9160xx).
- ▶ Minimum VMMS build number allowed: 725.

Prototype release.

Changes from V1.02 build 27:

- ▶ Added VMM 3120 11-bit [CAN message](#) support. (Case 45025)

Version 1.02 build 27 (March 24, 2016, Case 29839)

- ▶ VMM System Version 7.3.
- ▶ Supports [VMM 3120](#) hardware (9160xx).
- ▶ Minimum VMMS build number allowed: 725.

Production release.

Changes from V0.22 build 26:

- ▶ Version number changed to V1.02 build 27. (Case 29839)

Version 0.22 build 26 (February 1, 2016)

- ▶ VMM System Version 7.3.
- ▶ Supports [VMM 3120](#) hardware (9160xx).
- ▶ Minimum VMMS build number allowed: 725.

Prototype release.

Changes from V0.21 build 25:

- ▶ Configurable CAN 2 bit rate (125 kbps, 250 kbps (default), 500 kbps). (Case 29840)

Version 1.01 build 25 (December 09, 2013)

- ▶ VMM System Version 7.3.
- ▶ Supports [VMM 3120](#) hardware (9160xx).
- ▶ Minimum VMMS build number allowed: 725.

Production release.

Built from the V0.20 build 23 release.

Version 0.21 build 24 (November 04, 2013)

- ▶ VMM System Version 7.3.
- ▶ Supports [VMM 3120](#) hardware (9160xx).
- ▶ Minimum VMMS build number allowed: 725.

Prototype release.

Changes from V0.20 build 23:

- ▶ Improved [plug and play](#) error handling. (Case 18100)
- ▶ Added in an application checksum to verify that the application is valid before starting. (Case 18100)

Version 0.20 build 23 (June 20, 2013)

- ▶ VMM System Version 7.3.
- ▶ Supports [VMM 3120](#) hardware (9160xx).
- ▶ Minimum VMMS build number allowed: 725.

Prototype release.

Changes from V0.19 build 22:

- ▶ Improved initialization routines to support loading of large ladder logic files.. (Case 15625)

Version 0.19 build 22 (March 04, 2013)

- ▶ VMM System Version 7.3.
- ▶ Supports [VMM 3120](#) hardware (9160xx).
- ▶ Minimum VMMS build number allowed: 725.

Prototype release.

Changes from V0.18 build 21:

- ▶ Updated the system timer routine to have the stopwatch timer keep better time in general. (Case 14589)
- ▶ Updated a digit to the OEM ID to support the full decimal range of a 32-bit value. (Case 12819)
- ▶ Added a frequency input routine for compatibility. (Case 15591)

Version 0.18 build 21 (November 13, 2012)

- ▶ VMM System Version 7.2.
- ▶ Supports [VMM 3120](#) hardware (9160xx).
- ▶ Minimum VMMS build number allowed: 725.

Prototype release.

Changes from V0.17 build 20:

- ▶ New feature: (Case 13890)
 - ▶ Added 32 more digital flags allowing a total of 64 digital flags.
- ▶ Fixed issue with the stopwatch not keeping time correctly when ladder logic processed time is greater than 25 ms. (Case 14589)
- ▶ Added extra digit to the OEM ID to open up more available OEM IDs. (Case 12819)

Version 0.17 build 20 (February 3, 2011)

- ▶ VMM System Version 7.1.
- ▶ Supports [VMM 3120](#) hardware (9160xx).
- ▶ Minimum VMMS build number allowed: 725.

Prototype release.

Changes from V0.17 build 20:

- ▶ New Features:
 - ▶ Added support for frequency duty cycle measurement in ladder logic (Case 6802).
 - ▶ Added support for frequency input counting in ladder logic (Case 7984).

Version 1.00 build 19 (July 15, 2010)

- ▶ VMM System Version 7.1.
- ▶ Supports [VMM 3120](#) hardware (9160xx).
- ▶ Minimum VMMS build number allowed: 725.

Production release.

Changes from V0.16 build 17:

- ▶ NET1 LED change: During plug and play NET1 flashes. (Case 5540)
- ▶ Standby mode change: if in standby mode during a plug and play operation, on the power LED on the master VMM overrides the standby LED turning it off, and the power LED on solid. After plug and play is complete, if still in standby mode, the standby LED functions normally. (Ticket #254)
- ▶ VMM system error detection change: disable system error detection during plug and play, while in standby mode, and when master power is not active. (Ticket #255)

Version 0.16 build 17 (May 10, 2010)

- ▶ VMM System Version 7.1.
- ▶ Supports [VMM 3120](#) hardware (9160xx).
- ▶ Minimum VMMS build number allowed: 725.

Prototype release (obsoleted by Version 1.00 Build 18).

Changes from V0.15 build 16:

- ▶ Standby mode changes:
 - ▶ Messages are no longer routed to CAN2 while in standby mode. (Ticket #216)
 - ▶ Eliminated system error generated while in standby mode when master power is enabled. (Ticket

#205)

- ▶ Power & NET1 LED change: LED behavior during plug and play changed to match VMM1210/2820. The power LED stays on solid, and NET1 flashes. (Ticket #221)
- ▶ New feature: support for optional VMMs added. It is because of this feature that the VMM System Version increased to 7.1. (Ticket #164)
- ▶ [CAN Router](#) change: a message originating from the VMM can no longer be routed from CAN 2 to 1 when CAN 2 is bus off (and vice versa). (Ticket #211)

Version 0.15 build 16 (April 20, 2010)

- ▶ VMM System Version 7.0.
- ▶ Supports [VMM 3120](#) hardware (9160xx).
- ▶ Minimum VMMS build number allowed: 724.

Prototype release.

Changes from V0.14 build 15:

- ▶ Built-in DLA functionality disabled.
- ▶ Number of J1939 source addresses in addition to the default VMM source address (0xD0 to 0xEF) available on CAN 1 increased from 0 to 1.
- ▶ Number of J1939 source addresses available on CAN 2 increased from 1 to 2.

Version 0.14 build 15 (January 8, 2010)

- ▶ VMM System Version 7.0.
- ▶ Supports [VMM 3120](#) hardware (9160xx).
- ▶ Minimum VMMS build number allowed: 708.

Prototype release.

Changes from V0.10 build 10:

- ▶ VMM System Version 7.0
- ▶ Provides support for upto 20 received [J1939 Diagnostic Trouble Codes](#) (DTCs) per VMM.
- ▶ Supports upto 16KB [J1939 table](#).
- ▶ [Master power](#) setting can be adjusted on a [VMM](#) by VMM basis.
- ▶ [Output](#) auto reset (OAR) can be set on an output by output basis.
- ▶ Short fault threshold (SFT) can be set on an [output](#) by output basis.
- ▶ Force present [flag](#) Fx-248 added.
- ▶ Corrected an issue that under certain circumstances prevented a corrupted module [count / duration / generic log](#) from being restored using it's backup copy in [EEPROM](#) resulting in the log being set to it's default value.
- ▶ Plug and play response timeout increased to support large VMM systems.
- ▶ [VMM J1939 status message](#) optimization:
 - ▶ For all programmable inputs, only broadcast the primary type on change and once a second, and the rest just once a second.
 - ▶ Force status messages are only broadcast when the VMMS software is detected, or when a force of a particular type is present.
- ▶ Enhanced network error ([flag Fx-255](#)) detection to include the condition: master power is active, and one (or more) VMM that is defined in ladder logic is not available.
- ▶ Minimum VMMS build number enforced. Currently VMMS build 708 or higher is required.
- ▶ The VMM will accept address specific diagnostic commands from the instrument cluster J1939 address 0x17 (23).
- ▶ Supports default value configuration for [count/duration/generic logs](#).

- ▶ Standby mode added to shut down by [power control](#) input.
- ▶ Third diagnostic LED functionality switched to NET 2.
- ▶ Power LED will blink on output fault present.
- ▶ If hardware variant is VMM3120 3420D2V3A or newer, default address configuration is three address inputs, active low, inputs 20 to 22.

VMM System Version 6

Version 0.10 build 10 (June 9, 2008)

- ▶ VMM System Version 6.0.
- ▶ Supports [VMM 3120](#) hardware (9160xx).

Prototype release.

Changes from V0.06 build 6:

- ▶ Fixed output analog feedback error.
- ▶ Fixed issue with inputs 17 and up where they were incorrectly set active low, regardless of the model database (version 0.09).
- ▶ CAN 2 VIP diagnostic channel supported (version 0.08).
- ▶ VMM black box RAM allocation decreased from 4 K to 1 K bytes (version 0.08).
- ▶ CAN Router is able to route transmitted CAN messages, in addition to those received (version 0.07).

Version 0.06 build 6 (November 1, 2007)

- ▶ VMM System Version 6.0.
- ▶ Supports [VMM 3120](#) hardware (9160xx).

Prototype release.

Changes from V0.05 build 5:

- ▶ VMM_HARDWARE configuration module added.
- ▶ VMM 3120 supported via VMM_HARDWARE module. I.e. hardware configuration information is required in ladder logic (requires VMMS build 533 or newer).

Version 0.05 build 5 (September 20, 2007)

- ▶ VMM System Version 6.0.
- ▶ Supports [VMM 3120](#) hardware (9160xx).

Prototype release.

Changes from V0.04 build 4:

- ▶ CAN offline capable. I.e. RS232/VIP functionality with or without a physical CAN bus connected.

Version 0.04 build 4 (September 14, 2007)

- ▶ VMM System Version 6.0.
- ▶ Supports [VMM 3120](#) hardware (9160xx).

Prototype release.

Changes from V0.03 build 3:

- ▶ A maximum of 8 VMMs supported (VMM1 to 8 only).
- ▶ First prototype version with built-in data link adapter (DLA). Provide DLA connection when connected to VAPI server/DLL on PC side via serial/RS-232 connection.

Version 0.03 build 3 (August 10, 2007)

- ▶ VMM System Version 6.0.
- ▶ Supports [VMM 3120](#) hardware (9160xx).

Prototype release.

Changes from V0.02 build 2:

- ▶ J1939 large message routing supported by the CAN router.

Version 0.02 build 2 (July 16, 2007)

- ▶ VMM System Version 6.0.
- ▶ Supports [VMM 3120](#) hardware (9160xx).

Changes from V0.01 build 1:

- ▶ **Prototype** release.
- ▶ Analog input max voltage configuration supported. i.e. 0 ADC (min) = 0V, 1023 ADC (max) = Max Voltage, with linear scaling between min and max.

Version 0.01 build 1 (July 11, 2007)

- ▶ VMM System Version 6.0.
- ▶ Supports [VMM 3120](#) hardware (9160xx).

Changes from V0.00 build 0:

- ▶ **Prototype** release.
- ▶ Analog feedback Ax-87, Ax-88, Ax-89, Ax-90 returns value between 0.0 (min ADC) and 1023.0 (MAX ADC)
- ▶ Power control is a configuration setting in ladder logic for the VMM 3120: digital input 1, 2, both, or neither.
- ▶ High side output open load check functionality enabled. Controlled via ladder logic.

Version 0.00 build 0 (July 9, 2007)

- ▶ VMM System Version 6.0.
- ▶ Supports [VMM 3120](#) hardware platform (9160xx).

Prototype release.