

Coder 5.06-1 Release Notes

DATE:

February 22, 2013

BACKGROUND:

Version 5.06-1 is a new release of the GAP Programmer / Operating System

COMPATABILITY:

This version of the GAP Programmer is only for the PCMHD platform.

To use this version of GAP/Coder, you must use SOS 4.01 or higher.

To use this version of GAP/Coder, you must use Control Assistant 4.03 or higher.

To use this version of GAP/Coder, you must use Toolkit 3.6.5 or higher.

NEW FEATURES:

New pattern with 60-2 crank, 6+1 Advanced CAM

ISSUES:

The following Product Issue Database ("PID") issues and requests were addressed in 5.06-1:

Issue #	Description	Solution
15666	ISA Firewall can block SOS Servlink OPC Server from communicating with NetSim on the LocalHost channel (127.0.0.1).	Changed the syntax of the TCP write command which NetSim uses for Servlink
16266	Incorrect speed in AI_PWM block	Corrected algorithm for reading frequency
16536	Request for a new pattern with 60-2 crank, 6+1 Advanced CAM	Pattern was implemented such that TDCA_23 will be used to set the offset between CAM tooth 1 and Crank tooth 1. The TPU will sync to the first gap after CAM tooth 1. CAM_LOC can be used to measure the distance between cam tooth 1 and crank tooth 1.

UNSUPPORTED BLOCKS:

The following blocks are available in the Template and GAP Editor, but are not supported for customer use in the 5.06-1 release version of the Coder (compiler):

- [CAL_ID](#)
 - [I_TO_NAN](#)
 - [PC104_ATL](#)
 - [TEMP_HIST](#)
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- Tunable inputs for the [SYNC_INJ](#) block (CYL, MIN_ADV, MAX_ADV) are only available to Woodward developers in this version

PART NUMBERS:

Version 5.06-1

Gap/Coder Part Number: 9927-2119 NEW

Master Kit: 9927-1333, 8928-1088, 1796-1068

Previous Coder 5.06-0 Release Notes

DATE:

December 19, 2011

BACKGROUND:

Version 5.06-0 is a new release of the Coder / Operating System

COMPATABILITY:

This version of the GAP Programmer is only for the Atlas II control and Engine platform controls: ECM3, MCU (MCU, ARAPAHOE), PCMHD.

To use this version of GAP/Coder, you must use SOS 4.01 or higher.

To use this version of GAP/Coder, you must use Control Assistant 4.03 or higher.

To use this version of GAP/Coder, you must use Toolkit 3.6.5 or higher.

NEW FEATURES:

DM18 long security for DMA messaging

Tunable time-to-live value for EGD_PROD network channels

ISSUES:

The following Product Issue Database ("PID") issues and requests were addressed in 5.06-0:

Issue #	Description	Solution
2222 2355	Various Modbus RTU communication failures	Implemented a hardware based timer to achieve the accuracy necessary for Modbus RTU Multidrop to work
15607	There is a small window on application initialization after loading a NEW application where if power is cut, certain serial EE space may not be initialized to zero correctly	Added an initialization function which is called at the right time to close this window. The INIT_DONE output of the EVENT_MGR block will come up as true whenever a new app is loaded
15723	Mandatory flag error in SYS_INFO CTL_WR_SEC field	Corrected the typo which prevented the mandatory status of CTL_WR_SEC from depending on CTL_RD_SEC

Issue #	Description	Solution
15765	If a late pulse occurs around the reset/trigger pulses and they are late enough they may be generated on top of each other. This causes the reset pulse to possibly not happen prior to the first trigger pulse causing a missing pulse error in the IC1100. This is likely to happen if the first trigger pulse is in advance of the sync point	Changed the minimum pulse duration of the reset pulse to be 150us and the trigger pulse to be 250us. If they occur at the same time and the falling edge is the trigger edge, the reset pulse will always happen before the trigger pulse
15766	Only 16 bits of the E_VAL input are logged when an event input becomes true. Once sufficient errors have been logged, this may result in dramatic reduction of serial EE life span as it has a limited number of write cycles	Changed E_VAL usage and Storage variables to allow full 32 bit use of the number
15790	If T_RST_X or E_RST_X is set to default (0) or 0, an INACTIVE fault will clear from the log after the T_VAL or E_VAL increments 1 unit	Default value for E_RST and T_RST were changed to MAX_INT
15795	There is only enough memory for 16 samples in the AI_MPU_ENG code. If an application provides more samples, an array overflow may corrupt arbitrary areas of memory	Changed template in 5.06 to limit this value to 16
15837	Coder gen_scheduler buffer overflow error	Replaced the variable with the correct datatype
15853	Allow tuning of EGD multi-cast "time to live" value (maximum allowed router hop count)	Added an input to the EGD_PROD block ("TTL_") which allows tuning the time to live from 0 to 255

UNSUPPORTED BLOCKS:

The following blocks are available in the Template and GAP Editor, but are not supported for customer use in the 5.06-0 release version of the Coder (compiler):

- [CAL_ID](#)
 - [L_TO_NAN](#)
 - [PC104_ATL](#)
 - [TEMP_HIST](#)
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- Tunable inputs for the [SYNC_INJ](#) block (CYL, MIN_ADV, MAX_ADV) are only available to Woodward developers in this version

PART NUMBERS:

Version 5.06-0

Gap/Coder Part Number: 9927-1959

Master Kit: 9927-1333, 8928-1088, 1796-1068

Template Changes in 5.06

NEW BLOCKS

The following blocks were added new to this template:

- None

ACTIVATED BLOCKS

The following formerly restricted blocks are now available

- None

DELETED BLOCKS

The following blocks were deleted going from the 5.05 template to the 5.06 template:

- None

MODIFIED BLOCKS

The following blocks' input and/or output fields were modified going from the 5.05 template to the 5.06 template

<u>Block Name</u>	<u>Description of Template Changes</u>
AI_MPU_ENG	Changed the allowed range for the SAMPLES field from (2, 50) to (2, 16), because the code was not prepared for values over 16
EGD_PROD	Added a new hidden input field, "TTL" (Multicast Time to live). Before, time to live was always 1; now it can be tuned from 0 up to 255.
EVENT_MGR	Changed the default value of T_RST_ and E_RST_ fields from 0 to MAX_INT. This makes the reset behave more intuitively
J1939_DMA	Added the DM18 security protocol Modified: Field PASSWD_ allowed range from (0, 65535) to (-MAX_INT, MAX_INT). Added: Field "SEED_" (password transfer seed value) to the PASSWD_ repeat group Added: Field "SEC_TYPE" (0-level based 1-long seed/key)
SYS_INFO	Corrected a typo in the CTL_WR_SEC verification rules. Now, if there is a CTL_WR_SEC value then a CTL_RD_SEC value is mandatory