

Coder 6.00-6 Release Notes

DATE:

Feb 25, 2015

BACKGROUND:

Version 6.00-6 is a new release of the Coder / Operating System. It is only for the MicroNet Plus platform.

COMPATABILITY:

To use this version of GAP/Coder, you must use GAP Editor 3.08 or higher. GAP 2.18 is no longer supported

To use this version of GAP/Coder, you must use SOS 4.05 or higher.

To use this version of GAP/Coder, you must use AppManager 3.06 or higher.

To use this version of GAP/Coder, you must use Control Assistant 4.05 or higher.

To use this version of GAP/Coder, you must use Toolkit 3.6.7 or higher.

NEW FEATURES:

- Provides an option to disable the DELAY.R_TIME and LATCH1.ALM_NO_x fields which reduces overhead and thus improves CPU performance
- Support for the 2301E control platform removed. The 2301E control now uses a custom GAP Programmer version (9927-2342).

UNSUPPORTED BLOCKS:

The following blocks may be available in the Template and GAP Editor, but are not supported for customer use in the 6.00-6 release version of the Coder (compiler):

- [CAL_ID](#)
- [I TO NAN](#)
- [PC104_ATL](#)

PART NUMBERS:

Version 6.00-6

Gap/Coder Part Number: 9927-2174 C

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

Coder 6.00-5 Release Notes

DATE:

October 24, 2014

BACKGROUND:

Version 6.00-5 is a new release of the Coder / Operating System. It is only for the MicroNet Plus and the 2301E platforms.

COMPATABILITY:

To use this version of GAP/Coder, you must use GAP Editor 3.08 or higher. GAP 2.18 is no longer supported

To use this version of GAP/Coder, you must use SOS 4.05 or higher.

To use this version of GAP/Coder, you must use AppManager 3.06 or higher.

To use this version of GAP/Coder, you must use Control Assistant 4.05 or higher.

To use this version of GAP/Coder, you must use Toolkit 3.6.7 or higher.

NEW FEATURES:

- None. Issue resolutions only

ISSUES:

The following Product Issue Database ("PID") issues and requests were addressed in 6.00-5:

Issue #	Description	Solution
15470 16478	NetSim simulation of the security model incomplete	Imported a complete model for simulating the security model in NetSim from version 6.01
16787 16887	There was an artificial limit imposed on the number of HMI_PT blocks allowed in an application (10000)	Extended the limit to 100000. Corrected an indexing error
17284	HDDIO hot swap backup CPU failure	The code was changed to write the 32-bit values to the HDDIO module without using a CPU specific write function. If a 32-bit VME write to the HDDIO module fails it will now behave the same as when a 16-bit VME write fails and the backup CPU module will not be affected
17330	LATCH1 logical OR ignored inputs indexed above 200	Modified code to include all necessary variables and logic when splitting large blocks into multiple functions
17412	RTCnet communication faults on DO	Modified code to capture RTCNet data during a critical section
17495	A_CURVES block error on backup CPU	Fixed a code error which did not include size of curves tables into space calculation for file print
17524	EE file corruption issue	Fixed a code error which allowed the writing of one file to interfere with the writing of another when both files are being written at the same time
17000 17087 17170	Various opportunities for correcting or improving the block help	Improved the block help

17194		
17433		
17444		

UNSUPPORTED BLOCKS:

The following blocks may be available in the Template and GAP Editor, but are not supported for customer use in the 6.00-5 release version of the Coder (compiler):

- [CAL ID](#)
- [I TO NAN](#)
- [PC104 ATL](#)

PART NUMBERS:

Version 6.00-5

Gap/Coder Part Number: 9927-2174 B

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

Coder 6.00-4 Release Notes

DATE:

February 26, 2014

BACKGROUND:

Version 6.00-4 is a new release of the Coder / Operating System. It is only for the MicroNet Plus and the 2301E platforms.

COMPATABILITY:

To use this version of GAP/Coder, you must use GAP Editor 3.06 or higher. GAP 2.18 is no longer supported

To use this version of GAP/Coder, you must use SOS 4.04 or higher.

To use this version of GAP/Coder, you must use AppManager 3.06 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 3.6.7 or higher.

NEW FEATURES:

- Support for the new MicroNet and RTN Gateway CPU footprints (simplified communications footprints)
- Added 2301E back as a supported platform

ISSUES:

The following Product Issue Database ("PID") issues and requests were addressed in 6.00-4:

Issue #	Description	Solution
17064 17088	<p>DATA_LOG_M Help shortcomings:</p> <ul style="list-style-type: none"> • The block help for the DATA_LOG_M block is confusing: ACTUAL_MEM reports total memory for two logs, while MAX_SEC reports seconds for only one log. • The block help for the DATA_LOG_M block should contain more information about how to configure and optimize the continuous logging feature. 	<p>ACTUAL_MEM / MAX_SEC: Added a note to the MAX_SEC field about how continuous logging works.</p> <p>Continuous logging: Created a new section under "SPECIAL INSTRUCTIONS" about continuous logging with excerpts from the Control Assistant help. Also added some tips on getting more time out of the logs.</p>
17108	The IDE bit is set incorrectly for extended frame CAN messages for the 5553 core Flexcan.	Set the SRR bit to the correct state so that the IDE bit functions properly.
17152	FBUS_M displays a status (21) which is not listed in the Help	Status 21 represents that the port is owned by the Backup CPU. The help has been updated to reflect this.
17168	RTCnet sometimes drops out when the CPU fails over.	Corrected the message synchronization between the two controls to prevent this fault.
17171	On-line changes appeared to be enabled in GAP, but did not work correctly.	On-line changes are not supported. Made the coder produce an error and exit when ONLINE_EN has a TRUE value.
17191	Double precision real values from a MATLAB model negatively impact the performance of the AI_MPU_ENG block.	Redefined real_T as a float instead of a double.
17192	Double precision real values cause poor	Specified "-fsingle-precision-constant" as a

	performance on the 55xx processor.	compiler option for 55xx controls to ensure that single precision rather than double precision real values are used.
17211	The block help for the following blocks describes the behavior of the enablement ("..._EN") field incorrectly: CO_DVP, CO_SDO, CO_SPC, CO_VPC, J1939_TJET	Corrected the help topics for CO_DVP, CO_SDO, CO_SPC, CO_VPC and J1939_TJET.

UNSUPPORTED BLOCKS:

The following blocks may be available in the Template and GAP Editor, but are not supported for customer use in the 6.00-4 release version of the Coder (compiler):

- [CAL ID](#)
- [I TO NAN](#)
- [PC104 ATL](#)

PART NUMBERS:

Version 6.00-4
Gap/Coder Part Number: 9927-2174 A
Master Kit: 9927-1333, 8928-1088, 1796-1068

Coder 6.00-3 Release Notes

DATE:

September 18, 2013

BACKGROUND:

Version 6.00-3 is a new release of the Coder / Operating System. It is only for the MicroNet Plus platform.

COMPATABILITY:

To use this version of GAP/Coder, you must use GAP Editor 3.06 or higher. GAP 2.18 is no longer supported

To use this version of GAP/Coder, you must use SOS 4.04 or higher.

To use this version of GAP/Coder, you must use AppManager 3.03 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 3.6.7 or higher.

NEW FEATURES:

- **Issue resolutions only**

ISSUES:

The following Product Issue Database ("PID") issues and requests were addressed in 6.00-3:

Issue #	Description	Solution
16533 17029	MicroNet I/O Lock when tuning large CURVE_2D_S blocks. Too much time was spent tuning special case curve values with interrupts disabled.	Reduced scope of code where interrupts are disabled during the tuning task
16680 16685	LN_BO_16C and LN_AIO_10C RDBK_EN problem.	Re-enabled the RDBK_EN field by running the readback in the slowest available GAP rategroup (RTCnet). In the LinkNet HT, the RDBK_EN is automatically set false.
16833	Error saving a file (e.g. NV_LOG) on the MicroNet Plus	This occurred because "3" was being recognized as an invalid file handle although it is in fact valid and was sometimes used. Removed this incorrect error check
16858	CAN devices use invalid information when the RTN or Gateway is not active	The CAN buffer only uses information if the RTN chassis reports that it is healthy
16916	Breaking the RTN connections on the Syscon CPU will cause the RTN or Gateway to fail	Modified RTN code to detect a failure based on missed Sync pulses instead of scatter messages, so failure detection will not be based on the fastest rate group in the application
16951	RTCnet does not initialize when the slowest rategroup is 20	Added a completeness check to the GAP Editor (3.08) and coder (6.00-3) which requires the presence of a block in a rategroup slower than 20
16963	The DATA_LOG_M block allocates far more memory than required in its configuration space. This could result in subsequent memory violations	Corrected the pointer math to allocate the correct amount of memory for DATA_LOG_M configuration
16977	CAN content in Multi-packet RTN messages may cause data corruption in the rest of the RTN packet	There is a RgBytesSent variable in blk_network.c which was being incremented before the

		CreateNWConsumer function is called when it should be incremented after the function. This has been corrected
16983	ZMINUS1 does not stop NaN (“not a number”) on 5200 controls	Added the 5200 controls to the list of controls which check for and eliminate NaN in the ZMINUS1 blocks
16987	Some RTCnet nodes don’t initialize when NTW_INIT is called	Moved the check for successful booting to the end of the NTW_INIT functionality
16996	RTCnet PDO slip on failover	Made robustness improvements for RTCnet nodes connected to a Gateway during CPU failover.
17006	When an RTCnet TC node is used with redundant ports and one of the ports is not connected, the redundant CPU gives incorrect COMM_FLT_# information	Corrected the COMM_FLT_# information to recognize redundant control configurations
17029	See 16533/17029 above	

UNSUPPORTED BLOCKS:

The following blocks may be available in the Template and GAP Editor, but are not supported for customer use in the 6.00-3 release version of the Coder (compiler):

- [CAL ID](#)
- [I TO NAN](#)
- [PC104 ATL](#)

PART NUMBERS:

Version 6.00-3

Gap/Coder Part Number: 9927-2174 NEW

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

Coder 6.00-2 Release Notes

DATE:

February 19, 2013

BACKGROUND:

Version 6.00-2 is a new release of the Coder / Operating System

COMPATABILITY:

To use this version of GAP/Coder, you must use GAP Editor 3.05 or higher. GAP 2.18 is no longer supported

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 AppManager 3.01 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 3.6.7 or higher.

NEW FEATURES:

- **Bug fixes only**

ISSUES:

The following Product Issue Database ("PID") issues and requests were addressed in 6.00-2:

Issue #	Description	Solution
16264 16371	Backup CPUs failed and could not be resynced with the SysCon	The DMA driver being used for block transfers between CPUs has been changed to allow recovery if there is a glitch in the DMA and the system has been changed to allow the backup to resync if it fails due to a DMA failure NOTE: The recovery logic requires footprint version 5418-4082D
16620	Some large applications have a compile error because of an undeclared variable "tus3" in a split-up function	Fixed the code generation to declare the variable in all used code sections
16680	When more than one output node is used on a network of LinkNet HT or RTCNet DO and one or more of the DO readback messages are disabled, CAN messages become incorrect and the incorrect output could be driven	Enforce RDBK_EN is TRUE (default) on the LN_BO_16C
16683	Problem showing Servlink TOD values in NetSim	The specialized Servlink handle for TOD values was not understood by the NetSim code. The handle was changed to a standard handle
16685	When the readback is disabled for LinkNet HT or RTCNet AIO, the channel faults go TRUE and can't be reset	Enforce RDBK_EN is TRUE (default) on the LN_AIO_10C

UNSUPPORTED BLOCKS:

The following blocks may be available in the Template and GAP Editor, but are not supported for customer use in the 6.00-2 release version of the Coder (compiler):

- [CAL ID](#)
- [I TO NAN](#)
- [PC104 ATL](#)

PART NUMBERS:

Version 6.00-2

Gap/Coder Part Number: 9927-2059B

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

Coder 6.00-1 Release Notes

DATE:

August 31, 2012

BACKGROUND:

Version 6.00-1 is a new release of the Coder / Operating System

COMPATABILITY:

To use this version of GAP/Coder, you must use GAP Editor 3.05 or higher. GAP 2.18 is no longer supported

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 AppManager 3.01 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 3.6.7 or higher.

NEW FEATURES:

- **Support for the 2301E control**

ISSUES:

The following Product Issue Database ("PID") issues and requests were addressed in 6.00-1:

Issue #	Description	Solution
8871	CO_SDO block code produced an error ("Invalid can write size") when connected to WRITE_B blocks	Moved byte boundary check to the end of the repeat group processing to allow multiple WRITE_B blocks to be packed into a byte thereby satisfying the byte boundary requirement.
8952	CO_SDO READ_B blocks throw off message packing	Added a test to check if the bit count was ≥ 8 and incremented the byte count and cleared the bit count if it is.
10831	Coder has an error when only one block of one of the following types is in a rategroup: CAN_WRITE, Z_MINUS1, Z_MINUS1_B, Z_MINUS1_I	Corrected block re-sequencing error
14432	B_ALARM outputs do not clear if RST is constant TRUE and IN goes FALSE	Added code to reset outputs if RST is a constant TRUE and IN is false
15414	AO_2_RM slow rate group output behavior glitch	Modified the code to time all rate groups based on 480 milliseconds instead of counting rate groups, Made reset clear the output switching timer so if FLT_IN_1 is active during a reset, there is no chance of a recent failover causing both channels to fault
15502	AO_RM_DVR alarms not synchronized between primary and backup controls in a redundant system	Syscon/Backup state passing was corrected
15810	MODBUS_S timeout errors during connection	Increased timeout from 2 to 21 seconds
15910	AO problems in MicroNet Plus with expansion chassis	Some data was not being transferred from the primary to the backup CPU for the AO_OUT blocks. The dataset has been completed.
15919	RST on AO_RM_DVR inconsistent between primary and backup CPUs.	Fixed by completing the data set transferred from the primary to the backup CPU for the AO_RM_DVR block (same issue as 15910 above)

16007	Wrong value for unused bytes in J1939 DM16	Set all DM16 unused bytes to FF
16022	Request for a function to validate the data types in J1939 DMA messages	Implemented the validation function
16050	Extraneous reply when the wrong key is sent in a DM18 message (two DM15 busy responses instead of one)	Removed the extra response
16221	The LN_RTD.LAG_TAU appeared to have no impact upon LN_RTD performance	Fixed LN_RTD.LAG_TAU to work as specified
16362	Request to put a 5ms delay between all DMA messages because a customer's tool was having problems sequencing messages	Implemented a 5ms delay
15415 15859 16207	Block Help issues	Updated block help

UNSUPPORTED BLOCKS:

The following blocks may be available in the Template and GAP Editor, but are not supported for customer use in the 6.00-1 release version of the Coder (compiler):

- [CAL ID](#)
- [I TO NAN](#)
- [PC104 ATL](#)

PART NUMBERS:

Version 6.00-1

Gap/Coder Part Number: 9927-2059A

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

Coder 6.00-0 Release Notes

DATE:

May 25, 2012

BACKGROUND:

Version 6.00-0 is a new release of the Coder / Operating System

COMPATABILITY:

To use this version of GAP/Coder, you must use GAP Editor 3.05 or higher. GAP 2.18 is no longer supported

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 AppManager 3.01 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 3.6.7 or higher.

NEW FEATURES:

- **Support for the newly introduced RTCnet I/O Control Modules (RTD, TC, TC_HA, DIN, DOUT, and AI/AO) – Modules that will support Real-Time control loops, and are capable of operating at high temperature (100° C) and high vibration for skid mounted turbine and engine controls.**
- **Support for the newly introduced LinkNet HT I/O Control Modules (RTD, TC, DIN, DOUT, and AI/AO) – Modules that will support control loops that are capable of operating at high temperature (100° C) and high vibration for skid mounted turbine and engine controls.**
- **Support for newly introduced RTN Gateway – A Real Time Network Ethernet to CAN Gateway that can be used in a semi-harsh environment with the Woodward RTCnet and LinkNet HT products to increase bandwidth.**
- **Full support for GAP 3.05 Userblocks**
 - **Longer block and field names**
 - **Correct representation of hierarchy in service tool interfaces**

ISSUES:

The following Product Issue Database ("PID") issues and requests were addressed in 6.00-0:

Issue #	Description	Solution
15076	Need a block which computes a box-car (running) average across a number of samples with reset capability.	Created the RUNNING AVG block
15596	Remove SYS_INFO ratigroup modification fields because they are incompatible with Linknet performance	Removed the fields
15606	Coder should not require an outdated development platform (Microsoft™ Visual C/C++ 6.0)	Updated development system to Microsoft™ Visual Studio 2010
15734 15832	Coder reports a WR_SEC (write security) error for a value which is not writable	Fixed coder to correctly assess write security of values
15809	Latch blocks (LATCH1 and LATCH_AE) should display a value which indicates whether any input is currently true	Added the LOGICAL_OR field to the LATCH1 and LATCH AE blocks

15832	See 15734 above	
15850	Coder crashes when .cdr file is in a folder with a long name	Increased all file buffer lengths to 255 in the coder
15903	When .cdr file is drag-dropped onto coder, an invalid SID file is produced	Corrected the file path problem which caused the coder to make this mistake
15906 15918	Coder compilation halts with a syntax error when there are more than 400 "special case tunable" values in an application	Corrected the coder naming logic responsible for this problem
15912	Servlink SaveToNV command interferes with Servlink operation	Moved the non-volatile save routine to a different thread, so that other Servlink tasks don't have to wait for it
15918	See 15906 above	
15920	MicroNet EGD TTL (time to live) value cannot be adjusted	Made TTL value tunable (0-255)
15921	Coder buffer overflow in gen_scheduler() function	Corrected the buffer size
15407 15870 16003	Block Help issues	Updated block help

UNSUPPORTED BLOCKS:

The following blocks may be available in the Template and GAP Editor, but are not supported for customer use in the 6.00-0 release version of the Coder (compiler):

- [CAL ID](#)
- [I TO NAN](#)
- [PC104 ATL](#)

PART NUMBERS:

Version 6.00-0

Gap/Coder Part Number: 9927-2059

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

Template Changes in 6.00

NEW BLOCKS

The following blocks were added new to this template:

<u>Block Name</u>	<u>Description</u>
RUNNING_AVG	Calculates the average of a single input over time
Eval_5125	Chassis for the evaluation-only 5125 processor platform
	Linknet Plus Gateway blocks
ATL_CAN	Specifies the PC104 CAN module for use with an RTN Gateway or the Atlas platform
ATL_CANMOD	Specifies half of an ATL_CAN module for use on an RTN Gateway or the Atlas platform
LN_AI	Linknet Plus CanOpen analog input channel block
LN_AIO_10C	Linknet Plus CanOpen analog input/output channel block
LN_AO_420	Linknet Plus CanOpen analog output channel block
LN_BI_16C	Linknet Plus CanOpen Boolean input interface block
LN_BIN	Linknet Plus CanOpen Boolean input channel block
LN_BO_16C	Linknet Plus CanOpen Boolean output interface block
LN_BOUT	Linknet Plus CanOpen Boolean output channel block
LN_RTD	Linknet Plus CanOpen RTD channel block
LN_RTD_8C	Linknet Plus CanOpen RTD interface block
LN_TC_8C	Linknet Plus CanOpen TC interface block
LN_TC	Linknet Plus CanOpen TC channel block
RT_CAN_NTW	Real time network configuration
RTNGATEWAY	Real-time Gateway chassis
	2301E blocks...
SYS2301E	2301E LSSC chassis
STATUS_2301E	2301E master control unit status
SS_2301	2301E turbine speed sensor
AI_2301	2301E analog input channel
AI_KW_2301	2301E KW load input signal
AI_LL_2301	2301E load sharing lines signal
AI_LE_2301	2301E load sharing error signal
ACT_2301	2301E actuator output channel
AO_2301	2301E 4-20mA analog output channel
AO_KW_2301	2301E 0-6Vdc load gain output channel
BI_2301	2301E Boolean input channel
BO_2301	2301E Boolean output channel

ACTIVATED BLOCKS

The following formerly restricted blocks are now available

- <None>

DELETED BLOCKS

The following platforms were removed going from the 5.06 template to the 6.00 template. All blocks used exclusively by these platforms were removed:

- Eagle
- easYgen
- ECM3
- MCU
- PCMHD

Most of the following blocks were deleted going from the 5.06 template to the 6.00 template are blocks used exclusively by the removed platforms*:

- ACT_OUT
- AI_EGO
- AI_FRQ
- AI_SYNC
- AI_UEGO
- AN_OUT_420
- AO_PWM_FLT
- ARAPAHOE
- BO_W_STS
- CPU_D5200
- CPU_M5200 (use CPU_MC5200)
- DATA_ARR_I, DATA_ARR_O, DATA_IN_A, DATA_IN_I, DATA_OUT_A, DATA_OUT_I
- ECM3, ECM3_EFI, ECM3_STS
- EDMHD_SPRK
- EFI, EFI_CORE, EFI_MUX, EFI_OUTPUT, EFI_P_CORE, EFI_SCOPE
- EGEN2000, EGEN3000
- EG1ACGEN, EG1ACBUS, EG1ACMAI, EG1ACMAIC, EG1AC_PH, EG1AC_PHM
- EG2ACBUS1, EG2ACBUS2, EG2ACMAI, EG2AC_PH1, EG2AC_PH2
- EG_01_1081, EG_01_1082, EG_01_1100, EG_01_1292, EG_02_1082
- EG_AI, EG_AO
- EG_AUXIN, EG_AUXOUT
- EG_BAT, EG_BI, EG_BO
- EG_CAN_16B, EG_CAN_16I, EG_CAN4AO
- EG_CLOCK
- EG_DELAY
- EG_ETHRX, EG_ETHTX
- EG_EXP16B, EG_EXPINT, EG_IMPANA, EG_IMPBOOL, EG_IMPINT
- EG_LAG
- EG_LED_B1
- EG_PICKUP
- EG_SYNCHRO
- EG_TUNANA, EG_TUNINT
- FB_AI, FB_AO, FB_BI, FB_BO, FB_EQUIP, FB_INITA, FB_INITB, FB_MODULE
- H_BRIDGE
- I_FUNCTION
- I_NV_LOG
- IC100_SPRK, IC1100_SPRK
- KWP_2000
- MCU, MCU_STATUS
- MISFIRE
- NV_INC, NV_WRITE
- PCM_128HD, PCM_KNOCK, PCM_STATUS
- PER_INJ
- PHASE
- PWM_DRIVER
- SYNC_INJ, SYNC_SPARK

- TACH
- TDC
- TEMP_HIST

***NOTE:** There is a new feature in GAP 3.04 whereby blocks may be removed from the menu based on coder revisions and/or based on platform choices in the application. As such, other blocks may appear to be missing as well.

MODIFIED BLOCKS

The following blocks' input and/or output fields were modified going from the 5.06 template to the 6.00 template

<u><i>Block Name</i></u>	<u><i>Description of Template Changes</i></u>
<u>CPU_MC5200</u>	Added RTNGATEWAY as supported RMT_CHAS_ value
<u>EGD_PROD</u>	Changed TTL (time to live) field allowed range from 0..255 to 1..255
<u>CAN_PORT</u>	Added RT_CAN_NTW as supported CAN_NTW_ channel
<u>COPEN_NTW</u>	Added the following allowed PDO_ (Data Type) values: LN_RTD_8C, LN_TC_8C, LN_AIO_10C, LN_BI_16C, LN_BO_16C Made AUTOGO2OP field visible by default Added NODE_OP (local go to operational state) input field
<u>LATCHI,</u> <u>LATCH_AE</u>	Added LOGICAL_OR (non-latched OR of all inputs) output field
<u>SIO</u>	Disallowed MOD_PORT and MOD232PORT blocks in SIO board channel fields
<u>SYS_INFO</u>	Removed the fields for specifying different recursion rates for the established rate groups (R160_RATE, R80_RATE, R40_RATE, R20_RATE, R5_RATE)
<u>MODELT_ATL</u>	Extended rategroup support from 10,20 to 10,20,40,80,160