Curtiss-Wright Technical Information Bulletin

August 2023

The following topics are discussed in this Bulletin:

General information

The Acra KAM-500 Databook (HW/BK/0002) comprises data sheets for released Acra KAM-500 products. The latest release of the Acra KAM-500 Databook is dated 10 Aug. 2023.

A Recorders Databook (HW/BK/0039) comprising data sheets for released Recorder products is now available. This new release of the Recorders Databook is dated 2 May 2023.

The Applications Handbook (HW/BK/0005) comprises technical notes for Curtiss-Wright products. The latest release of the Applications Handbook is dated 5 Jul. 2023.

DAS Studio 3 is the setup software for data acquisition units, network switches, recorders and ground stations. The latest release of DAS Studio 3 is version 3.4.26.

AXN Databook release

The AXN Databook (BK/0046 | 10 Aug. 2023) comprising data sheets for all currently released AXN chassis and modules is now available.

The AXN Databook can be requested from Curtiss-Wright support (dub_customersupport@curtisswright.com).

Technical information

New FAQs

N/A

New technical notes

Since the previous bulletin was issued the following technical notes are available:

N/A

New user guides

N/A

Training

Curtiss-Wright offers a variety of training courses, within SVS/TRN/100, which help delegates develop the skills needed to configure the various Curtiss-Wright products. Standard courses include introductory training for Acra KAM-500 airborne data acquisition hardware, and advanced training on Acra KAM-500 and Axon airborne data acquisition systems. Course content can be standard, user-definable or a combination of both. We strongly recommend training for those who are not familiar with Curtiss-Wright equipment.

Document changes

The content of the following documents has been revised since the previous release of the bulletin.

Acra KAM-500 products

Product - reference	Action
KAM/TCG/105 **14 Jul. 2023 | DST/Z/025**	Corrected Figures 1 and 4 to show TTL_IN as TTL_IN_A. In the General specifications table, removed the "-12V" row from Power consumption; revised the total power accordingly. Removed the "Output resistance" row from Tables 8, 9, 10, and 11. In the "GPS antenna" section, removed reference to the RFE/AEG/001 antenna and noted the antenna that is currently recommended; clarified that when estimating system power the max current drawn theoretically by the antenna should be added to the KAM/TCG/105 +12V current figure. Removed the "Warm power-up" and "Reacquisition" section. Removed RFE/AEG/001 from the Related products table.
KAM/TCG/106 **18 Jul. 2023 | DST/AG/014**	Corrected Figures 1 and 4 to show TTL_IN as TTL_IN_A. Removed the "Output resistance" row from Tables 9, 10, and 11. Removed the "Output resistance" row from Tables 8, 9, 10, and 11. In the "GPS antenna" section, removed reference to the RFE/AEG/001 antenna and noted the antenna that is currently recommended; clarified that when estimating system power the max current drawn theoretically by the antenna should be added to the KAM/TCG/105 +12V current figure. Removed the "Warm power-up" section. Removed RFE/AEG/001 from the Related products table.

AXN products

Product - reference	Action
AXN/ADC/401 **19 Jul. 2023 | DST/AB/019**	In Table 6, Theoretical worst case aliasing values, moved all values in the MIN column to the MAX column.

DAS Studio 3

The current release is 3.4.26. Features of the software include the following:

- Discovers, configures, manages and programs Data Acquisition Units (DAUs), recorders, switches, ground station boards, and third party equipment
- Functionality can be extended through external plug-in applications
- Supports the open metadata standard

GSX-500

GTS SDK 3.3

The current release of GTS SDK is 3.3. Features of GTS SDK 3.3 include the following:

- Set up using a XidML 3.0 file
- Acquisition of minor PCM frame data of up to 20Mbps for each channel
- GTS SDK 3 real-time API is interrupt driven, no polling is performed
- Direct memory access data transfer relieving CPU power
- Minor frame loopback function for testing without external PCM stream
- Code samples for Borland C++, Visual Studio C++ .NET and Visual Studio C# .NET
- Driver for GTS-500 boards

For details of known GSX-500 issues, see "GTS SDK 3.3" on page 22.

Hardware status

Released products

Since the previous bulletin, the data sheet for the following product has been given a standard release:

AXN products

Product - reference	Description	Features
AXN/ICP/401/B **17 Jul. 2023 | DST/AH/017**	Accelerometer ADC (6.25 kHz b/w) with FFT and TEDS support 12ch at 25 ksps	• Live FFT analysis performed on each channel with the choice of viewing up to 32 of the largest peaks in the spectrum or the RMS voltage at 8 user selectable frequencies of interest • 12 single-ended, AC-coupled channels • Shared signal wire constant current excitation (3.6 mA nom.) suitable for ICP sensors • High AC accuracy (0.45% FSR typical) • Short on any channel does not affect others • 16-bit simultaneous sampling with three configurable output streams on each channel • TEDS discovery in DAS Studio 3
AXN/ICP/402 **21 Jul. 2023 | DST/AH/016**	Accelerometer ADC (25 kHz b/w) with FFT and TEDS support 4ch at 100 ksps	• Live FFT analysis performed on each channel with the choice of viewing up to 32 of the largest peaks in the spectrum or the RMS voltage at 8 user selectable frequencies of interest • Four single-ended, AC-coupled channels • Shared signal wire constant current excitation (3.6 mA nom.) suitable for ICP sensors • High AC accuracy (0.18% FSR typical) • Short on any channel does not affect others • 16-bit simultaneous sampling with three • configurable output streams on each channel • TEDS discovery in DAS Studio 3

Legacy products

Since the previous bulletin, data sheets for the following products have been moved to legacy.

N/A

Obsolete documents

Since the previous bulletin, the following documents have been made obsolete.
N/A

Appendix

Reference numbers and issue dates for hardware data sheets

The following is a list of the controlled documents and their issue dates.

To ensure that you have the most up-to-date data sheet, compare your documentation against the issue date(s). To receive updated copies of any data sheets, e-mail the required list to acra-support@curtisswright.com. If you are a member of our web site, you can view and download updated data sheets from www.curtisswrightds.com.

Product	Issue date | reference number
Axon products	
Axon handling precautions	16 Dec. 2022 | DST/AE/024
AXN/ABM/401	18 Apr. 2023 | DST/AC/021
AXN/ADC/401	19 Jul. 2023 | DST/AB/019
AXN/ADC/404/B	23 Jan. 2023 | DST/AG/024
AXN/ADC/405	23 Jun. 2023 | DST/AE/004
AXN/ADC/406	23 Jun. 2023 | DST/AF/010
AXN/ADC/408	3 Jan. 2023 | DST/AE/003
AXN/BCU/402/C	21 Apr. 2023 | DST/AH/004
AXN/CHS/03U	21 Feb. 2023 | DST/AF/041
AXN/CHS/06U	21 Feb. 2023 | DST/AB/031
AXN/CHS/09U	21 Feb. 2023 | DST/AC/029
AXN/CHS/16U	21 Feb. 2023 | DST/AB/022
AXN/CHS/16U/AB2	19 Jun. 2023 | DST/AJ/011
AXN/DSI/401	22 May 2023 | DST/AE/020
AXN/DSI/402	29 May 2023 | DST/AF/036
AXN/DTU/001	29 Jun. 2023 | DST/AH/040
AXN/ENC/401	4 Mar. 2022 | DST/AE/002
AXN/ENC/402	28 Jul. 2022 | DST/AG/005
AXN/EXT/401	30 Sep. 2021 | DST/AB/025
AXN/ICP/401/B	17 Jul. 2023 | DST/AH/017
AXN/ICP/402	21 Jul. 2023 | DST/AH/016
AXN/HSS/401	17 Feb. 2023 | DST/AG/018
AXN/ITE/01U	20 Sep. 2022 | DST/AB/023
AXN/MBM/401	18 Apr. 2023 | DST/AF/002
AXN/MBM/402	11 Jun. 2021 | DST/AF/003
AXN/MEM/401	29 Jun. 2023 | DST/AH/013
AXN/SSD/001/256GB	29 Jun. 2023 | DST/AH/039
AXN/TCG/401/B	28 Jul. 2022 | DST/AG/004
AXN/TDC/401	9 Dec. 2022 | DST/AE/005
AXN/UBM/401	3 Feb. 2023 | DST/AC/022

Product	Issue date | reference number
Axon Quick Start Kit	23 Mar. 2022 | DST/AE/008
CON/PSU/008	15 Nov. 2019 | DST/AF/037
Unboxing Axon QSK	19 Oct. 2021 | DST/AG/002
Acra KAM-500 products	
3D drawings	10 Oct. 2019 | DST/X/034
ACC/HSK/001	9 Jun. 2016 | DST/J/064
ACC/TRF/002	2 Dec. 2022 | DST/AC/020
ACD/BAC/002/B	30 Nov. 2016 | DST/W/106
ACD/BAC/003/B	9 Feb. 2015 | DST/W/107
ACD/BAC/004/B	9 Feb. 2015 | DST/W/108
ACD/BAC/005	9 Feb. 2015 | DST/W/017
ACD/BAC/006	25 Apr. 2023 | DST/AB/003
ACD/BAC/007	25 Apr. 2023 | DST/AB/004
ACD/BAC/011	17 Jun. 2020 | DST/AG/007
ACD/CJB/001	23 Feb. 2015 | DST/P/014
ACD/CJB/002	16 Apr. 2015 | DST/W/018
ACD/CJB/003	16 Apr. 2015 | DST/Y/042
ACD/CJB/005	5 Dec. 2016 | DST/AB/001
ACM/EXT/001/B	9 Feb. 2015 | DST/K/003
BAC/PSU/007	9 Feb. 2015 | DST/W/118
Cables	11 Feb. 2022 | DST/J/062
CON/KAD/002/CP	8 Mar. 2022 | DST/R/008
CON/KAD/002/SR	23 Jun. 2021 | DST/R/009
CON/KAD/003/CP	23 Jun. 2021| DST/S/042
CON/KAD/004	16 Apr. 2015 | DST/S/040
CON/KAD/005/CP	23 Jun. 2021 | DST/S/041
CON/KAD/005/SR	23 Jun. 2021 | DST/T/095
CON/KAD/008/CP	2 Feb. 2022 | DST/T/066
CON/KAD/008/SR	23 Jun. 2021 | DST/T/067
CON/KAD/010	23 Jun. 2021 | DST/W/016
CON/PSU/007	17 Apr. 2015 | DST/W/115

Product	Issue date | reference number
CON/SAV/001	17 Apr. 2015 | DST/AB/005
CON/SAV/002	7 Apr. 2016 | DST/AB/006
CON/SAV/003	17 Apr. 2015 | DST/AB/008
Handling precautions	11 May 2016 | DST/U/055
JIG/UNI/001/D	28 Sep. 2021 | DST/AE/019
KAD/ABM/101	2 Sep. 2021 | DST/V/064
KAD/ABM/102/B	18 May 2017 | DST/Y/008
KAD/ABM/102/B/EM1	13 Aug. 2021 | DST/Y/051
KAD/ABM/103	14 Jun. 2022 | DST/X/055
KAD/ADC/008	27 Sep. 2022 | DST/N/053
KAD/ADC/010/C	17 Apr. 2015 | DST/R/046
KAD/ADC/011/C	18 Mar. 2015 | DST/R/044
KAD/ADC/105/B	17 Jan. 2022 | DST/U/028
KAD/ADC/106/C	15 Jun. 2023 | DST/U/033
KAD/ADC/109/C/S1	19 May 2021 | DST/T/097
KAD/ADC/109/C/S2	1 Jun. 2021 | DST/U/031
KAD/ADC/111	20 Feb. 2018 | DST/X/058
KAD/ADC/112	13 Apr. 2018 | DST/V/080
KAD/ADC/113/B	6 Jan. 2023 | DST/V/059
KAD/ADC/115	9 Feb. 2022 | DST/Y/031
KAD/ADC/116	25 May 2023 | DST/S/083
KAD/ADC/117/B	17 Jan. 2022 | DST/U/034
KAD/ADC/117/EC1	20 Jun. 2018 | DST/T/098
KAD/ADC/118	24 Apr. 2018 | DST/P/065
KAD/ADC/120	24 Apr. 2018 | DST/R/006
KAD/ADC/126/B	13 Apr. 2018 | DST/V/060
KAD/ADC/129/S1	8 May 2019 | DST/S/085
KAD/ADC/129/S2	1 Jun. 2021 | DST/V/081
KAD/ADC/130	13 Apr. 2018 | DST/W/123
KAD/ADC/134/B	20 May 2021 | DST/AA/014
KAD/ADC/135/B	21 May 2021 | DST/AA/017
KAD/ADC/136/C	17 Dec. 2021 | DST/AC/006
KAD/ADC/141	9 Feb. 2022 | DST/AC/014
KAD/ARI/103/B	23 Jan. 2023 | DST/Y/044
KAD/ARR/101	13 Apr. 2015 | DST/U/047
KAD/BCU/101/E	18 Apr. 2023 | DST/Y/029
KAD/BCU/105/E	27 Jan. 2016 | DST/Y/034

Product	Issue date | reference number
KAD/BCU/140/D	18 Jan. 2022 | DST/AA/037
KAD/BCU/143	14 Apr. 2022 | DST/Z/033
KAD/CBM/101	22 Aug. 2016 | DST/P/064
KAD/CBM/102	12 Jan. 2023 | DST/L/043
KAD/CBM/103	25 Oct. 2022 | DST/V/071
KAD/CBM/104	11 Jun. 2020 | DST/V/072
KAD/CBM/105	10 Aug. 2016 | DST/Y/038
KAD/CBM/107	30 Jan. 2019 | DST/Z/016
KAD/CDI/101	14 Apr. 2022 | DST/T/058
KAD/DAC/001/B	9 Nov. 2016 | DST/S/050
KAD/DEC/103	16 Sep. 2021 | DST/V/074
KAD/DSI/004	16 Feb. 2017 | DST/S/105
KAD/DSI/102/B	13 Jul. 2020 | DST/Y/009
KAD/DSI/104	16 Feb. 2017 | DST/W/091
KAD/EBM/102/B	4 May 2022 | DST/AB/026
KAD/EBM/103	9 Nov. 2016 | DST/W/086
KAD/EBM/104	6 Oct. 2016 | DST/AB/020
KAD/ENC/106	29 May 2020 | DST/S/092
KAD/ENC/111	22 Aug. 2016 | DST/W/078
KAD/ETH/101/B	15 Aug. 2016 | DST/W/128
KAD/ETH/102	30 Jun. 2017 | DST/V/073
KAD/FBM/103/B	31 Jul. 2017 | DST/T/085
KAD/FBM/105/B	21 Dec. 2022 | DST/AA/004
KAD/IBM/101	2 Feb. 2021 | DST/AA/005
KAD/LDC/101	19 Oct. 2021 | DST/P/048
KAD/MAT/101	11 Apr. 2022 | DST/Y/047
KAD/MBM/101	18 Jun. 2021 | DST/X/012
KAD/MBM/102	18 Jun. 2021 | DST/X/054
KAD/MDC/103	17 Jun. 2021 | DST/S/052
KAD/MEM/004/B	17 Jun. 2021 | DST/T/054
KAD/MSB/103/C	8 Jun. 2021 | DST/V/006
KAD/PBM/104	30 Sep. 2016 | DST/AC/013
KAD/SDI/103	22 May 2015 | DST/U/015
KAD/SWI/101	16 Apr. 2015 | DST/W/009
KAD/SWI/102	21 Jan. 2021 | DST/V/065
KAD/SWI/107	16 Apr. 2015 | DST/Y/025
KAD/SWI/108	18 Jan. 2022 | DST/Y/045

Product	Issue date | reference number
KAD/TDC/002/D/10M	22 Apr. 2022 | DST/T/051
KAD/TDC/102/B	28 Feb. 2022 | DST/Y/012
KAD/TDC/107	13 Apr. 2018 | DST/V/032
KAD/UAR/102/C	23 Jan. 2023 | DST/X/084
KAD/UBM/103	27 Sep. 2022 | DST/Y/060
KAD/UBM/106	26 Feb. 2020 | DST/AF/038
KAD/VDC/001	19 Jan. 2021 | DST/N/065
KAD/VID/106/B	4 May 2018 | DST/AB/032
KAM/CDC/101	24 Apr. 2018 | DST/S/032
KAM/CHS/02F	21 Feb. 2020 | DST/X/033
KAM/CHS/03F	21 Feb. 2020 | DST/P/062
KAM/CHS/03U/E	9 Jul. 2021 | DST/W/042
KAM/CHS/04L/B	16 Apr. 2015 | DST/N/043
KAM/CHS/05F/SC	18 Jan. 2022 | DST/S/004
KAM/CHS/06U/E	9 Jul. 2021 | DST/W/052
KAM/CHS/09U/E	9 Jul. 2021 | DST/W/057
KAM/CHS/12R/E	12 Jan. 2016 | DST/AB/027
KAM/CHS/13U/E	9 Jul. 2021 | DST/W/065
KAM/DMY/001	9 Feb. 2015 | DST/U/002
KAM/MEM/113	26 Oct. 2022 | DST/X/067
KAM/PSU/011/B	16 Apr. 2015 | DST/Z/021
KAM/PSU/012/B	9 Jan. 2023 | DST/W/043
KAM/PSU/014	16 Apr. 2015 | DST/Y/024
KAM/TCG/105	14 Jul. 2023 | DST/Z/025
KAM/TCG/106	18 Jul. 2023 | DST/AG/014
KAM/WSI/104/C	20 Sep. 2022 | DST/AC/034
KIT/001	22 Jun. 2021 | DST/J/063
LID/001	23 Feb. 2015 | DST/J/061
SAM/DEC/008	19 Apr. 2016 | DST/Z/010
Wireless data acquisition evaluation kit	19 Aug. 2021 | DST/AC/011
Unboxing wireless data acquisition kit	16 Mar. 2023 | DST/AH/020
Ground station products	
Ground station cables	3 Mar. 2015 | DST/V/047
GTS/BAY/001	3 Mar. 2015 | DST/W/024
GTS/BSC/003/C	4 Apr. 2019 | DST/W/134

Product	Issue date | reference number
GTS/BSC/004/C	4 Apr. 2019 | DST/W/131
GTS/BSC/005/C	4 Apr. 2019 | DST/W/135
GTS/BSC/006/C	4 Apr. 2019 | DST/Y/048
GTS/DEC/003/C	8 Aug. 2023 | DST/W/132
GTS/DEC/004/C	8 Aug. 2023 | DST/W/110
GTS/DEC/005/C	8 Aug. 2023 | DST/W/133
GTS/DEC/006/C	8 Aug. 2023 | DST/Y/040
GTS/FSC/003/C	4 Apr. 2019 | DST/W/136
GTS/FSC/005/C	4 Apr. 2019 | DST/W/137
GTS/DPC/005	11 Mar. 2015 | DST/Y/005
GTS/LCD/001	27 Mar. 2015 | DST/T/026
GTS/MCI/001/C	27 Mar. 2015 | DST/Z/009
GTS/NPC/001/G	27 Mar. 2015 | DST/V/051
GTS/NPC/003/D	11 Mar. 2015 | DST/AA/008
GTS/RCV/001	27 Mar. 2015 | DST/T/031
Recorder products	
CompactFlash cards	18 Apr. 2023 | DST/Y/032
NET/REC/001	14 Feb. 2022 | DST/U/039
NET/REC/002	2 Dec. 2022 | DST/V/044
NET/REC/006/B	11 Aug. 2022 | DST/Y/015
Solid State Drives	20 Jul. 2021 | DST/Y/033
SSR/CHS/001/D	20 Jun. 2023 | DST/AE/022
Network switch products	
ACC/KIT/005	20 Mar. 2015 | DST/W/034
BAC/MMO/001/F10	23 May 2016 | DST/W/116
BAC/MMO/001/F19	20 Mar. 2015 | DST/W/117
CON/MMO/001/F10A	20 Mar. 2015 | DST/W/113
CON/MMO/001/F19A	20 Mar. 2015 | DST/W/114
Network Cables	3 Jun. 2021 | DST/W/022
NET/SWI/001	16 Jan. 2018 | DST/U/040
NET/SWI/006	18 Jan. 2021 | DST/V/049
NET/SWI/101/B	15 May 2023 | DST/AA/015
NET/SWI/101/C	23 Jun. 2023 | DST/AC/004
System integration products	
RFE/AEG/001	5 May 2023 | DST/S/033

Product	Issue date | reference number
Avionics products	
OBE/CAM/001	4 Dec. 2019 | DST/AB/010
OBE/CAM/002	4 Mar. 2016 | DST/AA/011

DAS Studio 3 software known issues

Modules supported in this release

See “Products supported by DAS Studio 3” on page 24.

New features added in this release

Feature description
Parameter search tool improvements including filtering and copy
Data Exporter command line tool
New column in Parameters Palette showing parameters already placed in other Ethernet packages
New Properties icon in transmission assistant
Package Generator no longer runs for PCM modules

Known issues in this release

Issue #	Project	Description
AFDX-1	Studio ARINC-NDO Importer	Parameter naming clash reported after a successful ARINC-NDO import of AFDX parameters
ALG-6	Studio Algorithms Tab General	The Error message (x) stays on algorithm tab even after removing the 'trigger condition'
ALG-11	Studio Algorithms Tab General	Only a single window for the values to cause an event is available for the BIT101 or BIT102 in Das Studio meaning you can check an internal range, but cannot check an external range
APP-56	Studio Applications General	Unable to load DLL 'gtsdecw.dll': The specified module could not be found. (Exception from HRESULT: 0x8007007E)
ARINC-9	Studio ARINC-429 Builder	When changes are made to the SDI or SSM values, Save and Close button only becomes active after the table has lost focus
CBW-9	CAN-Bus Builder	CAN Builder of DAS Studio - Extended ID shows incorrect filtering
CFT-68	Calibration Fetch	Calibration Fetcher seems to be confused for modules on a slave
CFT-76	Calibration Fetch	Calibration Fetcher - Index was outside the bounds of the array.
DAS-318	DAS Studio General	Changing Windows theme while DAS Studio is running may cause DAS studio to become unstable
DAS-396	DAS Studio General	Old Tasks may appear invalid due to changes in xDefML files
DAS-433	DAS Studio General	It is necessary to run DAS Studio as administrator on Windows 7 OS
DAS-472	DAS Studio General	DAS Studio GUI appears to be doing nothing during Program or Verify while Multi-Chassis Scheduler is running
DAS-591	DAS Studio General	Multi Chassis Scheduler does not automatically transfer parameters from a slave chassis to a BIT102 module for event monitoring
DAS-616	DAS Studio General	Palette caches imported files but does not reuse them resulting in poor memory performance
DAS-716	DAS Studio General	GUI allows users to add parameters to Parser aligned iNET-X Packages, resulting in invalid XidML files
DAS-734	DAS Studio General	If the installation path name changes with new versions of DAS Studio, references to lookup files may become invalid in old tasks and require updating
DAS-740	DAS Studio General	Message server displays Compilation Complete after programming hardware

Issue #	Project	Description
DAS-747	DAS Studio General	DAS Studio does not automatically calculate and update the PCM Major Frame Rate
DAS-906	DAS Studio General	Under rare circumstances the vertical scroll bar may disappear on the global parameter list and does not return until you restart DAS Studio
DAS-1019	DAS Studio General	Calibration Fetcher does not discover slave DAU
DAS-1033	DAS Studio General	DAS Studio is stuck in update loop when attempting to add parameters to packet.
DAS-1065	DAS Studio General	DAS Studio crashes if a second instance is opened
DAS-1075	DAS Studio General	DSI102 Size in Bits settings of the counter size is missing in DAS Studio: Parameter size for DSI102 family modules Counters is available in 16 bits and 32 bits resolutions. Other bit size can be changed on the parameter list
DAS-1107	DAS Studio General	DAS Studio may become unstable if "&" is used in a packet name.
DAS-1133	DAS Studio General	Delay added to the PCM frame in Ethernet to PCM systems may be large under certain configurations
DAS-1160	DAS Studio General	GUI may jump focus when switching between tabs
DAS-1163	DAS Studio General	When manually defining parameters for parser packages the full list of parameters available is shown
DAS-1164	DAS Studio General	Cannot uses "/" in #define statements for MAT101 Header files
DAS-1167	DAS Studio General	MEM103 Package builder shows blank values for parameter already placed in the MEM103 due to different default base sampling rate
DAS-1180	DAS Studio General	ARINC-429 builder hangs when closing it from the X in the top right of its window
DAS-1189	DAS Studio General	DAS Studio Packages Tab PCM builder crashes when changing parameters manually
DAS-1191	DAS Studio General	DAS Studio does not warn user if a process is not linked to a package
DAS-1199	DAS Studio General	GUI for the ADC013 Modules Settings allows user to set Range Max to be less than Range Min. the user will not be warned in the GUI, but will receive an error message at compile time
DAS-1204	DAS Studio General	Filtering not Activated by hitting return
DAS-1215	DAS Studio General	Hardware programming time increase
DAS-1221	DAS Studio General	IP addresses are going missing in packages
DAS-1241	DAS Studio General	Synchronous connection is assumed for PCM links
DAS-1251	DAS Studio General	Packet-Filter on EBM102 should not use the same IP as other packets in the task. May result in compilation errors
DAS-1262	DAS Studio General	Package Generator does not warn it will delete/modify existing packets
DAS-1283	DAS Studio General	DAS Studio show an error 'The directory is not empty' when the cache directory is open by windows explorer
DAS-1309	DAS Studio General	A configuration can be verified but issues no packets from DAU 3
DAS-1315	DAS Studio General	TCG103 from DAS Studio 3.2 fails to open in DAS Studio 3.4.0 due to changes in the xDefML file
DAS-1353	DAS Studio General	If Scheduling cannot be achieved, you may see 'Unexpected late transfer' error
DAS-1360	DAS Studio General	When X_SYNC is enabled on the TCG modules the compiler does not check to see if the acquisition cycle in valid
DAS-1370	DAS Studio General	FBM102 is not a standard FireWire module. Packages and parameters must be added from the Packages tab and not the FireWire builder. A specific FBM102 firewire package can be added from the palette. When using the wizard, users should ignore the FBM102.
DAS-1418	DAS Studio General	To manually place a parameter using 1:1 commutation in the Transmission Assistant you must Drag and drop to the first minor frame

Issue #	Project	Description
DAS-1419	DAS Studio General	Burst Placement of video parameters may take some time to complete in large PCM frames
DAS-1436	DAS Studio General	DAS Studio may be slow to respond after compilation / Programming, user will not be asked to 'Please wait'
DAS-1439	DAS Studio General	Burst Placement may fail if Smart placement is enabled
DAS-1442	DAS Studio General	Filtering on PCM Parameter grid may still be applied from previous task settings
DAS-1450	DAS Studio General	Smart mode will not use the last word on the PCM
DAS-1459	DAS Studio General	In the PCM Package grid the full Parameter name may not be displayed
DAS-1460	DAS Studio General	Error Message 'Tried to access to an unavailable frame location', when placing 8 parameters at 1:2 using smart mode in frame with enough space to place all commutations
DAS-1462	DAS Studio General	In the Transmission Assistant, when Smart Placement mode is enabled the Parameter place parameters vertically or horizontally setting is ignored
DAS-1464	DAS Studio General	Crash when clicking on PCM frame too often
DAS-1479	DAS Studio General	Palette with add with connections in PCM will only import the frame shape
DAS-1498	DAS Studio General	Adding a hex alpha character to an integer field in a generic package setting causes DAS Studio to crash
DAS-1536	DAS Studio General	Standalone compiler crash (access denied) on launch when DAS Studio is running on Windows 7 32-bit OS
DAS-1564	DAS Studio General	VID106 or 103 in 2 different packages must have the same sampling rate
DAS-1575	DAS Studio General	Video cannot be transmitted over ETH and over PCM simultaneously
DAS-1583	DAS Studio General	Video burst in MCS for PCM fails compiling
DAS-1585	DAS Studio General	Failure in PCM_WD_SETUP after adding burst video
DAS-1587	DAS Studio General	Crash when del parameter MyARINC-429-WordPackage from global parameter list
DAS-1609	DAS Studio General	Parameter name should not contain dots otherwise they cannot be opened by Matlab
DAS-1614	DAS Studio General	When parameters are placed into the PCM, users should not be allowed to change sampling rate
DAS-1615	DAS Studio General	Changing rate on multiple parameters is only possible if the mouse is still on the selected area
DAS-1621	DAS Studio General	No decimation on analog modules should create an error
DAS-1632	DAS Studio General	MCS packets should not be created
DAS-1635	DAS Studio General	DEC103 is limited to 8Mbits in synchronous mode but DAS Studio compiles successfully
DAS-1638	DAS Studio General	Quite slow to add few parameters into a PCM with some parameters already placed
DAS-1639	DAS Studio General	MCS does not need to transmit the transport package at the same rate as a secondary PCM transmitter package in a slave chassis.
DAS-1642	DAS Studio General	Wrong link appears to be renamed when renaming is done with the 'F2' short cut after renaming with the context menu
DAS-1647	DAS Studio General	Scheduling Error : Failed to generate timing window for ANE2[15:0](0)<<(Parser9:36)[15:0]-s(7+7)/56
DAS-1666	DAS Studio General	DAS Studio - The value 'OffsetBinary' is not valid - BitVector is the only allowed value
DAS-1667	DAS Studio General	No access for BIT101_SINK is 1 but must be 2
DAS-1731	DAS Studio General	DSI102 should not compile on the attached setting
DAS-1738	DAS Studio General	Ethernet to PCM bridge does not work until you save and reopen the file
DAS-1748	DAS Studio General	Recorder Status Tool in DAS Studio does not report errors connecting to recorders

Issue #	Project	Description
DAS-1771	DAS Studio General	NETREC006 and SSR/CHS SNMP variables are programmed correctly but the hardware fails to transmit the correct value back to software.
DAS-1772	DAS Studio General	Default Stream ID of FFFFFFFF is the same value as SSR/CHS/001/B default filter, hence packets with that stream ID will not be transmitted, unless filter is changed.
DAS-1774	DAS Studio General	Documentation link does not work for certain modules
DAS-1794	DAS Studio General	Discovery tool should state "no hardware found" on Studio
DAS-1795	DAS Studio General	System.InvalidOperationException when clicking on GS Status
DAS-1812	DAS Studio General	BSC003C: gStatus should not display "DecomeLock(0)"
DAS-1813	DAS Studio General	Studio allows user to run on gStatus while another gStatus is running but doesn't display any LED definition for the second gStatus.
DAS-1821	DAS Studio General	Programming cannot be cancelled
DAS-1841	DAS Studio General	Transmission assistant corrupts the PCM frame
DAS-1852	DAS Studio General	KAMCSB12U Discovers incorrectly in DAS Studio 3.4.1
DAS-1855	DAS Studio General	After a calibration error occurs during programming from DAS Studio, the message box appears after the end of the operation to inform the user that the system programmed successfully when it did not
DAS-1865	DAS Studio General	IP Programmer reports a false Fail message
DAS-1880	DAS Studio General	Bridge balancer adds fields to the XIDML not included in XDEFML
DAS-1890	DAS Studio General	"56ia is not a valid integer value" error message when installing and launching DAS Studio/msgsvr.exe
DAS-1892	DAS Studio General	EBM with 3rd party Ethernet and MCS do not work
DAS-1916	DAS Studio General	Attempting to elevate any sub-parameter on a 16-bit boundary to a payload parameter without introducing overlaps.
DAS-1917	DAS Studio General	Package import , parameter no longer sourced from user module but from controller
DAS-1923	DAS Studio General	Parsing MCS and Generic in the EBM is not intuitive
DAS-1968	DAS Studio General	EBM104 not coherent on parameter name
DAS-1971	DAS Studio General	ALL the EBM104 parameters to be removed from the iNET-X /PCM packets after an import
DAS-2010	DAS Studio General	Calibration files are not stored under the C:\ProgramData\ACRA anymore
DAS-2057	DAS Studio General	Error compiling doesn't help finding where the issue is ..."Value was either too large or too small for a UInt32"
DAS-2064	DAS Studio General	Datasheet: DAS Studio does not support discrete output setup on KADDAC001
DAS-2104	DAS Studio General	CVSD created by DAS Studio do not match the TEC-NOT-067
DAS-2132	DAS Studio General	Quicklook fails to open, giving error with no detail due to path issue. Quicklook cannot find SAMDEC dll as current working directory has changed
DAS-2143	DAS Studio General	Valid UAR parsed data only starts at data word offset 2 onwards
DAS-2163	DAS Studio General	Coma's localization cause programming error with a NETSWI101C
DAS-2169	DAS Studio General	Attached are some app/tool cases of font not changing when font option is change under options
DAS-2185	DAS Studio General	SWP_SDK_004 is missing in DAS Studio installer
DAS-2208	DAS Studio General	leading 0s for hexadecimal start and stop pattern are removed by serial builder
DAS-2232	DAS Studio General	For KAMFBM001B and KAMFBM001 the numeric base of the FCS input is not clear

Issue #	Project	Description
DAS-2262	DAS Studio General	Failed to create parser parameter P_MyKAD_EBM_102_B_Report: There is no parser slot allocated for the Package MyPlacediNET-XPackage
DAS-2272	DAS Studio General	After running Bridge Balancer, DAS Studio crashes when ADC136 input type is changed
DAS-2294	DAS Studio General	A xidml file with a PCM package does not show up in das studio when modes are enabled
DAS-2295	DAS Studio General	Smart placement fails to place parameters that fit in the PCM frame
DAS-2301	DAS Studio General	DAS Studio for ENC-106 in mode select saves a file with FrameFormatIdentifier overlapping a parameter
DAS-2307	DAS Studio General	97012 Warning: Late transfer at tick 1840 with lateness 2. PAR_TS1[15:0](0)<<MPEG2TS[15:0]-s(30+1)/610
DAS-2312	DAS Studio General	Huge offset of about 1000 counts on ADC116 modules due to calibration confusion
DAS-2332	DAS Studio General	Very long save for ethernet builder and PCM frame after editing
DAS-2351	DAS Studio General	Package Generator shows up empty when opened from the tool's menu for the first time
DAS-2360	DAS Studio General	French and German language localization causes problem related of calibration fetcher
DAS-2389	DAS Studio General	Warning. Default Calibration Data used for module KAM/CDC/101
DAS-2423	DAS Studio General	VID103 timer doesn't work
DAS-2447	DAS Studio General	Serial Number synchronizer fails on a ETH101 system
DAS-2552	DAS Studio General	ARINC429 builder the default label format is octal, but the "default" is instead associated to the decimal
DAS-2571	DAS Studio General	Compiler does not report an error when MCS turned off. BCU resets
DAS-2629	DAS Studio General	Status Stream Identifier is for IENA Key too
DAS-2632	DAS Studio General	A configuration with a DEC003 in asynchronous mode shows spikes
DAS-2633	DAS Studio General	Scheduling Error: Estimated ticks 12447892 needed to schedule 6223946 transfers is too much to fit in 1000000 ticks due to localization issue
DAS-2638	DAS Studio General	AXNABM401 Arinc Builder should not compile when label has exceeded 377
DAS-2693	DAS Studio General	EBM102 process prevents from creating generic parser flow
DAS-2703	DAS Studio General	LoTime sometimes is described as BCD and sometimes as BitVector
DAS-2803	DAS Studio General	IP address programmer localization issue when assigning IP to a NETSWI101
DAS-2819	DAS Studio General	AXN/TDC/401 when uses built-in temperature sensors for cold junction compensation, will be -2C deg off expected value on thermocouple channels
DAS-2846	DAS Studio General	Exception Invalid XidMLFile:14zo2nbd.sge , Inner Exception System.ArgumentNullException: La valeur ne peut pas être null
DAS-2854	DAS Studio General	Message server log is not showing correct SNMP OID Setting
DAS-2880	DAS Studio General	Scheduling Error : Failed to generate timing window for
DAS-2881	DAS Studio General	Transmission assistant should start on the first available minorframe when vertical placement
DAS-2895	DAS Studio General	DAS Studio noncritical compiler backplane timings warning should be hidden from the log and available as a debug option only
DAS-2909	DAS Studio General	importing 1553 message requires the parameter section
DAS-2939	DAS Studio General	Loss of focus on PCM map
DAS-3010	DAS Studio General	should have not compiled due to the minimum transmit time
DAS-3045	DAS Studio General	Cannot discover when chassis ID is 1

Issue #	Project	Description
DAS-3050	DAS Studio General	cfgcnt file created when programming configuration
DAS-3084	DAS Studio General	MCS modifies the sub-parameters into a parameter
DAS-3105	DAS Studio General	XIDML file with ghost parameters without any instrument or source generated after splitting registers
DAS-3107	DAS Studio General	DAS Studio hangs when multiple parameters with a size inferior to 16 bits are added into an ethernet packet
DAS-3108	DAS Studio General	DAS Studio overlaps the parameters when a size superior to 16 bits is added into an ethernet packet
DAS-3110	DAS Studio General	AXNADC401 MIN-MAX is not saved properly in the xidML file
DAS-3148	DAS Studio General	BCU101 mixed with BCU105 should not compiled
DAS-3154	DAS Studio General	Could not establish or maintain reliable connection with the hardware at IP-address
DAS-3167	DAS Studio General	should place all possible parameters if an error occurs
DAS-3189	DAS Studio General	AXN ABM 401 parameter names are different depending on the controller in the chassis
DAS-3288	DAS Studio General	Transmission assistant: You cannot unset a rate
DAS-3289	DAS Studio General	Transmission assistant: if parameter gets "cannot place", even though you have room, you will never be able to place it
DAS-3296	DAS Studio General	cannot program existing chassis
DAS-3319	DAS Studio General	Empty serial number does not produce a warning or an error in DAS studio
DAS-3343	DAS Studio General	Read counter parameter is missing when AXNBCU401 is discovered
DAS-3344	DAS Studio General	Discovered Module 0x593 in slot number J7 in chassis 10.143.9.30 does not exist in cache. Module will not be programmed
DAS-3349	DAS Studio General	AXNBCU401 with IENA pkt fails to verify
DAS-3350	DAS Studio General	Removing an ENC401 from the chassis causes DAS studio to crash
DAS-3383	DAS Studio General	Not all Fs are powers of 2 from the base Fs on module MyAXN_ADC_401
DAS-3401	DAS Studio General	NET-SWI-101 - when setting a multicast address to a status packet the MAC address is not updated accordingly
DAS-3402	DAS Studio General	Datasheet needs to be updated - MSB-103-C should not show bus ID with values 0 to 7
DAS-3406	DAS Studio General	DAS Studio should enforce Only one MEM-x0x can be installed in an Acra KAM-500 chassis.
DAS-3415	DAS Studio General	NET-SWI-101-C filtering GUI crashes when using a nonstandard character (by mistake)
DAS-3422	DAS Studio General	MEM-113 should be able to log its own register MEM-113 status STATUS and ERROR_COUNT
DAS-3429	DAS Studio General	KAD/BCU/140/CH10 from DAS Studio palette is not a supported module and should not show up
DAS-3473	DAS Studio General	Fixed data is expected to change according to the Shunt mode value
DAS-3503	DAS Studio General	parser tags are not functioning on the UAR102B
DAS-3506	DAS Studio General	Datasheet link disappears after programming
DAS-3507	DAS Studio General	very slow to delete parameters from the serial builder
DAS-3511	DAS Studio General	SSR/CHS/001/D: "System.NotSupportedException: Unsupported value 'False' for constraint type 'System.Boolean' on setting 'PTPv1 Disable BMCA'" - way around set the setting to True on the xidML file
DAS-3603	DAS Studio General	AXNABM401 creates packetizer at 1Hz instead of a min of 39Hz

Issue #	Project	Description
DAS-3605	DAS Studio General	Smart Placement Mode for PCM frame fails when burst placement used
DAS-3606	DAS Studio General	Error from MCS: Cannot fit parameter XYZ into the transport packet
DAS-3623	DAS Studio General	Serial Number Synchronizer crashes with attached XidML when Reading Hardware
DAS-3631	DAS Studio General	Slave is not discovered over ETH102
DAS-3663	DAS Studio General	MCS Error - Video burst transport fails to compile
DAS-3674	DAS Studio General	EBM104 dataset size change makes changes on the parameter name
DAS-3682	DAS Studio General	No video with burst placement
DAS-3689	DAS Studio General	The given value of type String from the data source cannot be converted to type nvarchar of the specified target column
DAS-3690	DAS Studio General	Commutation is not correct when a burst parameter is placed
DAS-3721	DAS Studio General	Slave is not programmed if master chassis is missing using a SAMDEC008
DAS-3725	DAS Studio General	Video not present in PCM when the video is transported by a remote chassis
DAS-3731	DAS Studio General	System.Xml.XmlException: '" is an unexpected token.
DAS-3743	DAS Studio General	Error is not clear: The given key was not present in the dictionary
DAS-3749	DAS Studio General	should not allow the user to change the UDP header transfer format
DAS-3752	DAS Studio General	App Builders: Word offset Increment is acting strangely
DAS-3777	DAS Studio General	Serial Builder: parameter name edit not user friendly
DAS-3778	DAS Studio General	Serial package - cannot edit package name in specific cases
DAS-3779	DAS Studio General	Failed to generate for module KAD/ENC/106 - Mode conflict found at PCM MyIRIG-106-Ch-4Package_4_256x16 - mode is 'False' but FrameFormatIdentifier is not empty
DAS-3780	DAS Studio General	Enabling mode makes the PCM not visible
DAS-3786	DAS Studio General	spaces in package name creates verification error
DAS-3789	DAS Studio General	Renaming Connections on SWI not updating
DAS-3794	DAS Studio General	PCM justification left right not supported
DAS-3795	DAS Studio General	RangeScale_Excitation_Linearization_ADC113 error
DAS-3803	DAS Studio General	DSI102 and DSI102B Xdefml files are reversed for event parameter description
DAS-3805	DAS Studio General	Windows update KB4578968 creates refresh issues
DAS-3812	DAS Studio General	Multiple selection and renaming of parameters in the Placed Data window of the Packages Tab does not follow a logical renaming sequence
DAS-3841	DAS Studio General	Adding parser slot to UBM/401 corrupts xidml
DAS-3858	DAS Studio General	Naming of functionalities in bus packetizer modules
DAS-3875	DAS Studio General	programming error has a confusing slot
DAS-3876	DAS Studio General	NETSWI101 in PTP Transparent Switch should create an error if the ports do not use the same PTP version
DAS-3878	DAS Studio General	Ethernet transmitter 'MySSR_CHS_001_D' can handle less than 1048576 transfers but 1503162 requested - problem is setup only contains Packetizer packets - way around create a place packet to force an acquisition cycle
DAS-3900	DAS Studio General	Multiset and edit are inconsistent
DAS-3933	DAS Studio General	AXNBCU402 connected directly to a KADBCU140 shows only packets from the KADBCU140

Issue #	Project	Description
DAS-3941	DAS Studio General	ENC005B - parameter in 12 bits fixed word PCM is not correct
DAS-3949	DAS Studio General	AXNENC401 generic parsing: Not Used is the only allowed value
DAS-3959	DAS Studio General	removing chassis doesn't remove the modules
DAS-3974	DAS Studio General	Discrete parameters can be added over Ethernet
DAS-3978	DAS Studio General	cannot open xidML file System.ArgumentNullException: Value cannot be null. Parameter name: name
DAS-3984	DAS Studio General	hover tip only shows for the initial connection
DAS-3993	DAS Studio General	PCM frame drops
DAS-4006	DAS Studio General	Specific PCM shape should be allowed
DAS-4017	DAS Studio General	Compile error: BalanceTarget for channel 0 in volts is 2.50 for ADC406 doesn't make sense
DAS-4032	DAS Studio General	Adding a Package to KADFBM105B shows drop down settings for PT-Packet and LLP
DAS-4040	DAS Studio General	Custom control validation error expected 'Current' but found 'Voltage' on setting 'Excitation Mode' when setting 'Input Mode' is 'ICP sensor'
DAS-4084	DAS Studio General	Calibration fetcher fetching from un-calibrated ADC/116
DAS-4090	DAS Studio General	file: added in the MDC103 path suffix
DAS-4124	DAS Studio General	xDefML for the KADSWI108 has conditions which do not make sense for the port settings
DAS-4151	DAS Studio General	AXNADC405 differential ended configuration, with signal source isolated from module ground (pull-down resistor on the module enabled)
DAS-4153	DAS Studio General	AXNENC402 frame is cleared after a change in the Ethernet builder
DAS-4206	DAS Studio General	remove orphan parameter doesn't work for tags parameter
DAS-4209	DAS Studio General	After discovering a NETSWI101C, all the modes for each port map to other ports are shown
DAS-4226	DAS Studio General	Adding ETH report word to its own packet should give a compile error
DAS-4251	DAS Studio General	Compilation error doesn't tell you the exact module for which it happens
DAS-4256	DAS Studio General	KADENC106 and KADBCU101 Major Pulse currently not supported by DAS Studio
DAS-4266	DAS Studio General	ENC402 Ch7 length in Bytes error is not correct
DAS-4270	DAS Studio General	Hdefml file missing error when running discovery on AXNBCU401 module
DAS-4271	DAS Studio General	AXNENC402 Error in DAS Studio about Ch7 PTFR length while the setup compiles with no errors
DAS-4282	DAS Studio General	DECx03 should allow 0x0123 as a syncword
DAS-4305	DAS Studio General	DAS Studio shouldn’t crash if the parameters are referenced but not defined
DAS-4306	DAS Studio General	Do not ask you to save before verifying/programming if your xidml file got modified and not saved
DAS-4322	DAS Studio General	Refresh issue on packages tab when SBM101 setting EFEX / STANAG are changed. User needs to click on another module and then back for change to update
DAS-4323	DAS Studio General	slave is not discovered using a ETH101
DAS-4360	DAS Studio General	spaces in the DAS Studio install path causes Scheduling Error: Already ReportedACRA.Common.Helpers.ReportedException: Already Reported ---> System.IO.FileNotFoundException
DAS-4381	DAS Studio General	Lookup file should be able to load into the linearization URL field
DAS-4391	DAS Studio General	Windows 10 launch issue. WaitForInputIdle failed. This could be because the process does not have a graphical interface.

Issue #	Project	Description
DAS-4397	DAS Studio General	EXC101 limits are wrong
DAS-4398	DAS Studio General	Modifying the destination IP on the package viewer makes the view to jump to the first packet and on the left
DAS-4399	DAS Studio General	DSI104-5V should not be in the module palette
DAS-4441	DAS Studio General	MEM113 storage time/BCU ethernet output rate - Not implemented for Packetizers.
DAS-4467	DAS Studio General	Bad data coming out of an ENC106 that verifies successfully - potentially due to CVT reuse
DAS-4489	DAS Studio General	slow when you click on the BCU140 link to display packets
DAS-4499	DAS Studio General	Save As xidML does not retain the parameter information from the transmission assistant
DAS-4533	DAS Studio General	BCU101C is not showing video from VID106
DAS-4536	DAS Studio General	Not enough space to place parameters into MEM package
DAS-4580	DAS Studio General	Minor updates required in the Installation guide.
DAS-4588	DAS Studio General	DAS Studio hangs when attempting to relocate parameters in package content payload
DAS-4597	DAS Studio General	AXNENC40x: Ethernet builder should limit the number of frames according to the parser buffer depth - the number parser slots and parser buffer depth are related
DAS-4598	DAS Studio General	Deleting parameters causes jump to first defined packet on removal
DAS-4603	DAS Studio General	ACRA.FtiDomainRepositoryBuilder.InvalidXidMLFileException: Sub Parameter - this error points to a incorrectly formed XIDML file
DAS-4613	DAS Studio General	Cannot discover SSRREC001
DAS-4623	DAS Studio General	TAG parameters TAB not available in Ethernet builder if a Switch with import port also in project
DAS-4649	DAS Studio General	Warning: Late transfer at tick xx with lateness yy - in some scenarios this should an error - delaying PCM might solve the warning
DAS-4662	DAS Studio General	install path cannot be selected anymore
DAS-4665	DAS Studio General	Modifying the occurrences in the Placed Data tab will not change the rate in the transmission assistant
DAS-4668	DAS Studio General	BB: log should have an option to output more info
DAS-4687	DAS Studio General	DAS Studio shut down (crashes) when try to remove the Async PCM in the DEC103
DAS-4703	DAS Studio General	DAC001 cannot use MCS
DAS-4709	DAS Studio General	changing syncword in PCM will make DAS Studio crash
DAS-4722	DAS Studio General	xReport Application crash
DAS-4729	DAS Studio General	StandaloneCompiler reports "programming completed with errors" but there's no errors in the log
DAS-4730	DAS Studio General	Renaming a filter rule doesn't rename where it is used
DAS-4733	DAS Studio General	xidML version not updated
DAS-4736	DAS Studio General	Import one message only on a Serial Bus monitor channel
DAS-4737	DAS Studio General	importing twice a CSV to a serial module will not import the parameters on the second time
DAS-4739	DAS Studio General	CSV exported doesn't output correctly the extended ID
DAS-4740	DAS Studio General	EBM: when VLAN is enabled, we should set a warning dialog
DAS-4744	DAS Studio General	KAD/BCU/140/DEM not supported by IP Address Programmer
DAS-4748	DAS Studio General	"Can't find source for parameter" on an Axon chassis connected to a KAM-500

Issue #	Project	Description
DAS-4750	DAS Studio General	add NSW-SWI-012 hDefml and xDefML in DAS Studio installer
DAS-4751	DAS Studio General	Axon and KAM500 hybrid system is not coherent
FAL-330	Falcon (EEPROM Generator)	Sample rate of Ethernet PCM Bridge parameters are driven by Ethernet not PCM when sub parameters are placed in PCM
FAL-331	Falcon (EEPROM Generator)	No output from ADC-136 when erasing MEM-113 in format 8 or idle in format 4
FOP-62	Studio File Operations	Error message for dynamic constraint generation does not specify the setting / channel / instrument the error is on
MCS-1	Multi Chassis Scheduler	Users will see an error when compiling or programming a task if they have manually built a slave PCM frame.
MCS-136	Multi Chassis Scheduler	Having multiple PCM package in a task while Packetization enabled on single ENC106 channel cause an error
MCS-201	Multi Chassis Scheduler	Packetizer for ABM103 Schedules same number of packets per second regardless of the Bus speed setting
MCS-209	Multi Chassis Scheduler	Error '...not present in dictionary' after replacing slave PCM on detection of previous package
MCS-228	Multi Chassis Scheduler	Multi Chassis scheduler - Project with VID-106-B in remote computer creates incorrect packets
MCS-230	Multi Chassis Scheduler	DAS Studio create a link appending "_packetizing" when running the MCS even when there is no package attached.
MIL-5	Studio MIL-STD-1553 Builder	More data word parameters can be added than defined in the message Parsing Rules
MSI-109	Studio Installer	DAS Studio installer may cause anti-virus software to issue a warning
MSI-149	Studio Installer	DAS Studio installer may remove components that affect KSM-500 and kFlashCard when uninstalling
MSI-167	Studio Installer	'UnauthorizedAccessException' error on Windows XP when tried to run DAS Studio as limited user, although it was installed as admin user
MSI-190	Studio Installer	User may see an Error message when installing if user doesn't have Admin rights
MSI-254	Studio Installer	Uninstalling DAS Studio deletes the calibration information gathered by Calibration Fetcher
MSI-283	Studio Installer	.NET 4.0 Framework will not install if the Windows Imaging Component is not already installed
MSI-316	Studio Installer	SWP-SDK-004 (SAMDEC008 driver) missing from the installation
PB-48	Studio Package Builder	Package builder displays 'Package generation complete' even if no packages are created
PB-57	Studio Package Builder	Using an illegal bit rate in the PCM package generator may cause it to hang, the Transmission Assistant should be used instead
PB-71	Studio Package Builder	Encountering Errors in PCM package generator may result in an empty PCM frame. Transmission Assistant should be used instead
PB-72	Studio Package Builder	Package Builder should not alter an existing PCM frame that already works
PB-74	Studio Package Builder	Package builder does not remember if you locked a parameter to a PCM location
PB-76	Studio Package Builder	Multiple issues in Ethernet package generator
PB-79	Studio Package Builder	Package Generator does not place parameters from KADSWI108

Issue #	Project	Description
PB-98	Studio Package Builder	DAS Studio PCM frame loses focus when zooming in
PKG-54	Studio Packages Tab General	Navigating between modules when Packages tab is in context can result in slow performance of DAS Studio
PKG-364	Studio Packages Tab General	Mouse 'Wait' icon is not always displayed when waiting for DAS Studio to complete a task
PKG-436	Studio Packages Tab General	The IRIG-106 packages tab does not let you define everything that you might want for an IRIG-106 package definition such as FCC and URC.
PKG-439	Studio Packages Tab General	DAS Studio does not prevent user from creating a slave PCM packages, these are automatically created at compile time
PKG-472	Studio Packages Tab General	DAS Studio does not automatically update certain fields when manually creating Ethernet packets e.g., Stream ID may be repeated
PKG-497	Studio Packages Tab General	Packages tab does not always show Package Grid when opened the first time
PKG-501	Studio Packages Tab General	For MIL-STD-1553 Mode code 17 messages, the sub-sub address map is not supported on MIL-STD-1553 messages
PKG-503	Studio Packages Tab General	User cannot set occurrences for ARINC ARI002 package via grid, but can set the occurrences under preferences
PKG-520	Studio Packages Tab General	Packages tab is not refreshed when deleting a module
PKG-580	Studio Packages Tab General	Users may experience poor Memory performance when switching between tabs multiple times
PKG-594	Studio Packages Tab General	UDP Destination Port defaults to 0 for iNET-X Placed packets
PKG-598	Studio Packages Tab General	Refresh issue when Delete process package filter for EBM, have to save and re-open the task file
PKG-603	Studio Packages Tab General	Package Rate for Packetizer Packets can be set but has no impact as it is overwritten on Verify
PKG-669	Studio Packages Tab General	Placement Preferences not displayed as selected
PKG-692	Studio Packages Tab General	Transmission assistance does not update when fragmentation error is caused by the placed content grid
PKG-702	Studio Packages Tab General	Changing burst parameter properties in the Placed Data grid replaces the burst parameter with a single instance
PKG-703	Studio Packages Tab General	Burst parameter occurrences not displayed correctly in the Placed Data grid
PKG-729	Studio Packages Tab General	BCU101C Syncword not updating correctly
PKG-742	Studio Packages Tab General	Clicks off the selected parameter before to place it
PKG-743	Studio Packages Tab General	It takes 5 seconds to refresh PCM frame for every placement
PKG-749	Studio Packages Tab General	Ghost discrete parameter appears in XidML file when saving without source parameters
RIB-3	Studio Ribbon Bar	If you are editing a table cell and then select a menu option, i.e. Save, the changes in the cell will be lost.

Issue #	Project	Description
SAC-4	Standalone Compiler	Das Studio Program - XidML file is compiled whether it has output or not - No warnings or errors
SAC-70	Standalone Compiler	Disable Serial Number synchronizer options on UI as it is not supported
SCS-126	Single Chassis Scheduler	The folder used for storing compiler debug files is not cleared out at start of compilation
SCS-379	Single Chassis Scheduler	32 bit registers are presented correctly in BCU140B packets but are reversed in MBI103B messages
SCS-388	Single Chassis Scheduler	Overrun detected error with more than 3.3M Ethernet transfers
SCS-477	Single Chassis Scheduler	On the BIT101 Users can create a Trigger Condition and not assign a parameter to it. They will not be warned until compile time
SCS-487	Single Chassis Scheduler	Compiler error with synchronous DEC103 - Failed to generate timing window for DECData
SEB-9	Studio Ethernet Builder	Select Conversion Units dropdown and it changes value of the preceeding conversion unit entered
SET-47	Studio Settings Tab General	DAS Studio GUI does not detect and warn users if two Packetizer channels use the same Stream ID. Error is shown at compile time
SET-51	Studio Settings Tab General	Updating TDC002D parameter 'Range Min/Max' is not done automatically by UI dependent on the look up file selected
SET-53	Studio Settings Tab General	Updating ADC113B 'Range Min/Max' and 'Excitation amplitude' is not done automatically by UI dependent on the algorithm reference selected
SET-153	Studio Settings Tab General	KADADC135 and KADADC136 Changing Excitation Mode from Voltage to Current, or vice versa, does not automatically update the amplitude to a valid figure for that setting
SKD-14	Studio Hardware Discovery	Discovery tools ask for irrelevant Gateway Input range when discovery Ground Station Modules
SKD-16	Studio Hardware Discovery	'IP Address' range validation is not applied on discovery gateway definition
SKD-20	Studio Hardware Discovery	Discovery tool does not state 'no hardware found' when Discovery fails, just reports Discovery complete
SKD-82	Studio Hardware Discovery	Cannot save file and error is issued when the IP of a switch is added to discovery
SKD-87	Studio Hardware Discovery	Discovery will always return a AXNCHS16U no matter what the chassis size when using AXNBCU401
SKD-100	Studio Hardware Discovery	Discover returns an exception when discovering through NET/SWI/101/C to Axon
SKD-112	Studio Hardware Discovery	Discover AXN/ABM/401 - Exception Invalid XidMLFile:skilfpyu.xkq , Inner Exception System.ArgumentNullException: Value cannot be null. Parameter name: source
SKD-119	Studio Hardware Discovery	Systems programmed with 3.4.10 cannot be discovered with 3.4.11 using a AXNBCU401 as it is NOT supported.
SKD-122	Studio Hardware Discovery	DAS Studio discovers the AXNTDC401 with configuration errors
SKD-129	Studio Hardware Discovery	DAS studio does not report an error when discovering 2 Axon chassis with the same IP address
SKD-141	Studio Hardware Discovery	Discovering axon hardware fails with errors, 3.4.21 #10136
SMS-12	Studio Message Server	Localisation Issue:Exception from HRESULT

Issue #	Project	Description
SPC-86	Studio Power Calculator	Possibility to enter the current directly instead of a load in ohms
SPC-98	Studio Power Calculator	Power calculator shows an incorrect error when power calculations are correct - this is due to incorrect values in the warning and error percentages
SPC-99	Studio Power Calculator	DAS Studio user manual shows incorrect values in the warning and error percentages for Power calculator shows power calculator
SPC-103	Studio Power Calculator	power consumption in line
SPG-23	Studio Package Grid	PCM package display gird may require a refresh after Verification or Programming
SPG-25	Studio Package Grid	DAS Studio allows Users to add Parameters to Bus Monitor Packages that are already full, but does not report any warning
SPG-26	Studio Package Grid	DAS Studio Packages display may require a refresh after adding parameters
SPLT-3	Studio Package Links Table	PackageRate on PCM links is not automatically updated when the bit rate is changed
SPPT-10	Studio Package Properties Table	DAS Studio fails to auto-validate 'data type' for iNet-X packages
SPPT-33	Studio Package Properties Table	Illegal Stream ID settings may only be caught at compile time
SPRP-34	Studio Parameters Palette	Default Parameters list may be shown when adding parameter to a package, instead of the parameters associated with the task. Click on 'This file' to get the correct parameter list
SPT-5	Studio Packages Table	Need a limitation on the maximum number of parameters/words that can be placed into different types of packages
SPT-9	Studio Packages Table	In some scenarios, validation of parameter name uniqueness may not work as expected
SPT-14	Studio Packages Table	Overlap error when adding parameters from table
SPT-81	Studio Packages Table	Invalid placement location indication for all parameters when packet size is more than maximum iNET-X size
SQL-28	Studio Quicklook	kQuicklook will report an error when uninstalling after DAS Studio 3.4.1 was installed or uninstalled
STV-6	Studio Verify	DAS Studio does not automatically save changes to the XidML file. User must click save to ensure no changes are lost
STV-10	Studio Verify	Using Auxiliary files is not supported in DAS Studio
SUAR-24	Studio Serial Builder	UBM-103 does not support idle time - Some parsing options such length only on Serial Builder for UBM-103 are incorrect
SUAR-26	Studio Serial Builder	Serial Builder error after package renaming
SUM-21	Studio User Manual	Axon Discovery should mention that it also retrieves the xidML stored on the Axon controller
TLS-31	Studio Tools General	DAS Studio does not manage Sensors and input channels calibration
TLS-80	Studio Tools General	The given key was not present in the dictionary
TTPI-5	TTP Importer	Cancelling TTP importer while removing links may cause DAS Studio to become unstable
XACS-13	XidML API	Mode code 17 sub sub address map not supported on MIL-STD-1553 messages
XACS-18	XidML API	Adding 1553 message with " ' " in the message name creates invalid XidML
XDF-36	xDefML File	Analog-IRIG_BOut is defined under Inputs on a KAMTCG102C

Issue #	Project	Description
XDF-135	xDefML File	RS422_OUT can act as either X-sync out or IRIG-Out on all TCG Modules. However, the Outputs only ever show RS422_Out, this stops users connecting IRIG_Out to IRIG_in on other modules in the GUI
XDF-144	xDefML File	KADADC129S1 ExcitationAmplitude default value is 0.2 on the datasheet and 5 in DAS Studio
XDF-146	xDefML File	KADADC109CS1 ExcitationAmplitude default value is 0.2 on the datasheet and 5 in DAS Studio
XDF-147	xDefML File	'BalanceTolerance' and 'Balance Target' ranges are not defined in datasheets of Analog Modules
XDF-200	xDefML File	Cannot connect IRIG-B_out from TCG102C to NETSWI004 digital IRIG-B_In
XDF-327	xDefML File	DAS Studio UI will allow BitRates lower than what is achievable in the hardware on BCU101 modules
XDF-328	xDefML File	SSRCHS001B DAS Studio Setting Memory Utilization Threshold default value should be 0
XDF-393	xDefML File	KADMSB103C should not show bus ID with values 0 to 7
XDF-394	xDefML File	DAS Studio allows the user to define the Max/Min temperatures per channel, needs to be the same for all channels
XDF-444	xDefML File	Wrong Datasheet shows up when clicking on datasheet for EBM-102-B
XDF-446	xDefML File	Pull-down Resistor is hardwired to Disabled when D-E is selected in the AXN-ADC-405. This should be optional
XDF-449	xDefML File	Clicking on the datasheet of the CDI101 will load the CDC101 datasheet

Issues fixed in this release

Issue #	Project	Description
DAS-1722	DAS Studio General	UBM/UAR module : Word definition in byte, offset counted in bytes or in words: either everything in bytes or everything in words
DAS-1932	DAS Studio General	IP programmer could be a bit fancier by using SNMP broadcast
DAS-1937	DAS Studio General	It will be nice to change the occurrences by multiset in the package tab when building Ethernet packets
DAS-1954	DAS Studio General	customize the main DAS Studio tab
DAS-1959	DAS Studio General	The number of occurrences in a MEM packet shown by DAS Studio is wrong
DAS-2125	DAS Studio General	be nice if Standalone compiler could have its own installer
DAS-2384	DAS Studio General	a way to know if a parameter has already been placed in an Ethernet packet
DAS-3405	DAS Studio General	Some warnings should be information
DAS-3770	DAS Studio General	NETREC006B: MAC Address value is reversed for the following parameters: statusDestMAC & eventDestMAC
DAS-3854	DAS Studio General	video is gone if a standard parameter is placed using smart mode
DAS-4289	DAS Studio General	BCU101 should not allow bitrate 4194304 bps i.e. it will create too much jitter for a decom to get lock
DAS-4433	DAS Studio General	ENC106B should be removed from the instrument palette
DAS-4501	DAS Studio General	In a large distributed AXN and KAM system high speed PCM, MCS packets for PCM transmission may contain stale data

Issue #	Project	Description
DAS-4503	DAS Studio General	Transmission Assistant cannot place a PCM frame with smart placement on - the same frame can be placed manually and verifies
DAS-4506	DAS Studio General	Bridge Balancer and ADC136: Cannot find bracketed root for parameter
DAS-4547	DAS Studio General	AXN-ADC-401 should only show a ReadCounter parameter and the name should be consistent with other cards
DAS-4595	DAS Studio General	burst parameter shall follow the smart placement rule if enable
DAS-4619	DAS Studio General	System.ArgumentException: An item with the same key has already been added - this error points to a possible duplication in the package occurence
DAS-4670	DAS Studio General	MinorFrameNumber tag not in xidML file if 1 minorframe defined in the PCM
DAS-4681	DAS Studio General	Xidml cannot be loaded: When bits per word in PCM frame changed to 8, xidml is updated with Offset_Bytes on compile.
DAS-4692	DAS Studio General	Unable to load XidML in 3.4.16 while it can be loaded in 3.4.25 due to the AXNADC405 xDefML file
DAS-4695	DAS Studio General	MBM401 bad data
DAS-4699	DAS Studio General	'More Parser Slots used than are available. Attempting to use slot 0 for parser
DAS-4704	DAS Studio General	DAS Studio crashes after importing an Axon parameter to the DAC001
DAS-4749	DAS Studio General	AXNADC404 needs power cycling after balancing
NAV-99	Studio Navigator	Can't drag a module from one slot to another using the mouse
PKG-760	Studio Packages Tab General	System.Dynamic.ExpandoObject displayed on destination IP address field of EBM101 Package
SAC-7	Standalone Compiler	standalone compiler in Linux
SAC-8	Standalone Compiler	Ability to switch off the message viewer

GTS SDK 3.3

Modules supported in this release

See GTS SDK 3.3 data sheet for list.

New features in this release

See GTS SDK 3.3 data sheet.

Known issues in this release

Issue #	Project	Description
GDSDK-182	GTS SDK	SystemDefinitionAPI does not allow manipulating major frame of PCM.
GDSDK-181	GTS SDK	GetGTSStatus(ex) has very poor performance.
GDSDK-180	GTS SDK	GetBufferParameterMapping failed at the SyncWord at front.
GDSDK-178	GTS SDK	Need to be able to retrieve part reference from type number.
GDSDK-161	GTS SDK	Out of lock (LossStatusCount) when testing GTS/DEC/005/C with 20M, NRZ-L and Bit-sync. This is none issue when using Borland C++ sample code.
GDSDK-157	GTS SDK	Overflow at SDK Ring Buffers occurs when going above 6.5MHz. This is none issue when using Borland C++ sample code.

Issue #	Project	Description
GDSDK-149	GTS SDK	Function to return the card serial number is required.
GDSDK-36	GTS SDK	SDK Installer always installs "MicrosoftWindowsInstaller 3.1" regardless of whether or not it was already installed. This will affect the installation time.
GDSDK-15	GTS SDK	SystemDefinitionAPI: Does not support setting up Major Frames.
GDSDK-14	GTS SDK	GroundStationAPI: Does not support setting up "Name" on FrameWords in a PCM Package.
GDSDK-3	GTS SDK	SystemDefinitionAPI: Rename IMinorFrameWords.RemoveWord (indexToRemove) parameter as its' causing confusion.

Issues fixed in this release

Issue #	Project	Description
GDSDK-177	GTS SDK	SystemDefinitionAPI writes '0,2' instead of '0.2' at 'Acquisition Loop Bandwidth' which make it failed to be read.
GDSDK-176	GTS SDK	SystemDefinitionAPI failed to read XidML when it contains 'Generic PC'.

Products supported by DAS Studio 3

For a list of products supported by DAS Studio 3, see the *DAS Studio 3* data sheet.

Legacy modules not supported by DAS Studio 3

Module
KAD/ADC/001
KAD/ADC/002/B/100m
KAD/ADC/002/B/1V
KAD/ADC/002/C/100m
KAD/ADC/002/C/10V
KAD/ADC/002/C/1V
KAD/ADC/003
KAD/ADC/003/B
KAD/ADC/005
KAD/ADC/006
KAD/ADC/009/QB100
KAD/ADC/009/QB350
KAD/ADC/009/S1
KAD/ADC/009/S2
KAD/ADC/009/S4
KAD/ADC/010/B
KAD/ADC/010/C
KAD/ADC/011/B/X1
KAD/ADC/011/C/X1
KAD/ADC/021
KAD/ADC/021/RT
KAD/ADC/106
KAD/ADC/109/S1
KAD/ADC/117
KAD/ADC/126
KAD/BCU/001
KAD/BCU/001/B
KAD/BCU/001/CX
KAD/BCU/003
KAD/BCU/003/SB
KAD/BCU/101

Module
KAD/BCU/102
KAD/BCU/102/B
KAD/BCU/104
KAD/BCU/105
KAD/BCU/105/B
KAD/CBC/101
KAD/CBC/102
KAD/CBI/101
KAD/DEC/002
KAD/DPI/002
KAD/DSI/003
KAD/ENC/004
KAD/ENC/004/B/ET
KAD/ENC/004/ET
KAD/ENC/005/B/RS
KAD/ENC/006/HA1
KAD/ENC/006/HA2
KAD/ENC/006/HA3
KAD/ENC/006/HA4
KAD/ENC/006/X1
KAD/ENC/006/X2
KAD/ENC/006/X5
KAD/ETH/001/B
KAD/ETH/001/C
KAD/LDC/001/01
KAD/MAT/001/B
KAD/MBC/001
KAD/MBI/001
KAD/MBI/001/B
KAD/MBI/102/00
KAD/MBI/103
KAD/MDC/001
KAD/MDC/104
KAD/MEM/004/4G
KAD/MSB/001
KAD/MSB/001/B
KAD/MSB/002/B

Module
KAD/MSB/003
KAD/MSB/003/B
KAD/MSB/103
KAD/PBM/002
KAD/PBM/002/BA1
KAD/RTC/002
KAD/SDC/002/90V
KAD/SDI/001
KAD/SIG/101
KAD/TCG/001
KAD/TCG/001/B
KAD/TDC/001/10K
KAD/TDC/001/2K2
KAD/TDC/002/ET/00
KAD/TDC/002/B/00
KAD/TDC/002/B/ET/00
KAD/TDC/004
KAD/TDC/004/ET
KAD/TDC/006
KAD/TDC/006/RT
KAD/UAR/001
KAD/UAR/002/B
KAD/UAR/003
KAD/UAT/101
KAD/UTL/001
KAD/UTL/102
KAD/UTL/102/X1
KAD/UTL/102/X2
KAM/ADC/004
KAM/ADC/004/05/FB/350
KAM/ADC/009/S1/5KHZ
KAM/ADC/009/S2/ET/MA
KAM/ADC/011/10V
KAM/ADC/012/10V
KAM/ADC/013
KAM/ADC/014/10V
KAM/ADC/019/100

Module
KAM/CDC/001
KAM/CDC/001/B
KAM/CDC/001/C
KAM/DPI/001
KAM/ENC/002
KAM/ENC/003
KAM/ENC/006
KAM/ENC/006/X3
KAM/ENC/006/X4
KAM/ENC/007
KAM/MAT/001/00
KAM/MEM/001
KAM/MEM/002/00
KAM/MEM/003
KAM/MEM/003/B
KAM/MEM/003/C
KAM/MEM/003/D
KAM/MSB/002
KAM/MSB/002/B/TC
KAM/TCG/102
KAM/TDC/003
KAM/UAR/002
KAM/VID/002
MKM/ADC/005
MKM/SDC/001
MKM/CHS/02U
MKM/ADC/014/R1
MKM/ADC/014/R2
MKM/BCU/101
MKM/BCU/101/B
MKM/UAR/102
NET/SWI/004/EM1
SSR/CHS/001

Acronyms

This document lists common acronyms and terms used in telemetry. For more telemetry terminology, see *TEC/NOT/026, Dictionary of telemetry terms*.

AAAF

Analog Anti-Aliasing Filter. See AAF.

AAF

Anti-Aliasing Filter. A filter which reduces aliasing effects by restricting the bandwidth of the sampled signal to approximately satisfy the sampling theorem, that is, most of the signal energy is kept within a bandwidth of half of the sampling frequency.

ACK

ACKnowledgment code. The communications code sent from a receiving station to a transmitting station to indicate that it is ready to accept data. It is also used to acknowledge the error-free receipt of transmitted data.

Acra KAM-500

Acra's flagship modular data acquisition product.

A/D

Analog to Digital. Conversion of analog signals to digital.

AES

Advanced Encryption Standard. An NIST-standard cryptographic cipher that uses a block length of 128 bits and key lengths of 128, 192 or 256 bits. Officially replacing the Triple DES method in 2001, AES uses the Rijndael algorithm. AES can be encrypted in one pass instead of three, and its key size is greater than Triple DES's 168 bits.

AHeAD

Aircraft Health Analysis and Diagnosis. Embraer system for predictive maintenance.

AHUMS

Adaptive HUMS. See HUMS.

ARO

After Receipt (of) Order.

ARP

Address Resolution Protocol. A protocol used to obtain a node's physical hardware address.

ARTM

Advanced Range TeleMetry program. Tier 1 products use SOQPSK techniques to double the data rate in a given RF bandwidth; Tier II uses multi-h techniques to treble it. PCM/FM is sometimes referred to as Tier 0.

ATP

Acceptance Test Procedure. The final phase of design validation, which ensures that each component of a customer's system (hardware and software) work together.

BAG

Bandwidth Allocation Gap. Allocated data transmission interval in an ARINC 664 Part 7 network.

Bandwidth

The frequency range occupied or required by a signal. Pulse Code Modulation (PCM) signals contain harmonics that are usually removed by pre-modulation filtering to reduce the bandwidth needed for telemetry transmission or tape recording. However, insufficient bandwidth may result in the loss of essential information and prevent the recovery of PCM encoded data.

Barker codes

A selection of bits to be used as frame sync words so as to minimize the probability of false lock. For more information, see the Reference section of the *Applications Handbook*.

BDS

Best Data Selector. Diversity receiver method where the stream with the least data errors, such as sync word slips, and sync word bit errors, is used.

BER

Bit Error Rate. The average number of bits transmitted in error. Every data link has a theoretical minimum error rate depending on the noise present. A reasonable encoder/decoder system linked via copper would have a BER of 10-9. BERs are specified for encoders, data links (especially radio), bit syncs, and decoders.

BIO-L

Bi-phase Level. See PCM Codes.

BIO-M

Bi-phase Mark. See PCM Codes.

BIO-S

Bi-phase Space. See PCM Codes.

BOM file

File used to store original hardcopy BOMs (Bill of Materials).

bps

Bits Per Second. The measurement of the speed of data transfer in a communications system. Note that Bps is used to denote Bytes Per Second.

BSS

Best Source Selector. Diversity receiver method where the stream with the best signal-to-noise ratio is used.

CAIS

Common Airborne Instrumentation Systems. Developed by the U.S. Department of Defense to promote standardization commonality and interoperability among aircraft test instrumentation systems.

CAR

Corrective Action Report. A report into any defect in any product or procedure.

cBIT

Continuous Built-In-Test.

CBM

Condition-Based Maintenance. Used primarily to predict when to service the machine rather than to repair it, but no clear distinction. Originally used for industrial machines and generators, then for airplanes.

COFDM

Coded Orthogonal FDM. See FDM.

COMSEC

Compound word for COMmunications SECurity.

COO

Confirmation of Order. The document issued to customers that confirms terms and conditions, price, and quantities of the last revision of RFQ.

COTS

Commercial Off-The-Shelf. Refers to ready-made merchandise that is available for sale.

CSMA/CA

Carrier Sense Multiple Access/Collision Avoidance. A transmission protocol that attempts to avoid collisions that can occur when two nodes attempt to transmit at the same time on the bus rather than detect them, as in CSMA/CD.

CSMA/CD

Carrier Sense Multiple Access/Collision Detection. The Local Area Network (LAN) access method used in Ethernet. When a device wants to gain access to the network, it checks to see if the network is quiet (senses the carrier) before it begins transmitting its data. Collision Detection allows for the node to be aware if another node begins to transmit causing their frames to collide.

CSS

Correlated Source Selection. Diversity receiver method where two streams with roughly the same signal-to-noise ratio and data error rates are aligned (correlated) and voting or soft-bits are used to decide on a bit-by-bit basis.

D/A

Digital to Analog. Conversion of digital signals to analog.

DAS

Data Acquisition System.

DAS Studio 3

DAS Studio 3 uses a multi-threaded design, which utilizes multi-core processors to improve performance. DAS Studio 3 lets you configure Data Acquisition Units (DAUs), network switches, recorders and ground stations in an integrated environment.

DAU

Data Acquisition Unit.

dB

Decibel. A unit which indicates a ratio of power between two signals.

dBc

Decibels relative to carrier. A common measurement (in decibels) in Radio Frequency (RF) engineering to specify the power of a sideband in a modulated signal relative to the carrier.

DHCP

Dynamic Host Configuration Protocol. A protocol that automatically assigns IP addresses to client stations logging onto an IP network.

Diversity Combining

A method, based on signal power, of switching between diverse receivers.

Diversity receivers

Using two or more streams to reduce lost data. *Temporal diversity* - sending data twice in the one stream. *Frequency diversity* - using two frequencies. *Spatial diversity* - using two receivers at different physical locations. *Polar diversity* - using left and right hand (I/Q) receivers.

DM-M

Delay Modulation Mark. See PCM Codes.

DM-S

Delay Modulation Space. See PCM Codes.

DNS

Domain Name System. A system for converting host names and domain names into IP addresses on the Internet or on local networks that use the TCP/IP protocol.

DST

Data SheeT. Every product must have a data sheet outlining the features, applications specifications, and revision history as well as any other technical data required to use it. The front leaf of the data sheet is used by Sales as a short-form data sheet which they give to potential customers.

DV

Design Verification. The stage between handover after unit test and product release; it culminates in a Design Verification Report (DVR). DV is also an acronym for the Design Verification department.

DVP

Design Verification Plan.

DVR

Design Verification Report. Every active NRE culminates in a DVR. If written after a design verification phase, it documents all the tests done and the results. If written after the suspension of an NRE, it states the reason(s) for the suspension.

Eb/No

Bit Energy/Noise Spectral Density. A measure of the signal-to-noise ratio.

EEPROM

Electrically Erasable Programmable ROM. Re-writable memory that holds its content without power. EEPROMs have a lifespan of between 10k and 100k write cycles, which is considerably greater than the EPROMs that preceded them.

EHUMS

Engine HUMS. See HUMS.

ENOB

Effective Number Of Bits.

ES

End System. ARINC 664 Part 7 end-device that produces data to be transmitted over the ARINC 664 Part 7 network.

ESS

Environmental Stress Screening. Process of exposing products to stresses in order to force latent defects to manifest themselves by permanent or catastrophic failure during the screening process.

FAT32

An enhancement of the File Allocation Table file system that supports memory media with capacities up to 2 TB.

FAQ

Frequently Asked Questions. Questions asked by both customers and Curtiss-Wright employees.

FEC

Forward Error Correction. A means of adding extra bits to reduce bit error rates. Common methods are convolutional, reduced parity, and turbo coding.

FDM

Frequency Division Multiplexing. Transmitting multiple data signals simultaneously over a single wire by using multiple carriers, each having a unique center frequency. Each data stream, such as text, voice or video, is placed into a separate carrier that is modulated by various methods.

FDAU

Flight Data Acquisition Unit.

FIFO

First In First Out. A storage method that retrieves the item stored for the longest time.

FQPSK

Feher-patented QPSK. See QPSK.

FSK

Frequency Shift Keying. A simple digital modulation technique that uses two frequencies for 0 and 1. See QPSK.

FSR

Full Scale Range.

FTI

Flight Test Instrumentation. The instrumentation system, including mounting brackets, that is used on an aircraft for flight test purposes. It is usually orange in color in order to distinguish it from standard equipment.

FTP

File Transfer Protocol. File transfer protocol that runs over TCP/IP.

FUMS

Fleet Usage Monitoring System. HUMS for a particular fleet of aircraft (not very common).

GAHMM

Global Aircraft Health Monitoring and Management. Airbus system for predictive maintenance.

GHUMS

Generic HUMS. See HUMS.

GSX-500

Suite of ground-station software products. Some of these products are third-party.

GTS-500

Suite of ground-station hardware products. Some of these products are third-party.

Hamming code

A method by which extra bits can be added to a word so as to detect one (or more) bit errors (and possibly fix them).

hDefML

Hardware Definition Markup Language. A hardware definition schema, used by Acra software to program Acra hardware.

HUMS

Health and Usage Monitoring System. Mostly (and originally) for helicopters. Focused on rotating parts (gear box, shaft) with specific software for frequency analysis and cumulative databases. Variants include E-HUMS (engines), T-HUMS (Turbo prop shafts).

iBIT

Initiated Built-In-Test.

ICMP

Internet Control Management Protocol. An IP protocol used to send error and control messages. The most widely known ICMP function is the Ping command which echoes a message across the network which allows the communication path between end nodes to be tested.

IEEE

Institute of Electrical and Electronic Engineers. A membership organization that includes engineers, scientists, and students in electronics and allied fields.

iDefML

An XML file for each piece of hardware, which outlines the XidML schemas that apply and the constraints imposed for each setting and a pointer to the data sheet. For Acra KAM-500 modules, it also contains register definition and EEPROM generation sections.

IGMP

Internet Group Management Protocol. The protocol that governs the management of multicast groups in an IP network.

ISI

InterSymbol Interference. A form of distortion of a signal in which one symbol interferes with subsequent symbols. This is an unwanted phenomenon as the previous symbols have a similar effect as noise, thus making the communication less reliable.

IRIG

Inter-Range Instrumentation Group. The standards body of the Range Commanders Council (RCC).

IRIG time codes

The different time codes have alphabetic designations. A, B, D, E, G, and H are the standards currently defined. The main difference between codes is their rate, which varies between one pulse per minute and 10,000 pulses per second.

IRIG 106 (Ch.4 Ch.8 Ch.10)

Inter Range Instrumentation Group. IRIG-106 is the main standard in our industry, containing chapters on PCM (ch. 4), MIL-STD-1553 snarfing (ch. 8), solid state storage (Ch.10), and RF standards (appendices).

iNET

Integrated Network Enhanced Telemetry. A program, led by Southwest Research Institute that is developing a standard for next-generation data acquisition systems. A key objective of iNET is to adopt open standard network-based technologies to ensure reduced costs and equipment interoperability.

Since the iNET standard is not released as of 2012, iNET-X is an expedited implementation of the iNET standard that provides the core functionality, technologies, and standards that are outlined in the iNET standard and unlikely to change in the released version of the standard. For the end user, iNET-X provides a phased, safe, and gradual transition towards network based technologies.

IP

Internet Protocol. The network layer protocol OSI stack. The IP layer provides logical IP source and destination addresses for packets that are transmitted across the network.

IP address

The address of a device attached to an IP network. Every network node must have a unique IP address for each network connection. The format of an IP (version 4) address is a 32-bit numeric address, written in dotted quad format. Each number can be zero to 255. For example, 1.160.10.240 could be an IP address. Some IP addresses are reserved. For more information, see http://www.iana.org/numbers

IPC

Institute for Printed Circuits. Class 3 is the best standard for visual inspection of assembled Printed Circuit Boards (PCBs).

IP subnet addressing

Routers, or gateways, are used to separate networks. The router breaks the network into multiple subnets. This result may seem familiar as Class A, B, and C addresses have a self-encoded or default subnet mask built in; class A network address - 255.0.0.0: class B network address - 255.255.0.0: class C network address - 255.255.255.0.

ISO 9000

ISO 9000 is a family of standards for quality management systems. ISO 9000 is maintained by ISO, the International Organization for Standardization. Adhering to an ISO 9000 standard certifies that formalized business processes are being applied.

ISHM

Integrated Systems Health Management. Similar to L/ESS.

JIRA

Curtiss-Wright's internal issue-tracker software.

KAM chassis

Consists of housing, Power Supply Units (PSU), and backplane.

kbps

KiloBits Per Second. A unit of data transfer rate equal to one thousand bits per second.

ksps

KiloSamples Per Second. One thousand samples per second.

kHz

KiloHertz. One thousand cycles per second. It is used to measure the transmission frequency of electronic devices, including channels, buses, and the computer's internal clock.

KGV-69

A chip designed to be a 'bare bones' encryptor for use in very high risk applications. The KGV 69 encrypts and decrypts serial data at up to 50 Mbps.

kV

KiloVolt. One thousand volts.

L/ESS

Loads and Environmental Spectra Survey. Mostly airframe strain gauges.

LNA

Low-Noise Amplifier. An amplifier used in communication systems to amplify very weak signals.

LXI

LAN eXtensions for Instrumentation. A standard developed by the LXI Consortium. The LXI standard defines devices using open-standard LAN (Ethernet) for system inter-device communication.

mA

MilliAmpere. One thousandth of an amp.

MAC

Medium Access Control. The MAC layer adds source and destination hardware address identification to MAC frames transmitted across the Ethernet. The MAC layer also defines the protocol governing the transmission of Ethernet frames over the medium. The MAC layer of wired IEEE 802.3 Ethernet is CSMA/CD whilst the MAC layer of wireless IEEE 802.11 is CSMA/CA.

MAC address

A hardware address which uniquely identifies each node of a network. In IEEE 802 networks, the Data Link Control (DCL) layer of the OSI reference model is divided into two sublayers—the Logical Link Control (LLC) layer and the Media Access Control (MAC) layer. The MAC layer interfaces directly with the network medium. Consequently, each different type of network medium requires a different MAC layer.

Matched filter

The optimum filter required to maximise the signal-to-noise ratio in receivers. The GTS/DEC/003 uses a fully programmable digital matched filter.

Matches to lock

The number of valid sync words (1-16) required after loss before the data is considered valid.

Max

Error, including drift over temperature.
Contrast with Typical.

Mbps

MegaBits Per Second. One million bits per second. (If the B is upper case, it is MegaBytes per Second—one million bytes per second.)

MBps

MegaBytes Per Second. One million bytes per second.
1 MB = 1024 kB.

MHz

MegaHertz. One million cycles per second. It is used to measure the transmission speed of electronic devices, including channels, buses, and the computer's internal clock.

MIL-STD

Military Standard. A detailed technical specification for a product that is purchased by a U.S. military agency.

Misses to loss

The number of sync words (1-16) which fail the match tolerance before data is considered invalid.

ms

MilliSecond. One thousandth of a second.

Msps

MegaSamples Per Second. One thousand samples per second.

MTBF

Mean Time Between Failures. The mean (average) time between failures of a system.

MTU

Maximum Transmission Unit. Maximum packet size allowed to be carried on the network segment. Any packet that exceeds the MTU is fragmented by the intermediate router or switch or may be discarded. Typically the MTU of an Ethernet frame is 1522B on an IEEE 802.3 100BaseTX Ethernet network segment.

mV

MilliVolt. One thousandth of a volt.

NDA (IP)

Non-Disclosure Agreement (Intellectual Properties). A legal contract, between at least two parties, that outlines confidential materials or knowledge which the parties wish to share. As part of the contract, the parties agree not to disclose information covered by the agreement.

NRE

Non-Recurring Engineering. Any task to be carried out by product development becomes an active NRE. Every active NRE culminates in a DVR.

NRZ-L

Non-Return to Zero Level. See PCM Codes.

NRZ-M

Non-Return to Zero Mark. See PCM Codes.

NRZ-S

Non-Return to Zero Space. See PCM Codes.

ns

Nano Second. One billionth of a second (1E-9 seconds).

NTP

Network Time Protocol. Internet time synchronization protocol with millisecond accuracy.

OLM

Operational Loads Monitoring. Mostly airframe strain gauges.

OSI (model)

Open System Interconnection. An ISO standard for worldwide communications that defines a framework for implementing protocols in seven layers. Control is passed from one layer to the next, starting at the application layer in one station, proceeding to the bottom layer, over the channel to the next station and back up the hierarchy.

Package

An element of XidML that describes how data is transported. For example, when starting kExcel we have to select the package (PCM format) to be loaded in SAM/DEC/007.

PAM

Pulse Amplitude Modulation. Pulse modulation in which a voltage is sampled periodically, then transmitted as an analog signal whose amplitude is proportional to the sampled voltage. Because PAM is susceptible to transmission noise, it has been replaced by PCM in most telemetry applications. For more information, see *TEC/NOT/024, Evolution of Pulse Code modulation (PCM)*.

Parser

Primarily a Curtiss-Wright word for a bus monitor that stores whole packets in triple buffers (received, interim, and read) so that specific words from specific packets can be included coherently.

pBIT

Periodic Built-In-Test.

PCB

Printed Circuit Board. A rigid, flat board that holds chips and other electronic components. A PCB legend on a PCB indicates its part number and serial number.

PCM

Pulse Code Modulation. The primary way analog signals are converted into digital form by taking samples of the waveforms from 8 to 192 thousand times per second (8 to 192 kHz) and recording each sample as a digital number from 8 to 24 bits long.

PCM Codes

Any of several encoding schemes used to convert a parallel digital value into a serially transmitted sequence of binary code. For more information on PCM codes, see *TEC/NOT/027, IRIG 106-96 chapter 4*.

PHM

Prognostic Health Monitoring. Like CBM, originally used for wind turbines and generators.

PHUMS

Prognostic HUMS. See HUMS.

PING

Packet Inter-Network Groper (ICMP Echo Request). An Internet utility used to determine whether a particular IP address is reachable by sending out a packet and waiting for a response. PING is used to test and debug a network as well as see if a user or server is online.

PO

Purchase Order. Document issued by a buyer to a seller, indicating the type, quantities and agreed prices for products or services the seller will provide to the buyer.

Port

A number used, in conjunction with the IP address, to indicate one end of an Ethernet conversation. Some port numbers are reserved for particular services. The port number identifies what type of port it is. For example, a server listening for HTTP traffic listens on port 80. Port numbers range from 0 to 65536, but only port numbers 0 to 1024 are reserved for privileged services and designated as well known ports. For more information, see http://www.iana.org/numbers

PTP

Precision Time Protocol, IEEE 1588. GPS-triggered time synchronization protocol with sub-millisecond accuracy.

PPM

Parts Per Million.

Pps

Packets Per Second. The measurement of activity in a local area network.

QoS

Quality of Service. A measure of performance in a data communications system, which may comprise of one or more metrics. In networked-based systems typical QoS metrics include latency, jitter, throughput, and loss. QoS provisioning mechanisms are used to ensure that the system's performance meets the target QoS goals as defined by the relevant QoS metrics.

QPSK

Quadrature Pulse Shift Keying. A digital modulation scheme that conveys data by changing, or modulating, the phase of a reference signal (the carrier wave). See FSK.

QRRC

Quaternary Root Raised Cosine. A base-band modulation that allows almost twice the data rate as PCM/FM in the same RF band.

RAM

Random Access Memory. Memory that is 'byte addressable' and provides direct access to any location on the chip. The contents of any byte can be read or written without regard to the bytes before or after it.

RARP

Reverse ARP. A protocol that retrieves the IP address associated with a given MAC address.

Ratiometric

In electronic or electromechanical systems, it refers to the output voltage as a ratio of the supply voltage. For example, if the input voltage is doubled, the output voltage is doubled.

RCC

Range Commanders Council. The RCC is part of the U.S. Government. See IRIG.

RDAU

Remote Data Acquisition Unit.

Return code

Represents the success condition of a tool. '1' means success; '0' means failure.

RFP

Request for Proposal. Invitation for suppliers, often through a bidding process or invitation to tender, to submit a proposal on specific commodity or service.

RFQ

Request for Quotation. A process where suppliers are invited to bid on specific products or services.

ROM

Rough Order (of) Magnitude estimate. An early cost estimate used to give a rough estimate of what the project will cost to complete.

ROM

Read Only Memory. Memory that permanently stores instructions and data. Its content is created in the last masking stage of the chip manufacturing process and cannot be changed. Although EPROMs, EEPROMs, and particularly flash memory, are the kinds of non-volatile storage one hears about more often, ROM technology is mature and inexpensive.

RMA

Return Merchandise Authorization. An RMA is the official authorization from Acra that it will accept product to be returned from a customer site. An RMA is typically granted by Acra when there is a problem with a product which necessitates its return to Acra for repair, rework, or replacement. RMAs are granted by the Applications Department at Acra.

RNRZ-L

Randomized Non-Return to Zero Level. See PCM Codes.

RTP

Real-time Transport Protocol. Transport protocol running over UDP/IP, used for real-time applications.

RTSP

Real-Time Streaming Protocol. An application level protocol for controlling the delivery of data with real-time properties. RTSP is known as the Internet remote control since it provides a mechanism for users to PLAY, PAUSE, and REWIND selected streams of data. The RTSP protocol only defines how to command real-time streams, it does not define how those streams are delivered across the network.

RX

Receive. A communications abbreviation for receive. Contrast with TX.

RZ

Return to Zero. See PCM Codes.

SDRS

Structural Data Recording System. Similar to SUMS.

SHM

Structural Health Monitoring. Used for civil engineering originally (bridges, buildings) and then airplanes.

SINAD

Signal to Noise And Distortion ratio.

Snarfer

Primarily a Curtiss-Wright word for a bus monitor that stores traffic and tags (such as time) in a FIFO. For example, as per IRIG-106 chapter 8.

SNMP

Simple Network Management Protocol. A widely used network monitoring and control protocol. Data is passed from SNMP agents, which are hardware and/or software processes, reporting activity in each network device, such as a hub, router or bridge, to the workstation console used to oversee the network.

SOQPSK

Shaped Offset Quadrature Phase-Shift Keying. See QPSK.

sps

Samples Per Second.

SRAM

Static RAM. A fast memory technology that requires power to hold its content. Static RAM (SRAM, S-RAM) is used for high-speed registers, caches, and relatively small memory banks such as a frame buffer on a display adapter.

SPHM

Structural Prognostic Health Monitoring. Similar to PHM.

SSS

Smart Source Selector. A Curtiss-Wright technology where elements of link power, signal-to-noise ratio, best bit selection, and best data selection are used in diversity combining.

STP

Shielded Twisted Pair. STP is used in noisy environments where the shield around each of the wire pairs, plus an overall shield, protects against excessive electromagnetic interference. Contrast with UTP.

SUMS

Structural Usage Monitoring System. Mostly used for aerostructures/wings on airplanes.

Switch

A device that can forward Ethernet frames to their destination.

Sync word match tolerance

The number of bits (0-63) that can be incorrect and the sync word is still considered a match.

TATEM

Technologies And Techniques for new Maintenance concepts. EU study with 60 companies under framework program.

TCP

Transmission Control Protocol. A reliable transport protocol, which ensures that all data arrive accurately and 100% intact at the other end by allowing for acknowledgments and retransmissions of lost packets.

TCP/IP

Transmission Control Protocol/Internet Protocol. This de facto Unix standard is the protocol of the Internet and the global standard for communications.

TDM

Time Division Multiplexing. A process by which there is a strictly defined schedule that controls when a node can transmit on the bus.

TDMA

Time Division Multiple Access. A process by which there is a strictly defined schedule that controls when a node can transmit on the bus. Multiple nodes may access the bus.

Telemetry

The science of gathering information at some remote location and transmitting the data to a convenient location to be examined and recorded.

TFTP

Trivial File Transfer Protocol. File transfer protocol that runs over UDP/IP.

THD

Total Harmonic Distortion. A measurement of the harmonic distortion present in a signal. It is defined as the ratio of the sum of the powers of all harmonic components, to the power of the fundamental frequency.

THUMS

Engine HUMS (T=Turbo fan/shaft/jet). See HUMS.

TMATS

TeleMetry Attributes Transfer Standard. ASCII file metadata format for PCM related metadata.

TX

Transmit. A communications abbreviation for transmit. Contrast with RX.

Typical

Error at 25°C.
Contrast with Max.

UDP

User Datagram Protocol. An unreliable connection-less transport protocol which doesn't provide a guarantee that packets will arrive, or that they will arrive in the order in which they were sent. UDP is widely used for streaming audio and video, voice over IP (VoIP), and videoconferencing.

UTP

Unshielded Twisted Pair. A pair of wires that are twisted around each other to minimize interference. Contrast with STP.

VDC

Volts Direct Current. Electricity whose polarity is constantly the same polarity.

VHM

Integrated Vehicle Health Monitoring. Used for NASA space vehicles originally. Relies on extensive network of sensors built into the vehicle.

Viterbi Equalization

A method of taking advantage of known inter-symbol interference inherent in some modulation schemes such as PCM/FM to improve bit error rate.

VHUMS

Vehicle HUMS. See HUMS.

VL

A Virtual Link defines a preconfigured unidirectional connection from one end system to one or more destination end systems in an ARINC 664 Part 7 network.

VLAN

Virtual Local Area Network (Ethernet). A logical subgroup within a local area network that is created via software rather than manually moving cables in the wiring closet.

V_{rms}

Volts Root-Mean-Square. The root-mean-square (rms) voltage of a sinusoidal source of an electromotive force: V_{rms} is used to characterize the source. It is the square root of the time average of the voltage squared.

V_{p-p}

Volts Peak-to-Peak. The difference between the largest voltage in the signal and the lowest voltage in the signal.

WLAN

Wireless Local Area Network (IEEE 802.11). A local area network that transmits over the air typically in the 2.4GHz or 5GHz unlicensed frequency band.

XdefML

XidML Definition Markup Language. A published (on www.xidml.org) validation schema that can optionally be used in conjunction with XidML to allow vendors to specify constraints for their XidML instrument definitions.

Xid

eXtensible Instrumentation Definition. Old metadata standard, now replaced by XidML.

XidML

eXtensible Instrumentation Metadata exchange Mark-up Language. A published metadata schema for how telemetry systems are configured. XidML supersedes XID and Curtiss-Wright's XML. It includes hardware, packet, and processing setup information.

XHUMS

Experimental HUMS. See HUMS.

X-Tools

Versions of some of Curtiss-Wright's software tools, such as X-Setup, X-Report, X-Translate, and X-Validate; introduced in an attempt to popularize XidML.