Kollmorgen Automation Suite

Release Notes



Kollmorgen Automation Suite

INTEGRATED DEVELOPMENT ENVIRONMENT

"Because Motion Matters

Kollmorgen Automation Suite Integrated Development Environment combines a market leading Motion Engine, tightly integrated PLC engine and HMI developer with the ability to configure an array of motion hardware such as motors, drives, gearboxes and actuators as well as automation hardware such as I/O modules and HMI's. Providing both process control capabilities and unsurpassed motion control programming delivers the very best in machine automation technology.

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Keep all manuals as a product component during the life span of the product. Pass all manuals to future users / owners of the product.



Because Motion Matters™

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1 Introduction

Welcome to KAS v2.8! This release contains new features and many improvements. This document is intended to help existing users understand the differences between this and KAS v2.7. If you are new to KAS, we recommend that you start off with other documents, such as the Installation Guide.

This document has five sections:

- "Installation" (see page 7) this section covers system requirements as well as provides firmware, software, and hardware information.
- "What's New" (see page 11) an overview of new features.
- "What's Changed" (see page 17) this section discusses how this release may affect some of your older projects. It let's you know what to do when upgrading, especially if there is anything you need to be careful about.
- "What's Fixed" (see page 18) a list of issues addressed in this release.
- "Known Issues" (see page 19) this section contains issues we are aware of, and methods for avoiding or working around them.

This document contains links to more complete descriptions in the online help. Wherever you find this icon , you may click it and go to the help topic. Please note that these links will not work if this PDF is opened from a location other than the KAS install directory.

2 Installation

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2.1 System Requirements

Element	Description		
Operating System	Microsoft® Windows® 7 SP1 (32 or 64-bit).		
System	TIP For optimal performance, please be sure your operating system is fully updated with the latest patches.		
Processor type	Intel® Pentium® M or equivalent processor at 1.5 GHz or greater.		
Memory	1 GB RAM or greater (which is recommended for complex applications)		
Storage	1 GB hard drive or compact flash space		
Display	WXGA+ (1440 x 900) or higher-resolution monitor with 24-bit color		
	NOTE Better results are achieved with OpenGL and 3D cards		
Connectivity	1 Ethernet port, at either 100Mbits/s or 1Gbits/s.		
	A 100Mb network is required in order to allow the IDE to Runtime communication to work in all conditions. The AKD WorkBench AutoTuner and Scope both require 100Mb of bandwidth to function properly.		
WebServer	A modern web browser is required to access the web server. We recommend Internet Explorer 9 (or later) , Mozilla FireFox , or Google Chrome .		

2.2 Firmware & Software Requirements

KAS is comprised of several software components integrated together to provide a complete motion system. We recommend the following component software versions for best performance and compatibility.

2.2.1 IDE, Controller, and Programmable Drive Software

Software Images	Recommended Version	Download
KAS IDE	2.8.0	n/a
AKD PDMM 800MHz Runtime Firmware	2.8.0	Ø
AKD PDMM 1.2GHz Runtime Firmware	2.8.0	õ
PAC master image (Previous KVB 1.2 runtime pre-installed)	2012-04-30	n/a

2.2.2 AKD Drive Firmware Requirement

KAS is compatible with AKD-M (AKD PDMM Drive, AKD-P (Motion Tasking Drive or Position Indexer), AKD-C, and AKD-N drives. The recommended firmware version is dependent upon your drive's model and revision. The operational image associated with this release is 01-10-00-003.

AKD firmware to	o use with version 2.8		Download
AKD PDMM Serv	o Drive Firmware	AKD-M-MCEC-V01-10-00-003.i00	Ø
AKD EtherCAT d	rive, up to r.8	AKD-P-NAEC-V01-10-00-003.i00	Ø
AKD EtherCAT d	rive, r.9	AKD-P-NBEC-V01-10-00-003.i00	Ø
Resident image		R_00-00-40-000	n/a
1) TIP	Please be aware that yo firmware. This indicates between the two firmwa memory values using Pa	bu may get a F106 error after upgrading yo that non-volatile parameters are not comp re versions. Resetting the drive to the def arameter Load will fix this error.	our AKD aatible ault
(i) TIP	FBUS.PARAM05 bit 5 sl will prevent an error E33	nould be set to 0, which is the default valu 3 and EtherCAT not starting.	le. This
	If it is not set to the def the EtherCAT Station A is writing.	fault, the rotary switch of the drive is used lias. This can conflict with the address that	to set at KAS

2.2.2.1 Mandatory Resident Firmware

The recommended resident firmware is v40. To reliably support the EtherCAT Firmware Download, the resident firmware must be at least version 35. Please contact Kollmorgen for any AKD Drive with resident firmware lower than v35.

2.2.3 Kollmorgen Visualization Builder

Software Images	Recommended Version	Download
Kollmorgen Visualization Builder (KVB) master image	2.0	\bigotimes

The new installation package contains both the IDE and runtime for PAC. KVB runtime installation on the PAC requires that:

• KVB runtime 1.20 should be uninstalled from the PAC prior to the KVB 2.0 runtime installation

• Windows firewall on the PAC should be disabled to allow this feature to work.

The KVB ZIP file contains two different installers:

Install Type	File	Notes
New installation	setup.exe	This is the complete package which will install all prerequisite components.
KVB is already installed	NeoSetup.msi	This package will update your current installation to v2.0
	The KAS IDE creat 2.0 project by doub	tes projects using KVB 2.0. When you open a version le-clicking on it. KVB will upgrade the project to

∥ NOTE	version 2.1. Project Conversion Project Conversion Project must be converted in order to be opened in this version of designer, this operation cannot be undone. Do you want to convert the project now? Version No
①IMPORTANT	KVB 1.2 projects are not compatible with KVB 2.x. An attempt to open a v1.2 project with v2.x will result in an alert message. If accessing v1.2 projects is important, we recommend keeping both versions installed on your system. New panels will automatically use KVB 2.0.
1) TIP	If you have a KVB 1.2 project that needs to be updated in KVB 2.x, please contact Kollmorgen.

2.3 KAS Controls

KAS Runtime is compatible with, and has been verified with the following AKC hardware models:

Description		Model Number	Main Characteristics	
Panel PAC		AKC-PNC-C1-224-10N-00- 000	Mono-core 1.2 GHz CPU, 2GB RAM, 10" display	
Panel PAC		AKC-PNC-C1-224-15N-00- 000	Mono-core 1.2 GHz CPU, 2GB RAM, 15" display	
Panel PAC		AKC-PNC-D1-224-15N-00- 000	Dual-core 1.86 GHz CPU, 2GB RAM, 15" display	
Panel PAC		AKC-PNC-D1-224-17N-00- 000	Dual-core 1.86 GHz CPU, 2GB RAM, 17" display	
Performance Box Controller		AKC-PLC-C1-224-00N-00- 000	Mono-core 1.2 GHz CPU, 2GB RAM	
Performance Box Controller		AKC-PLC-D2-224-00N-00- 000	Dual-core 1.86 GHz CPU, 2GB RAM	
Performance Box Controller		AKC-RMC-D2-224-00N-00- 000	Dual-core 1.86 GHz CPU, 2GB RAM	
AKD PDMM		various		
	kas II PDMM	DE and Simulator should not I.	be installed on a PAC or AKD	
(î) TIP	In order to prevent CF card corruption when shutting down the PAC, we recommend using the Enhanced Write Filter (EWF). This filter redirects all the write operations in memory in order to avoid making physical write operations in the compact flash.			
	The fill program as a no recommod reactiv	ter should be activated on the mmed, and will not change. ew KAS version or download mendation is to turn off the f ate it. Please see the user h	The PAC when it is fully set up, In case of a significant change, such ding a new application, the EWF, make the change, and then help to learn how to use the EWF.	

2.4 Allow Simulator to Use HTTP Communication

The Simulator needs to open HTTP ports to allow communication. The first time Simulator is run, Windows will prompt you to block or unblock the KAS application. You should allow access to all of these requests to ensure correct behavior.

Indows Firewa	I has blocked som vorks.	e features of Kollmorgen Automation Suite on all public, private
52	Name:	Kolmorgen Automation Suite
	Publisher:	Kolimorgen
	Path:	C: \program files \kollmorgen \kollmorgen automation suite \sinope simulator \bin \kassimulator.exe
low Kollmorger	Automation Suite	to communicate on these networks:
Domain ne	etworks, such as a	a workplace network
Private ne	etworks, such as n	iy home or work network
Public net	works, such as th	ose in airports and coffee shops (not recommended

The Simulator uses port 80 for the web server. This communication channel is mandatory for Simulator to work properly. So please close any application, such as VOIP, that may use port 80 before starting Simulator.

For more information see Start KAS Simulator in the online help.

3 What's New

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3.1 Support for 1.2GHz AKD PDMM

The release supports both the AKD PDMM 800MHz (P/N AKD-Mxxxx-MCEC-xxxx) and the AKD PDMM 1.2GHz (P/N AKD-Mxxxx-M1EC-xxxx) variants. Please contact your Kollmorgen Sales Representative for more information on the 1.2GHz.

3.2 EtherCAT Scan and Association

Physical EtherCAT devices, modules, couplers, and slices are discovered during the **Scan Devices** routine and are automatically set as project devices in the Project Tree. These device associations will persist through subsequent scans unless you change them. The **Scan Devices** is accessed by double-clicking the EtherCAT node in the project explorer, then pressing the **Scan Devices** button in the **Devices** tab.



Changing the network's physical topology (by adding moving, or removing devices) or changing the associations between physical devices and project devices will require that **Scan Devices** be run again. The **Discovered Devices and Modules** window will display any changes and the **Modify** button will be enabled. When Modify is clicked the dialog box expands to show Available Project Devices and Modules. Click on a device and drag it to the corresponding **New Device** to create an association. Repeat as necessary for slices and modules.

inforcar to i roject bevit	e Associatio	ons			
Physical Devices and	d Modules		Project Devices and Modules	Projec	ct Devices and Modules
AKD Drive AKD Drive AKT-ECT-000	008-000, 8	Ch. Input (24V, 3.0ms or 0.2ms)	AKD_1 AKD_2 New Device New Device		Coppler 1 DiSlice_1
elected Device Details					
Product Name	AKT-ECT-	-000			
/endor ID	Kollmorg	en			
Revision Number	0x100000)			
Use Description	AKT-ECT- d Devices	and Modules			Available
Use Chescription Use Physical to P Physical to P Physical D C AKC	AKT-ECT- d Devices of roject Device evices and D Drive D Drive -ECT-000	000 EtherCAT Fieldbus coupler and Modules e Associations I Modules	Project Devices and M AKD_1 AKD_2 Coupler_1 Dr(0.2ms) New Device	lodules	Available Project Devices and Module Coupler_1 DISlice_1
Use Construction Use Construction Physical to P Physical to P Physical to P Physical AKI © AKI © AKI Selected Dev	AKT-ECT- roject Devices roject Device evices and D Drive D Drive -ECT-000 4KT-DNX-C rice Details	000 EtherCAT Fieldbus coupler and Modules e Associations I Modules 008-000, 8 Ch. Input (24V, 3.0ms of	Project Devices and M AKD_1 AKD_2 Coupler_1 or 0.2ms) New Device	lodules	Available Project Devices and Module Coupler_1 DISlice_1
Use Selected Dev Vue Physical to P Physical to P Physical to P Selected Dev Product N	AKT-ECT- d Devices and o Drive o Drive - ECT-000 AKT-DNX-C rice Details ame	000 EtherCAT Fieldbus coupler and Modules e Associations I Modules 008-000, 8 Ch. Input (24V, 3.0ms of AKT-ECT-000	Project Devices and M AKD_1 AKD_2 Coupler_1 or 0.2ms) New Device	lodules	Available Project Devices and Module Coupler_1 DISlice_1
Use Selected Description Use Selected Dev Physical to P Physical to P Physical to P Physical to P Selected Dev Product N Vendor ID	AKT-ECT- d Devices roject Devic evices and) Drive) Drive) Drive) Drive (-ECT-000 AKT-DNx-C rice Details ame	000 EtherCAT Fieldbus coupler and Modules e Associations d Modules 008-000, 8 Ch. Input (24V, 3.0ms of AKT-ECT-000 Kollmorgen	Project Devices and M AKD_1 AKD_2 Coupler_1 or 0.2ms) New Device	lodules	Available Project Devices and Module E Coupler_1 DISlice_1
Use Construction Use Physical to P Physical to P Physical to P Construction Selected Dev Product N Vendor ID Revision N	AKT-ECT- d Devices and o Drive vices and o Drive) Drive) Drive i-ECT-000 AKT-DNx-C vice Details ame lumber	000 EtherCAT Fieldbus coupler and Modules e Associations d Modules D08-000, 8 Ch. Input (24V, 3.0ms of AKT-ECT-000 Kollmorgen 0x100000	Project Devices and M AKD_1 AKD_2 Coupler_1 nor 0.2ms) New Device	lodules	Available Project Devices and Module

Once the associations are complete, click **Ok**. Please see the documentation for more detail including troubleshooting unknown devices.

3.3 EtherCAT Device Configuration - MDP Devices

The KAS IDE now incorporates the ability to configure and manage EtherCAT MDP (modular device profile) devices. Devices which meet the ETG.5001 standard may be added to the EtherCAT network in the Project Explorer and modules may be mapped to them. This includes devices such as I/O device modules, safety device modules, or fieldbus gateway modules.

3.3.1 Limitations

- Flexible (non-fixed) PDO object mapping is not yet supported.
- Non-Kollmorgen servo drives are not supported. Kollmorgen servo drives are fully supported, preintegrated, and certified for operation with KAS.

3.4 Coordinated Motion

3.4.1 nD Linear Motion

Several PLCopen coordinated motion Function Blocks have been enhanced to support multidimensional linear moves. These function blocks are applied to axes groups which may have 2 to 128 axes.

MC_GrpHalt	MC_GrpSetOverride	MC_GrpSetPos	MC_GrpStop
MC_MoveDirAbs	MC_MoveDirRel	MC_MoveLinAbs	MC_MoveLinRel
	Axis groups for circular moves	are still limited to 2 axes.	An error will be



NOTE generated if a circular move is commanded on an axes group that contains more than 2 axes

3.4.2 3D Linear Motion

3.4.2.1 Transitions

Linear moves using MC_MoveLinAbs and MC_MoveLinRel have been extended to support transitions that contain 3 Axes in the Axes Group.

/ NOTE	 Transitions cannot be performed between: two linear moves (MC_MovLinAbs or MC_MovLinRel) which contain more than 3 axes.
	 any combination of a linear move (MC_MovLinAbs or MC_ MovLinRel) and a circular move (MC_MoveCirAbs or MC_ MoveCirRel), if the Axes Group contains more than 2 axes.
	 two circular moves (MC_MoveCircAbs or MC_MoveCircRel) if the axes group contains more than 2 axes. In each case an error will be generated.
① TIP	Please see the documentation to understand special cases, such as 180° , 0° , and 0 distance transitions between two linear moves.

3.4.2.2 Coordinated Motion Template

A new project template named 3 Axes Linear (3D) has been added. This template is designed to assist programmers in creating a 3D linear coordinated motion application as quickly as possible. The template demonstrates how to use 3D linear coordinated motion with transitions, blending, and a homing cycle with PLCopen axes. The program's path follows a square and diamond pattern on a rotated plane. See the online help for more information.

	? ×
🕒 💻 Add new contro	iller
Choose an applicat	ion template
Template Type	•
PipeNetwork	Library
PLCopen	
Coordinated Motion	
Name	Description
3 Axes Linear/Circular	Raster Scan Motion Path, 2 PLCopen axes + 1 Pipe Network axis
3 Axes Linear (3D)	Diamond/Square Motion Path, 3 PLCopen axes
2 Axes-Linear/Circular	Raster Scan Motion Path, 2 PLCopen axes
	Finish Cancel

3.5 Communication

3.5.1 UDP Socket Interface

UDP (User Datagram Protocol) is a communications protocol which allows computers to exchange messages across an IP network. AKD PDMMs may now communicate with remote computers or other AKD PDMMs using the UDP functions. The functions may be found under **PLC Standard** in the **Libraries**.

Prepare a UDP address Close a socket Create a UDP socket
Close a socket Create a UDP socket
Create a UDP socket
Check if a socket is valid
Receive a telegram
Receive a telegram
Send a telegram
Send a telegram
F

NOTE

This functionality is not supported on PACs.

Controller Properties

3.5.2 Remote Access to PLC Variables

PLC variables on a PAC or AKD PDMM may be read/written by third-party software via an HTTP request. The read/write is synchronized with the PLC cycle and multiple variables may be read/written within a single request.

This option is disabled by default for security reasons. To use this function, select Enable PLC variable remote access from the Controller Properties when Online Change is disabled.

The HTTP requests may be done as comma delimited text, or JSON (JavaScript Object Notation) format. This means that applications may be developed on any platform which supports HTTP, and in many different languages, e.g. Java, C#, and C++.

The URL and syntax for both reading and writing variables is (controller URL) /kas/plcvariables&format=<MIME type>.

Controller Configuration 127.0.0.1 IP Address • Controller Type O PAC PDMM Project Version Doy bject source to the controller Enable PLC variable remote access ModBus Configuration KVB Panel Other Modbus devices OK Cancel

X

The plain text syntax for getting or putting variables is as follows.

Request	Syntax	Example
GET	<var1>,<var2></var2></var1>	http://198.51.100.0/kas/plcvariables?
		MachineSpeed,projST.LocalVariable

Request	Syntax	Example
PUT	<var1>=<val1>,<var2>=<var2></var2></var2></val1></var1>	http://198.51.100.0/kas/plcvariables? MachineSpeed=100.000000,projST. LocalVariable='SampleString'
(j) TIP	A quick and easy way to test this f fox add-on.	unctionality is to use HttpRequester, a Fire-

3.6 Kollmorgen Visualization Builder 2.1

The Kollmorgen Visualization Builder has been updated to version 2.1 to improve compatibility, ease-of-use, and to support HMI models AKI-CDC-MOD-xxx-000. KVB 2.1 is pre-installed on these HMI and is available for download from Kollmorgen.com. KVB 2.1 is not included in the KAS 2.8 installation.

If you upgrade to KVB 2.1, existing projects will need to be updated to be compatible with this latest verion. Opening a project from the KAS IDE causes an alert message to appear. Clicking **Yes** converts the project to v2.1.

?	Project Conversion Project must be converted in order to be opened in this version of designer, this operation cannot be undone. Do you want to convert the project now?
	Yes No

Once updated to v2.1, projects cannot be converted back to earlier versions.

3.7 Fieldbus Communiation

3.7.1 EDS File

The KAS IDE installation now contains an Ethernet/IP EDS file for the AKD PDMM and PAC. This file is used by third party tools when the KAS controller is configured as an Ethernet/IP Adapter. By default the EDS file is located in C:\Program Files (x86) \Kollmorgen\Kollmorgen Automation Suite\Astrolabe\Bin\EDS\KAS_ Controller EIP.eds.

3.8 IDE Improvement

3.8.1 Edit Variable As Text

An easy alternative method for editing variables is to edit them as text. This is accessed by right-clicking on a variable in the Dictionary. All variables of a POU and/or type definition may be added, deleted, or edited from an editing dialog box in the IEC61131-3 format. The editor contains basic text editing functions such as Save, Undo, Redo, Cut, Copy, and Paste. Upon saving, the variables are validated and if there are errors, they are reported at the bottom of the editor and the changes are not saved.

END_VAR		Ŧ
٠ 📄	•	
Errors		
(Global): (5): LEAL: Unknown data type (Global): (7): Axis2Status: *," expected after variable declaration (Global): (14): KDL_VAR: "expected after variable declaration (Global): (15): VAR: END_VAR expected		

3.8.2 Reset IDE Layout to default

The KAS IDE can be restored to its default layout by selecting **Reset IDE layout** from the **Window** menu or pressing Alt+R. Floating or hidden items are made visible and returned to their default positions. Elements that may be reset include the Project Explorer, Libraries, Dictionary, Information and Logs, Watch Window, and Toolbars.

4 What's Changed

This section discusses changes in products that you should be aware of.

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4.1 Change in Behavior

• PLC variable locking is disabled by default.

This function has been disabled by default for optimal performance. This is now a selection in the **PLC options** dialog box, which must be activated if you need it.

4.2 Removed Features

• MC_SetPosition Function Is Deprecated

This Function has been removed from the standard library and has been replaced with a new function block MC_SetPos. Applications that are still using the deprecated function will still compile, but a warning message will appear. If this warning message appears, we recommend that you replace this function with MC_SetPos.

5 What's Fixed

Following are the issues corrected by this release.

#	Issue	Found in
2373	MIBIkIsReady doesn't work as expected	2.1
2699	Very slow communication with AKD GUI WB with a PLC calling periodically DriveParamRead	Legacy
2861	KBus coupler remains in preop after scan	2.7
2974	Cannot operate Beckhoff slice EL2252	2.7
2978	Compile and download button grayed out ,if there was a compilation issue during the last compile	2.7
2998	When we rename the variable name in watch window it shows wrong value	2.7
2999	Multiple compiler errors in SFC editor	2.7
3007	No popup when disconnecting the IDE from controller after drive parameters modifications in online config mode	2.7
3010	Not able to restart an application when at least one AKD drive is in error	2.7
3033	The function MLProfileBuild returns error if negative values are used for slave output scaling	2.5
3044	KAS IDE crashes if the application starts while we are updating the variable name of a Control Panel control	2.7
3048	MC_MoveCircAbs function block failing (error 50)	2.7
3050	Watch window not loaded	2.7
3063	Rollover/SetPos/AbsMov problem	2.7
3070	Digitizing axis modulo makes a jump down	2.7
3077	MLAxisWritePos with Non-Modulo Axis sync error.	2.7
3083	Modulo axis never stops with high acc/dec/speed values	2.7
3084	Spinning wheels do not show up in WebServer for template unless actually scanned network	2.7
3088	Crash when double-clicking twice on a KAS project to open it	2.7
3097	plcopen MC_GearIN not accurate with some ratios and fb scaling	2.7
3103	Using Function Block ProfilesCode causes compile errors in Free Form Ladder POUs when adding more cam profiles to the project.	2.7
3106	From DT-3092 Interlocking the MLCamSwitch() function.	2.7
3107	From DT-3092 It is possible to generate bad values from a Profile (Divide by Zero?).	2.7
3108	From DT-3092 Sometimes an extra Profile cycle offset is added at the start of a cam profile following an MLCamSwitch().	2.7
3112	PLCOpen: capturing virtual servo postion does not work correctly	2.7
3122	PLC Online Change download failing (PDMM with EthIP config)	2.7
3125	Scope does not show correct value for PLCOpenAxis/CommandPosition	2.7
3126	MC_GearIn with jerk<>0 takes much time to set the InGear	2.7

6 Known Issues

6.1 Known Limitations

6.1.1 IDE Limitations	
6.1.2 KVB Limitations	
6.1.3 EtherCAT Limitations	
6.1.4 PAC Limitations	

6.1.1 IDE Limitations

- Undo: The Undo action is not supported for AKD GUI views, control panel, or the EtherCAT view.
- **Softscope:** Heavily loaded applications using all 8 channels plugged with derivatives can lose connection with the IDE. This is unusual but if you experience this, please contact Support.
- Find/Search/Replace function limitations:
 - Search & Replace function is not supported in Pipe Network.
 - · Search & Replace for HMI are supported only with using CTRL+F
- SFC programs
 - Intellisense: Intellisense is not active in Sequential Function Chart (SFC) programs.
 - **Breakpoints:** In SFC programs, breakpoints can only be set on transitions (i.e. in First Level diagram), and not in steps or conditions. If a breakpoint is set on a transition, you can debug cycle by cycle.
- PLC Variable mapping: each PLC variable can be mapped to an EtherCAT IO and exclusively to:
 - Modbus for an HMI
 - Or to an PDMM onboard IO
 - Or to an external driver like Profibus

For example we cannot map the same PLC variable to Modbus and Onboard PDMM IO, but this is possible with a regular EtherCAT IO.

- Online Change: Modified cam profiles are detected by the IDE but will not be updated to the controller, even if you choose to force the update. (DT-3013)
- **Downloading Project to a Controller:** If the Ethernet cable is disconnected when downloading a KAS project to a controller, the IDE will freeze for 2-3 minutes. Re-downloading the application will not work. To recover from this condition, restart the KAS Runtime on the controller or poweroff/on the controller and restart the IDE. (DT-3011)
- Upgrading 17 AKD drives firmware: If selecting 17 (or more) drives to upgrade firmware, the first 16 drives will be upgraded properly, but the 17th (and higher) drives will not be upgraded. No errors will be reported in the IDE. (DT-2968)
- Analog Input Slice Offset Parameter: The offset parameter for Kollmorgen analog input slices is not supported. Changes the offset parameter will have no effect. The gain parameter is working properly. (DT-2935)

6.1.2 KVB Limitations

- Variables: The Modbus variables are imported to KVB when KVB is opened. They are not updated cyclically after opening. If other variables are exported in the IDE, KVB should be closed and reopened.
- Alarm stops updating a tag value: It's not advised to modify in the AlarmServer action on the same tag as the one used to trigger it. A different variable should be used.
- Running KVB with Simulator: There is a known issue when using Simulator on some PCs running Windows 7 Home Premium Edition. To work-around this issue, delete the *Platform* system variable:
- Autostart: When a KVB project is sent to an IPC using the Download feature, the project may not Autostart. The workaround is to start the project manually from C:\Documents and Set-tings\All Users\Documents\Kollmorgen Corporation\Kollmorgen Visualization Builder™ 2\(ProjectName).
- Web Browser for AKI-CDB-xxx panels: While a web browser component may be added to a AKI-CDB-xxx panel, this component on the CDB panels is fairly limited. For example, KAS web server controller cannot be displayed.

variable	Value	Value		
TEMP TMP	%USERPROFILE%\AppData\Local\Temp %USERPROFILE%\AppData\Local\Temp			
	New Edit Delete	!		
ystem variables		_		
Variable	Value	-		
Variable PCBRAND	Value Pavilion			
Variable PCBRAND Platform	Value Pavilion MCD			
Variable PCBRAND <mark>Platform</mark> PROCESSOR_/ PROCESSOR_J	Value Pavilion MCD A AMD64 D Intel64 Family 6 Model 42 Stepping 7, G	•		

6.1.3 EtherCAT Limitations

- **Cabling:** Plugging the EtherCAT cable from an OUT port to an OUT port is not detected and not reported as an error.
- **Cabling:** The following pertains to cases where an Ethernet hub is present between the PAC and the first EtherCAT device. If the cable between the hub and the EtherCAT device is disconnected, the controller will not stop the motion and the axis will not be shown as being in fault. The axis will only display the fault state after the cable is reconnected. To recover from this situation the PAC must be power cycled.
- External EtherCAT Configuration: If an external EtherCAT XML file needs to be used, the file AKD-for-KAS.xml should be used as the ESI file for AKD. This ensures proper operation with KAS. It can be found at C:\User-

s\<user.name>\AppData\Local\Kollmorgen\KAS\Astrolabe\ESI\.

 AKD drive cannot reach operation mode: If the primary feedback cable for an AKD is disconnected during EtherCAT network initialization, the AKD will not reach operation mode. To recover from this condition, connect the primary feedback cable and restart the application. (DT-2796)

6.1.4 PAC Limitations

• A38 Alarm: On the PAC High Range, at 4Khz, user may experience a A38 alarm when having roughly 20 or more drives. This issue means the ECAT frame does not return back to the controller within the same EtherCAT cycle.

About Kollmorgen

Kollmorgen is a leading provider of motion systems and components for machine builders. Through worldclass knowledge in motion, industry-leading quality and deep expertise in linking and integrating standard and custom products, Kollmorgen delivers breakthrough solutions that are unmatched in performance, reliability and ease-of-use, giving machine builders an irrefutable marketplace advantage.

For assistance with your application needs, visit www.kollmorgen.com or contact us at:

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