AMX G5 Considerations

Revision 1.27, July 3, 2014

CONTENTS

G5 OVERVIEW

AMX is excited to bring you the next generation in touch panel control, design and functionality. G5 opens up a whole new world of features and functionality for now and in the future. The possibilities are truly endless. G5 is a new platform for AMX with many new features along with a few changes. This is a big change for AMX and its dealers, but our goal is to help make the transition as smooth as possible. Unlike previous generations, G5 is not a seamless backwards-compatible update. G5 is a brand new, streamlined approach and with that comes changes in touch panel design and NetLinx programming. With that in mind, we want to help make this transition as easy as possible by providing, up front, those changes that will likely impact our dealers the most.

A comprehensive list of changes can be found in the Appendix.

NEW FEATURES IN G5

Some of the major new features in G5 are as follows:

- **Enterprise software updates**: A G5 product can be instructed to go fetch new firmware or other software such as touch panels files from a specified URL.

- **Application (App) support**: The following apps will be available with the initial release of G5

  o Skype, Calendar, Contacts, Web browser, Office document viewer, PDF file viewer, Weather, Currency converter, Calculator, VNC, Gallery image viewer, Stock ticker, Dropbox

- **Layered bitmaps**: Ability to place multiple bitmap files on a single button

- **Auto-scaling of bitmaps on a button**

- **Gradient fills**

- **Collapsible pop-ups**: Pop-ups that can slide into view by means of gestures.

TRANSITIONING FROM G4 TO G5

G5 is a new operating system for the Modero X Series and existing TPDesign4 files are not compatible with G5 touch panels. A new software tool, TPDesign5, is required to design touch panel files for G5 systems. TPDesign5 is similar in look and feel to TPDesign4 and can be installed concurrently with TPDesign4 to enable the developer to design for both G4 and G5 systems at the same time. TPDesign5 also contains a utility called G4Utility that will convert existing TP4 files to TP5-formatted files. G4Utility does a pretty good job of converting most TP4 files, however, given the enormous variations of TP4 files currently in the field, some tweaking of the converted TP5 file may still be necessary after conversion.

FEATURES NOT YET AVAILBLE IN G5

The following features are currently supported in the Modero X G4 Series Touch Panels and will be supported by G5 in a future software update:

- Bluetooth

- Recovery Mode firmware update (ability to update firmware by inserting a USB drive into the panel at boot time)

    o Firmware update still supported via network and USB drive after panel has booted

- Dynamic reordering of sub-pages

OPTIMIZED COMMAND SET WITH CONSISTENT FORMATTING

If something needs to be done via a command, only one command is necessary. There is no need to support multiple commands that do the same thing. Furthermore, the current G4 command set is currently a mix of G4, G3 and even some G2 command formats. All commands supported in G5 will be altered as necessary to adhere to the current G4 command format (utilizing the ^xxx or ?xxx formats), with a few exceptions noted in this document. The following table lists which commands should be used and which commands have gone away in the initial release of G5 (i.e. LR), unless otherwise noted.

Please note that the ^BMF/@BMF command as well as the ^BMC command have been removed completely and are not supported in G5 now, or in the future.

Please note that commands <mark>highlighted in yellow</mark> are new commands for G5 and are not implemented in any current or future G4 product.

Related Feature	Use This	Instead Of
All Features	Anything listed below	^BMF (all parameters), @BMF (all parameters), ^BMC (all parameters)
Audio Control	?VOL and Custom Event 1306, ^VOL, ?MUT and Custom Event 1305, ^MUT	?MCO and Custom Event 1314
Bargraph Control	^GLL, ^GLH	^BMF…%GL, @BMF…%GL, ^BMF…%GH, @BMF…%GH
Bitmap Assignment	?BMP and Custom Event 1002,	@BMP, ^BMF…%P, @BMF…%P

	^BMP, ?BMX (NEW COMMAND!) and Custom Event 1018 (NEW EVENT), ^BMX (NEW COMMAND!)	
Bitmap Justification	?JSB and Custom Event 1005	^JSB , ^BMF…%JB, @BMF…%JB
Brightness	?BRT and Custom Event 1303, ^BRT (NEW COMMAND!)	BRIT, @BRT
Button Enable/Disable	^ENA	@ENA, ^BMF…%EN, @BMF…%EN
Button Hide/Show	^SHO	@SHO, ^BMF…%SW, @BMF…%SW
Button Opacity	^BOP	?BOP and Custom Event 1015, ^BMF…%OP, @BMF…%OP
Button Size/Location	^BSP (NEW PARAMETERS!)	^BMF…%R, @BMF…%R, G4 version of ^BSP
Dynamic Image Assignment	^BBR	
Dynamic Image Control	^RFR, ^RFRP, ^RSR, ^RAF/^RMF…%A, %C, %D, %F, %H, %P, %R, %S, %U, %V, Custom Event 1400	^RAF/^RMF…%M, %N
Factory Reset	^RSS	
Fill Color	^BCF	?BCF and Custom Event 1012, ^BMF…%CF, @BMF…%CF
Gestures	^GCE, Custom Event 600	
Keyboard, Popup	^AKB (NEW COMMAND!), ^VKS (NEW COMMAND!), ^BIT (NEW COMMAND!)	AKEYB, @AKB
Keyboard, Private Popup	^PKB (NEW COMMAND!)	PKEYB, @PKB
Keyboard/Keypad, Remove	^AKR (NEW COMMAND!)	AKEYR, @AKR, PKEYR

Keyboard, Virtual Popup	^VKB **(NEW COMMAND!)**	@VKB
Keypad, Extended Popup	^EKP **(NEW COMMAND!)**	@EKP
Keypad, Private Popup	^PKP **(NEW COMMAND!)**	PKEYP, @PKP
Keypad, Telephone Popup	^TKP **(NEW COMMAND!)**	@TKP
Keypad, Time/Date Popup	^DKP **(NEW COMMAND!)**	
Keypad, Virtual Popup	^VKP **(NEW COMMAND!)** ^AKP **(NEW COMMAND!)**	AKEYP, @AKP
MAC Address	?MAC and Custom Event 1315	
Multi-State Button Animation	^ANI	
NFC	Custom Event 700	
Page Flips (Non-Animated)	^PGE **(NEW COMMAND!)**, ^APF, ^CPF	PAGE, ^DPF
Page Tracking ***NOTE: The commands '@PPN' and '@PPF' will remain the same in order to support backwards compatibility of the Page Tracking feature.**	^TPF **(NEW COMMAND!)**, ^TPN **(NEW COMMAND!)**, ^PGE (notification) **(NEW COMMAND!)**, PAGE (Notification)	TPAGEOFF, TPAGEON
Popups, Activate	^PPN **(NEW COMMAND!)**, @PPN	PPON
Popups, Close All	^PPX **(NEW COMMAND!)**	@PPX
Popups, Close All on Page	^PPA **(NEW COMMAND!)**	@PPA
Popups, Deactivate	^PPF **(NEW COMMAND!)**, @PPF	PPOF
Popups, Timeout	^PPT **(NEW COMMAND!)**	@PPT
Popups, Toggle	^PPG **(NEW COMMAND!)**	@PPG, PPOG
Popups, Kill	^PPK **(NEW COMMAND!)**	@PPK

Power Management	^SLP **(NEW COMMAND!)**, ^WKE **(NEW COMMAND!)**, ^SSL **(NEW COMMAND!)**, ^SWK **(NEW COMMAND!)**	SLEEP, WAKE, @SSL, @SWK
Setup Pages	^STP **(NEW COMMAND!)**	SETUP
Sub-Page Control	^SSH, ^SHD, ^STG, ^SHA **(NEW COMMAND!)**, ^SPD **(NEW COMMAND!)**	^BMF…%SH, @BMF…%SH, ^BMF…%SP, @BMF…%SP
Sub-Page Custom Events & Notifications	?SCE, ^SCE and related Custom Events	
Sub-Pages, Spacing	^SPD **(NEW COMMAND!)**	^BMF…%SP, @BMF…%SP
System Sounds	^ABP **(NEW COMMAND!)**, ^ADB **(NEW COMMAND!)**, ^SOU **(NEW COMMAND!)**	ABEEP, ADBEEP, BEEP, DBEEP, QBEEP, @SOU
Text	?TXT and Custom Event 1001, ^TXT, ^UNI, ^BAT, ^BAU	!T, TEXT, @TXT, @UNI, ^BMF…%T, @BMF…%T, ^BMF…%UN, @BMF…%UN
Text Input Area Button, Focus	^BSF	^BMF…%SF, @BMF…%SF
Text Input Area Button, Submit	^BSM, <ButtonName>-<UserText> (Notification) **(NEW NOTIFICATION!)**	^BMF…%SM, @BMF…%SM, TEXTINPUT (notification)
Video Fill	^DMM, ^SDM, ^SLT, ?SLT and Custom Event 770, ?BOS and Custom Event 1017, ^BOS, Custom Event 768	^BLN, ^BMF…%LN, @BMF…%LN, @BOS, ^BMF…%VI, @BMF…%VI

Revision 1.27, July 3, 2014

DESIGN TIME DECISIONS VS. RUNTIME DECISIONS

Another new philosophy of G5 is that not everything will be editable via NetLinx commands. Some decisions are better made at the design time of the touch panel pages rather than at runtime in the NetLinx code; therefore, these features should be set in TPD5 rather than in NetLinx code. If these types of changes are needed at runtime, AMX recommends the use of multi-state buttons that are designed in TPD5. In the long run, this can significantly simplify the NetLinx code and make maintenance and future changes easier to incorporate.

Feature	Obsolete Commands
Bargraph Control	^GDI, ^GDV, ^GRU, ^GRD, ^GDR, ^BMF…%GG, @BMF…%GG, ^BMF…%GV, @BMF…%GV, ^BMF…%GU, @BMF…%GU, ^BMF…%GD, @BMF…%GD, ^BMF…%GR, @BMF…%GR
Bargraph Orientation	^GIV, ^BMF…%GI, @BMF…%GI
Bargraph Slider Name/Color	^GSN, ^GSC, ^BMF…%GN, @BMF…%GN, ^BMF…%GC, @BMF…%GC
Bitmap Scaling	^STF , ^BMF…%SC, @BMF…%SC
Border Color	?BCB and Custom Event 1011, ^BCB , ^BMF…%CB, @BMF…%CB
Border Style/Definition	?BRD and Custom Event 1014, ^BRD , ^BOR, @BOR, ^BMF…%B, @BMF…%B
Button Copy	^BMC
Button Feedback	^BFB, ^BMF…%OT, @BMF…%OT
Button Sounds	^BSO, ^BMF…%SO, @BMF…%SO
Display Timeout	?DTO and Custom Event 1302, ^DTO
Draw Order	^BDO, ^BMF…%DO, @BMF…%DO NOTE: G5 supports a modified static draw order which does NOT support Icons, but does support multiple bitmaps and uses the following bottom-to-top order: Fill, Bitmaps [], Text, Border. See Appendix C for additional information.
Font	?FON and Custom Event 1007, ^FON , @FON, ^BMF…%F,

	@BMF…%F
Popup Effects, Hide	@PHE, @PHP, @PHT
Popup Effects, Show	@PSE, @PSP, @PST
Popup Groups	@APG, @CPG, @DPG
Popup Modality	@PPM
Popup Reset on Show	@PDR
Sub-Pages, Control	^BMF…%SS, @BMF…%SS
Sub-Pages, Orientation	^BMF…%OR, @BMF…%OR
Sub-Pages, Reset View on Show	^BMF…%VR, @BMF…%VR
Sub-Pages, Viewer Scroll Bar	^SBE, ^SBO
Sub-Pages, Weighting	^BMF…%AP, @BMF…%AP
Text Color	?BCT and Custom Event 1013, ^BCT , ^BMF…%CT, @BMF…%CT
Text Effect Color	?TEC and Custom Event 1009, ^TEC , ^BMF…%EC, @BMF…%EC
Text Effects	?TEF and Custom Event 1008, ^TEF , ^BMF…%EF, @BMF…%EF
Text Input Area Button, Input Mask	^BIM, ^BMF…%MK, @BMF…%MK
Text Input Area Button, Max Text Length	^BML, ^BMF…%ML, @BMF…%ML
Text Justification	?JST and Custom Event 1004, ^JST , ^JUS, @JUS, ^BMF…%J, @BMF…%J, ^BMF…%JT, @BMF…%JT
Word Wrap	?BWW and Custom Event 1010, ^BWW, ^BMF…%WW, @BMF…%WW

CHANGES TO EXISTING FEATURES

Due to the change in platform from G4 and G5, it is not possible to maintain everything exactly as it was. Some features are implemented differently, resulting in slightly different results than previously expected. The 'G4Utility' column indicates what the G4Utility tool will replace G4 features listed in the 'Instead Of' column with in the resulting TPD5 file.

Please note that commands <mark>highlighted in yellow</mark> are new commands for G5 and are not implemented in any current or future G4 product.

Feature	Use This	Instead Of	G4Utility Behavior	Notes
Bargraph, Level Functionality	Display, Active	Active Centering, Drag, Drag Centering	Replaces Active Centering, Drag, and Drag Centering with Display.	Active Centering, Drag, and Drag Centering are under consideration for Future Support.
Bargraph, Level Range	Low, High, Inverted, Time Up, Time Down	Drag Increment	Removed	Drag Increment is under consideration for Future Support.
Bargraph, Slider Names	None, Circle, Precision, Rectangle	Ball, Smart Button Bubbled, Windows, Windows Active	Replaces all unsupported types with None (Post release 1.0.20).	
Button, Feedback Types	None, Channel, Channel Inverted, Momentary, Always On	Blink	Replaces Blink with Channel.	

Revision 1.27, July 3, 2014

Button, Border Styles/Definitions	The following borders are supported in G5: None, Single Line, Double Line, Circle, Menu Rounded-Bottom, Menu Rounded-Left, Menu Rounded–Right, Menu Rounded-Top, Menu Rounded-Spacers, Ovals Horizontal, Ovals Vertical	The following borders are obsolete and not supported in G5: Quad Line, Picture Frame, Fuzzy, Glow, AMX Elite Raised, AMX Elite Inset, Bevel Raised, Bevel Inset, Cursor, Cursor with Hole, Neon Inactive, Neon Active Off, Neon Active On, Smart Button Bubbled, Smart Button Squared, Diamond, Double Bevel Raised, Double Bevel Inset, Custom Frame, Help Down, Help Down Reversed, News Header, Windows Style Popup, Windows Style Popup Status Bar	Converts all unsupported border styles to None.	
Button, Button Types	General, Multi-State, Bargraph, Multi-State Bargraph, Text Input Area, Sub-Page View	Joystick, Computer Control, TakeNote	Deletes Joystick, Computer Control and TakeNote button types completely.	Computer Control is being considered as part of the GA G5 implementation. TakeNote is being considered as an Add-On Application.
Chameleon Images		^BMI, ^BMF…%MI, @BMF…%MI	Unaltered by G4Utility; however, displayed differently by G5. See	Not recommended; only a limited implementation is supported – See Appendix C

			Appendix C.	for more details.
Dynamic Images, Escape Sequences	$AC, $AP, $BN, $BX, $BY, $CC, $CP, $DV, $HN, $IP, $LC, $LP, $MC, $PX, $PY, $ST, $SY	$ID	N/A	
Font Rendering			See Appendix C	
G4 Web Control (VNC Server)		^WCN	N/A	
Gestures	Swipe Up/Down/Left/Right, Double Tap, 2 Finger Swipe Up/Down/Left/Right	Clockwise Circle, Counter-Clockwise Circle	In future release, all supported gestures are moved from External buttons to page events. Currently, all gestures are deleted.	
Master, Connection Types	Auto, URL-TCP, LISTEN	NDP, URL-UDP	N/A	
Passwords	Protected Password	Password 1-4 and Protected Password	Removes all password protection related to buttons.	There is only one password now.
Telnet/SSH	SSH	Telnet	N/A	The G5 platform currently supports SSH only.

Text Effects, Styles/Definitions	None, Hard Drop Shadow (1-8), Medium Drop Shadow (1-8), Soft Drop Shadow (1-8)	None, Glow (S,M,L,X), Outline (S,M,L,X), Hard Drop Shadow with Outline (1-8), Medium Drop Shadow with Outline (1-8), Soft Drop Shadow with Outline (1-8)	Converts all Drop Shadow with Outline styles to Drop Shadow only styles; All others will be replaced with None.	
Video, Input/Streaming Types	MPEG2-TS over UDP MJPEG over HTTP	RTSP over UDP	N/A	

OBSOLETE FEATURES & PROPERTIES

The following features, properties and commands are no longer available for G5 products. The 'G4Utility' column indicates what the G4Utility tool will replace G4 features listed in the 'Feature and/or Property' column with in the resulting TPD5 file. Note that the G4Utility tool does not handle NetLinx code, only changing features and properties in the existing TPD4 file.

Obsolete commands sent to a G5 panel will receive a command error in return, indicating that the command is not supported.

Feature and/or Property	Related Commands that go away	G4Utility	Notes
Button, Above Popups Setting		Removes this property completely	
Button, Joystick Type		Removes this button type completely.	
Button, Marquee-Style Text		Removes this property completely	
Camera	?CAM, CAM (query response)	N/A	
Diagnostic Logs, Commands	?LOG and Custom Event 1311	N/A	Diagnostic Logs are still available via the Settings application and SSH msg command.
Dynamic Images, Hardware Acceleration		N/A	
FAST Dynamo		Removes the Dynamo flag from all dynamic images in the Resource Manager.	
FTP	^RAF…%N, ^RMF…%N	Removes the FTP flag from all resources. All	Any FTP sources used in G4 will need to be replaced with HTTP

		resources are assumed to be http.	after conversion.
Icons, Icon Alignment & Justification	?ICO and Custom Event 1003, ^ICO, @ICO, ^BMF…%I, @BMF…%I, ?JSI and Custom Event 1006, ^JSI, ^BMF…%JI, @BMF…%JI	Converts state icons & justifications to an additional bitmap in the G5 multi-bitmap format. See Draw Order under Design Time Decisions and Appendix C.	G5 supports multiple bitmaps per button instead of a single bitmap and single icon.
Image Cache, Commands	^CEX, ^CFE, ^CFS, CFSM, ^CPR	N/A	
Infrared	^IRM, ^IRS, ?IRE and Custom Event 1321, ^IRE	N/A	The G5 product line does not currently support Infrared. Should the feature be added in the future, these commands may be implemented at that time.
Lamp Hours	?LMP and Custom Event 1312	N/A	
Light Sensor, Commands	?LIA and Custom Event 1319, ^LIA, ?LIT and Custom Event 1320, ^LIT	N/A	
List Boxes	^LDA, ^LDC, ^LDD, ^LDL, ^LDN, ^LDR, ^LDT, ^LDW, ^LDX, ^LRO, ^LVC, ^LVF, ^LVH, ^LVL, ^LVM, ^LVO, ^LVP, ^LVS, ^LVT, ^LVU	Deletes these completely.	
Motion Sensor, Commands	?MSA and Custom Event 1316, ^MSA, ?MST and Custom Event 1317, ^MST, ?MTA and Custom Event 1318, ^MTA	N/A	

Revision 1.27, July 3, 2014

Panel, Maintenance	SAFE, ^SAV, ZAP!, LZAP!	N/A	
Password Protection (except Password 5)	^BPP, ^PWD, @PWD	Removes all password protection related to buttons.	This is still possible via NetLinx code.
Picture View	^PIC	N/A	
Popups, Location & Size	?PUS and Custom Event 1324, ?PUL and Custom Event 1323, ^PUN	N/A	
Power Management	HIBERNATE (notification), SHUTDOWN (command), SHUTDOWN (notification), ?STO and Custom Event 1307, ^STO	N/A	These commands are related to features that are considered Wireless Only. They are not implemented initially, but should the G5 line include a wireless panel in the future, these commands may be implemented.
Setup Page Access, Press & Hold dots during boot		N/A	
Sub-Pages, Wrap	^BMF…%WR, @BMF…%WR	Removes this property completely	
Synchronize Device Names		N/A	G5 supports only one device name.
System Startup	@SST, STARTUP (notification)	N/A	
Text Input Area Button, Cursor Blink Rate		Deletes this property completely.	
USB, Commands	?USB and Custom Event 1322	N/A	

Revision 1.27, July 3, 2014

USB, Present camera & mic to PC		N/A	
USB, Web Cam Mode		N/A	
Video Chat	^VCC, ^VCE, ^VCS	N/A	
Video Snapshot	^DVS	N/A	

FUTURE SUPPORT

The following features and commands are NOT initially implemented in G5, but are under consideration for implementation in the future. The 'G4Utility' column indicates what the G4Utility tool will replace G4 features listed in the 'Related Feature' column with in the resulting TPD5 file. Note that the G4Utility tool does not handle NetLinx code, only changing features and properties in the existing TPD4 file.

Please note that commands highlighted in yellow are **potential** new commands for G5 and will not be implemented in any G4 product.

Related Feature	Related Commands that may be included	Obsolete Commands	G4Utility	Notes
Animated Page Flips	^AFP		Currently, these are converted into Standard non-Animated page flips.	
Annotations	?TNA and Custom Event 1500, ^TNA, ?TNB and Custom Event 1501, ^TNB, ^BNC, ^TNC, ^TNF, ^TNH, ^TNS		N/A	
Audio Device Control	?ADS and Custom Event 1325, ^ADS, ^AUD (notification) **(NEW COMMAND!)**	AUDIO (notification)	N/A	
Bluetooth, Control	HID, HSP, HFP, Enable/Disable, Setup, Disconnect, Remove		N/A	
Bluetooth, Notifications	Custom Event 790		N/A	
Button, Computer Control Type	Remote Host, Remote Port, Password, Color Depth, Compression, Scale to Fit		Deletes this button type completely.	
Button, TakeNote			Deletes this button type	

Type			completely.	
Calibration	^CAL		N/A	
Computer Control	^BVL, ^KYE (response) **(NEW COMMAND!)**, ^MER (response) **(NEW COMMAND!)**, Custom Events 101, 102, 103	^BVP, ^BVN, ^BVT, ^MBT, ^MDC, ^TPS, ^KPS, ^BMF…%VL, @BMF…%VL, ^BMF…%VN, @BMF…%VN ^BMF…%VP, @BMF…%VP, KEYE (response), MER (response)	N/A	
External Control Buttons			G4 external control button proxy pages are completely deleted and in a future release, the gestures will be moved to page events.	This feature is platform dependent.
Function Show			N/A	Note that Function Show works in TPD5, but not G5 firmware.
ICSP Statistics	?STA and Custom Event 1310		N/A	
Panel, Time	CLOCK		N/A	
Security Modes			N/A	Normal, Secure, DoD

Setup Pages, Connection Utility			N/A	
Setup Pages, Network Statistics			N/A	
SIP		^PHN, ?PHN	N/A	
Smart Card/Reader, Control	Enable/Disable, Reader Name, CHUID, Custom Events 710, 711		N/A	
Smart Card, Sound	Enable/Disable, Sound Select		N/A	
Sub-Pages, Dynamic Re-Ordering	^SDR	^BMF…%DY, @BMF…%DY	Removes this property completely	
Take Note	^BNN, ^BNT, ^SKT, ^TOP, <mark>^TNE</mark> **(NEW COMMAND!)**, <mark>^TNR</mark> **(NEW COMMAND!)**	TAKENOTE, TAKENOTESERVER	N/A	
USB Audio			N/A	
VOIP (Intercom)		^ICD?, ^MODEL?, ^ICD, ^ICE, ^ICM, ^ICS, ^IIC, ^IOC	N/A	
Wireless Panel Features	?WIF and Custom Event 1309, ^DLD, ^LPC, ^LPR, ^LPS, ?CHR and Custom Event 1308, ^CHR, ?PIF and Custom Event 1304		N/A	These commands are related to features that are considered Wireless Only. They are not implemented initially, but should the G5 line include a

				wireless panel in the future, these commands may be implemented.

APPENDIX A – G4 REPLACEMENT COMMAND SET FOR G5 SYSTEMS

Please refer to the G5 Programming Guide for specific details on new and modified commands.

Existing G4 Command	G5 Status	Document Reference
ABEEP	Obsolete; Replaced with **New Command ^ABP**	See System Sounds under Optimized Command Set
ADBEEP	Obsolete; Replaced with **New Command ^ADB**	See System Sounds under Optimized Command Set
?ADS/^ADS	Not Supported Yet	See Audio Device Control under Future Support
^AFP	Not Supported Yet	See Animated Page Flips under Future Support and under Appendix C
@AKB/AKEYB	Obsolete; Replaced with the following **New Commands: ^AKB, ^VKS, ^BIT**	See Keyboard, Popup under Optimized Command Set
AKEYP/@AKP	Obsolete; Replaced with **New Command ^AKP and ^VKP**	See Keypad, Virtual Popup under Optimized Command Set
AKEYR/@AKR	Obsolete; Replaced with **New Command, ^AKR**	See Keyboard/Keypad, Remove under Optimized Command Set
^ANI	Supported	
^APF	Supported	
@APG	Obsolete	See Popup Groups under Design Time Decisions
AUDIO (Notification)	Not Supported Yet	See Audio Device Control under Future Support
Bargraph, Level Functionality	Display and Active are	See Bargraph, Level Functionality under Changes to Existing

	Supported; Active Centering, Drag, Drag Centering are Not Supported Yet; G4Utility replaces these with Display.	Features
Bargraph, Level Range	Low, High, Inverted, Time Up, and Time Down are Supported; Drag Increment is Not Supported Yet	See Bargraph, Level Range under Changes to Existing Features
Bargraph, Slider Names	None, Circle, Precision, and Rectangle are Supported; Ball, Smart Button Bubbled, Windows, and Windows Active are Obsolete	See Bargraph, Slider Names under Changes to Existing Features
^BAT	Supported	
^BAU	Supported	
^BBR	Supported	
?BCB/^BCB	Obsolete	See Border Color under Design Time Decisions
?BCF/^BCF	^BCF is Supported; ?BCF is Obsolete	See Fill Color under Optimized Command Set
?BCT/^BCT	Obsolete	See Text Color under Design Time Decisions
^BDO	Obsolete	See Draw Order under Design Time Decisions and Appendix C
^BFB	Obsolete	See Button Feedback under Design Time Decisions
^BIM	Obsolete	See Text Input Area Button, Input Mask under Design Time Decisions

^BLN	Obsolete	See Video Fill under Optimized Command Set
(Bluetooth) Custom Event 790	Not Supported Yet	See Bluetooth, Control under Future Support
^BMC	Obsolete	See All Features under Optimized Command Set and Button Copy under Design Time Decisions
@BMF/^BMF (all parameters)	Obsolete	See Optimized Command Set
^BMI	Obsolete	See Chameleon Images under Changes to Existing Features
^BML	Obsolete	See Text Input Area Button, Max Text Length under Design Time Decisions
?BMP/^BMP/@BMP	?BMP/^BMP are Supported but with modifications; See Also **New Commands**, **?BMX/^BMX**; @BMP is Obsolete	See Bitmap Assignment under Optimized Command Set
^BNC	Not Supported Yet	See Annotations under Future Support
^BNN	Not Supported Yet	See Take Note under Future Support
^BNT	Not Supported Yet	See Take Note under Future Support
?BOP/^BOP	^BOP is Supported; ?BOP is Obsolete	See Button Opacity under Optimized Command Set
@BOR/^BOR	Obsolete	See Border Style/Definition under Design Time Decisions
?BOS/^BOS/@BOS	?BOS and ^BOS are Supported; @BOS is Obsolete	See Video Fill under Optimized Command Set

Revision 1.27, July 3, 2014

^BPP	Obsolete	See Password Protection under [Obsolete Features & Properties](#) and [Appendix C](#).
?BRD/^BRD	Obsolete	See Border Style/Definition under [Design Time Decisions](#)
BRIT/@BRT	?BRT is Supported; BRIT/@BRT are Obsolete Replaced with the <mark>**New Command, ^BRT**</mark>	See Brightness under [Optimized Command Set](#)
?BRT	Supported, but modified	See Brightness under [Optimized Command Set](#)
^BSF	Supported	
^BSM	Supported	
^BSO	Obsolete	See Button Sounds under [Design Time Decisions](#)
^BSP	Supported, but with new parameters	See Button, Size/Location Command under [Optimized Command Set](#)
Button, Above Popups Setting	Obsolete	See Button, Above Popups Setting under [Obsolete Features & Properties](#) and [Appendix C](#).
Button, Border Styles/Definitions	The following borders are **Supported** in G5: None, Single Line, Double Line, Circle, Menu Rounded-Bottom, Menu Rounded-Left, Menu Rounded–Right, Menu Rounded-Top, Menu Rounded-Spacers, Ovals Horizontal, Ovals Vertical; The following borders are **Obsolete** in G5: Quad Line, Picture Frame, Fuzzy, Glow, AMX Elite Raised, AMX Elite Inset, Bevel Raised, Bevel Inset, Cursor,	See Button, Border Styles/Definitions under [Changes to Existing Features](#) and [Appendix C](#).

	Cursor with Hole, Neon Inactive, Neon Active Off, Neon Active On, Smart Button Bubbled, Smart Button Squared, Diamond, Double Bevel Raised, Double Bevel Inset, Custom Frame, Help Down, Help Down Reversed, News Header, Windows Style Popup, Windows Style Popup Status Bar	
Button, Feedback Types	The following types are Supported in G5: None, Channel, Channel Inverted, Momentary, Always On; Blink is Obsolete and will be replaced with Channel by the G4Utility.	See Button, Feedback Types under Changes to Existing Features
Button, Button Types	The following types are Supported in G5: General, Multi-State, Bargraph, Multi-State Bargraph, Text Input Area, Sub-Page View; Computer Control and TakeNote are Not Supported Yet; G4Utility removes this button type completely. Joystick is Obsolete; G4Utility removes this button type completely.	See Button, Button Types under Changes to Existing Features and Button, Joystick under Obsolete Features & Properties and Appendix C.
Button, Marquee-Style Text	Obsolete	See Button, Marquee-Style Text under Obsolete Features & Properties and Appendix C
Button, Text Input Area Button Cursor Blink Rate	Obsolete	See Text Input Area Button, Cursor Blink Rate under Obsolete Features & Properties

^BVL	Not Supported Yet	See Computer Control under [Future Support](#)
^BVN	Not Supported Yet	See Computer Control under [Future Support](#)
^BVP	Not Supported Yet	See Computer Control under [Future Support](#)
^BVT	Not Supported Yet	See Computer Control under [Future Support](#)
?BWW/^BWW	Obsolete	See Word Wrap under [Design Time Decisions](#) and [Appendix C](#).
^CAL	Not Supported Yet	See Calibration under [Future Support](#)
?CAM/CAM (Response)	Obsolete	See Camera under [Obsolete Features & Properties](#)
^CEX	Obsolete	See Image Cache, Commands under [Obsolete Features & Properties](#)
^CFE	Obsolete	See Image Cache, Commands under [Obsolete Features & Properties](#)
^CFS/^CFSM	Obsolete	See Image Cache, Commands under [Obsolete Features & Properties](#)
Chameleon Images	Only a limited implementation is supported	See Chameleon Images under [Changes to Existing Features](#)
?CHR/^CHR	Not Supported Yet	See Wireless Panel Features under [Future Support](#)
CLOCK	Not Supported Yet	See Panel, Time under [Future Support](#)
^CPF	Supported	

@CPG	Obsolete	See Popup Groups under Design Time Decisions
^CPR	Obsolete	See Image Cache, Commands under Obsolete Features & Properties
Device Names, Synchronize	Obsolete	See Synchronize Device Names under Obsolete Features & Properties
^DLD	Not Supported Yet	See Wireless Panel Features under Future Support
^DPF	Obsolete	See Page Flips under Optimized Command Set
^DMM	Supported	
@DPG	Obsolete	See Popup Groups under Design Time Decisions
?DTO/^DTO	Obsolete	See Display Timeout under Design Time Decisions
^DVS	Obsolete	See Video Snapshot under Obsolete Features & Properties
Dynamic Images, Escape Sequences	The following are Supported in G5: $AC, $AP, $BN, $BX, $BY, $CC, $CP, $DV, $HN, $IP, $LC, $LP, $MC, $PX, $PY, $ST, $SY; $ID is Obsolete	See Dynamic Images, Escape Sequences under Changes to Existing Features
Dynamic Images, Hardware Acceleration	Obsolete	See Dynamic Images, Hardware Acceleration under Obsolete Features & Properties
Dynamo Resources	Obsolete	See Dynamo Resources under Changes to Existing Features
@EKP	Obsolete; Replaced with **New Command ^EKP**	See Keypad, Extended Popup under Optimized Command Set

^ENA/@ENA	^ENA is Supported; @ENA is Obsolete	See Button Enable/Disable under Optimized Command Set
FAST Dynamo	Obsolete	See Dynamic Images, Hardware Acceleration under Obsolete Features & Properties
?FON/^FON/@FON	Obsolete	See Font under Design Time Decisions
^GCE	Supported	
^GDI	Obsolete	See Bargraph Control under Design Time Decisions
^GDR	Obsolete	See Bargraph Control under Design Time Decisions
^GDV	Obsolete	See Bargraph Control under Design Time Decisions
Gestures	The following are Supported in G5: Swipe Up/Down/Left/Right, Double Tap, 2 Finger Swipe Up/Down/Left/Right; The following are Obsolete in G5: Clockwise Circle, Counter-Clockwise Circle	See Gestures under Changes to Existing Features
^GIV	Obsolete	See Bargraph Orientation under Design Time Decisions
^GLH	Supported	
^GLL	Supported	
^GRD	Obsolete	See Bargraph Control under Design Time Decisions
^GRU	Obsolete	See Bargraph Control under Design Time Decisions
^GSC	Obsolete	See Bargraph Slider Name/Color

		under Design Time Decisions
^GSN	Obsolete	See Bargraph Slider Name/Color under Design Time Decisions
HIBERNATE (Notification)	Obsolete	See Power Management under Obsolete Features & Properties
^ICD?/^ICD	Not Supported Yet	See VOIP (Intercom) under Future Support
^ICE	Not Supported Yet	See VOIP (Intercom) under Future Support
^ICM	Not Supported Yet	See VOIP (Intercom) under Future Support
?ICO/^ICO/@ICO	Obsolete	See Icons, Icon Alignment & Justification under Obsolete Features & Properties and Appendix C
^ICS	Not Supported Yet	See VOIP (Intercom) under Future Support
^IIC	Not Supported Yet	See VOIP (Intercom) under Future Support
^IOC	Not Supported Yet	See VOIP (Intercom) under Future Support
?IRE/^IRE	Obsolete	See Infrared under Obsolete Features & Properties
^IRM	Obsolete	See Infrared under Obsolete Features & Properties
^IRS	Obsolete	See Infrared under Obsolete Features & Properties
?JSB/^JSB	?JSB is Supported; ^JSB is Obsolete	See Bitmap Justification under Optimized Command Set
?JSI/^JSI	Obsolete	See Icons, Icon Alignment &

		Justification under Obsolete Features & Properties and Appendix C
?JST/^JST	Obsolete	See Text Justification under Design Time Decisions
^JUS/@JUS	Obsolete	See Text Justification under Design Time Decisions
KEYE (Response)	Not Supported Yet	See Computer Control under Future Support
^KPS	Not Supported Yet	See Computer Control under Future Support
^LDA	Obsolete	See List Boxes under Obsolete Features & Properties and Appendix C.
^LDC	Obsolete	See List Boxes under Obsolete Features & Properties and Appendix C.
^LDD	Obsolete	See List Boxes under Obsolete Features & Properties and Appendix C.
^LDL	Obsolete	See List Boxes under Obsolete Features & Properties and Appendix C.
^LDN	Obsolete	See List Boxes under Obsolete Features & Properties and Appendix C.
^LDR	Obsolete	See List Boxes under Obsolete Features & Properties and Appendix C.
^LDT	Obsolete	See List Boxes under Obsolete Features & Properties and Appendix C.

^LDW	Obsolete	See List Boxes under Obsolete Features & Properties and Appendix C.
^LDX	Obsolete	See List Boxes under Obsolete Features & Properties and Appendix C.
?LIA/^LIA	Obsolete	See Light Sensor, Commands under Obsolete Features & Properties
?LIT/&LIT	Obsolete	See Light Sensor, Commands under Obsolete Features & Properties
?LMP	Obsolete	See Lamp Hours under Obsolete Features & Properties
?LOG	Obsolete	See Diagnostics Logs, Commands under Obsolete Features & Properties
^LPC	Not Supported Yet	See Wireless Panel Features under Future Support
^LPR	Not Supported Yet	See Wireless Panel Features under Future Support
^LPS	Not Supported Yet	See Wireless Panel Features under Future Support
^LRO	Obsolete	See List Boxes under Obsolete Features & Properties and Appendix C.
^LVC	Obsolete	See List Boxes under Obsolete Features & Properties and Appendix C.
^LVF	Obsolete	See List Boxes under Obsolete Features & Properties and Appendix C.

^LVH	Obsolete	See List Boxes under Obsolete Features & Properties and Appendix C.
^LVL	Obsolete	See List Boxes under Obsolete Features & Properties and Appendix C.
^LVM	Obsolete	See List Boxes under Obsolete Features & Properties and Appendix C.
^LVO	Obsolete	See List Boxes under Obsolete Features & Properties and Appendix C.
^LVP	Obsolete	See List Boxes under Obsolete Features & Properties and Appendix C.
^LVS	Obsolete	See List Boxes under Obsolete Features & Properties and Appendix C.
^LVT	Obsolete	See List Boxes under Obsolete Features & Properties and Appendix C.
^LVU	Obsolete	See List Boxes under Obsolete Features & Properties and Appendix C.
LZAP!	Obsolete	See Panel, Maintenance under Obsolete Features & Properties
?MAC	Supported	
Master, Connection Types	Auto, URL-TCP, and Listen are Supported; NDP and URL-UDP are Obsolete	See Master, Connection Types under Changes to Existing Features
^MBT	Not Supported Yet	See Computer Control under

Revision 1.27, July 3, 2014

		Future Support
?MCO	Obsolete	See Audio Control under Optimized Command Set
^MDC	Not Supported Yet	See Computer Control under Future Support
MER (Response)	Not Supported Yet	See Computer Control under Future Support
^MODEL?	Not Supported Yet	See VOIP (Intercom) under Future Support
?MSA/^MSA	Obsolete	See Motion Sensor, Commands under Obsolete Features & Properties
?MST/^MST	Obsolete	See Motion Sensor, Commands under Obsolete Features & Properties
?MTA/^MTA	Obsolete	See Motion Sensor, Commands under Obsolete Features & Properties
?MUT/^MUT	Supported	
(NFC) Custom Event 700	Supported	
PAGE (Command)	Obsolete; Replaced with **New Command ^PGE**	See Page Flips under Optimized Command Set
PAGE (Notification)	Supported for backwards compatibility with Page Tracking **ONLY.** Also includes **New Notification, ^PGE**	See Page Tracking under Optimized Command Set
Passwords	The Protected Password/Password 5 is Supported; Passwords 1-4 are Obsolete	See Passwords under Changes to Existing Features and Appendix C.

@PDR	Obsolete	See Popup Reset on Show under [Design Time Decisions](#)
@PHE	Obsolete	See Popup Effects, Hide under [Design Time Decisions](#)
?PHN/^PHN	Not Supported Yet	See SIP under [Future Support](#)
@PHP	Obsolete	See Popup Effects, Hide under [Design Time Decisions](#)
@PHT	Obsolete	See Popup Effects, Hide under [Design Time Decisions](#)
^PIC	Obsolete	See Picture View under [Obsolete Features & Properties](#)
?PIF	Not Yet Supported	See Wireless Panel Features under [Future Support](#)
@PKB/PKEYB	Obsolete; Replaced with <mark>New Command, ^PKB</mark>	See Keyboard, Private Popup under [Optimized Command Set](#)
PKEYP/@PKP	Obsolete; Replaced with <mark>New Commands, ^ ^PKP</mark>	See Keypad, Virtual Popup under [Optimized Command Set](#)
PKEYR	Obsolete; Replaced with <mark>New Command, ^AKR</mark>	See Keyboard/Keypad, Remove under [Optimized Command Set](#)
@PPA	Obsolete; Replaced with <mark>New Command ^PPA</mark>	See Popups, Close All on Page under [Optimized Command Set](#)
@PPF/PPOF	PPOF is Obsolete; Replaced with <mark>New Command ^PPF</mark>; @PPF is Supported for backwards compatibility with Page Tracking	See Popups, Deactivate under [Optimized Command Set](#)
@PPG/PPOG	@PPG and PPOG are Obsolete; Replaced with <mark>New Command ^PPG</mark>	See Popups, Toggle under [Optimized Command Set](#)
@PPK	Obsolete; Replaced with <mark>New Command ^PPK</mark>	Popups, Kill under[Optimized Command Set](#)

@PPM	Obsolete	See Popup Modality under [Design Time Decisions](#) and [Appendix C](#).
@PPN/PPON	PPON is Obsolete; Replaced with **New Command ^PPN;** @PPN is Supported for backwards compatibility with Page Tracking	See Popups, Activate under [Optimized Command Set](#)
@PPT	Obsolete; Replaced with **New Command ^PPT**	See Popups, Timeout under [Optimized Command Set](#)
@PPX	Obsolete; Replaced with **New Command ^PPX**	See Popups, Close All under [Optimized Command Set](#)
@PSE	Obsolete	See Popup Effects, Show under [Design Time Decisions](#)
@PSP	Obsolete	See Popup Effects, Show under [Design Time Decisions](#)
@PST	Obsolete	See Popup Effects, Show under [Design Time Decisions](#)
?PUL	Obsolete	See Popups, Location & Size under [Obsolete Features & Properties](#)
^PUN	Obsolete	See Popups, Location & Size under [Obsolete Features & Properties](#)
?PUS	Obsolete	See Popups, Location & Size under [Obsolete Features & Properties](#)
^PWD/@PWD	Obsolete	See Password Protection under [Obsolete Features & Properties](#) and [Appendix C](#).
QBEEP	Obsolete; Replaced with **New Commands ^ABP and ^DBP**	See System Sounds under [Optimized Command Set](#)

Revision 1.27, July 3, 2014

^RAF	The following parameters are Supported: %A, %C, %D, %F, %H, %P, %R, %S, %U, %V; The following parameters are Obsolete: %M, %N	See Dynamic Image Control under Optimized Command Set, Dynamo Resources under Obsolete Features & Properties, and FTP under Obsolete Features & Properties
^RFR/^RFRP	Supported	
^RMF	The following parameters are Supported: %A, %C, %D, %F, %H, %P, %R, %S, %U, %V; The following parameters are Obsolete: %M, %N	See Dynamic Image Control under Optimized Command Set, Dynamo Resources under Obsolete Features & Properties, and FTP under Obsolete Features & Properties
^RSR	Supported	
^RSS	Supported	
SAFE	Obsolete	See Panel, Maintenance under Obsolete Features & Properties
^SAV	Obsolete	See Panel, Maintenance under Obsolete Features & Properties
@SBE	Obsolete	See Sub-Pages, Viewer Scroll Bar under Design Time Decisions
@SBO	Obsolete	See Sub-Pages, Viewer Scroll Bar under Design Time Decisions
?SCE/^SCE	Supported	
^SDM	Supported	
^SDR	Not Supported Yet	See Sub-Pages, Dynamic Re-Ordering under Future Support and Appendix C.
SETUP	Obsolete; Replaced with **New Command ^STP**	See Setup Pages under Optimized Command Set

Revision 1.27, July 3, 2014

^SHD	Supported	
^SHO/@SHO	^SHO is Supported; @SHO is Obsolete	See Button Hide/Show under Optimized Command Set
SHUTDOWN (Command)	Obsolete	See Power Management under Obsolete Features & Properties
SHUTDOWN (Notification)	Obsolete	See Power Management under Obsolete Features & Properties
^SKT	Not Supported Yet	See Take Note under Future Support
SLEEP	Obsolete; Replaced with New Command ^SLP	See Power Management under Optimized Command Set
^SLT/?SLT	Supported	
(Smart Card/Reader) Custom Events 710 and 711	Not Supported Yet	See Smart Card/Reader, Control under Future Support
@SOU	Obsolete; Replaced with New Command ^SOU	See System Sounds under Optimized Command Set
^SSH	Supported	
SSH	Supported	See Telnet/SSH under Changes to Existing Features
@SSL	Obsolete; Replaced with New Command ^SSL	See Power Management under Optimized Command Set
@SST	Obsolete	See System Startup under Obsolete Features & Properties
?STA	Not Supported Yet	See ICSP Statistics under Future Support
STARTUP (Notification)	Obsolete	See System Startup under Obsolete Features & Properties
^STF	Obsolete	See Bitmap Scaling under Design Time Decisions

^STG	Supported	
?STO/^STO	Obsolete	See Power Management under Obsolete Features & Properties
@SWK	Obsolete; Replaced with <mark>New Command ^SWK</mark>	See Power Management under Optimized Command Set
TAKENOTE/TAKENOTESERVER	Not Supported Yet	See Take Note under Future Support
?TEC/^TEC	Obsolete	See Text Effect Color under Design Time Decisions
?TEF/^TEF	Obsolete	See Text Effects under Design Time Decisions
Telnet	Obsolete	See Telnet/SSH under Changes to Existing Features
Text Effects, Styles/Definitions	The following are Supported in G5: None, Hard Drop Shadow (1-8), Medium Drop Shadow (1-8), Soft Drop Shadow (1-8); The following are Obsolete in G5: Glow (S,M,L,X), Outline (S,M,L,X), Hard Drop Shadow with Outline (1-8), Medium Drop Shadow with Outline (1-8), Soft Drop Shadow with Outline (1-8)	See Text Effects, Styles/Definitions under Changes to Existing Features and Appendix C.
TEXTINPUT (Notification)	Obsolete; Replaced with <mark>New Notification, <ButtonName>-<UserText></mark>	See Text Input Area Button, Submit under Optimized Command Set
@TKP	Obsolete; Replaced with <mark>New Command ^TKP</mark>	Keypad, Telephone Popup under Optimized Command Set
?TNA/^TNA	Not Supported Yet	See Annotations under Future Support
?TNB/^TNB	Not Supported Yet	See Annotations under Future

		Support
^TNC	Not Supported Yet	See Annotations under Future Support
^TNF	Not Supported Yet	See Annotations under Future Support
^TNH	Not Supported Yet	See Annotations under Future Support
^TNS	Not Supported Yet	See Annotations under Future Support
^TOP	Not Supported Yet	See Take Note under Future Support
TPAGEOFF/TPAGEON	Obsolete; Replaced with **New Commands ^TPF and ^TPN**	See Page Tracking under Optimized Command Set
^TPS	Not Supported Yet	See Computer Control under Future Support
!T	Obsolete; use ^TXT	See Text under Optimized Command Set
TEXT	Obsolete; use ^TXT	See Text under Optimized Command Set
?TXT/^TXT/@TXT	?TXT and ^TXT are Supported; @TXT is Obsolete	See Text under Optimized Command Set
@UNI/^UNI	^UNI is Supported; @UNI is Obsolete	See Text under Optimized Command Set
?USB	Obsolete	See USB, Commands under Obsolete Features & Properties
^VCC	Obsolete	See Video Chat under Obsolete Features & Properties
^VCE	Obsolete	See Video Chat under Obsolete Features & Properties

Revision 1.27, July 3, 2014

^VCS	Obsolete	See Video Chat under Obsolete Features & Properties
@VKB	Obsolete; Replaced with New Command ^VKB	See Keyboard, Virtual Popup under Optimized Command Set
Video, Input Streaming	MPEG2-TS over UDP and MJPEG over HTTP are Supported; RTSP over UDP is Obsolete	See Video, Input Streaming under Changes to Existing Features
?VOL/^VOL	Supported	
WAKE	Obsolete; Replaced with New Command ^WKE	See Power Management under Optimized Command Set
^WCN	Obsolete	See G4 Web Control (VNC Server) under Changes to Existing Features
?WIF	Not Supported Yet	See Wireless Panel Features under Future Support
ZAP!	Obsolete	See Panel, Maintenance under Obsolete Features & Properties

APPENDIX B – THIRD PARTY APPLICATION SUPPORT

The new Modero X G5 and Enzo platforms contain applications written by third parties not affiliated with AMX. AMX has tested these applications to confirm their core compatibility with AMX products and believes these applications enhance the overall user experience on these platforms. Performance issues are possible with third party applications, and AMX support for these applications will be limited. AMX makes no guarantee that any third party applications will be updated in response to issues discovered while using those applications.

APPENDIX C – G4UTILITY CONVERSION CHECKLIST

After running the G4Utility conversion tool, additional changes may still be needed in the newly created TPD5 file and any corresponding code that may go with it. If any of the items in the list below were in the original TPD4 file, additional effort may be necessary:

☐ **Bargraph, Level Active-Centering, Level Drag, Level Drag-Centering**

  o Replaces this property with Display

☐ **Button, Above Popups**

  o Removes this button property completely

☐ **Button, Blink Feedback Type**

  o Removes this button feedback type completely and replaces it with the channel feedback type

☐ **Button, Command Outputs**

  o Converts related button property into individual command actions

  o Adds these actions to the Button Release event of the corresponding button

  o Assigns the command output port value from G4 as a property of each of the new command output actions

☐ **Button, Chameleon Images**

  o Not Recommended in G5.

  o Due to platform changes between G4 and G5, Chameleon images are not always displayed accurately in TPD. Loading the panel onto a G5 panel may be required to view the image accurately.

  o More information concerning the conversion of Chameleon Images will be forthcoming.

☐ **Button, Computer Control Type**

  o Deletes buttons of this type; this button will not appear in the newly created TPD5 file

☐ **Button, Draw Order**

  o Removes this button property completely. G5 supports a modified static draw order which does NOT support Icons, but does support multiple bitmaps and uses the following bottom-to-top order: Fill, Bitmaps [], Text, Border

- If your G4 panel had any buttons with both icons and bitmaps assigned to it, manual re-ordering may now be necessary to re-create the G4 look

☐ **Button, External Control**

- o Deletes all G4 external control button proxy pages

☐ **Button, Gestures**

- o Gestures set in the external control buttons are currently deleted.

☐ **Button, Icons & Icon Justifications**

- o Converts any utilized state icon and icon justification properties into an additional bitmap in the G5 multiple-bitmap format

  - If your G4 panel had any buttons with both icons and bitmaps assigned to it, manual re-ordering may now be necessary to re-create the G4 look

☐ **Button, Joystick Type**

- o Deletes buttons of this type; this button will not appear in the newly created TPD5 file

☐ **Button, List Box Type**

- o Deletes buttons of this type; this button will not appear in the newly created TPD5 file

  - Sub-pages are the recommended replacement

☐ **Button, Password Protection**

- o Removes this button property completely. The only password available in G5 is the setup menu's protected password, or password 5, as it was known in G5

☐ **Button, String Outputs**

- o Converts related button property into individual string actions

- o Adds these actions to the Button Release event of the corresponding button

- o Assigns the string output port value from G4 as a property of each of the new string output actions

☐ **Button, TakeNote Type**

- o Deletes buttons of this type; this button will not appear in the newly created TPD5 file

☐ **FTP Resources**

- o G5 does not support FTP resources.
    - ▪ Only HTTP resources are supported.

- ☐ **Hardware Acceleration / Dynamo Flag**

    - o G5 does not support Dynamo for dynamic images.

- ☐ **Popup, Modality**

    - o Removes this property completely

- ☐ **Setup Codes**

    - o A large number of Setup Codes have been removed from G5.

        - ▪ See [Appendix D](#) for a table of setup codes still supported in G5.

The following changes are less likely to require code changes, but may affect the look and behavior of the resulting TPD5 file:

- ☐ **Button, Animated Page Flips**

    - o Converts these to Standard non-animated page flips. See **Page Flips** below

- ☐ **Button, Border Styles/Types**

    - o Converts all unsupported border styles/types to None

- ☐ **Button, Marquee/Marquee Repeat**

    - o Removes this property completely and replaces with standard, non-scrolling text

- ☐ **Button, Page Flips**

    - o Converts related button property into individual page-flip actions

    - o Adds the actions to the Button Release event of the corresponding button

- ☐ **Button, Text Effects**

    - o Converts all Drop Shadow with Outline effects to Drop Shadow only effects

    - o Converts all other unsupported text effects to None

- ☐ **Font Rendering**

    - o Replaces all state font index properties with new font file and size properties in the G5 format

- o Constructs a new font map keyed on font files rather than on font descriptors

- o Discards the deprecated G4 font descriptor-based map

☐ **Sub-Pages, Dynamic Reordering**

- o Removes this property completely; however, it may be added back in for a future release

☐ **Sub-Pages, Wrap**

- o Removes this property completely. The sub-page wrap feature is not available in G5

APPENDIX D – G5 SUPPORTED SETUP PORT CODES

Many of the Setup Codes that were supported in G4 are now obsolete in G5. Below is the list of Setup Codes **THAT ARE SUPPORTED BY G5:**

Type	Port	Code	Text
Channel	0	1	Panel Setup: Connection Status
Level	0	3	Panel setup: Master Volume Level
Channel	0	6	Panel Setup: Master Volume Up
Channel	0	7	Panel Setup: Master Volume Down
Channel	0	8	Panel Setup: Master Volume Mute
Address	0	8	Panel Setup: Connection Status
Level	0	8	Panel Setup: Connection Status
Address	0	35	Panel Setup: Master Volume Level
Channel	0	70	Panel Setup: Popup Drag
Channel	0	73	Page Flip: Setup
Channel	0	74	Page Flip: Keyboard
Channel	0	75	Page Flip: Keypad
Channel	0	77	Page Flip: Protected Setup
Channel	0	78	Page Flip: Virtual Keyboard
Address	0	141	Time Display: Standard
Address	0	142	Time Display: Standard AM/PM
Address	0	143	Time Display: 24 Hour
Address	0	151	Date Display: Weekday
Address	0	152	Date Display: mm/dd
Address	0	153	Date Display: dd/mm

Address	0	154	Date Display: mm/dd/yyyy
Address	0	155	Date Display: dd/mm/yyyy
Address	0	156	Date Display: month dd, yyyy
Address	0	157	Date Display: dd month, yyyy
Address	0	158	Date Display: yyyy-mm-dd