TP ADAC-32 User's Manual

32 Bit TestPoint Driver for ADAC PCI Series Data Acquisition Boards

the smart approach to instrumentation ™

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1. INTRODUCTION

1.1 TESTPOINT COMPATIBILITY

The TPADAC-32 driver will function with TestPoint version 4 and higher, running under MS Windows 98/ME/NT4/2000/XP

1.2 HARDWARE COMPATIBILITY

The TPADAC-32 Driver supports the ADAC PCI Series hardware. The driver was designed to be compatible with your TestPoint software A/D, D/A, DIO and CT options. Most Options are supported such as: StartA/D, AcquireA/D, SampleA/D, StopA/D, SetAD trigger immediate, SetA/D trigger digital, SetA/D burst mode, StartD/A, StopD/A, Output D/A, DIO input from, DIO Output to, DIO Set bits, DIO Configure, CT start event count, CT read event count and CT start rate generator.

2. SOFTWARE INSTALLATION

Normally, the ADAC Driver files are loaded during the TestPoint product installation. If your version of TestPoint does not contain the TPADAC-32 driver, you can install it by going to the "ADAC_TP" folder on your ADAC CD, and clicking on setup.exe.

The setup process will prompt you to place the ADAC files under your "TestPoint" folder, it's **important** that you verify the setup program is installing into your Testpoint directory, normally c:\TestPt; otherwise TestPoint will fail to find the appropriate ADAC drivers.

Once installed you must manually edit the tpad.ini located in your TestPoint directory to add the following line to the [ADDRIVERS32] section:

[ADDRIVERS32]
TPADAC32=TPADAC32.DLL

The setup process will automatically install the following files on to your computer:

c:\Windows\

ADAC-TP.con
ADAC-TP.ini
ADLCORE.dll
ADGRM.dll

c:\Windows\system32\drivers\

PCI55XX.sys

c:\Testpt\

ADAC-TP.dll

Important: Once TPADAC-32 is installed on your PC, it is necessary for you to run the ADAC Configurator Utility to select user options such as input configuration, etc.. Options you select in the Configurator Utility are saved as your initialization file, which is read by the TestPoint software. See "TestPoint Board Configuration File" section for more details

3. TESTPOINT BOARD CONFIGURATION FILE

The ADAC Config software is used to configure the ADAC-TP.con and ADAC-TP.INI files with the proper setting for each particular board type.

Launch the AdacConfig.exe software, and select File > Open, and then browse to your Windows directory and select the ADAC-TP.con file.

Select Settings > Configuration. The ADAC Board Configurations window will appear, settings should be as follows:

[Environment]

Environment String =TestPoint
BoardIniFile=c:\windows\adac-tp.ini
Autoload=NO

Click on the + sign to the left of the board icon to expand the board's "configuration tree". Below is an example of proper settings for a PCI-5501MF-0 or PCI-5501MF-V board:

[Board0]

Board ID=0
Board String= User Defined, not used by Testpoint
Board Name=Pci5501MF
Board Caps File=c:\Adac\AdacConfig\Boards\Pci5501MF.cap
Device Driver Path= c:\Adac\AdacConfig\Boards\
Device System Driver=\\.\aPci55xxDevice0.

Select Settings > Initialization. Click on the + sign to the left of the board icon to expand the board's "setting tree".

The sections listed below specify individual subsystem component configurations used by the ADAC drivers. The only settings that should be changed are those specified in the following section of this manual. Changing the default settings as configured by the ADAC config program randomly may cause the ADAC driver to fail when running in testpoint.

[ADC0], [DAC0], [DAC1], [DIN0], [DIN1], [DIN2], [DIN3], [DOT0], [DOT1], [DOT2], [DOT3], [CTR0], [CTR1], [CTR2], [CTR3]

4. SUPPORTED TESTPOINT SOFTWARE CALLS

Board Type	Start A/D	Acquire A/D	Sample A/D	Start D/A	Output D/A	Set A/D Trig Immediate	Set A/D Trig Digital	Set A/D Trig Analog	Set A/D Burst Mode
PCI-5500MF	Y	Y	Y	N	N	Y	Y	N	Y
PCI-501MF-0	Y	Y	Y	N	N	Y	Y	N	Y
PCI-5501MF-V	Y	Y	Y	Y	Y	Y	Y	N	Y
PCI-5502MF-0	Y	Y	Y	N	N	Y	Y	N	Y
PCI-5502MF-V	Y	Y	Y	Y	Y	Y	Y	N	Y
PCI-5503HR-0	Y	Y	Y	N	N	Y	Y	N	Y
PCI-5503HR-V	Y	Y	Y	Y	Y	Y	Y	N	Y
PCI-5504HR-0	Y	Y	Y	N	N	Y	Y	N	Y
PCI-5504HR-V	Y	Y	Y	Y	Y	Y	Y	N	Y

5. PCI-550X SERIES OPERATION

The PCI-550X Series supports most standard TestPoint "A/D Object" settings. In addition an extended PCI-55XX A/D control object described below is provided to further enhances the A/D data collection capabilities within TestPoint. For a listing of standard TestPoint A/D object support Refer to the "Supported TestPoint Software Calls" section of this manual.

The PCI-550x Series of data acquisition boards includes five models; the following table describes the main differences between these boards:

Product Name	ADC Resolution	Programmable Gains	Number of Channels
PCI-5500MF	12-bit 100 kHz	N/A	8 SE
PCI-5501MF	12-bit 100 kHz	1, 2, 4, 8	16 SE / 8 Diff
PCI-5502MF	12-bit 100 kHz	1, 10, 100, 1000	16 SE / 8 Diff
PCI-5503HR	16-bit 200 kHz	1, 2, 4, 8	16 SE / 8 Diff
PCI-5504HR	16-bit 200 kHz	1, 10, 100	16 SE / 8 Diff

The **PCI-5500MF** has 8 single-ended analog inputs multiplexed to a 12-bit A/D converter with maximum throughput of 100 kHz, two counter input channels, two timer output channels and 16 lines of digital I/O.

The **PCI-5501MF** has 16 single-ended/pseudo-differential or 8 differential analog inputs multiplexed to a 12-bit A/D converter with maximum throughput of 100 kHz, programmable gains of 1, 2, 4 or 8, two optional clocked 16-bit D/A voltage outputs, two counter input channels, two timer output channels and 48 lines of digital I/O. An eight 4-20mA current loop input option is available by using the TB-PCI-5500-8CL screw terminal panel.

The **PCI-5502MF** is the same as the PCI-5501MF above, but with programmable gains of 1, 10, 100 or 1000.

The **PCI-5503HR** has 16 single-ended/pseudo-differential or 8 differential analog inputs multiplexed to a 16-bit A/D converter with maximum throughput of 200 kHz, programmable gains of 1, 2, 4 or 8, two

optional clocked 16-bit D/A voltage outputs, two counter input channels, two timer output channels and 48 lines of digital I/O. An eight 4-20mA current loop input option is available by using the TB-PCI-5500-8CL screw terminal panel.

The **PCI-5504HR** is the same as the PCI-5503HR above, but with programmable gains of 1, 10, 100.

All boards feature *on-board digital calibration* for both A/D and D/A, and a DMA engine for optimum performance in a Windows environment. Board connections are terminated in a 68-pin "high density" SCSC III connector at the rear of the PC.

The Channel range for the PCI-5500MF board is 0 to 7.
The Channel range for the PCI-5501MF/PCI-5502MF Series is from 0 to 15.
The Channel range for the PCI-5503HR/PCI-5504HR Series is from 0 to 15.

The PCI-5501MF and 5503HR provide programmable gains is 1, 2, 4 and 8.
The PCI-5502MF and PCI-5504HR provide programmable gains is 1, 10, 100 and 1000.

5.1 A/D BURST MODE ACQUISITION

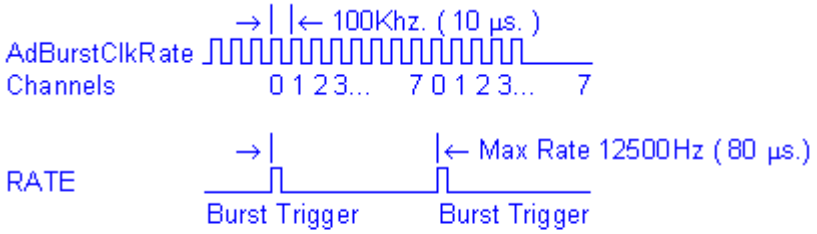
This mode is only supported during StartAD or AcquireAD acquisition. The burst mode registers are used to provide time interval between channel to channel conversions. The time interval between bursts is obtained from the specified clocking source that is specified by the A/D rate parameter or external clock input if the rate is set to 0.

The rate at which the burst conversions are clocked is defined by the TestPoint "*Other A/D command,* BURSTRATE(value)" If the BURSTRATE value is not within the limits of the specific board's capabilities, an error will be reported by the driver. The rate parameter specified in the "A/D Object" "StartA/D" or "AcquireA/D" specifies the time between bursts, and must not exceed the BURSTRATE value divided by total number of channels (see example below).

BURSTRATE = 100000 10us. per sample .
A/D channel(s) = 0,1,2,3,4,5,6,7 Total channels equals 8

Max rate = BURSTRATE / nChannels 12500 = 100000 / 8

Max rate is the **Rate** parameter that is specified in the TestPoint Acquire or Start A/D command line.



If the rate parameter is set to 0 the Burst Trigger becomes external, but may be set by the TestPoint "*Other A/D command,* EXTCLKEDGE(value) as EXT_FALLING_EDGE or EXT_RISING_EDGE". The EXTCLKEDGE must be issued just prior to each Start or Acquire command.

Note: The value specified by BURSTRATE is specified in hertz.

5.1.1 A/D Internal Burst Triggering

For burst acquisition, TestPoint's A/D Objects "StartA/D" or "AcquireA/D" rate parameter can be used to program the on-board pacer clock to the rate at which burst scans are initiated. The rate parameter is the exact frequency at which burst scans are initiated, i.e. if the rate were set to 1000 and the Channel(s) = 0, 1, 2, 3, 4, 5, 6, 7, the total number of A/D samples obtained in one second would be calculated as (8 channels X 1000Hz.).

5.1.2 A/D External Burst Triggering

In burst mode acquisition, the (ADTGIN) input can be used to initiate a burst scan, each low to high transition of the (ADTGIN) input will initiate a another burst scan.To select this option, set TestPoint's A/D Objects "StartA/D" or "AcquireA/D" rate parameter to 0 and "Set A/D trigger Immediate".

5.2 A/D TRIGGERING METHODS

The TestPoint A/D Objects "StartA/D" and "AcquireA/D" "Set A/D trigger digital" allows an external event to start the acquisition. In addition the TestPoint "*Other A/D command,* PRETRIGGER(value)" is used to enable About mode acquisition when Set A/D trigger digital is enabled. In about mode the specified number of PRETRIGGER(samples) is collected before the a trigger event and the rest of the samples after the trigger. The external signal edge that triggers defaults to falling edge, but may be changed in the adac-tp.ini file using the ADAC Config program to either EXT_FALLING_EDGE or EXT_RISING_EDGE.

Note: The Trigger Source signal may also be output to the terminal connector/panel, to do this you must modify the adac-tp.ini file using the ADAC Config program and set the TrigOutput setting to ENABLED

5.2.1 Post Triggering

In non-burst mode acquisition, the (ADTGIN) or (DATGIN) input can be used to start the acquisition, a low to high transition of the ADTGIN connection will start the process. To do this set the TestPoint's A/D Objects "StartA/D", "AcquireA/D" or "StartD/A" to "Set A/D Trigger Digital" just prior to each "StartA/D", "AcquireA/D" or "StartD/A"call.

5.3 D/A TRIGGERING METHODS

The TestPoint A/D Objects "StartD/A" can have an external event to start the acquisition as defined by the D/A setting in the adac-tp.ini file. Using the ADAC Config program to modify the D/A trigger settings, the trigger mode and edge may be configured.

5.4 A/D AND D/A CLOCKING METHODS

For non-burst acquisition, the rate parameter that TestPoint's A/D Objects "StartA/D", "AcquireA/D" and StartD/A calls provide, is the rate in Hz at which the A/D or D/A conversions are clocked. For the A/D, the rate is a multiple of the number of channels specified in the Channel(s)= parameter, i.e. if the rate were equal to 1000 and the Channel(s) = 0, 1, 2, 3, 4, 5, 6, 7; the actual A/D clocking would be 8000 Hz, 1000 Hz per channel.

ADAC Series PCI boards also support an external clocking input connection that may be used to clock the A/D conversions. To select the external clock input as the A/D clocking source, set the rate parameter in TestPoint's A/D Objects "StartA/D", "AcquireA/D" or StartD/A to "0". If the rate parameter is set to 0 the signal edge that triggers defaults to falling edge, but may be set by the TestPoint "*Other A/D command,* EXTCLKEDGE(value) as EXT_FALLING_EDGE or EXT_FALLING_EDGE". The EXTCLKEDGE must be issued just prior to each Start or Acquire command.

Note: The A/D Clock Source signal may also be output to the terminal connector/panel, to do this you must modify the adac-tp.ini file using the ADAC Config program and set the ClockOutput setting to ENABLED.

5.4.1 Internal Clocking

For non-burst acquisition, TestPoint's A/D Objects "StartA/D", "AcquireA/D" or "StartD/A" rate parameter is used to program the on-board pacer clock to the rate at which the A/D conversions are clocked.
For the A/D the rate is a multiple of the number of channels specified in the Channel(s)= parameter, i.e. if the rate were equal to 1000 and the Channel(s) = 0, 1, 2, 3, 4, 5, 6, 7, the actual A/D clocking would be 8000 Hz, 1000 Hz. per channel.

5.4.2 External Clocking

In non-Burst mode acquisition, the (ADCLKIN) or (DACLKIN) input can be used to clock the A/D conversions. To select the external clocking mode, set the TestPoint A/D Objects "StartA/D", "AcquireA/D" or "StartD/A" rate parameter to 0.

6. ERROR CODES

In addition to the TestPoint error codes, the TP ADAC-32 driver reports custom error codes generated by ADAC ADLIB Series driver which the TP ADAC-32 driver is based on. The error codes are extensive, and should assist in solving most setup or configuration problems. See below for a complete list of ADLIB error codes.

6.1 ADLIB ERROR CODES

ALERR_NOERRORS	1	No errors occurred during the call.
ALERR_NOT_SUPPORTED	-1	The specified function or argument is not supported.

MEMORY

ALERR_MEMORY_LOW	-100	memory allocation failed.
ALERR_DMA_MEMORY_LOW	-101	DMA memory allocation failed increase. ADACDMABUFFERSIZE in system.ini file.

GENERIC

ALERR_ARRAY_PTR	-200	Invalid array pointer passed to function.
ALERR_STRING_PTR	-201	Invalid string pointer passed to function.
ALERR_MAXSTRING	-202	Input string size exceeds MAX length.
ALERR_MAXARRAY	-203	Input array size exceeds MAX length.
ALERR_INVALID_STRINGLIST	-204	Input string format invalid.
ALERR_DESTINATION_STRLEN	-205	Input parameter destination string length is less than the source string length.
ALERR_MINARRAY	-206	Input array size exceeds MIN length.

BOARD STRUCTURE

ALERR_BOARD_STRUCT_PTR	-300	Invalid BOARD struct pointer.
ALERR_BOARD_ID	-301	No BOARD struct for the specified Board ID exist.
ALERR_BOARD_CAPSFILE_STRPTR	-302	The BOARD struct CAP's file pointer is invalid.
ALERR_BOARD_NOBOARDS	-303	No board configurations found in .con file.
ALERR_BOARD_MAX_ADCCAPS	-304	Max. ADC caps structures have been allocated.
ALERR_BOARD_MAX_DACCAPS	-305	Max. DAC caps structures have been allocated.
ALERR_BOARD_MAX_DINCAPS	-306	Max. DIN caps structures have been allocated.
ALERR_BOARD_MAX_DOTCAPS	-307	Max. DOT caps structures have been allocated.
ALERR_BOARD_MAX_CTRCAPS	-308	Max. CTR caps structures have been allocated.
ALERR_BOARD_MAXSTRING	-309	The specified BOARD string exceeds max. length.

LOGICAL DEVICE HANDLES

ALERR_LHLD	-400	The LHLD specified does not exist.
ALERR_LHLD_MAX	-401	The maximum LHLD have already been allocated.

LDS STRUCTURE

ALERR_LDS_STRUCT_PTR	-500	Invalid LDS struct pointer.
ALERR_INTERNAL_LDS_TYPE	-501	Unknown Logical Device Subsystem type.
ALERR_LDS_MAXSTRING	-502	The LDS type string specified in a call to adlib exceeds the maximum allowed length.
ALERR_LDS_MAXALLOCATED	-503	The maximum LDS have been allocated.
ALERR_LDS_NOCAPS	-504	No CAPS found.
ALERR_LDS_NOCAPSADC	-505	No CAPSADC found.
ALERR_LDS_NOCAPSDAC	-506	No CAPSDAC found.
ALERR_LDS_NOCAPSDIN	-507	No CAPSDIN found.
ALERR_LDS_NOCAPSDOT	-508	No CAPSDOT found.
ALERR_LDS_NOCAPSCTR	-509	No CAPSCTR found.
ALERR_LDS_NOTSUPPORTED	-510	Specified LDS is invalid.

CAPS STRUCTURE

ALERR_CAPS_TYPE	-600	Unknown Capabilities Subsystem type.
ALERR_CAPS_STRUCT_PTR	-601	Invalid CAPS struct pointer.
ALERR_CAPSADC_STRUCT_PTR	-602	Invalid CAPSADC struct pointer.
ALERR_CAPSDAC_STRUCT_PTR	-603	Invalid CAPSCTRIO struct pointer.
ALERR_CAPSDIGIO_STRUCT_PTR	-604	Invalid CAPSDIGIO struct pointer.
ALERR_CAPSCTRIO_STRUCT_PTR	-605	Invalid CAPSCTRIO struct pointer.

ENVIRONMENT STRUCTURE

ALERR_ENV_STRUCT_PTR	-700	Invalid ENV struct pointer.
ALERR_ENV_LOADED	-701	The Environment is already loaded.
ALERR_ENV_NOTLOADED	-702	The Environment is NOT loaded.
ALERR_ENV_MAXSTRING	-703	The specified Environment is too long.

OPTIONS STRUCTURE

ALERR_OPTION_STRUCT_PTR	-800	Invalid OPTIONS struct pointer.
ALERR_OPTION_STRPTR	-801	Invalid option string pointer.
ALERR_OPTION_STRING	-802	Invalid option string format.
ALERR_OPTION_NAME_STRPTR	-803	Invalid option string name pointer.
ALERR_OPTION_NAME_STRING	-804	Invalid option string name.
ALERR_OPTION_ID_STRING	-805	Invalid option string ID.
ALERR_OPTION_CONFIG_TYPE	-806	Invalid option string configuration type.
ALERR_OPTION_MAXSTRING	-807	The option string exceeds the maximum allowed length.

FILE I/O

ALERR_FILE_FOUND	-900	The specified file can not be found.

INI FILE

ALERR_INI_FILEEXIST	-1000	The INFO file (.INI) can not be found.
ALERR_INI_PATH_STRPTR	-1001	Invalid .INI string pointer.
ALERR_INI_SECTION_STRPTR	-1002	Invalid .INI [SECTION] string pointer.
ALERR_INI_ENTRY_STRPTR	-1003	Invalid .INI ENTRY string pointer.
ALERR_INI_SECTION_UNKNOWN	-1004	Unknown .INI [SECTION].
ALERR_INI_BOARDID_RANGE	-1005	Invalid .INI BoardId setting.
ALERR_INI_DTM_STRING	-1006	Invalid .INI DataTransMethod setting.
ALERR_INI_CM_STRING	-1007	Invalid .INI CycleMode setting.
ALERR_INI_DMAMODE_STRING	-1008	Invalid .INI DmaMode setting.
ALERR_INI_DMACHAN_STRING	-1009	Invalid .INI DmaChan setting.
ALERR_INI_IRQMODE_STRING	-1010	Invalid .INI IrqMode setting.
ALERR_INI_IRQLEVEL_STRING	-1011	Invalid .INI IrqLevel setting.
ALERR_INI_ARBREINIT_STRING	-1012	Invalid .INI ArbReinit setting.
ALERR_INI_LOGERRORS_STRING	-1013	Invalid .INI LogErrors setting.
ALERR_INI_ERRONBUFFOVERRUN_STRING	-1014	Invalid .INI ErrorOnBufferOverrun setting.
ALERR_INI_ERRONRELRUNNING_STRING	-1015	Invalid .INI ErrorOnReleaseRunning setting.
ALERR_INI_BUFFERSIZE_LOW	-1016	Invalid .INI BufferSize setting.
ALERR_INI_NUMBUFFER_LOW	-1017	Invalid .INI NumBuffers setting.
ALERR_INI_BUFFERNOTIFYMETHOD_STRING	-1018	Invalid .INI BufferNotificationMethod setting.
ALERR_INI_AUTOINITBUFFERS_STRING	-1019	Invalid .INI AutoInitBuffers setting.
ALERR_INI_ERRONTRIGGEROVERRUN_STRING	-1020	Invalid .INI ErrOnTriggerOverrun setting.

INI FILE - continued

ALERR_INI_MINSTARTCHAN_STRING	-1100	Invalid .INI MinStartChan setting.
ALERR_INI_MAXENDCHAN_STRING	-1101	Invalid .INI MaxEndChan setting.
ALERR_INI_SIGNALPATH_STRING	-1102	Invalid .INI SignalPath setting.
ALERR_INI_INPUTCONFIG_STRING	-1103	Invalid .INI InputConfig setting.
ALERR_INI_CLKMODE_STRING	-1104	Invalid .INI ClkMode setting.
ALERR_INI_CLKSOURCE_STRING	-1105	Invalid .INI ClkSource setting.
ALERR_INI_CLKSOURCESIGNAL_STRING	-1106	Invalid .INI ClkSourceSignal setting.
ALERR_INI_CLKRATE_STRING	-1107	Invalid .INI ClkRate setting.
ALERR_INI_CLKRATE_RANGE	-1108	Invalid .INI ClkRate range.
ALERR_INI_CLKRATEUNITS_STRING	-1109	Invalid .INI ClkRateUnits setting.
ALERR_INI_BURSTLENGTH_STRING	-1110	Invalid .INI BurstLength setting.
ALERR_INI_BURSTLENGTH_RANGE	-1111	Invalid .INI BurstLength range.
ALERR_INI_BURSTRATE_STRING	-1112	Invalid .INI BurstRate setting.
ALERR_INI_BURSTRATE_RANGE	-1113	Invalid .INI BurstRate range.
ALERR_INI_BURSTRATEUNITS_STRING	-1114	Invalid .INI BurstRateUnits setting.
ALERR_INI_TRIGMODE_STRING	-1115	Invalid .INI TrigMode setting.
ALERR_INI_TRIGSRC_STRING	-1116	Invalid .INI TrigSource setting.
ALERR_INI_TRIGSRCSIGNAL_STRING	-1117	Invalid .INI TrigSourceSignal setting.
ALERR_INI_TRIGRATE_STRING	-1118	Invalid .INI TrigRate setting.
ALERR_INI_TRIGRATE_RANGE	-1119	Invalid .INI MinTrigRate or MaxTrigRate setting.
ALERR_INI_TRIGRATEUNITS_STRING	-1120	Invalid .INI TrigRateUnits setting.
ALERR_INI_DATACODE_STRING	-1121	Invalid .INI DataCode setting.
ALERR_INI_DATAOFFSET_STRING	-1122	Invalid .INI DataOffset setting.
ALERR_INI_DATASPAN_STRING	-1123	Invalid .INI DataSpan setting.
ALERR_INI_DATARANGE_STRING	-1124	Invalid .INI DataRange setting.

ALERR_INI_OUTPUTCONFIG_STRING	-1125	Invalid .INI OutputConfig setting.

INI FILE - continued

ALERR_INI_EXPPANEL_STRING	-1126	Invalid .INI ExpansionPanel n setting.
ALERR_INI_POSTSAMPLECOUNT_STRING	-1127	Invalid .INI PostSampleCounts setting.
ALERR_INI_POSTSAMPLECOUNT_RANGE	-1128	Invalid .INI PostSampleCounts range.
ALERR_INI_GATESRC_STRING	-1129	Invalid .INI GatrSource setting.
ALERR_INI_GATESRCLEVEL_STRING	-1130	Invalid .INI GateSourceLevel setting.
ALERR_INI_BURSTMODE_ STRING	-1131	Invalid .INI BurstMode setting.
ALERR_INI_FILTERTYPE_ STRING	-1132	Invalid .INI Filtertype setting.
ALERR_INI_FILTERFREQ_ STRING	-1133	Invalid .INI FilterFreq setting.
ALERR_INI_ FILTERFREQ _ RANGE	-1134	Invalid .INI FilterFreq range.
ALERR_INI_HANDSHAKE_ STRING	-1135	Invalid .INI HandShake setting.
ALERR_INI_PORTRESOLUTION_ STRING	-1136	Invalid .INI PortResolution setting.
ALERR_INI_ PORTMASK _ STRING	-1137	Invalid .INI PortMask setting.
ALERR_INI_ PORTRMASK_ RANGE	-1138	Invalid .INI PortMask range.
ALERR_INI_ CTRMODE_ STRING	-1139	Invalid .INI CtrMode setting.
ALERR_INI_ CTRRATEUNITS_ STRING	-1140	Invalid .INI CtrRateUnits setting.
ALERR_INI_ CTRRATE_ STRING	-1141	Invalid .INI CtrRate setting.
ALERR_INI_ PACKEDDATA_ STRING	-1142	Invalid .INI PackedData setting.
ALERR_INI_ CLKOUTPUT_ STRING	-1143	Invalid .INI ClockOutput setting.
ALERR_INI_ TRIGOUTPUT _ STRING	-1144	Invalid .INI TrigOutput setting.

CAPABILITIES FILE

ALERR_CAPS_FILEEXIST	-2000	The Capabilities (.CAP) can not be found.
ALERR_CAPS_MFG_STRING	-2001	Invalid .CAP manufacture setting.
ALERR_CAPS_MODEL_STRING	-2002	Invalid .CAP model setting.

BOARD

ALERR_CAPS_IOBASEADDRSEL_STRING	-2100	Invalid .CAP IoBaseAddrSelect setting.
ALERR_CAPS_MINIOBASEARRR_STRING	-2101	Invalid .CAP MinIoBaseAddress setting.
ALERR_CAPS_MAXIOBASEARRR_STRING	-2102	Invalid .CAP MaxIoBaseAddress setting.

DRIVER

ALERR_CAPS_DRIVERVERSION_STRING	-2200	Invalid .CAP DriverVersion setting.
ALERR_CAPS_DRIVERNAME_STRING	-2201	Invalid .CAP DriverName setting.
ALERR_CAPS_BOARDVERSION_STRING	-2202	Invalid .CAP BoardVersionSupport setting.
ALERR_CAPS_BOARDIDSUPPORT_STRING	-2203	Invalid .CAP BoardVersionId setting.
ALERR_CAPS_VERSION_STRING	-2204	Invalid .CAP file Version setting.

COMMON DEVICE SETTINGS

ALERR_CAPS_IRQSHAREABLE_STRING	-2300	Invalid .CAP IrqShareable setting.
ALERR_CAPS_DTM_STRING	-2301	Invalid .CAP DataTransMethod setting.
ALERR_CAPS_DTM_ENTRY	-2302	CAP DataTransMethod entry does not exist.
ALERR_CAPS_CM_STRING	-2303	Invalid .CAP CycleMode setting.
ALERR_CAPS_CM_ENTRY	-2304	CAP CycleMode entry does not exist.
ALERR_CAPS_BUFFERNOTIFYMETHOD_STRING	-2305	Invalid .CAP buffer notification setting.
ALERR_CAPS_DMAMODE_STRING	-2307	Invalid .CAP DmaMode setting.
ALERR_CAPS_DMACHAN_STRING	-2308	Invalid .CAP DmaChan setting.
ALERR_CAPS_IRQMODE_STRING	-2309	Invalid .CAP IrqMode setting.
ALERR_CAPS_IRQLEVEL_STRING	-2310	Invalid .CAP IrqLevel setting.
ALERR_CAPS_BUFFERSUPPORT_STRING	-2311	Invalid .CAP BoardVersionId setting
ALERR_CAPS_MINBUFFERS_STRING	-2312	Invalid .CAP MinStartChan setting.
ALERR_CAPS_MAXBUFFERS_STRING	-2313	Invalid .CAP MaxEndChan setting.
ALERR_CAPS_MINBUFFERSIZE_STRING	-2314	Invalid .CAP Min buffer size setting.
ALERR_CAPS_MAXBUFFERSIZE_STRING	-2315	Invalid .CAP Max buffer size setting.
ALERR_CAPS_PACKEDFIFO_STRING	2316	Invalid .CAP PackedFifoSupport setting.

ADC

ALERR_CAPS_GAIN_STRING	-2351	Invalid .CAP GAIN string format.
ALERR_CAPS_MINSTARTCHAN_STRING	-2352	Invalid .CAP MinStartChan setting.
ALERR_CAPS_MAXENDCHAN_STRING	-2353	Invalid .CAP MaxEndChan setting.
ALERR_CAPS_ARBCHAN_STRING	-2354	Invalid .CAP ArbChan setting.
ALERR_CAPS_ARBGAIN_STRING	-2355	Invalid .CAP ArbGain setting.
ALERR_CAPS_CLKMODE_STRING	-2356	Invalid .CAP ClkMode setting.
ALERR_CAPS_CLKSOURCE_STRING	-2357	Invalid .CAP ClkSource setting.
ALERR_CAPS_CLKSOURCESIGNAL_STRING	-2358	Invalid .CAP ClkSourceSignal setting.
ALERR_CAPS_MINCLKRATE_STRING	-2359	Invalid .CAP MinClkRate setting.
ALERR_CAPS_MAXCLKRATE_STRING	-2360	Invalid .CAP MaxClkRate setting.
ALERR_CAPS_MINBURSTLENGTH_STRING	-2361	Invalid .CAP MinBurstLength setting.
ALERR_CAPS_MAXBURSTLENGTH_STRING	-2362	Invalid .CAP MaxBurstLength setting.
ALERR_CAPS_MINBURSTRATE_STRING	-2363	Invalid .CAP MinBurstRate setting.
ALERR_CAPS_MAXBURSTRATE_STRING	-2364	Invalid .CAP MaxBurstRate setting.
ALERR_CAPS_TRIGMODE_STRING	-2365	Invalid .CAP TrigMode setting.
ALERR_CAPS_TRIGSRC_STRING	-2366	Invalid .CAP TrigSource setting.
ALERR_CAPS_TRIGSRCSIGNAL_STRING	-2367	Invalid .CAP TrigSourceSignal setting.
ALERR_CAPS_MINTRIGRATE_STRING	-2368	Invalid .CAP MinTrigRate setting.
ALERR_CAPS_MAXTRIGRATE_STRING	-2369	Invalid .CAP MaxTrigRate setting.
ALERR_CAPS_CJ_STRING	-2370	Invalid .CAP CJ setting.
ALERR_CAPS_ARBCJ_STRING	-2371	Invalid .CAP ArbCj setting.
ALERR_CAPS_DATACODE_STRING	-2372	Invalid .CAP DataCode setting.
ALERR_CAPS_DATAOFFSET_STRING	-2373	Invalid .CAP DataOffset setting.
ALERR_CAPS_DATASPAN_STRING	-2374	Invalid .CAP DataSpan setting.
ALERR_CAPS_FIFOSIZE_STRING	-2375	Invalid .CAP FifoSize setting.
ALERR_CAPS_DATARANGE_STRING	-2376	Invalid .CAP DataRange setting.

ADC - continued

ALERR_CAPS_OUTPUTCONFIG_STRING	-2377	Invalid .CAP OutputConfig setting.
ALERR_CAPS_MAXEXPPANELS_STRING	-2378	Invalid .CAP MaxNumExpPanels setting.
ALERR_CAPS_EXPPANEL_STRING	-2379	Invalid .CAP ExpPanel setting.
ALERR_CAPS_MAXEXPPANELS_MAX	-2380	Invalid .CAP MaxNumExpPanels too High.
ALERR_CAPS_BYTEPERSMPL_STRING	-2381	Invalid .CAP BytesPerSample setting.
ALERR_CAPS_MINPOSTSAMPLE_STRING	-2382	Invalid .CAP MinPostSamples setting.
ALERR_CAPS_MAXPOSTSAMPLE_STRING	-2383	Invalid .CAP MaxPostSamples setting.
ALERR_CAPS_GATESRC_STRING	-2384	Invalid .CAP GateSource setting.
ALERR_CAPS_GATESRCLEVEL_STRING	-2385	Invalid .CAP GateSourceLevel setting.
ALERR_CAPS_BURSTMODE_STRING	-2386	Invalid .CAP BurstMode setting.
ALERR_CAPS_SIGNALPATH_STRING	-2387	Invalid .CAP SignalPath setting.
ALERR_CAPS_INPUTCONFIG_STRING	-2388	Invalid .CAP InputConfig setting.
ALERR_CAPS_DATAMASK_STRING	-2389	Invalid .CAP DataMask setting.
ALERR_CAPS_FILTERTYPE_STRING	-2390	Invalid .CAP FilterType setting.
ALERR_CAPS_MINFILTERFREQ_STRING	-2391	Invalid .CAP MinFilterFreq setting.
ALERR_CAPS_MAXFILTERFREQ_STRING	-2392	Invalid .CAP MaxFilterFreq setting.
ALERR_CAPS_HANDSHAKE_STRING	-2393	Invalid .CAP HandShake setting.
ALERR_CAPS_PORTRESOLUTION_STRING	-2394	Invalid .CAP PortResolution setting.
ALERR_CAPS_MINPORTMASK_STRING	-2395	Invalid .CAP MinPortMask setting.
ALERR_CAPS_MAXPORTMASK_STRING	-2396	Invalid .CAP MaxPortMask setting.
ALERR_CAPS_CLKOUTPUT_STRING	- 2397	Invalid .CAP ClockOutput setting.
ALERR_CAPS_TRIGOUTPUT_STRING	- 2398	Invalid .CAP TrigOutput setting.
ALERR_CAPS_INPUTCONFIG_STRING	- 2399	Invalid .CAP InputConfig setting.
ALERR_CAPS_DATAOFFSET_STRING	- 2400	Invalid .CAP DataOffset setting.
ALERR_CAPS_CTRMODE_STRING	- 2401	Invalid .CAP CtrMode setting.
ALERR_CAPS_MINRATE_STRING	- 2402	Invalid .CAP MinRate setting.

ADC - continued

ALERR_CAPS_MAXRATE_STRING	-	2403	Invalid .CAP MaxRate setting.

CONFIGURATION FILE

ALERR_CON_FILEEXIST	-3000	The Configuration (.CON) can not be found.
ALERR_CON_FILE_MAXSTRING	-3001	The (.CON) file string exceeds the maximum allowed length.
ALERR_CON_FILE_STRPTR	-3002	Invalid .CON file string pointer.
ALERR_CON_BOARDSECTION_STRPTR	-3003	Invalid .CON board section pointer.
ALERR_CON_BOARDSECTION_STRING	-3004	Invalid .CON board section string
ALERR_CON_BOARDID_SAME	-3005	Invalid .CON BoardId setting.
ALERR_CON_BOARDID_RANGE	-3006	Invalid .CON BoardId setting.
ALERR_CON_IOBASEADDR_STRING	-3007	Invalid .CON IoBaseAddr setting.
ALERR_CON_BOARDCAPSFILE_STRING	-3008	Invalid .CON capabilities file setting.
ALERR_CON_DRVPATH_STRING	-3009	Invalid .CON driver Path setting.
ALERR_SYSTEMDRV_STRING	-3010	Invalid .CON System driver setting.

DEVICE SUBSYSTEM CHANNELS

ALERR_CHANLIST_LISTTYPE	-4000	Invalid Channel list struct list lType, is it an Array or String list.
ALERR_CHANLIST_STRPTR	-4001	Invalid Channel list string pointer.
ALERR_CHANLIST_STRING	-4002	Invalid Channel list string.
ALERR_CHANLIST_MAXSTRLEN	-4003	Invalid Channel list string length.
ALERR_CHANLIST_ARRAYPTR	-4004	Invalid Channel list array pointer.
ALERR_CHANLIST_ARRAY_LENTHPTR	-4005	Invalid Channel list array length pointer.
ALERR_CHANLIST_MAXARRAYLEN	-4006	Invalid Channel list array length.
ALERR_CHANLIST_MINCHAN	-4007	Invalid Channel in list.
ALERR_CHANLIST_MAXCHAN	-4008	Invalid Channel in list.
ALERR_CHANLIST_NONSEQ	-4009	Non-sequential Channels are not supported.
ALERR_GLOBALGAIN_STRPTR	-4010	Invalid Global Gain string pointer.
ALERR_GLOBALGAIN_GAIN	-4011	Invalid Gain type.
ALERR_CHANGAINLIST_LISTTYPE	-4050	Invalid Channel list struct list lType, is it an Array or String list.
ALERR_CHANGAINLIST_STRPTR	-4051	Invalid Channel list string pointer.
ALERR_CHANGAINLIST_STRING	-4052	Invalid Channel list string.
ALERR_CHANGAINLIST_MAXSTRLEN	-4053	Invalid Channel list string length.
ALERR_CHANGAINLIST_ARRAYPTR	-4054	Invalid Channel list array pointer.
ALERR_CHANGAINLIST_ARRAY_LENTHPTR	-4055	Invalid Channel list array length pointer.
ALERR_CHANGAINLIST_MAXARRAYLEN	-4056	Invalid Channel list array length.
ALERR_CHANGAINLIST_MINCHAN	-4057	Invalid Channel in list.
ALERR_CHANGAINLIST_MAXCHAN	-4058	Invalid Channel in list.
ALERR_CHANGAINLIST_NONSEQ	-4059	Non-sequential Channels are not supported.
ALERR_CHANGAINLIST_SYNTAX	-4060	Invalid ChanGainList syntax.
ALERR_CHANGAINLIST_ARBGAINS	-4061	Aribitrary Gains are not supported.
ALERR_CHANGAINLIST_GAINTYPE	-4062	Invalid Gain type.

DEVICE SUBSYSTEM EXPANSION PANEL GAINS

ALERR_EXPPANELGAINLIST_LISTTYPE	-4100	Invalid ExpPanelGainList structure list lType.
ALERR_EXPPANELGAINLIST_STRPTR	-4101	Invalid ExpPanelGainList string pointer.
ALERR_EXPPANELGAINLIST_STRING	-4102	Invalid ExpPanelGainList string.
ALERR_EXPPANELGAINLIST_MAXSTRLEN	-4103	Invalid ExpPanelGainList string length.
ALERR_EXPPANELGAINLIST_GAINSETTING	-4104	Invalid ExpPanelGainList gain setting.
ALERR_EXPPANELGAINLIST_ARRAYPTR	-4105	Invalid ExpPanelGainList array pointer.
ALERR_EXPPANELGAINLIST_ARRAY_LENGTHPTR	-4106	Invalid ExpPanelGainList array length pointer.
ALERR_EXPPANELGAINLIST_MAXARRAYLEN	-4107	Invalid ExpPanelGainList array length.
ALERR_EXPPANELGAINLIST_MINCHAN	-4108	Invalid ExpPanelGainList channel.
ALERR_EXPPANELGAINLIST_MAXCHAN	-4109	Invalid ExpPanelGainList channel.
ALERR_EXPPANELGAINLIST_SYNTAX	-4110	Invalid ExpPanelGainList syntax.

DEVICE SUBSYSTEM INPUT CONFIGURATION LIST

ALERR_INPUTCONFIG_LISTTYPE	-4120	Invalid InputConfig structure list lType.
ALERR_ INPUTCONFIG _STRPTR	-4121	Invalid InputConfig string pointer.
ALERR_ INPUTCONFIG _STRING	-4122	Invalid InputConfig string.
ALERR_ INPUTCONFIG _MAXSTRLEN	-4123	Invalid InputConfig string length.
ALERR_ INPUTCONFIG _GAINSETTING	-4124	Invalid InputConfig gain setting.
ALERR_ INPUTCONFIG _ARRAYPTR	-4125	Invalid InputConfig array pointer.
ALERR_ INPUTCONFIG _ARRAY_LENGTHPTR	-4126	Invalid InputConfig array length pointer.
ALERR_ INPUTCONFIG _MAXARRAYLEN	-4127	Invalid InputConfig array length.
ALERR_ INPUTCONFIG _MINCHAN	-4128	Invalid InputConfig min channel specified.
ALERR_ INPUTCONFIG _MAXCHAN	-4129	Invalid InputConfig max channel specified.
ALERR_ INPUTCONFIG _SYNTAX	-4130	Invalid InputConfig list syntax
ALERR_GLOBAL INPUTCONFIG _STRPTR	-4131	Invalid global InputConfig string pointer.
ALERR_GLOBAL INPUTCONFIG_TYPE	-4132	Invalid global InputConfig type

DEVICE SUBSYSTEM DATA OFFSET LIST

ALERR_DATAOFFSET_LISTTYPE	-4140	Invalid DataOffset structure list lType.
ALERR_ DATAOFFSET _STRPTR	-4141	Invalid DataOffset string pointer.
ALERR_ DATAOFFSET _STRING	-4142	Invalid DataOffset string.
ALERR_ DATAOFFSET _MAXSTRLEN	-4143	Invalid DataOffset string length.
ALERR_ DATAOFFSET _ GAINSETTING	-4144	Invalid DataOffset gain setting.
ALERR_ DATAOFFSET _ARRAYPTR	-4145	Invalid DataOffset array pointer.
ALERR_ DATAOFFSET _ARRAY_LENGTHPTR	-4146	Invalid DataOffset array length pointer.
ALERR_ DATAOFFSET _MAXARRAYLEN	-4147	Invalid DataOffset array length.
ALERR_ DATAOFFSET _MINCHAN	-4148	Invalid DataOffset min channel specified.
ALERR_ DATAOFFSET _MAXCHAN	-4149	Invalid DataOffset max channel specified.
ALERR_ DATAOFFSET _SYNTAX	-4150	Invalid DataOffset list syntax

DEVICE SUBSYSTEM DATA OFFSET LIST (con't)

ALERR_GLOBAL DATAOFFSET _STRPTR	-4151	Invalid global DataOffset string pointer.
ALERR_GLOBAL DATAOFFSET _TYPE	-4152	Invalid global DataOffset type

DEVICE SUBSYSTEM EXPANSION PANEL

ALERR_EXPPANELLIST_LISTTYPE	-4200	Invalid ExpPanelList structure list lType.
ALERR_EXPPANELLIST_STRPTR	-4201	Invalid ExpPanelList string pointer.
ALERR_EXPPANELLIST_STRING	-4202	Invalid ExpPanelList string.
ALERR_EXPPANELLIST_MAXSTRLEN	-4203	Invalid ExpPanelList string length.
ALERR_EXPPANELLIST_SETTING	-4204	Invalid ExpPanelList gain setting.
ALERR_EXPPANELLIST_ARRAYPTR	-4205	Invalid ExpPanelList array pointer.
ALERR_EXPPANELLIST_ARRAY_LENGTHPTR	-4206	Invalid ExpPanelList array length pointer.
ALERR_EXPPANELLIST_MAXARRAYLEN	-4207	Invalid ExpPanelList array length.
ALERR_EXPPANELLIST_MAXPANELS	-4208	Invalid Number of ExpPanels specified.
ALERR_EXPPANELLIST_PANELTYPE	-4209	Invalid ExpPanelList panel type.

DEVICE SUBSYSTEM THERMOUCOUPLES

ALERR_CJLIST_LISTTYPE	-4401	Invalid CJ structure list lType.
ALERR_CJLIST_STRPTR	-4402	Invalid CJ string pointer.
ALERR_CJLIST_STRING	-4403	Invalid CJ string.
ALERR_CJLIST_MAXSTRLEN	-4404	Invalid CJ string length.
ALERR_CJLIST_ARRAYPTR	-4405	Invalid CJ array pointer.
ALERR_CJLIST_ARRAY_LENGTHPTR	-4406	Invalid CJ array length pointer.
ALERR_CJLIST_MAXARRAYLEN	-4407	Invalid CJ array length.
ALERR_CJLIST_ARBCJ	-4408	Arbitrary CJs are not supported.
ALERR_CJLIST_MINCHAN	-4409	Invalid CJ channel specified.
ALERR_CJLIST_MAXCHAN	-4410	Invalid CJ channel specified.
ALERR_CJLIST_CJTYPE	-4411	Invalid CJ type
ALERR_CJLIST_SYNTAX	-4412	Invalid CJ list syntax
ALERR_GLOBALCJ_STRPTR	-4413	Invalid global CJ string pointer.
ALERR_GLOBALCJ_CJTYPE	-4414	Invalid global CJ type

TRIGGERS

ALERR_TRIGGERMODE_UNSUPPORTED	-4500	Trigger Mode is not supported.
ALERR_TRIGGERMODE_OPTION	-4501	Specified trigger mode source is not supported.
ALERR_TRIGGER_RATELOW	-4502	Invalid trigger rate specified.
ALERR_TRIGGER_RATEHIGH	-4503	Invalid trigger rate specified.
ALERR_TRIGGER_MINPOSTSAMPLECOUNT	-4504	Invalid post sample count specified.
ALERR_TRIGGER_MAXPOSTSAMPLECOUNT	-4505	Invalid post sample count specified.
ALERR_TRIGGER_POSTSMPLCNT_BUFFSIZE	-4506	Specified Post sample counts > bufferSize.

TRIGGER SOURCES

ALERR_TRIGGERSOURCE_OPTION	-4507	Specified Trigger source is not supported.
ALERR_TRIGGERSOURCE_UNSUPPORTED	-4510	Trigger sources is not supported.

TRIGGER SIGNALS

ALERR_TRIGGERSOURCESIGNAL_UNSUPPORTED	-4508	Triggering is not supported.
ALERR_TRIGGERSOURCESIGNAL_OPTION	-4509	Specified trigger signal source is not supported.

TRIGGER OUTPUTS

ALERR_TRIGGERSOUTPUT_UNSUPPORTED	- 4511	Triggering Output is not supported.
ALERR_TRIGGERSOUTPUT_OPTION	-4512	Specified trigger Output is not supported.

CLOCKING

ALERR_CLOCKING_UNSUPPORTED	-4600	Clocking is not supported.
ALERR_CLOCKING_OPTION	-4601	Specified Clock option is not supported.
ALERR_CLOCKING_RATELOW	-4602	Invalid clock rate specified.
ALERR_CLOCKING_RATEHIGH	-4603	Invalid clock rate specified.

CLOCK SIGNALS

ALERR_CLOCKSIGNAL_UNSUPPORTED	-4604	Clocking is not supported.
ALERR_CLOCKSIGNAL_OPTION	-4605	Specified Clock option is not supported.

CLOCK OUTPUTS

ALERR_CLOCKSOUTPUT_UNSUPPORTED	-4606	ClockOutput is not supported.
ALERR_CLOCKOUTPUT_OPTION	-4607	Specified ClockOutput is not supported.

DATA CODE

ALERR_DATACODE_UNSUPPORTED	-4700	Data Coding is not supported.
ALERR_DATACODE	-4701	Specified Data Code option is not valid.

DATA OFFSET

ALERR_DATAOFFSET_UNSUPPORTED	-4800	Data Offset is not supported.
ALERR_DATAOFFSET	-4801	Specified Data Offset option is not valid.

DMA

ALERR_DMA_MODES_UNSUPPORTED	-4900	DMA Modes are not supported.
ALERR_DMA_MODE	-4901	Specified DMA Modes option is not valid.
ALERR_DMA_CHANS_UNSUPPORTED	-4902	DMA Channels are not supported.
ALERR_DMA_CHAN	-4903	Specified DMA Channel option is not valid.
ALERR_DMA_INUSE	-4904	Specified DMA Channel is already in use.
ALERR_SETDMASTATUS_FLAG	-4905	The status flag specified is unknown.

INTERRUPTS

ALERR_IRQ_LEVELS_UNSUPPORTED	-5000	IRQ Levels are not supported.
ALERR_IRQ_LEVEL	-5001	Specified IRQ Level option is not valid.
ALERR_IRQ_INUSE	-5002	Specified IRQ Level is already in use.
ALERR_SETIRQSTATUS_FLAG	-5003	The status flag specified is unknown.
ALERR_SETIRQSTATUS_OWNER	-5004	Invalid IRQ owner setting status flags.

SIGNAL PATHS

ALERR_SIGNALPATH_UNSUPPORTED	-5100	Signal Paths are not supported.
ALERR_SIGNALPATH	-5101	Specified Signal Path option is not valid.

DATA TRANSFER METHOD

ALERR_DTM_UNSUPPORTED	-5200	DTM Methods are not supported.
ALERR_DTM	-5201	Specified DTM Method option is not valid.

CYCLE MODE

ALERR_CM_UNSUPPORTED	-5300	CM Methods are not supported.
ALERR_CM	-5301	Specified CM option is not valid.
ALERR_CM_NUMBUFFERS	-5302	Selected CM option is not valid for the number of buffers specified.

DATA SPAN

ALERR_DATASPAN_UNSUPPORTED	-5400	Data Span is not supported.
ALERR_DATASPAN	-5401	Specified Data Span option is not valid.

DATA RANGE

ALERR_DATARANGE_UNSUPPORTED	-5500	Data Range is not supported.
ALERR_DATARANGE	-5501	Specified Data Range option is not valid.

INPUT CONFIG

ALERR_INPUTCONFIG_UNSUPPORTED	-5600	Input Config is not supported.
ALERR_INPUTCONFIG	-5601	Specified Input Config option is not valid.

OUTPUT CONFIG

ALERR_OUTPUTCONFIG_UNSUPPORTED	-5700	Signal Paths are not supported.
ALERR_OUTPUTCONFIG	-5701	Specified Signal Path option is not valid.

BUFFER NOTIFICATION METHOD

ALERR_SETBUFFDONEHANDLER_UNSUPPORTED	-5800	Buffer Notification Methods are not supported.
ALERR_SETBUFFDONEHANDLER_METHOD	-5801	Specified buffer Notification Method option is not valid.
ALERR_SETBUFFDONEHANDLERMSG_UNSUPPORTED	-5802	Buffer PostMessage Notification is not supported.
ALERR_SETBUFFDONEHANDLERFUNC_UNSUPPORTED	-5803	Buffer CallBack Notifications are not supported.
ALERR_ SETBUFFDONEHANDLERMSGPARAMS_UNSUPPORTED	-5804	Buffer PostMessageParams are not supported.

START DEVICE

ALERR_DEVICE_BUSY	-5900	The device is already running.
ALERR_DEVICE_UNINITIALIZED	-5901	The device is not initialized.

DATA BUFFER CONTROL ERRORS

ALERR_BUFFER_HANDLER	-6000	Invalid handler specified.
ALERR_BUFFER_SIZE	-6001	Invalid buffer size specified.
ALERR_BUFFER_NUMBEROF	-6002	Invalid number of buffers specified.
ALERR_BUFFER_TYPE	-6003	Invalid buffer type specified.
ALERR_BUFFER_NOTIFY_METHOD	-6004	Invalid buffer notification method specified.
ALERR_BUFFER_NOTSUPPORTED	-6005	Buffer(s) are not supported on this LHLD.
ALERR_BUFFER_POINTER	-6006	Buffer pointer equal to NULL.
ALERR_BUFFER_ERROR	-6007	An error condition occured in the previous buffer making the next DONE_BUFFER unavailable.
ALERR_DONEBUFFER_NOTREADY	-6008	The next buffer has not completed.
ALERR_BUFFER_STARTPOINT	-6009	The specified buffer StartPoint position number is out of range for the available buffer size.
ALERR_BUFFER_MAXCOUNT	-6010	The specified number of buffer counts exceeds the available buffer size.
ALERR_BUFFER_STATUS_PTR	-6011	Invalid LPDATABUFFSTATUS specified.
ALERR_BUFFER_NUMBER	-6012	Invalid buffer number specified.
ALERR_BUFFER_INTERNAL	-6013	Unable to locate specified buffer.

BURST MODE CONTROL ERRORS

ALERR_BURSTMODE_UNSUPPORTED	-7000	Burst mode is not supported on this LHLD.
ALERR_BURSTMODE_OPTION	-7001	Invalid burst mode specified.
ALERR_BURST_RATELOW	-7002	Burst mode rate too low for this LHLD.
ALERR_BURST_RATEHIGH	-7003	Burst mode rate too high for this LHLD.
ALERR_BURST_MINLENGTH	-7004	Burst mode length too low for this LHLD.
ALERR_BURST_MAXLENGTH	-7005	Burst mode length too high for this LHLD

GATING

ALERR_GATING_UNSUPPORTED	-8000	Gating is not supported.
ALERR_GATING_OPTION	-8001	Specified Gate option is not supported.
ALERR_SETSWGATE_UNSUPPORTED	-8002	SetSwGate function is not supported.
ALERR_GETSWGATE_UNSUPPORTED	-8003	GetSwGate function is not supported.

GATE LEVELS

ALERR_GATELEVELS_UNSUPPORTED	-9000	Gate levels are not supported.
ALERR_GATELEVEL_OPTION	-9001	Specified Gate level option is not supported.

DRIVERS

ALERR_DRV_NOT_LOADED	-10002	The board's device driver is not loaded.
ALERR_DRV_ADDR_STRUCT_PTR	-10004	Invalid Driver address struct pointer.
ALERR_DRV_STOPDEV_ADDR_PTR	-10005	Driver StopDevice function not found.
ALERR_DRV_DTM_ADDR_PTR	-10006	Driver DataTransMethod function not found.
ALERR_DRV_CM_ADDR_PTR	-10007	Driver CycleMode function not found.
ALERR_DRV_SETDMA_ADDR_PTR	-10008	Driver SetDma function not found.
ALERR_DRV_SETIRQ_ADDR_PTR	-10009	Driver SetIrq function not found.
ALERR_DRV_INIT_ADDR_PTR	-10010	Driver InitAddress function not found.
ALERR_DRV_SETCHANGAIN_ADDR_PTR	-10011	Driver SetChanGain function not found.
ALERR_DRV_SETCJ_ADDR_PTR	-10012	Driver SetCj function not found.
ALERR_DRV_SETBURSTMODE_ADDR_PTR	-10013	Driver SetBurstMode function not found.
ALERR_DRV_SETCLKMODE_ADDR_PTR	-10014	Driver SetClkMode function not found.
ALERR_DRV_SETCLKSRC_ADDR_PTR	-10015	Driver SetClkSrc function not found.
ALERR_DRV_SETCLKSRCSIG_ADDR_PTR	-10016	Driver SetClkSrcSig function not found.
ALERR_DRV_SETTRIGMODE_ADDR_PTR	-10017	Driver SetTrigMode function not found.
ALERR_DRV_SETTRIGSRC_ADDR_PTR	-10018	Driver SetTrigSrc function not found.
ALERR_DRV_SETTRIGSRCSIG_ADDR_PTR	-10019	Driver SetTrigSrcSig function not found.
ALERR_DRV_SETINPUT_ADDR_PTR	-10020	Driver SetInputConfig function not found.
ALERR_DRV_SETDATACODE_ADDR_PTR	-10021	Driver SetDataCode function not found.
ALERR_DRV_SETDATAOFFSET_ADDR_PTR	-10022	Driver SetDataOffset function not found.
ALERR_DRV_SETDATASPAN_ADDR_PTR	-10023	Driver SetDataSpan function not found.
ALERR_DRV_SETSIGNALPATH_ADDR_PTR	-10024	Driver SetSignalPath function not found.
ALERR_DRV_SETDATARANGE_ADDR_PTR	-10025	Driver SetDataRange function not found.
ALERR_DRV_SETOUTPUTCONFIG_ADDR_PTR	-10026	Driver SetOutputConfig function not found.
ALERR_DRV_SETBUFFERS_ADDR_PTR	-10027	Driver SetBuffers function not found.

ALERR_DRV_SETDAOUTPUT_ADDR_PTR	-10028	Driver SetDaOutput function not found.

DRIVERS - continued

ALERR_DRV_BUFFERNOTIFYMETHOD_ADDR_PTR	-10029	Driver SetBuffNotifyMethod function not found.
ALERR_DRV_SETPOSTSMPLCOUNTS_ADDR_PTR	-10030	Driver SetOutputConfig function not found.
ALERR_DRV_STARTDEV_ADDR_PTR	-10031	Driver StartDevice function not found.
ALERR_DRV_GETDEVSTATUS_ADDR_PTR	-10032	Driver GetDeviceStatus function not found.
ALERR_DRV_DIGINPUT_ADDR_PTR	-10033	Driver Digital Input function not found.
ALERR_DRV_DIGBITSTEST_ADDR_PTR	-10034	Driver Digital Bit Test function not found.
ALERR_DRV_DIGOUTPUT_ADDR_PTR	-10035	Driver Digital Output function not found.
ALERR_DRV_SETGATESRC_ADDR_PTR	-10036	Driver SetGateSrc function not found.
ALERR_DRV_SETGATESRCLEVEL_ADDR_PTR	-10037	Driver SetGateSrcLevel function not found.
ALERR_DRV_SETSWGATE_ADDR_PTR	-10038	Driver SetSWGate function not found.
ALERR_DRV_GETSWGATE_ADDR_PTR	-10039	Driver GetSWGate function not found.
ALERR_DRV_BOARDHWID_ADDR_PTR	-10040	Driver GetBoardID function not found.
ALERR_DRV_BOARDHWVER_ADDR_PTR	-10041	Driver GetBoardVer function not found.
ALERR_DRV_DRIVERVER_ADDR_PTR	-10042	Driver GetDrvVer function not found.
ALERR_DRV_BOARDERROR_ADDR_PTR	-10043	Driver GetBrdError function not found.
ALERR_DRV_BUFFERMESSAGEHANDLER_ADDR_PTR	-10044	Driver SetBuffmessagehandler function not found.
ALERR_DRV_BUFFERCALLBACKFUNC_ADDR_PTR	-10045	Driver SetBuffcallbackfunc function not found.
ALERR_DRV_DEMUXDATA_ADDR_PTR	-10046	Driver DemuxData function not found.
ALERR_DRV_DEMUXDATASET_ADDR_PTR	-10047	Driver DemuxDataSet function not found.

ALERR_DRV_SETFILTERTYPE_ADDR_PTR	-10048	Driver SetfilterType function not found.
ALERR_DRV_SETHANDSHAKE_ADDR_PTR	-10049	Driver SetHandShake function not found.

DRIVERS - continued

ALERR_DRV_SETPORTRESOLUTION_ADDR_PTR	-10050	Driver SetPortResolution function not found.
ALERR_DRV_SETERRONTRIGOVERRUN_ADDR_PTR	-10051	Driver SetErrOnTrigOverrun function not found.
ALERR_DRV_SETPORTCONTROL_ADDR_PTR	-10052	Driver SetPortControl function not found.
ALERR_DRV_BUFFERMESSAGEHANDLERPARAMS_ADDR_PTR	-10053	Driver SetBuffMessageHandlerParams function not found.
ALERR_DRV_GETACTUALCLOCKRATE_ADDR_PTR	-10054	Driver GetActualClkRate function not found.
ALERR_DRV_SETPACKEDDATA_ADDR_PTR	-10055	Driver SetPackedData function not found.
ALERR_DRV_SETCLKOUTPUT_ADDR_PTR	-10056	Driver SetClkOutput function not found.
ALERR_DRV_SETTRIGOUTPUT_ADDR_PTR	-10057	Driver SetTriggerOutput function not found.
ALERR_DRV_SETINPUTCONFIGLIST_ADDR_PTR	-10058	Driver InputConfigList function not found.
ALERR_DRV_SETDATAOFFSETLIST_ADDR_PTR	-10059	Driver DataOffsetList function not found.
ALERR_DRV_SETCTRMODE_ADDR_PTR	-10060	Driver CtrMode function not found.
ALERR_DRV_COUNTEROUT_ADDR_PTR	-10061	Driver CounterOut function not found.
ALERR_DRV_COUNTERIN_ADDR_PTR	-10062	Driver CounterIn function not found.

DEVICE DRIVER HANDLES

ALERR_LHDRVSUBSYS	-10100	The LHDRVSUBSYS specified does not exist.
ALERR_LHDRVSUBSYS_MAX	-10101	The maximum LHDRVSUBSYS have already been allocated.

RUNTIME ERRORS

ALERR_RELEASE_RUNNING	-10200	An attempt to release the LHLD was made while the LHLD was running.

FILTERS

ALERR_FILTERS_UNSUPPORTED	-10300	Filtering is not supported on this LHLD.
ALERR_FILTERS_OPTION	-10301	Invalid Filter Type specified.
ALERR_FILTERS_FREQLOW	-10302	Filter frequency too low for this LHLD.
ALERR_FILTERS_FREQHIGH	-10303	Filter frequency too high for this LHLD.

HANDSHAKE

ALERR_HANDSHAKING_UNSUPPORTED	-10400	Handshaking is not supported on this LHLD
ALERR_HANDSHAKE_OPTION	-10401	Invalid Handshake specified

PORT RESOLUTION

ALERR_PORTRESOLUTION_UNSUPPORTED	-10500	PortResolution is not supported on this LHLD.
ALERR_PORTRESOLUTION_OPTION	-10501	Invalid PortResolution specified.
ALERR_PORTMASK_MINMASK	-10502	Invalid PortMask minimum.
ALERR_PORTMASK_MAXMASK	-10503	Invalid PortMask maximum.
ALERR_PORTCONTROL_STRUCT_PTR	-10504	Invalid PortControl structure pointer.
ALERR_PORTCONTROL_STRUCT_UNSUPPORTED	-10505	PortControl structure is not supported.

CTR MODE

ALERR_CTRMODE_UNSUPPORTED	10600	Ctr Mode is not supported on this LHLD.
ALERR_CTRMODE_OPTION	10601	Invalid Ctr Mode specified.

CTR MODE (continued)

ALERR_COUNTER_RATELOW	-10700	Invalid Counter rate specified.
ALERR_COUNTER_RATEHIGH	-10701	Invalid Counter rate specified.

ENVIRONMENT SPECIFIC ERROR CODES

ALERR_LOADLIBRARY_ERROFFSET	-100000	ADLIB ERROR CODE OFFSET.
ALERR_LOADLIBRARY	-100001	System was out of memory, executable file was corrupt, or relocations were invalid.
ALERR_LOADLIBRARY_FILE	-100002	File was not found.
ALERR_LOADLIBRARY_PATH	-100003	Path was not found.
ALERR_LOADLIBRARY_LINK	-100005	Attempt was made to dynamically link to a task, or there was a sharing or network-protection error.
ALERR_LOADLIBRARY_DATASEG	-100006	Library required separate data segments for each task.

ALERR_LOADLIBRARY_MEM	-100008	There was insufficient memory to start the application.
ALERR_LOADLIBRARY_VER	-100010	Windows version was incorrect.
ALERR_LOADLIBRARY_INV	-100011	Executable file was invalid. Either it was not a Windows application or there was an error in the .EXE image.
ALERR_LOADLIBRARY_OPSYS	-100012	Application was designed for a different operating system.
ALERR_LOADLIBRARY_DOS40	-100013	Application was designed for MS-DOS 4.0.
ALERR_LOADLIBRARY_UNKNOWN	-100014	Type of executable file was unknown.
ALERR_LOADLIBRARY_REALMODE	-100015	Attempt was made to load a real-mode application (developed for an earlier version of Windows).

ENVIRONMENT SPECIFIC ERROR CODES - continued

ALERR_LOADLIBRARY_SECONDINST	-100016	Attempt was made to load a second instance of an executable file containing multiple data segments that were not marked read only.
ALERR_LOADLIBRARY_COMPRESSED	-100019	Attempt was made to load a compressed executable file. The file must be decompressed before it can be loaded.
ALERR_LOADLIBRARY_DLLMISSING	-100020	Dynamic-link library (DLL) file was invalid. One of the DLLs required to run this application was corrupt.
ALERR_LOADLIBRARY_32BITREQ	-100021	Application requires Microsoft Windows 32-bit extensions.

-10XXXX
Note that 32 bit load library errors are a combination of GetlastError() and AL_LOADLIBRARY_ERROROFFSET. To determine the exact error that occurred subtract AL_LOADLIBRARY_ERROROFFSET from the Error Code returned and see the SDK Error Codes.

ADLIB INTERNAL ERROR CODES

ALERR_INTERNAL_ISARBITRARY_PARAMETER	-200000	Parameter validation failed.
ALERR_INTERNAL_ISNUMSEQLIST_PARAMETER	-200001	Parameter validation failed.

6.2 BOARD DRIVER ERROR CODES

DRVERR_DRVMAIN_PROCSTATE =	-401000	Invalid DriverMain procedure specified.
DRVERR_BOARD_NOT_PRESENT =	-401001	Unable to locate specified board.
DRVERR_INV_HBRDINST =	-401002	Invalid Board instance specified.
DRVERR_DEVICE_UNINITIALIZED =	-401003	The device has not been initialized.
DRVERR_MEMORY_LOW =	-401004	Unable to allocate memory.
DRVERR_MAXBOARDS_ALLOCATED =	-401005	The maximum boards have already been allocated.
DRVERR_BOARD_RESET_TIMEOUT =	-401006	Unable to reset the specified board.
DRVERR_PRODUCTID_UNMATCHED =	-401007	The product ID is incorrect for the specified board.
DRVERR_INV_BUFFER =	-401008	Invalid buffer in call to driver.
DRVERR_DEVICE_INUSE =	-401009	The specified device is busy.
DRVERR_SYSTEM_DRIVER_NOTFOUND =	-401010	System Driver Not Found.
DRVERR_SYSTEM_DRIVER_IOCTL =	-401011	An error occurred during an IOCTL Driver call.
DRVERR_BOARD_RESET_FAILED =	-401012	The driver was unable to properly reset the specified device.
DRVERR_THREAD_BUSY_TIMEOUT =	-401013	The internal driver is not responding to STOPAD command.
DRVERR_SYSTEM_DMATRANS_FAILED =	-401014	The System driver DMA Transfer initiation failed.
DRVERR_THREAD_READY_TIMEOUT =	-401015	An Internal Driver Thread has stopped responding to the system.
DRVERR_INVALID_DRVSUBSYS =	-401016	The specified driver subsystem does not exist.
DRVERR_MMTIMER_ALLOCATION=	-401017	The specified driver subsystem does not exist.
DRVERR_SYSTEM_DRIVER_CREATE_EVENT=	-401018	The system driver can not insert an event object.
DRVERR_SYSTEM_DRIVER_IRP_INSERT=	-401019	The system driver can not insert an IRP buffer

DRVERR_CYCLEMODE_TRANSMETHOD_CONFLICT =	-401100	A conflict between the CycleMode and transfermethod has been specified, creating an invalid setup.
DRVERR_BUFFNOTIFY_TRANS_METHOD_CONFLICT =	-401101	A conflict between the buffer notification method and Transfermethod has been specified, creating an invalid setup.
DRVERR_DMA_ARBCJ_CHANNELS_NOTSUPPORTED =	-401102	Aribitrary thermocouple channels are not supported with DMA.
DRVERR_CYCLEMODE_CLKSOURCE_CONFLICT =	-401103	A conflict between the CycleMode and ClockSource has been specified, creating an invalid setup.
DRVERR_CLKSOURCE_TRANSMETHOD_CONFLICT =	-401104	A conflict between the ClockSource and TransferMethod has been specified, creating an invalid setup.
DRVERR_ARBCJ_CHANNELS_NOTSUPPORTED =	-401105	Aribitrary thermocouple channels are not supported.
DRVERR_DMA_ARBCHANS_NOTSUPPORTED =	-401106	Aribitrary channels are not supported.
DRVERR_DMA_ARBGAINS_NOTSUPPORTED =	-401107	Aribitrary gains are not supported.
DRVERR_TRIGMODE_CLKSOURCE_CONFLICT =	-401108	A conflict between the TriggerMode and ClockSource has been specified, creating an invalid setup.
DRVERR_TRIGMODE_ARBCJ_CONFLICT =	-401109	A conflict between the TriggerMode and arbitrary CJ channels has been specified, creating an invalid setup.
DRVERR_TRIGMODE_ARBGAIN_CONFLICT =	-401110	A conflict between the TriggerMode and arbitrary

		Gains has been specified, creating an invalid setup.
DRVERR_TRIGMODE_NONSEQCHAN_CONFLICT =	-401111	A conflict between the TriggerMode and non-sequential channels has been specified, creating an invalid setup.
DRVERR_BURSTMODE_CLKSOURCE_CONFLICT=	-401112	A conflict between the BurstMode and ClockSource has been specified, creating an invalid setup.
DRVERR_TRIGSOURCE_ BURSTMODE_ CONFLICT=	-401113	A conflict between the TriggerSource and BurstMode has been specified, creating an invalid setup.
DRVERR_TRIGSOURCE_CLKSOURCE_ CONFLICT=	-401114	A conflict between the TriggerSource and ClkSource has been specified, creating an invalid setup.
DRVERR_TRIGSOURCE_TRIGMODE_ CONFLICT=	-401115	A conflict between the TriggerSource and TriggerMode has been specified, creating an invalid setup.
DRVERR_GATESOURCE_TRANSMETHOD_ CONFLICT=	-401116	A conflict between the GateSource and Transfer Method has been specified creating an invalid setup.
DRVERR_TRIGSOURCE_TRANSMETHOD_ CONFLICT=	-401117	A conflict between the TriggerSource and Transfer Method has been specified, creating an invalid setup.
DRVERR_C40PORT_ARBCJ_CHANNES_NOT SUPPORTED =	-401118	Arbitrary thermocouple channels are not supported over the C40 Port.
DRVERR_DAOUTPUT_TRANFERMETHOD_CONFLICT =	-401119	A conflict between the DAC Output and Transfer Method has been specified, creating an invalid setup.

DRVERR_CLKSOURCE_COUNTER0_CONFLICT =	-401120	A conflict between the Clock Source and Counter 0 has been specified, creating an invalid setup.
DRVERR_CLKSOURCE_TIMER1_CONFLICT =	-401121	A conflict between the Clock Source and Timer 1 has been specified, creating an invalid setup.
DRVERR_CLKSOURCE_TIMER0_CONFLICT =	-401122	A conflict between the Clock Source and Timer 0 has been specified, creating an invalid setup.
DRVERR_CLKSOURCE_COUNTER1_CONFLICT =	-401123	A conflict between the Clock Source and Counter 1 has been specified, creating an invalid setup.
DRVERR_ DRVERR_CLKRATEUNITS_INVALID =	-401124	An invalid ClockRateUnits setting was specified.

DRVERR_GAINCHANLIST_MINLEN =	-401200	The specified channel gain list is invalid.
DRVERR_GAINCHANLIST_MAXLEN =	-401201	The specified channel gain list is invalid.
DRVERR_GAINCHANLIST_ARRAY_PTR=	-401202	Invalid channel gain list.

DRVERR_PANELGAINLIST_MINLEN =	-401300	The specified panel gain list is invalid.
DRVERR_PANELGAINLIST_MAXLEN =	-401301	The specified panel gain list is invalid.
DRVERR_PANELGAINLIST_ARRAY_PTR =	-401302	Invalid panel gain list.

DRVERR_EXPPANEL_MINLEN =	-401400	The specified expansion panel gain list is invalid.
DRVERR_EXPPANEL_MAXLEN =	-401401	The specified expansion panel gain list is invalid.
DRVERR_EXPPANEL_ARRAY_PTR =	-401402	Invalid expansion channel gain list.

DRVERR_CJLIST_MINLEN =	-401500	The specified CJ list is invalid.
DRVERR_CJLIST_MAXLEN =	-401501	The specified CJ list is invalid.
DRVERR_CJLIST_ARRAY_PTR =	-401502	Invalid CJ list.
DRVERR_ADLOWRATE =	-401600	The specified A/D Clocking rate is low.
DRVERR_ADWITHTC_RATEHIGH =	-401601	The desired A/D clocking rate with thermocouple expanders is too high.
DRVERR_DAOUTRANGE =	-401700	Invalid D/A range specified.
DRVERR_DA_NOTAVAILABLE =	-401701	D/A support is not available.
DRVERR_DAUNITS_INVALID =	-401702	The specified D/A unit is not available.
DRVERR_IRQ_INUSE =	-401800	The specified Interrupt level is already in use.
DRVERR_INTERRUPTS_NOTSUPPORTED =	-401801	Interrupts are not supported.
DRVERR_DMA_INUSE =	-401900	The specified DMA level is already in use.
DRVERR_DMA_NOTSUPPORTED =	-401901	DMA is not supported.
DRVERR_DMA_TRANSFER=	-401902	DMA Transfer Error.
DRVERR_ADFIFO_OVERRUN =	-402000	The board's A/D FIFO overrun bit has set.
DRVERR_BURST =	-402001	The board's A/D Burst error bit has set.
DRVERR_CLOCK =	-402002	The board's A/D Clock error bit has set.
DRVERR_ADDATA_OVERRUN =	-402003	The board's A/D DATA overrun bit has set.
DRVERR_TRIGGER_OVERRUN =	-402004	The board's trigger overrun bit has set.
DRVERR_INTERRUPT_OVERRUN =	-402005	The board's interrupt rate is too fast for the driver to respond.
DRVERR_DADATA_UNDERRUN =	-402006	The board’s D/A data underrun bit has set.
DRVERR_DAFIFO_UNDERRUN =	-402007	The board’s D/A data underrun bit has set.

DRVERR_BUFFER_OVERRUN =	-403000	The Current buffer has overrun.
DRVERR_BUFFER_NEXTBUSY =	-403001	The next buffer in sequence is not available for use by the driver.
DRVERR_GETDEVSTATUS_PARAM =	-404000	Invalid status function argument parameter specified.
DRVERR_STOPDEV_NOTSUPPORTED =	-405000	The requested operation is not supported.
DRVERR_INITDEV_NOTSUPPORTED =	-405001	The requested operation is not supported.
DRVERR_STARTDEV_NOTSUPPORTED =	-405002	The requested operation is not supported.
DRVERR_SETCYCLEMODE_NOTSUPPORTED =	-405003	The requested operation is not supported.
DRVERR_SETDATATRANSMETHOD_NOTSUPPORTED =	-405004	The requested operation is not supported.
DRVERR_SETGCLIST_NOTSUPPORTED =	-405005	The requested operation is not supported.
DRVERR_SETPANELLIST_NOTSUPPORTED =	-405006	The requested operation is not supported.
DRVERR_SETCJLIST_NOTSUPPORTED =	-405007	The requested operation is not supported.
DRVERR_SETCLOCKSOURCE_NOTSUPPORTED =	-405008	The requested operation is not supported.
DRVERR_SETTRIGGERMODE_NOTSUPPORTED =	-405009	The requested operation is not supported.
DRVERR_SETTRIGGERSOURCE_NOTSUPPORTED =	-405010	The requested operation is not supported.
DRVERR_SETTRIGGERSOURCESIG_NOTSUPPORTED =	-405011	The requested operation is not supported.
DRVERR_SETGATESOURCE_NOTSUPPORTED =	-405012	The requested operation is not supported.
DRVERR_SETSWGATE_NOTSUPPORTED =	-405013	The requested operation is not supported.

DRVERR_GETSWGATE_NOTSUPPORTED =	-405014	The requested operation is not supported.
DRVERR_GATEANDTRIG_NOTSUPPORTED =	-405015	The requested operation is not supported.
DRVERR_SETGATESOURCELEVEL_NOTSUPPORTED =	-405016	The requested operation is not supported.
DRVERR_SETDATACODE_NOTSUPPORTED =	-405017	The requested operation is not supported.
DRVERR_SETDATAOFFSET_NOTSUPPORTED =	-405018	The requested operation is not supported.
DRVERR_SETBURSTMODE_NOTSUPPORTED =	-405019	The requested operation is not supported.
DRVERR_SETINPUTCONFIG_NOTSUPPORTED =	-405020	The requested operation is not supported.
DRVERR_SETDATARANGE_NOTSUPPORTED =	-405021	The requested operation is not supported.
DRVERR_SETDAOUTPUT_NOTSUPPORTED =	-405022	The requested operation is not supported.
DRVERR_SETBUFFERS_NOTSUPPORTED =	-405023	The requested operation is not supported.
DRVERR_SETBUFFNOTIFYMETHOD_NOTSUPPORTED =	-405024	The requested operation is not supported.
DRVERR_CALLBACKHANDLER_INVALID =	-405025	The Specified call-back handler is invalid.
DRVERR_SETPOSTSAMPLECOUNTS_NOTSUPPORTED =	-405026	The requested operation is not supported.
DRVERR_SETBUFFMSGHANDLER_NOTSUPPORTED =	-405027	The requested operation is not supported.
DRVERR_GETDEVSTATUS_NOTSUPPORTED =	-405028	The requested operation is not supported.
DRVERR_DIGITALINPUT_NOTSUPPORTED =	-405029	The requested operation is not supported.
DRVERR_DIGITALOUTPUT_NOTSUPPORTED =	-405030	The requested operation is not supported.
DRVERR_BOARD_READYBIT_TIMEOUT =	-405031	The boards ready bit flag indicator is not setting.

DRVERR_SETFILTERTYPE_NOTSUPPORTED =	-405032	Filter types are not supported.
DRVERR_SETERRONTRIGOVERRUN_NOTSUPPORTED =	-405033	ErrOnTrigOverrun is not supported.
DRVERR_SETBUFFMSGHANDLERPARAMS_NOTSUPPORTED -	-405034	User PostMessage parameters are not supported
DRVERR_GETACTUALCLOCKRATE_NOTSUPPORTED =	-405035	The requested operation is not supported or the clock source is unknown such as ext.clocking.
DRVERR_SETDATAOFFSETLIST_NOTSUPPORTED =	-405036	The requested operation is not supported.
DRVERR_SETTRIGGEROUTPUT_NOTSUPPORTED =	-405037	The requested operation is not supported.
DRVERR_SETCLOCKOUTPUT_NOTSUPPORTED =	-405038	The requested operation is not supported.
DRVERR_SETCTRMODE_NOTSUPPORTED =	-405039	The requested operation is not supported.
DRVERR_COUNTERIN_NOTSUPPORTED =	-405040	The requested operation is not supported.
DRVERR_COUNTEROUT_NOTSUPPORTED =	-405041	The requested operation is not supported.
DRVERR_SETINPUTCONFIGLIST_NOTSUPPORTED =	-405042	The requested operation is not supported.
DRVERR_GETBOARDERROR_NOTSUPPORTED =	-405043	The requested operation is not supported.
DRVERR_SETPACKEDDATA_NOTSUPPORTED =	-405044	The requested operation is not supported.
DRVERR_BOARD_FNEBIT_TIMEOUT =	-405045	The boards FNE bit is not setting after a conversion has been initiated.
DRVERR_BURSTRATE_LOW=	-406000	The specified Burst rate is low.
DRVERR_BURSTRATE_HIGH=	-406001	The specified Burst rate is high.
DRVERR_SCANRATE_LOW=	-406100	The specified Scan rate is low.
DRVERR_SCANRATE_HIGH=	-406101	The specified Scan rate is high.