ASITiger Device Adapter

ASITiger is a Micro-Manager device adapter for the TG-1000 controller.

The following tables map the device property names that you see in the device property browser in Micro-Manager to the underlying serial command being used by the device adapter.

Clocked Devices

Turret, PortSwitch, FilterSlider

Turret, PortSwitch, FilterSlider		
Property	**Set**	**Get**
JoystickInput		
NumPositions		
State		

CRISPAFocus

CRISPAFocus		
Property	**Set**	**Get**
CRISP State	See Table	See Table
CRISP State Character	-	LK X?
Calibration Gain	LR X=#	LR X?
Dither Error	-	LK Y?
GainMultiplier	LR T=#	LR T?
In Focus Range(um)	AL Z=#	AL Z?
LED Intensity	UL X=#	UL X?
Lock Offset	LK Z=#	LK Z?
LogAmpAGC	AL X=#	AL X?
Max Lock Range(mm)	LR Z=#	LR Z?
Number of Averages	RT F=#	RT F?
Number of Skips	UL Y=#	UL Y?
Objective NA	LR Y=#	LR Y?
Signal Noise Ratio	-	EXTRA Y?
Sum	-	LK T?
Wait ms after Lock	-	-

CRISP State	
Property Value	**Set**
Idle	LK F=79
Ready	LK F=85
Lock	LK F=83
log_Cal	LK F=72
gain_Cal	LK F=67

CRISP State	
Property Value	**Set**
Dither	LK F=102
Curve	LK F=97
Balance	LK F=66
Reset Focus Offset	LK F=111

CRISP Advanced Settings		
Set LogAmpAGC (Advanced Users Only)	LK M=#	-
Set Lock Offset (Advanced Users Only)	LK Z=#	-

DAC

DAC		
Property	**Set**	**Get**
DAC Gate	Open: MC <axis>=# Closed: MC <axis>=-#	MC <axis>?
DACVoltage(mV)	M <axis>=#	W <axis>
FilterFreq(kHz)	B <axis>=#	B <axis>?
MaxVoltage(V)	-	SU <axis>?
MinVoltage(V)	-	SL <axis>?
OutputMode (Restart Needed)	PR <axis>=#	PR <axis>?
SINGLEAXIS_FUNCTION		
RING BUFFER		
RING BUFFER + IN0_INT		
TTLinMode	TTL X=#	TTL X?
TTLoutMode	TTL Y=#	TTL Y?

DACXYStage

DACXYStage		
Property	**Set**	**Get**
DAC Gate X	Open: MC <axisX>=# Closed: MC <axisX>=-#	MC <axisX>?
DAC Gate Y	Open: MC <axisY>=# Closed: MC <axisY>=-#	MC <axisY>?
FilterFreqX(kHz)	B <axisX>=#	B <axisX>?
FilterFreqY(kHz)	B <axisY>=#	B <axisY>?
JoystickEnabled		
JoystickFastSpeed		
JoystickInput		
JoystickReverse		
JoystickRotate		
JoystickSlowSpeed		
MaxVoltageX(V)		
MaxVoltageY(V)		
MinVoltageX(V)		
MinVoltageY(V)		

DACXYStage		
Property	**Set**	**Get**
OutputModeX (Restart Needed)	PR <axisX>=#	PR <axisX>?
OutputModeY (Restart Needed)	PR <axisY>=#	PR <axisY>?
SINGLEAXIS_FUNCTION		
RING BUFFER		
RING BUFFER + IN0_INT		
TTLinMode	TTL X=#	TTL X?
TTLoutMode	TTL Y=#	TTL Y?

FilterWheel

FilterWheel		
Property	**Set**	**Get**
LockMode		
Offset	OF #	OF
SpeedSetting	SV #	SV
SpinOffOn		
VelocityRun	VR #	VR

LED

LED		
Property	**Set**	**Get**
Current Limit(mA)	WRDAC X=#	WRDAC X?
LED Intensity(%)	LED <channel>=#	LED <channel>?'
State	Open: LED <channel>=# Closed: LED <channel>=0	-

PiezoStage

PiezoStage		
Property	**Set**	**Get**
AutoSleepDelay(min)	PZ F=#	PZ F?
AxisPolarity	-	-
HomePosition(mm)	HM <axis>=#	HM <axis>?
JoystickFastSpeed		
JoystickInput		
JoystickReverse		
JoystickSlowSpeed		
LowerLim(mm)	SL <axis>=#	SL <axis>?
MotorOnOff	MC <axis>=#	MC <axis>?
PiezoMaintainOneMaxTime(ms)	PZ R=#	PZ R?
PiezoMaintainOneOvershoot(%)	PZ T=#	PZ T?
PiezoMaintainState	MA <axis>=#	MA <axis>?
PiezoMode	PM <axis>=#	PM <axis>?

PiezoStage		
Property	**Set**	**Get**
PiezoTravelRange(um)	-	-
RunPiezoCalibration	PZC	-
SetHomeToCurrentPosition	W <axis>	-
StepSize(um)	-	-
UpperLim(mm)	SU <axis>=#	SU <axis>?
VectorMove-VE(mm/s)	VE <axis>=#	VE <axis>?
WheelFastSpeed		
WheelReverse		
WheelSlowSpeed		
SINGLEAXIS_FUNCTION		
RING BUFFER		

PLogic

PLogic		
Property	**Set**	**Get**
BackplaneOutputState	-	RA Y?
ClearAllCellStates	! <axis>	-
EditCellCellType	CCA Y=#	CCA Y?
EditCellConfig	CCA Z=#	CCA Z?
EditCellInput1	CCB X=#	CCB X?
EditCellInput2	CCB Y=#	CCB X?
EditCellInput3	CCB Z=#	CCB Z?
EditCellInput4	CCB F=#	CCB F?
EditCellUpdateAutomatically	-	-
FrontpanelOutputState	-	RA X?
NumLogicCells	-	-
OutputChannel	CCA X=#	-
PLogicOutputState	-	RA Z?
PLogicOutputStateUpper	-	RA F?
PointerPosition	M <axis>=#	W <axis>
SetCardPreset	CCA X=#	-
TriggerSource	PM <axis>=#	PM <axis>?

PLogic Advanced Properties		
Property	**Set**	**Get**

PMT

PMT		
Property	**Set**	**Get**
ADC Averaging Size	E <axis>=#	E <axis>?
PMT Gain	WRDAC <channel>=#	WRDAC <channel>?
PMT Overload Reset	LK <channel>	-
PMT Overloaded	-	LK <channel>?

PMT		
Property	**Set**	**Get**
PMT Signal	-	RA <channel>?

Scanner

Scanner		
Property	**Set**	**Get**
AttenuateX(0..1)	D <axisX>=#	D <axisX>?
AttenuateY(0..1)	D <axisY>=#	D <axisY>?
AxisPolarityX	-	-
AxisPolarityY	-	-
BeamEnabled	Yes: TTL Y=1 No: TTL Y=1	-
FilterFreqX(kHz)	B <axisX>=#	B <axisX>?
FilterFreqY(kHz)	B <axisY>=#	B <axisY>?
JoystickFastSpeed		
JoystickInputX		
JoystickInputY		
JoystickReverse		
JoystickSlowSpeed		
MaxDeflectionX(deg)	SU <axisX>=#	SU <axisX>?
MaxDeflectionY(deg)	SU <axisY>=#	SU <axisY>?
MinDeflectionX(deg)	SL <axisX>=#	SL <axisX>?
MinDeflectionY(deg)	SL <axisY>=#	SL <axisY>?
ScannerTravelRange(deg)	-	-
SingleAxisXAmplitude(deg)		
SingleAxisXMode		
SingleAxisXOffset(deg)		
SingleAxisXPattern		
SingleAxisXPeriod(ms)		
SingleAxisYAmplitude(deg)		
SingleAxisYMode		
SingleAxisYOffset(deg)		
SingleAxisYPattern		
SingleAxisYPeriod(ms)		
VectorMoveX-VE(mm/s)	VE <axisX>=#	VE <axisX>?
VectorMoveY-VE(mm/s)	VE <axisY>=#	VE <axisY>?
WheelFastSpeed		
WheelReverse		
WheelSlowSpeed		
RING BUFFER		
MM_TARGET		
TargetExposureTime(ms)	RT Y=#	RT Y?
TargetSettlingTime(ms)	WT <axisX>=#	WT <axisX>?
FAST_CIRCLES		

Scanner		
Property	**Set**	**Get**
FastCirclesAsymmetry	MM Z=#	MM Z?
FastCirclesRadius(deg)	MM X=#	MM X?
FastCirclesRate(Hz)	MM Y=#	MM Y?
FastCirclesState	MM R=#	MM R?
MM_LASER_TTL		
LaserOutputMode	LED Z=#	LED Z?
LaserSwitchTime(ms)	LED Y=#	LED Y?

TunableLens

TunableLens		
Property	**Set**	**Get**
AxisPolarity	-	-
JoystickFastSpeed		
JoystickInput		
JoystickReverse		
JoystickSlowSpeed		
LensMode	PM <axis>=#	PM <axis>?
LowerLim(mm)	SL <axis>=#	SL <axis>?
LensTravelRange(units)	-	-
MotorOnOff	On: MC <axis>+ Off: MC <axis>-	MC <axis>?
UpperLim(mm)	SU <axis>=#	SU <axis>?
VectorMove-VE(mm/s)	VE <axis>=#	VE <axis>?
WheelFastSpeed		
WheelReverse		
WheelSlowSpeed		
RING BUFFER		
RING BUFFER + IN0_INT		
TTLinMode	TTL X=#	TTL X?
TTLoutMode	TTL Y=#	TTL Y?

XYStage

XYStage		
Property	**Set**	**Get**
AccelerationX-AC(ms)	AC <axisX>=#	AC <axisX>?
AccelerationYAC(ms)	AC <axisY>=#	AC <axisY>?
AxisPolarityX	-	-
AxisPolarityY	-	-
BacklashX-B(um)	B <axisX>=#	B <axisX>?
BacklashY-B(um)	B <axisY>=#	B <axisY>?
DriftErrorX-E(um)	E <axisX>=#	E <axisX>?
DriftErrorY-E(um)	E <axisY>=#	E <axisY>?

XYStage		
Property	**Set**	**Get**
FinishErrorX-PC(um)	PC <axisX>=#	PC <axisX>?
FinishErrorY-PC(um)	PC <axisY>=#	PC <axisY>?
JoystickEnabled		
JoystickFastSpeed		
JoystickInput		
JoystickReverse		
JoystickRotate		
JoystickSlowSpeed		
LowerLimX(mm)	SL <axisX>=#	SL <axisX>?
LowerLimY(mm)	SL <axisY>=#	SL <axisY>?
MaintainStateX-MA	MA <axisX>=#	MA <axisX>?
MaintainStateY-MA	MA <axisY>=#	MA <axisY>?
MotorOnOffX	On: MC <axisX>+ Off: MC <axisX>-	MC <axisX>?
MotorOnOffY	On: MC <axisY>+ Off: MC <axisY>-	MC <axisY>?
MotorSpeedX(um/s)	-	-
MotorSpeedX-S(mm/s)	S <axisX>=#	S <axisX>?
MotorSpeedY(um/s)	-	-
MotorSpeedY-S(mm/s)	S <axisY>=#	S <axisY>?
UpperLimX(mm)	SU <axisX>=#	SU <axisX>?
UpperLimY(mm)	SU <axisY>=#	SU <axisY>?
VectorMoveX-VE(mm/s)	VE <axisX>=#	VE <axisX>?
VectorMoveY-VE(mm/s)	VE <axisY>=#	VE <axisY>?
WaitTime(ms)	WT <X>=# <Y>=#	WT <X>?
WheelFastSpeed		
WheelReverse		
WheelSlowSpeed		
SCAN MODULE		
ScanState	Idle: SN X=80 Running: SN	SN X?
ScanFastAxis	SN X=#	SN X?
ScanSlowAxis	SN Z=#	SN Z?
ScanPattern	SN F=#	SN F?
ScanFastAxisStartPosition(mm)	NR X=#	NR X?
ScanFastAxisStopPosition(mm)	NR Y=#	NR Y?
ScanSlowAxisStartPosition(mm)	NV X=#	NV X?
ScanSlowAxisStopPosition(mm)	NV Y=#	NV Y?
ScanNumLines	NV Z=#	NV Z?
ScanSettlingTime(ms)	NV F=#	NV F?
ScanOvershootDistance(um)	NV T=#	NV T?
ScanRetraceSpeedPercent(%)	NR R=#	NR R?
RING BUFFER		

ZStage

ZStage		
Property	**Set**	**Get**
Acceleration-AC(ms)	AC <axis>=#	AC <axis>?
AxisPolarity	-	-
Backlash-B(um)	B <axis>=#	B <axis>?
DriftError-E(um)	E <axis>=#	E <axis>?
FinishError-PC(um)	PC <axis>=#	PC <axis>?
JoystickFastSpeed	Yes: JS X=# No: JS X=-#	JS X?
JoystickInput	J <axis>=#	J <axis>?
JoystickReverse S: JoystickSlowSpeed F: JoystickFastSpeed	Yes: JS X=S Y=F No: JS X=-S Y=-F	No: JS X? >= 0 Yes: JS X? < 0
JoystickSlowSpeed	Yes: JS Y=# No: JS Y=-#	JS Y?
LowerLim(mm)	SL <axis>=#	SL <axis>?
MaintainState-MA	MA <axis>=#	MA <axis>?
MotorOnOff	On: MC <axis>+ Off: MC <axis>-	MC <axis>?
MotorSpeed(um/s)	-	-
MotorSpeed-S(mm/s)	S <axis>=#	S <axis>?
UpperLim(mm)	SU <axis>=#	SU <axis>?
VectorMove-VE(mm/s)	VE <axis>=#	VE <axis>?
WaitTime(ms)	WT <axis>=#	WT <axis>?
WheelFastSpeed	Yes: JS F=# No: JS F=-#	JS F?
WheelReverse S: WheelSlowSpeed F: WheelFastSpeed	Yes: JS F=S T=F No: JS F=-S T=-F	No: JS F? >= 0 Yes: JS F? < 0
WheelSlowSpeed	Yes: JS T=# No: JS T=-#	JS T?
SINGLEAXIS_FUNCTION		
RING BUFFER		
RING BUFFER + IN0_INT		
TTLInputMode	TTL X=#	TTL X?

Github Source Code - Micro-Manager 2.0 (Latest)

software, micromanager