

# Nexus Integration Nexus available functions for FLIR M300

***Note:** EAR99-controlled information may be exported without prior authorization to all countries except embargoed or highly restricted countries. See <https://www.bis.doc.gov/index.php/policy-guidance/country-guidance/sanctioned-destinations> for current list of countries.*

## Table of Contents

Introduction.....	4
Nexus Devices in M300 camera .....	4
Device SERVER.....	5
Device GEO.....	5
Devices VIDEO.....	5
Device VIDMUX.....	5
Device OSD.....	5
Device RADAR_INTERFACE .....	5
Device PLAT/PT .....	6
Device DLTV .....	6
Device IR.....	6
Device VA.....	6
Device IO .....	6
Device THERMO.....	6
Device THERMOSTAT.....	6
Annex. Available functions description.....	7
SERVER Device Functions .....	7
GEO Device functions .....	14
VIDEO Devices functions.....	23
RADAR INTERFACE Device Functions.....	28
PAN and TILT device functions .....	29
Visible camera functions .....	42
Thermal camera functions.....	58
VA Device Functions.....	71
IO Device Functions.....	72



---

© FLIR Commercial Systems, Inc., 2021. All rights reserved worldwide. No parts of this manual, in whole or in part, may be copied, photocopied, translated, or transmitted to any electronic medium or machine readable form without the prior written permission of FLIR Commercial Systems, Inc.

Names and marks appearing on the products herein are either registered trademarks or trademarks of FLIR Commercial Systems, Inc. and/or its subsidiaries. All other trademarks, trade names, or company names referenced herein are used for identification only and are the property of their respective owners.

This product is protected by patents, design patents, patents pending, or design patents pending.

The FLIR thermal imaging systems are controlled by US export laws. There are special versions of the systems that are approved for international distribution and travel. Please contact your local FLIR dealer or distributor if you have any questions.

FLIR Commercial Systems, Inc.

6769 Hollister Ave.

Goleta, CA 93117

Phone: +1.888.747.FLIR (+1.888.747.3547)



## Introduction.

The purpose of this document is to provide information about the Nexus SDK/CGI functions available in the M300 camera from FLIR. This document complements the available online documents for both Nexus SDK (NEXUS\_SDKSPEC document) and Nexus CGI (Nexus CGI Interface Description x.x).

It is assumed that the reader is familiar with Nexus SDK or Nexus CGI depending on what is being used, if it is not the case, please refer to the documentation stated above or contact FLIR Support.

## Nexus Devices in M300 camera

The table below contains all Nexus devices as the camera indicates when requesting SERVERDeviceConfigGet.

GEO	0	GEO
INTERFACE	0	Nexus CGI Interface
VIDEO	0	M300 Video
VIDEO	1	M300 Video
VIDEO	2	M300 Video
VIDEO	3	M300 Video
VIDMUX	0	Video Matrix M300
OSD	0	OSD External UI
RADAR_INTERFACE	0	Ifara Radar Interface
PLAT	0	M300 P&T
DLTV	0	SONY EV7520 DLTV
IR	0	FLIR Boson
INTERFACE	1	ONVIF v2.0
VA	0	Video Analytics M300
VA	1	Video Analytics M300
VISCA	0	VISCA
IO SENSOR	0	Linux GPIO File Handle
IO ANALOG	0	IO Analog File
THERMO	0	BuiltIn Thermo
THERMO	1	BuiltIn Thermo
THERMO	2	BuiltIn Thermo

THERMO	3	Thermo File Handle
THERMO	4	Thermo File Handle
THERMO	5	Thermo File Handle
THERMOSTAT	0	Thermostat

Not all the devices listed above are controllable, the relevant devices are explained below.

### Device SERVER

The device SERVER is the device that refers to the camera itself as a set of different devices. In this device the system related functions can be found.

In the Annex there is a table with the available SERVER functions.

### Device GEO

This is the device that allows to set the geographical reference values such as latitude, longitude, ...

In the Annex a table with the available Geographical reference functions can be found.

### Devices VIDEO

There are six different VIDEO devices in the HDCMR camera:

	Id	Camera
VIDEO	0	Visible
VIDEO	1	Thermal
VIDEO	2	Visible
VIDEO	3	Thermal

Devices 4 and 5 are for ONVIF internal use and shouldn't be used.

### Device VIDMUX

Internal object with no expected control from the SDK Client.

### Device OSD

Internal object with no expected control from the SDK Client.

### Device RADAR\_INTERFACE

In the annex can be found a table with all the available functions for the Device RADAR\_INTERFACE.

### Device PLAT/PT

In the annex can be found a table with all the available functions for the Device PLAT/PT. Note that for the Nexus SDK the device is called PLAT and for the Nexus CGI it is called PT.

### Device DLTV

A list with all available Visible camera sensor (DLTV) functions can be found in the annex.

### Device IR

A list with all available Thermal camera sensor (IR) functions can be found in the annex.

### Device VA

In the annex can be found a table with all the available functions for the Device VA.

### Device IO

In the annex can be found a table with all the available functions for the Device IO.

### Device THERMO

The current temperature can be requested using a SDK or CGI function, also it can be received asynchronously using Nexus SDK subscribing to the UDP notifications. If Nexus CGI is used the temperature can also be received asynchronously using WebSockets.

Internal object with no expected control from the SDK Client.

### Device THERMOSTAT

Internal object with no expected control from the SDK Client.

## Annex. Available functions description.

### SERVER Device Functions

Id	Function Name	Params Input/Output	Description
1.2	SERVERRemoteControlRequest	(Input) Forced : (Integer): Forced. (Output) Accept : (Integer): Answer. (Output) Token : (Integer): Id. of token owner.	Requests control of the server
1.3	SERVERRemoteControlRelease	(Input) RemoteID : (Integer): Not used.	Releases control of the server
1.4	SERVERVersionGet	(Output) MajorVersion : (Byte): Major version number. (Output) MinorVersion : (Byte): Minor version number. (Output) MajorRevision : (Byte): Major revision number. (Output) MinorRevision : (Byte): Minor revision number.	Requests server's version number
1.5	SERVERTokenStatusGet	(Output) TokenOwnerID : (Integer): Token Owner Id. (Output) TokenOwnerStr : (String): Token Owner Name. (Output) Status : (Integer): Token status. (Output) RequesterID : (Integer): Requester Id. (Output) RequesterStr : (String): Requester Name. (Output) countdown : (Integer): Countdown.	Requests token status
1.6	SERVERWhoAml	(Output) Id : (Integer): Id. of requesting client. (Output) Owner : (Integer): Id. of Token owner. (Output) ip : (String): IP Address of requesting client.	Requests information
1.7	SERVERRemoteControlRequestA sync	(Input) Forced : (Integer): Forced. (Output) Token : (Integer): Id. of token owner.	Requests control of the server. Does not wait for server's answer.
1.7	SERVERRemoteControlRequestA sync2	(Input) Forced : (Integer): Forced.	Requests control of the server. Does not wait for server's answer. If no errors occur, the function returns the id of the token owner. If there is an error, returns the negative value of the error.
1.8	SERVERPing	No parameters	Sends a ping to the server
1.9	SERVERTokenTimeoutGet	(Output) token_timeout : (Integer): Timeout in seconds for requesting control.	Requests server's timeout for requesting control
1.14	SERVERNexusCGIWSAvailableG et	(Output) WSAvailable : (Integer): NexusCGI through WebSockets availability.	Requests if the server has NexusCGI through WebSockets available
1.15	SERVERSessionTimeoutGet	(Output) Seconds : (Integer): Timeout to keep the session alive in seconds.	Requests the timeout in seconds to keep the session alive without receiving any command
1.18	SERVERSystemIdGet	(Output) SystemId : (String): SystemId info.	Requests the system identification number
1.26	SERVERFirmwareVersionGet	(Output) Name : (String): name string.	Requests the Firmware Version string
1.28	SERVERSerialNumberGet	(Output) Name : (String): name string.	Requests the Serial Number string
1.29	SERVERModelNumberGet	(Output) Name : (String): name string.	Requests the Model Number string
1.30	SERVERFWUpgradeInfoGet	(Output) UploadURI : (String): uri. (Output) UploadDelay : (Integer): delay in seconds. (Output) UploadDownTime : (Integer): expected down time in seconds.	Requests the FW upgrade info (uri,delay,downtime)
1.31	SERVERSessionTimeoutSet	(Input) Seconds : (Integer): Timeout to keep the session alive in seconds.	Sets the timeout in seconds to keep the session alive without receiving any command
1.32	SERVERSessionClose	No parameters	Tells the server to close the current session

1.33	SERVERConfigurationHashCodeGet	(Output) HashCode : (String): Hash code extracted from the configuration files. (Output) Timestamp : (String): Last configuration change timestamp string in format YYYYMMDDHHMMSS in UTC. (Output) ConfChangedStatus : (Integer): Indicates if the configuration hash code has changed since last reset.	Requests the current configuration hash code, timestamp and a flag that indicates if the configuration has changed since last reset
1.34	SERVERConfigurationChangedStatusReset	No parameters	Resets the configuration changed status flag
1.35	SERVERConfigurationChangedStatusLogGet	(Output) ChangeLog : (String): Log showing the changes in configuration.	Requests the current change in conf log since last reset. Empty if there is no change since last reset
2.1	SERVERGeneralBITExecute	No parameters	Initiates a checking routine for the state of every single device in the configuration of the Sensor. This routine can take a long period of time. During execution, any command sent will receive a Busy return code.
2.2	SERVERGeneralBITAbort	No parameters	Aborts execution of checking routine
2.3	SERVERGeneralBITResultGet	(Output) BIT_Result : (Integer): Result of last general BIT routine executed.	Reads the result of the General BIT routine when completed. While General BIT is still in course, a .busy. return code will be received when polling, until the result is ready.
2.4	SERVERGetDeviceHealth	(Input) Device_Type : (Byte): Type of device (DLTV, IR, P&T, etc...). (Input) Device_Id : (Byte): Identifier for the device. (Output) Health : (Integer): Health state of given device.	Requests health state of given device
2.5	SERVERDeviceVersionGet	(Output) rx_data : (String): version string.	Requests the device version string
2.6	SERVERLongGeneralBITResultGet	(Output) BITResult : (String): Result string of the last BIT routine executed associated to this device..	Requests result string of last BIT routine executed associated to this device
2.7	SERVERFriendlyNameSet	(Input) Name : (String): name string.	Sets the friendly name string
2.8	SERVERFriendlyNameGet	(Output) Name : (String): name string.	Requests the friendly name string
2.9	SERVERDeviceInfoGet	(Output) rx_data : (String): info string.	Requests the device info string
2.16	SERVERLogConfigurationSet	(Input) OnOff : (Integer): Enables/disables Log. (Input) Level : (Integer): Log level.	Sets the server log configuration
2.17	SERVERLogConfigurationGet	(Output) OnOff : (Integer): Log Enabled/disabled. (Output) Level : (Integer): Log level.	Returns server log configuration
3.1	SERVERUDPClientRegister	(Input) Port : (Integer): Port number in which the client expects to receive the information. (Output) Token : (Integer): Token Id. of requesting client.	Registers a client in the server. The server will send NMEA sentences to all registered clients.
3.1	SERVERUDPClientRegister2	(Input) Port : (Integer): Port number in which the client expects to receive the information.	Registers a client in the server. The server will send NMEA sentences to all registered clients. If no errors occur, the function returns the client's session id. If there is an error, returns the negative value of the error.
3.2	SERVERUDPClientUnregister	No parameters	Unregisters a client in the server.
4.1	SERVERDeviceConfigGet	(Output) Config : (Array): Server Configuration.	This command returns a summary of the device's configuration, which includes device type, device id, driver number and state of the device (enabled or not)



4.2	SERVERNetworkConfigGet	(Output) Config : (String): Server's networking configuration.	This command returns the configuration of the server related to networking.
4.3	SERVERLastNMEAGet	(Output) DeviceType : (Integer): Device Type. (Output) DeviceId : (Integer): Device Id. (Output) Health : (Integer): Health Status of Device. (Output) BIT : (Integer): Result of last BIT routine in this device 0=OK,1=Busy,2=Error,3=Not available. (Output) Timestamp : (String): Timestamp of the moment when this info was generated. (Output) Token_ID : (Integer): Token Owner identifier. (Output) Owner : (String): User and IP address of owner. (Output) Remote_Request : (Integer): Control requested. (Output) Requester_String : (String): User and IP address of requester. (Output) Countdown : (Integer): Countdown to assign control. (Output) ConfChangedTimestamp : (String): Timestamp in UTC updated when configuration changes. (Output) ConfChangedFlag : (Integer): Flag that indicates if the configuration has changed since last call to SERVERConfigurationChangedStatusReset.	This command returns the configuration of the server related to networking.
4.6	SERVERDriverNameGet	(Input) Type : (Integer): Device type. (Input) Id : (Integer): Device id. (Output) Name : (String): Driver name.	Requests driver name of a device identified by its type and id
4.7	SERVERActiveCameraSet	(Input) Type : (Integer): Device type. (Input) Id : (Integer): Device id.	Selects a specific camera as active
4.8	SERVERActiveCameraGet	(Output) Type : (Integer): Device type. (Output) Id : (Integer): Device id.	Returns device Type and Id of the current active camera
4.9	SERVERActiveCameraToggle	No parameters	Toggle current active camera
4.10	SERVERSecondaryCameraSet	(Input) Type : (Integer): Device type. (Input) Id : (Integer): Device id.	Selects a specific camera as secondary
4.11	SERVERSecondaryCameraGet	(Output) Type : (Integer): Device type. (Output) Id : (Integer): Device id.	Returns device Type and Id of the current secondary camera
4.12	SERVERSecondaryCameraToggle	No parameters	Toggle current secondary camera
4.13	SERVERSnapshotPush	(Input) Type : (Integer): Snapshot type (0 None, 1 All non radiometric, 2 Only radiometric, 3 All). (Input) StoreLocal : (Integer): Save snapshot locally (0 No, 1 Yes). (Input) FTP : (Integer): Send snapshot to configured FTP. (Input) NFS : (Integer): Send snapshot to configured NFS. (Input) SMB : (Integer): Send snapshot to configured SMB.	Generates and send snapshot
4.14	SERVERInitialActiveCameraSet	(Input) Type : (Integer): Device type. (Input) Id : (Integer): Device id.	Selects a specific camera as active on start up
4.15	SERVERInitialActiveCameraGet	(Output) Type : (Integer): Device type. (Output) Id : (Integer): Device id.	Returns device Type and Id of the initial active camera
5.3	SERVERCPUUsageGet	(Output) Usage : (String): Usage statistics..	Returns the CPU Usage of the system
5.4	SERVERNTPConfigurationSet	(Input) Enabled : (Integer): 0 Off, 1 On. (Input) FromDHCP : (Integer): 0 Off, 1 On. (Input) Servers : (String): List of server addresses separated by commas..	Sets NTP Configuration parameters
5.5	SERVERNTPConfigurationGet	(Output) Enabled : (Integer): 0 Off, 1 On. (Output) FromDHCP : (Integer): 0 Off, 1 On. (Output) Servers : (String): List of server addresses separated by commas..	Returns NTP Configuration parameters

5.6	SERVERSystemCommandExecute	(Input) Command : (String): System command to be execute. (Output) CommandReturn : (String): Return string from command execution.	Execute a system command
5.7	SERVERUpTimeGet	(Output) UpTime : (String): String with the UpTime info.	Returns UpTime Info
5.8	SERVERThreadInfoGet	(Input) PID : (LongInt): Process PID to retrieve the info. (Output) Info : (String): String with the thread info.	Returns Thread Info
5.9	SERVERThreadInfoByNameGet	(Input) Name : (String): Thread name to retrieve the info. (Output) Info : (String): String with the thread info.	Returns Thread Info
5.10	SERVERUpTimeSecondsGet	(Output) UpTime : (LongInt): Server Execution UpTime In Seconds.	Returns UpTime In Seconds
5.11	SERVERUpTimeSystemGet	(Output) UpTime : (LongInt): System UpTime In Seconds.	Returns System UpTime In Seconds
5.12	SERVERClientsInfoGet	(Output) Info : (String): Info about the clients currently connected.	Returns a string with info about the clients connected
6.1	SERVERMacroScriptExecuteById	(Input) Id : (Integer): Macro Script Identifier..	Executes a specific Macro Script
6.2	SERVERMacroScriptExecuteByName	(Input) Name : (String): Macro Script name..	Executes a specific Macro Script
6.3	SERVERMacroScriptParametersGetById	(Input) Id : (Integer): Macro Script identifier.. (Output) Parameters : (String): Macro Script parameters separated by  ..	Returns the parameters of a specific Macro Script
6.4	SERVERMacroScriptParametersGetByName	(Input) Name : (String): Macro Script name.. (Output) Parameters : (String): Macro Script parameters separated by  ..	Returns the parameters of a specific Macro Script
6.5	SERVERMacroScriptExecuteCode	(Input) Code : (String): Macro Script code..	Executes a specific Macro Script code
6.6	SERVERMacroScriptExecutionStatusGet	(Output) Status : (Integer): Macro Script execution status (0 ready, 1 busy).	Returns the execution status for Macro Script
6.7	SERVERMacroScriptExecutionAbort	No parameters	Aborts the execution of current Macro Script code
6.8	SERVERMacroScriptInitialize	No parameters	Initializes the macro scripts information from XML file in the server
6.9	SERVERMacroScriptFileListGet	(Output) List : (String): List of available Macro specification files (separated by ' ').	Returns a list of the available macro scripts XML files
6.10	SERVERMacroScriptFileLoad	(Input) Name : (String): Name of one of the available Macro specification files.	Loads macro scripts from a specific XML file
6.11	SERVERMacroScriptFileCurrentGet	(Output) Name : (String): Name of current Macro specification file.	Returns the name of current macro scripts XML spec file
6.12	SERVERMacroScriptExecuteCommand	(Input) Command : (String): Nexus Script command.. (Output) Response : (String): Nexus Script response (JSON format).. (Output) Info : (String): Other information about the XML file.	Executes a specific Macro Script command
6.13	SERVERMacroScriptExecuteFile	(Input) FileName : (String): File Script to execute.. (Input) FileHeader : (String): Header to be added at the beginning of the script.. (Input) Blocking : (Integer): Specifies if this function waits for complete script execution. (Output) FileOutput : (String): Script output variables if defined and if blocking is not set.	Executes a specific Macro Script File.
7.1	SERVERUIDefinitionGet	(Input) Platform : (String): Tag describing the client platform. (Output) Model : (String): Model name associated to the XML file. (Output) Version : (String): Version associated to the XML file. (Output) URL : (String): URL to get the Client Description file. (Output) Info : (String): Other information about the XML file.	Returns information and a URL to get the Client Description file

9.1	SERVERSupportedFunctionGet	(Input) DevType : (String): Device Type of the driver that may support the function. (Input) DevId : (Integer): Device Id of the driver that may support the function. (Input) FunctionName : (String): Function Name to request. (Output) Supported : (Integer): Indicates if the function is supported or not.	Returns if the specified function is supported
9.2	SERVERSupportedFunctionInfoGet	(Input) DevType : (String): Device Type of the driver that may support the function. (Input) DevId : (Integer): Device Id of the driver that may support the function. (Input) FunctionName : (String): Function Name to request. (Output) FunctionInfo : (String): Information available for the specified function.	Returns if the specified function is supported
9.3	SERVERUnsupportedFunctionsExecutionFilterSet	(Input) DevType : (Integer): Device Type. (Input) DevId : (Integer): Device Id. (Input) Filter : (Integer): 0 No Filter, 1 Soft Filter, 2 Hard filter.	Allows to bypass the filter to not to allow to execute functions that are not in the list of supported functions
9.4	SERVERUnsupportedFunctionsExecutionFilterGet	(Input) DevType : (Integer): Device Type. (Input) DevId : (Integer): Device Id. (Output) Filter : (Integer): 0 No Filter, 1 Soft Filter, 2 Hard filter.	Allows to bypass the filter to not to allow to execute functions that are not in the list of supported functions
10.1	SERVERPeerDiscoveryStart	No parameters	Starts peer sensor discovery
10.2	SERVERPeerDiscoveryClear	No parameters	Clears the list of discovered sensors
10.3	SERVERPeerDiscoverySensorCountGet	(Output) Count : (Integer): Peer sensors count.	Returns the number of discovered peer sensors
10.4	SERVERPeerDiscoverySensorGet	(Input) Index : (Integer): Peer sensor index starting at zero. (Output) Info : (String): Peer sensor Info sentence.	Returns the Info sentence of a specific peer sensor
11.1	SERVERAuthInitialize	(Output) Challenge : (String): random key provided by Nexus.	Initial step to login. A challenge string will be provided
11.2	SERVERAuthLogin	(Input) UserName : (String): user name. (Input) Nonce : (String): nonce. (Input) Hash : (String): hash. (Input) Type : (Integer): type JCU, FSM, web, etc.... (Input) Brand : (String): brand. (Input) Model : (String): model.	Authentication Login
11.3	SERVERAuthLogout	No parameters	Authentication Logout
11.4	SERVERAuthUserCreate	(Input) UserName : (String): user name. (Input) Password : (String): user password. (Input) UserGroup : (Integer): user level group.	Authentication Create User
11.5	SERVERAuthUserRemove	(Input) UserName : (String): user name.	Authentication Remove User
11.6	SERVERAuthLoginStatusGet	(Output) LoginStatus : (Integer): authentication status. (Output) ProprietaryStatus : (Integer): proprietary status.	authentication and proprietary status
11.7	SERVERAuthRequiredGet	(Output) AuthRequired : (Integer): Authentication required.	Returns if authentication is required for this server
12.1	SERVERNetworkSettingsSet	(Input) DnsDhcp : (Integer): Get DNS server from DHCP. (Input) DNS : (String): DNS server address. (Input) SearchDomain : (String): Search Domain address. (Input) HostnameDhcp : (Integer): Get Hostname from DHCP. (Input) Hostname : (String): New hostname.	Changes general network settings
12.2	SERVERNetworkSettingsGet	(Output) DnsDhcp : (Integer): Get DNS server from DHCP. (Output) DNS : (String): DNS server address. (Output) SearchDomain : (String): Search Domain address. (Output) HostnameDhcp : (Integer): Get Hostname from DHCP. (Output) Hostname : (String): New hostname.	Returns current general network settings

12.3	SERVERNetworkInterfaceSet	(Input) Index : (Integer): Ethernet interface index. (Input) DHCP : (Integer): 0 static, 1 dynamic. (Input) ZeroConf : (Integer): 0 disabled, 1 enabled. (Input) IpAddress : (String): New IP Address. (Input) NetMask : (String): New IP address mask. (Input) Gateway : (String): New gateway address. (Input) MTU : (Integer): Maximum transfer unit.	Changes the IP network settings
12.4	SERVERNetworkInterfaceGet	(Input) Index : (Integer): Ethernet interface index. (Output) DHCP : (Integer): 0 static, 1 dynamic. (Output) ZeroConf : (Integer): 0 disabled, 1 enabled. (Output) IpAddress : (String): IP Address. (Output) NetMask : (String): IP address mask. (Output) Gateway : (String): Gateway address. (Output) MTU : (Integer): Maximum transfer unit.	Returns current IP network settings
12.5	SERVERNetworkRestart	(Input) Index : (Integer): Delay in seconds.	Restarts the IP network interface
12.6	SERVERDateTimeSet	(Input) Year : (Integer): Date year. (Input) Month : (Integer): Date month. (Input) Day : (Integer): Date day. (Input) Hour : (Integer): Time hour. (Input) Minute : (Integer): Time minute. (Input) Second : (Integer): Time second. (Input) Daylight : (Integer): Daylight saving (0 disabled, 1 enabled). (Input) NTP : (Integer): NTP enabled (0 disabled, 1 enabled). (Input) NtpDhcp : (Integer): Get NTP from DHCP (0 off, 1 on). (Input) NtpServers : (String): List of NTP servers. (Input) Timezone : (String): New Time Zone in IEEE 1003.1 section 8.3 format.	Changes current Date Time settings
12.7	SERVERDateTimeGet	(Output) Year : (Integer): Date year. (Output) Month : (Integer): Date month. (Output) Day : (Integer): Date day. (Output) Hour : (Integer): Time hour. (Output) Minute : (Integer): Time minute. (Output) Second : (Integer): Time second. (Output) Daylight : (Integer): Daylight saving (0 disabled, 1 enabled). (Output) NTP : (Integer): NTP enabled (0 disabled, 1 enabled). (Output) NtpDhcp : (Integer): Get NTP from DHCP (0 off, 1 on). (Output) NtpServers : (String): List of NTP servers. (Output) Timezone : (String): Time Zone in IEEE 1003.1 section 8.3 format.	Changes current Date Time settings
12.8	SERVERSystemReboot	(Input) Delay : (Integer): Delay in seconds.	Reboots the system
12.9	SERVERSystemRestoreDefault	(Input) Mode : (Integer): 0 Soft, 1 Hard.	Restores factory default
12.10	SERVERSystemSaveAsDefault	No parameters	Saves current settings as system default
12.11	SERVERWebSystemInfoGet	(Output) Info : (String): System information (in JSON format).	Returns system information
12.12	SERVERLockDownFirewallSet	(Input) Locked : (Integer): Firewall enabled. 0 Unlocked, 1 Locked.	Sets the value to lock/unlock the firewall
12.13	SERVERLockDownFirewallGet	(Output) Locked : (Integer): Firewall enabled. 0 Unlocked, 1 Locked.	Returns current value of firewall lock
12.14	SERVERLockDownWiFiSet	(Input) Locked : (Integer): Wireless firewall enabled. 0 Unlocked, 1 Locked.	Sets the value to lock/unlock the wireless connections
12.15	SERVERLockDownWiFiGet	(Output) Locked : (Integer): Wireless firewall enabled. 0 Unlocked, 1 Locked.	Returns current value of wireless lock

12.16	SERVERTLSConfigurationSet	(Input) Enabled : (Integer): TLS enabled. 0 Disabled, 1 Enabled. (Input) Port : (Integer): TLS port.. (Input) Redirect : (Integer): Connections http redirected to https. 0 Disabled, 1 Enabled.	Changes general TLS settings
12.17	SERVERTLSConfigurationGet	(Output) Enabled : (Integer): TLS enabled. 0 Disabled, 1 Enabled. (Output) Port : (Integer): TLS port.. (Output) Redirect : (Integer): Connections http redirected to https. 0 Disabled, 1 Enabled. (Output) CertsValid : (String): (Output) CertsValidText : (String):	Returns current general TLS settings
12.18	SERVERTLSSelfSignedCertificate Create	(Input) ExpirationTime : (Integer): TLS Expiration Time.. (Input) Country : (String): Country. (Input) State : (String): State. (Input) Locality : (String): Locality. (Input) Organization : (String): Organization. (Input) OrganizationUnit : (String): OrganizationUnit. (Input) EmailAddress : (String): Email Address. (Input) CommonName : (String): Common Name.	Create a self-signed TLS Certificate
12.19	SERVERTLSCertificateInfoGet	(Output) SelfSigned : (Integer): Return if the certificate is Self-signed. 0 CA-Signed, 1 Self-signed. (Output) Country : (String): Country. (Output) State : (String): State. (Output) Locality : (String): Locality. (Output) Organization : (String): Organization. (Output) OrganizationUnit : (String): OrganizationUnit. (Output) EmailAddress : (String): Email Address. (Output) CommonName : (String): Common Name. (Output) ValidFrom : (String): Valid From. (Output) ValidTo : (String): Valid To. (Output) Issuer : (String): Issuer. (Output) Valid : (String): Return if the certificate is valid.	Return current TLS fields Certificate
12.20	SERVERAuthenticationCGISet	(Input) Mode : (Integer): CGI Authentication Method. 0 none, 1 digest.	Changes CGI Authentication Method
12.21	SERVERAuthenticationCGIGet	(Output) Mode : (Integer): CGI Authentication Method. 0 none, 1 digest.	Returns current CGI Authentication Method

Documentation generated from: dictionary\_SERVER.txt v0.1 (2019/3/25 16:09:37)  
dictionary\_SERVER\_Saros.txt v0.2 (2019/03/26 14:48:33)

## GEO Device functions

Id	Function Name	Parameters	Description
1.1	GEOUTMPositionSet	(Input) UTM_Zone_Number : (Byte): Zone Number Values: 1→60 (Input) UTM_Zone_Letter : (Byte): Zone Letter (ASCII Capital Letters) Values: 67: 'C'→72:'H' 74: 'J'→78:'N' 80: 'P'→88:'X' (Input) X_UTM_Coordinate : (LongInt): X Coordinate (meters) Values: 0→1000000 (Input) Y_UTM_Coordinate : (LongInt): Y Coordinate (meters) Values: 0→1000000 (Input) Height : (Integer): Height (meters) Values: -1000→9000	Sets the position of the sensor to be used for all Georeferenced operations using UTM format.
1.2	GEOUTMPositionGet	(Output) UTM_Zone_Number : (Byte): Zone Number Values: 1→60 (Output) UTM_Zone_Letter : (Byte): Zone Letter (ASCII Capital Letters) Values: 67: 'C'→72:'H' 74: 'J'→78:'N' 80: 'P'→88:'X' (Output) X_UTM_Coordinate : (LongInt): X Coordinate (meters) Values: 0→1000000 (Output) Y_UTM_Coordinate : (LongInt): Y Coordinate (meters) Values: 0→1000000 (Output) Height : (Integer): Height (meters) Values: -1000→9000	Requests the position fixed for the Sensor

1.3	GEOllhPositionSet	<p>(Input) Latitude_Degrees : (Byte): Latitude_Degrees Byte Latitude degrees Values: 0→90</p> <p>(Input) Latitude_Sign : (Byte): Latitude_Sign Byte Latitude sign Values: 78: 'N' 83: 'S'</p> <p>(Input) Latitude_Minutes : (Byte): Latitude_Minutes Byte Latitude minutes Values: 0→59</p> <p>(Input) Latitude_Seconds : (Byte): Latitude_Seconds Byte Latitude seconds Values: 0→59</p> <p>(Input) Latitude_Millisecs : (Integer): Latitude_Millisecs Integer Latitude milliseconds Values: 0→999</p> <p>(Input) Longitude_Degrees : (Byte): Longitude_Degrees Byte Longitude degrees Values: 0→180</p> <p>(Input) Longitude_Sign : (Byte): Longitude_Sign Byte Longitude sign Values: 69: 'E' 87: 'W'</p> <p>(Input) Longitude_Minutes : (Byte): Longitude_Minutes Byte Longitude minutes Values: 0→59</p> <p>(Input) Longitude_Seconds : (Byte): Longitude_Minutes Byte Longitude seconds Values: 0→59</p> <p>(Input) Longitude_Millisecs : (Integer): Longitude_Millisecs Integer Longitude milliseconds Values: 0→999</p> <p>(Input) Altitude : (Integer): Altitude Integer Altitude in meters Values: -1000→9000</p>	Sets the position of the Sensor to be used for all Georeferenced operations using llh format
-----	-------------------	---	--

1.4	GEOIlhPositionGet	<p>(Output) Latitude_Degrees : (Byte): Latitude_Degrees Byte Latitude degrees Values: 0→90</p> <p>(Output) Latitude_Sign : (Byte): Latitude_Sign Byte Latitude sign Values: 78: 'N' 83: 'S'</p> <p>(Output) Latitude_Minutes : (Byte): Latitude_Minutes Byte Latitude minutes Values: 0→59</p> <p>(Output) Latitude_Seconds : (Byte): Latitude_Seconds Byte Latitude seconds Values: 0→59</p> <p>(Output) Latitude_Millisecs : (Integer): Latitude_Millisecs Integer Latitude milliseconds Values: 0→999</p> <p>(Output) Longitude_Degrees : (Byte): Longitude_Degrees Byte Longitude degrees Values: 0→180</p> <p>(Output) Longitude_Sign : (Byte): Longitude_Sign Byte Longitude sign Values: 69: 'E' 87: 'W'</p> <p>(Output) Longitude_Minutes : (Byte): Longitude_Minutes Byte Longitude minutes Values: 0→59</p> <p>(Output) Longitude_Seconds : (Byte): Longitude_Minutes Byte Longitude seconds Values: 0→59</p> <p>(Output) Longitude_Millisecs : (Integer): Longitude_Millisecs Integer Longitude milliseconds Values: 0→999</p> <p>(Output) Altitude : (Integer): Altitude Integer Altitude in meters Values: -1000→9000</p>	Requests the position of the Sensor that is currently being used, in Ilh format
1.5	GEOGPSUTMPositionGet	<p>(Output) UTM_Zone_Number : (Byte): Zone Number</p> <p>(Output) UTM_Zone_Letter : (Byte): Zone Letter (ASCII Capital Letters)</p> <p>(Output) X_UTM_Coordinate : (LongInt): X Coordinate (meters) Values: -180→180</p> <p>(Output) Y_UTM_Coordinate : (LongInt): Y Coordinate (meters) Values: -180→180</p> <p>(Output) Height : (Integer): Height (meters) Values: -1000→9000</p> <p>(Output) Height_Error : (Integer): Height error (meters) Values: -1000→9000</p> <p>(Output) GPS_Mode : (Byte): GPS mode</p> <p>(Output) Number_Satellites : (Byte): Number of satellites Values: 0→128</p>	Requests the current position reading from the GPS in UTM format



1.6	GEOGPSIlhPositionGet	(Output) Latitude_Degrees : (Byte): Latitude_Degrees Byte Latitude degrees Values: 0→90 (Output) Latitude_Sign : (Byte): Latitude_Sign Byte Latitude sign Values: 78: 'N' 83: 'S' (Output) Latitude_Minutes : (Byte): Latitude_Minutes Byte Latitude minutes Values: 0→59 (Output) Latitude_Seconds : (Byte): Latitude_Seconds Byte Latitude seconds Values: 0→59 (Output) Latitude_Millisecs : (Integer): Latitude_Millisecs Integer Latitude milliseconds Values: 0→999 (Output) Longitude_Degrees : (Byte): Longitude_Degrees Byte Longitude degrees Values: 0→180 (Output) Longitude_Sign : (Byte): Longitude_Sign Byte Longitude sign Values: 69: 'E' 87: 'W' (Output) Longitude_Minutes : (Byte): Longitude_Minutes Byte Longitude minutes Values: 0→59 (Output) Longitude_Seconds : (Byte): Longitude_Seconds Byte Longitude seconds Values: 0→59 (Output) Longitude_Millisecs : (Integer): Longitude_Millisecs Integer Longitude milliseconds Values: 0→999 (Output) Altitude : (Integer): Altitude Integer Altitude in meters Values: -1000→9000 (Output) Height_Error : (Integer): Height_Error Integer Height error Values: -1000→9000 (Output) GPS_Mode : (Byte): GPS_Mode Byte GPS mode (Output) Number_Satellites : (Byte): Number_Satellites Byte Number of satellites Values: 0→128	Requests the current position reading from the GPS in Ilh format
1.9	GEOGPSPositionDataApply	No parameters	Validates the position values provided by the GPS to be used as calibration data for all georeferenced operations
1.10	GEOGPSDataApplyModeSet	(Input) mode : (Integer): Data apply mode Values: 0: MANUAL 1: AUTO	Sets GPS data apply mode
1.11	GEOGPSDataApplyModeGet	(Output) mode : (Integer): Data apply mode Values: 0: MANUAL 1: AUTO	Requests GPS data apply mode

1.12	GEOAltitudeSet	(Input) Altitude : (Integer): Altitude in meters Values: -1000→9000 meters	Sets the altitude of the Sensor to be used for all Georeferenced operations
1.13	GEOAltitudeGet	(Output) Altitude : (Integer): Altitude in meters Values: -1000→9000 meters	Requests the altitude of the Sensor that is currently being used
1.14	GEOUTMPositionSet2	(Input) UTM_Zone_Number : (Byte): Zone Number (Input) UTM_Zone_Letter : (Byte): Zone Letter (ASCII Capital Letters) (Input) X_UTM_Coordinate : (Double): X Coordinate (meters) (Input) Y_UTM_Coordinate : (Double): Y Coordinate (meters) (Input) Height : (Double): Height (meters)	Sets the position of the sensor to be used for all Georeferenced operations using UTM format.
1.15	GEOUTMPositionGet2	(Output) UTM_Zone_Number : (Byte): Zone Number (Output) UTM_Zone_Letter : (Byte): Zone Letter (ASCII Capital Letters) (Output) X_UTM_Coordinate : (Double): X Coordinate (meters) (Output) Y_UTM_Coordinate : (Double): Y Coordinate (meters) (Output) Height : (Double): Height (meters)	Requests the position fixed for the Sensor
1.16	GEOllhPositionSet2	(Input) Latitude_Degrees : (Byte): Latitude degrees (0 - 90) (Input) Latitude_Sign : (Byte): Latitude sign (N/S) (Input) Latitude_Minutes : (Byte): Latitude minutes (0 - 59) (Input) Latitude_Seconds : (Byte): Latitude seconds (0 - 59) (Input) Latitude_Millisecs : (Integer): Latitude milliseconds (0 - 999) (Input) Longitude_Degrees : (Byte): Longitude degrees (0 - 180) (Input) Longitude_Sign : (Byte): Longitude sign (East - West) (Input) Longitude_Minutes : (Byte): Longitude minutes (0 - 59) (Input) Longitude_Seconds : (Byte): Longitude seconds (0 - 59) (Input) Longitude_Millisecs : (Integer): Longitude milliseconds (0 - 999) (Input) Altitude : (Double): Altitude in meters	Sets the position of the Sensor to be used for all Georeferenced operations using llh format
1.17	GEOllhPositionGet2	(Output) Latitude_Degrees : (Byte): Latitude degrees (0 - 90) (Output) Latitude_Sign : (Byte): Latitude sign (N/S) (Output) Latitude_Minutes : (Byte): Latitude minutes (0 - 59) (Output) Latitude_Seconds : (Byte): Latitude seconds (0 - 59) (Output) Latitude_Millisecs : (Integer): Latitude milliseconds (0 - 999) (Output) Longitude_Degrees : (Byte): Longitude degrees (0 - 180) (Output) Longitude_Sign : (Byte): Longitude sign (East - West) (Output) Longitude_Minutes : (Byte): Longitude minutes (0 - 59) (Output) Longitude_Seconds : (Byte): Longitude seconds (0 - 59) (Output) Longitude_Millisecs : (Integer): Longitude milliseconds (0 - 999) (Output) Altitude : (Double): Altitude in meters	Requests the position of the Sensor that is currently being used, in llh format
1.18	GEOAltitudeSet2	(Input) Altitude : (Double): Altitude in meters	Sets the altitude of the Sensor to be used for all Georeferenced operations
1.19	GEOAltitudeGet2	(Output) Altitude : (Double): Altitude in meters	Requests the altitude of the Sensor that is currently being used
1.20	GEOGroundAltitudeSet	(Input) Altitude : (Float): Ground Altitude in meters	Sets the ground altitude at the Sensor location
1.21	GEOGroundAltitudeGet	(Output) Altitude : (Float): Ground Altitude in meters	Requests the ground altitude at Sensor location
1.22	GEOInstallationHeightSet	(Input) Height : (Float): Installation height in meters	Sets the installation height for the sensor

1.23	GEOInstallationHeightGet	(Output) Height : (Float): Installation Height in meters	Requests the sensor installation height
1.24	GEODEMEnabledSet	(Input) Enabled : (Integer): Enable/disable Digital Elevation Model	Enables/disables Digital Elevation Model
1.25	GEODEMEnabledGet	(Output) Enabled : (Integer): Enable/disable Digital Elevation Model	Requests the Digital Elevation Model status
1.26	GEODEMLocationTerrainAltitudeGet	(Input) Latitude : (Double): Location latitude coordinate (Input) Longitude : (Double): Location longitude coordinate (Output) Altitude : (Float): Terrain altitude value	Returns terrain altitude value for a specific location
1.27	GEODEMAreaGet	(Output) Latitude1 : (Double): Latitude for North-West vertex (Output) Longitude1 : (Double): Longitude for North-West vertex (Output) Latitude2 : (Double): Latitude for South-East vertex (Output) Longitude2 : (Double): Longitude for South-East vertex	Returns coverage area for Digital Elevation Model
2.1	GEOOrientationSet	(Input) Azimuth : (Float): Azimuth Float Azimuth in degrees Values: 0→360	References the zero azimuth of the Sensor to true North
2.2	GEOOrientationGet	(Output) Azimuth : (Float): Azimuth Float Azimuth in degrees Values: 0→360	Requests the currently used zero azimuth of the Sensor, referenced to true North
2.3	GEODeltaAzimuthSet	(Input) Delta_Azimuth : (Float): Delta_Azimuth Float Delta Azimuth angle Values: -180→180	Sets the value to be used as differential angle between the Gyrocompass and Sensor installation.
2.4	GEODeltaAzimuthGet	(Output) Delta_Azimuth : (Float): Delta_Azimuth Float Delta Azimuth angle Values: -180→180	Requests the currently used delta azimuth of the Sensor, referenced to the Gyrocompass installation.
2.5	GEOMagneticDeviationSet	(Input) Magnetic_Deviation : (Float): Magnetic deviation in degrees Values: -180.0→180.0	Sets the value to be used as magnetic deviation to convert Gyrocompass readings to true North
2.6	GEOMagneticDeviationGet	(Output) Magnetic_Deviation : (Float): Magnetic deviation in degrees Values: -180.0→180.0	Requests the currently used magnetic deviation value
2.7	GEOGyrocompassInstallationErrorSet	(Input) Gyrocompass_Error : (Float): Gyrocompass_Error Float Gyrocompass error in degrees Values: -180.0→180.0	Sets the value to be used as error in the Gyrocompass readings due to installation
2.8	GEOGyrocompassInstallationErrorGet	(Output) Gyrocompass_Error : (Float): Gyrocompass_Error Float Gyrocompass error in degrees Values: -180.0→180.0	Requests the currently used value of the error in the Gyrocompass readings due to installation
2.9	GEOGyrocompassAzimuthGet	(Output) Gyrocompass_Azimuth : (Float): Gyrocompass_Azimuth Float Gyrocompass azimuth reading in degrees Values: 0→360	Requests the azimuth reading of the Gyrocompass sensor
2.10	GEOGyrocompassOrientationDataApply	No parameters	Validates the orientation values provided by the Gyrocompass to be used as calibration data for all georeferenced operations. The value applied as absolute orientation is calculated out of the Gyrocompass reading, the magnetic deviation, delta azimuth between the Gyrocompass and platform installations and Gyrocompass error due to installations.
2.11	GEOGyrocompassDataApplyModeSet	(Input) mode : (Integer): Data apply mode Values: 0: MANUAL 1: AUTO	Sets Gyrocompass data apply mode

2.12	GEOGyrocompassDataApplyModeGet	(Output) mode : (Integer): Data apply mode Values: 0: MANUAL 1: AUTO	Requests Gyrocompass data apply mode
2.13	GEORelativeLocationHeightOffsetSet	(Input) Height_Offset : (Float): Height_Offset Float Relative height (INI-parameter)	Sets the relative height
2.14	GEORelativeLocationHeightOffsetGet	(Output) Height_Offset : (Float): Height_Offset Float Relative height (INI-parameter)	Requests the currently relative height
3.1	GEOLEVELInclinationSet	(Input) Longitudinal_inclination : (Float): Longitudinal inclination Values: -45→45 (Input) Transverse_inclination : (Float): Transverse inclination Values: -45→45	Sets the absolute inclination values of the Sensor installation to complete calibration of all georeferenced operations.
3.2	GEOLEVELInclinationGet	(Output) Longitudinal_inclination : (Float): Longitudinal inclination Values: -45→45 (Output) Transverse_inclination : (Float): Transverse inclination Values: -45→45	Requests the absolute inclination values currently used to complete calibration of all georeferenced operations.
3.3	GEOLEVELInclinometersGet	(Output) Longitudinal_inclination : (Float): Longitudinal inclination Values: 0 (Output) Transverse_inclination : (Float): Transverse inclination Values: 0	Requests the inclination readings of the Inclinometers Set sensor.
3.4	GEOLEVELInclinometersDataApply	No parameters	Validates the two axis inclination values provided by the Inclinometer Set to be used as complementary calibration data for all georeferenced operations.
3.5	GEOLEVELInclinometersDataApplyModeSet	(Input) mode : (Integer): Data apply mode Values: 0: MANUAL 1: AUTO	Sets Gyrocompass data apply mode
3.6	GEOLEVELInclinometersDataApplyModeGet	(Output) mode : (Integer): Data apply mode Values: 0: MANUAL 1: AUTO	Requests Gyrocompass data apply mode
4.1	GEOMAPInitialize	No parameters	Initializes map information from existing files
4.2	GEOMAPCalibrationPointsSet	(Input) Id : (Integer): Identifier of the map file (Input) X1 : (Integer): X coordinate for point 1, from Top/left (Input) Y1 : (Integer): Y coordinate for point 1 (Input) Lat1 : (Double): Latitude for point 1 (Input) Lon1 : (Double): Longitude for point 1 (Input) X2 : (Integer): X coordinate for point 2, from Top/left (Input) Y2 : (Integer): Y coordinate for point 2 (Input) Lat2 : (Double): Latitude for point 2 (Input) Lon2 : (Double): Longitude for point 2 (Input) Width : (Integer): Width in pixels (Input) Height : (Integer): Height in pixels	Calibrates the map using the information provided

4.3	GEOMAPCalibrationPointsGet	(Input) Id : (Integer): Identifier of the map file (Output) X1 : (Integer): X coordinate for point 1, from Top/left (Output) Y1 : (Integer): Y coordinate for point 1 (Output) Lat1 : (Double): Latitude for point 1 (Output) Lon1 : (Double): Longitude for point 1 (Output) X2 : (Integer): X coordinate for point 2, from Top/left (Output) Y2 : (Integer): Y coordinate for point 2 (Output) Lat2 : (Double): Latitude for point 2 (Output) Lon2 : (Double): Longitude for point 2 (Output) Width : (Integer): Width in pixels (Output) Height : (Integer): Height in pixels (Output) Calibrated : (Integer): 0 Not calibrated, 1 Calibrated	Returns Calibration info of the map
4.4	GEOMAPTranslationLL2Pxls	(Input) Id : (Integer): Identifier of the map file (Input) Lat : (Double): Latitude for point (Input) Lon : (Double): Longitude for point (Output) X : (Integer): X coordinate for point, from Top/left (Output) Y : (Integer): Y coordinate for point	Translates Lat/Lon to pixel coordinates in a specific map
4.5	GEOMAPTranslationPxls2LL	(Input) Id : (Integer): Identifier of the map file (Input) X : (Integer): X coordinate for point, from Top/left (Input) Y : (Integer): Y coordinate for point (Output) Lat : (Double): Latitude for point (Output) Lon : (Double): Longitude for point	Translates pixel coordinates to Lat/Lon in a specific map
4.6	GEOMAPCalibrationDataGet	(Input) Id : (Integer): Identifier of the map file (Output) StartX : (Double): UTM X coordinate for Top/left (Output) StartY : (Double): UTM Y coordinate for Top/left (Output) Scale : (Float): Map scale, pixels per meter (Output) Rotation : (Float): UTM rotation related to North (Output) Calibrated : (Integer): 0 Not calibrated, 1 Calibrated (Output) UTMZone : (String): UTM Zone	Returns Calibration info of a specific map
4.7	GEOMAPCalibrationDataLLGet	(Input) Id : (Integer): Identifier of the map file (Output) StartLat : (Double): Latitude coordinate for Top/left (Output) StartLon : (Double): Longitude coordinate for Top/left (Output) ScaleLat : (Float): Map scale for Latitude, pixel per degree (Output) ScaleLon : (Float): Map scale for Longitude, pixels per degree (Output) ScaleMetric : (Float): Map scale, pixels per meter (Output) Calibrated : (Integer): 0 Not calibrated, 1 Calibrated	Returns Calibration info of a specific map
20.1	GEOHealthGet	(Output) Health : (Integer): Health state of device	Requests health state of device
21.1	GEOBITExecute	No parameters	Starts execution of BIT routine associated to this device
21.2	GEOBITAbort	No parameters	Stops execution of BIT routine associated to this device
21.3	GEOBITResult	(Output) BIT_Result : (Integer): Result of the last BIT routine executed associated to this device	Requests result of last BIT routine associated to this device

21.4	GEOLastNMEAGet	(Output) DeviceType : (Integer): Device Type (Output) DeviceId : (Integer): Device Id (Output) Health : (Integer): Health Status of Device 0=OK,1=Busy,2=Error,3=Not available (Output) BIT : (Integer): Result of last BIT routine in this device 0=OK,1=Busy,2=Error,3=Not available (Output) Timestamp : (String): Timestamp of the moment when this info was generated (Output) Reference_Ellipsoid : (Integer): Reference Ellipsoid (Output) Latitude : (Double): Latitude in degrees Values: 0→90 (Output) Longitude : (Double): Longitude in degrees Values: 0→180 (Output) Altitude : (Float): Altitude in meters Values: -1000.0→9000.0 (Output) UTM_X : (Float): UTM X Coordinate Values: 0.0→1000000.0 (Output) UTM_Y : (Float): UTM Y Coordinate Values: 0.0→1000000.0 (Output) UTM_Height : (Float): UTM Height (Output) UTM_Zone : (String): UTM Zone (Output) Magnetic_Deviation : (Float): Magnetic Deviation in degrees Values: -180.0→180.0 (Output) Compass_Error : (Float): Compass Error in degrees (Output) Delta_Azimuth : (Float): Delta Azimuth in degrees (Output) Orientation : (Float): Orientation in degrees (Output) Longitudinal_Inclination : (Float): Longitudinal inclination in degrees Values: -45→45 (Output) Transversal_Inclination : (Float): Transversal inclination in degrees Values: -45→45 (Output) Installation_Height : (Float): Installation height from the terrain in meters (Output) Ground_Altitude : (Float): Ground or terrain altitude in meters above the sea level	Requests the value of the current NMEA string of this device.
21.5	GEOLongBITResult	(Output) BITResult : (String): Result string of the last BIT routine executed associated to this device.	Requests result string of last BIT routine executed associated to this device
21.6	GEODeviceVersionGet	(Output) rx_data : (String): version string	Requests the device version string
21.7	GEODeviceInfoGet	(Output) rx_data : (String): info string	Requests the device info string

Documentation generated from: dictionary\_GEO.txt v0.2 (2023/11/13 11:25:17)  
 dictionary\_GEO\_GEO.txt v0.2 (2023/11/14 15:07:35)

## VIDEO Devices functions

Func. /Subf	Function Name	Parameters	Description
1.1	VIDEOStart	(Input) Port : (Integer): Port number to which unicast video streams should be sent	Starts unicast video streaming to given port
1.2	VIDEOSTop	No parameters	Stops video streaming to given port
1.3	VIDEOReset	No parameters	Resets video hardware
1.4	VIDEORestart	No parameters	Restarts video driver
1.5	VIDEORestartIfRequired	No parameters	Restarts video driver if required due to dynamic parameter changes.
1.6	VIDEOStreamEnabledSet	(Input) Enabled : (Integer): Enable/Disable video stream Values: 0: Disabled 1: Enabled	Enables/Disables video stream
1.7	VIDEOStreamEnabledGet	(Output) Enabled : (Integer): Video stream state Values: 0: Disabled 1: Enabled	Returns video streaming state.
1.8	VIDEOAnalyticsAvailableGet	(Output) Available : (Integer): Values: 0: Not available 1: Available	Returns whether video analytics are available or not
1.9	VIDEOAnalyticsEnableSet	(Input) Enabled : (Integer): 0 Analytics not enabled, 1 Analytics enabled Values: 0: Disabled 1: Enabled	Enables/Disables video analytics
1.10	VIDEOAnalyticsEnableGet	(Output) Enabled : (Integer): 0 Analytics not enabled, 1 Analytics enabled Values: 0: Disabled 1: Enabled	Returns whether video analytics are enabled or not
1.12	VIDEOImageOrientationGet	(Output) Orientation : (Integer): Values: 0: Normal 1: Left 90 deg 2: Right 90 deg 3: Upside Down	Returns current video image orientation value
1.15	VIDEOResolutionListGet	(Output) ResolutionList : (String): Resolution List	Requests the resolution list in json format
2.1	VIDEOInputSelect	(Input) Input : (Integer): Video input Values: 0,1	Selects video input
2.2	VIDEOChannelToggle	(Output) Input : (Integer): Video input selected	Toggles video input
2.3	VIDEOChannelConfigGet	(Output) Config : (String): Server Configuration	This command returns a summary of the device's configuration related to channels which is made up of the number of channels and for each channel its id, associated camera type and id.
3.1	VIDEObitRateSet	(Input) Bitrate : (LongInt): Bit rate Values: 32000→102400000 bps	Sets the bit rate
3.2	VIDEObitRateGet	(Output) Bitrate : (LongInt): Bit rate Values: 32000→102400000 bps	Requests the value of the current bit rate

3.3	VIDEOFormatGet	(Output) Codec_format : (Integer): Format of the codec Values: 12: H264 Baseline 13: MJPEG 15: H264 Main 16: H264 High (Output) Multiplex_format : (Integer): Multiplex format Values: 2 (Output) Width : (Integer): Width of the video (Output) Height : (Integer): Height of the video	Requests video format values
3.4	VIDEOIFrameIntervalSet	(Input) Interval : (Integer): I-Frame Interval Values: 1→300 seconds	Sets the I-Frame Interval
3.5	VIDEOIFrameIntervalGet	(Output) Interval : (Integer): I-Frame Interval Values: 1→300 seconds	Requests the value of the current I-frame interval
3.6	VIDEOFrameRateSet	(Input) Rate : (Float): Frame Rate Values: 5→30 fps	Sets the Frame Rate
3.7	VIDEOFrameRateGet	(Output) Rate : (Float): Frame Rate Values: 5→30 fps	Requests the value of the current Frame Rate
3.8	VIDEOCodecTypeSet	(Input) Codec : (Integer): Values: 12: H264 Baseline 13: MJPEG 15: H264 Main 16: H264 High	Sets the codec type for the video stream
3.9	VIDEOCodecTypeGet	(Output) Codec : (Integer): Values: 12: H264 Baseline 13: MJPEG 15: H264 Main 16: H264 High	Requests the value of the current Codec Type
3.10	VIDEORateControlTypeSet	(Input) RateControl : (Integer): Values: 0: VBR 1: CBR 2: CVBR	Sets the Rate Control Type
3.11	VIDEORateControlTypeGet	(Output) RateControl : (Integer): Values: 0: VBR 1: CBR 2: CVBR	Requests the value of the current Rate Control Type
3.12	VIDEOImageSizePresetSet	(Input) Size : (Integer): Values: 0: 1080p (1920x1080) 1: 720p (1280x720) 2: D1 (960x540) 3: 4SIF (640x360)	Sets the video resolution preset, image size
3.13	VIDEOImageSizePresetGet	(Output) Size : (Integer): Values: 0: 1080p (1920x1080) 1: 720p (1280x720) 2: D1 (960x540) 3: 4SIF (640x360)	Requests the value of the current resolution preset, image size
3.14	VIDEORTPPortSet	(Input) Port : (Integer): RTP Port Values: 1→65535	Sets the RTP port



3.15	VIDEORTPPortGet	(Output) Port : (Integer): RTP Port Values: 1→65535	Requests the value of the current RTP Port
3.16	VIDEORTPNameSet	(Input) Name : (String): RTP Name	Sets the RTP name for URL
3.17	VIDEORTPNameGet	(Output) Name : (String): RTP Name	Requests the value of the current RTP Name
3.18	VIDEOForcelFrame	No parameters	Enforces the video encoder to send an IFrame
3.19	VIDEOMulticastConfigurationSet	(Input) Enabled : (Integer): Values: 0: Disabled 1: Enabled (Input) TTL : (Integer): Time To Live value Values: 0→254 seconds (Input) Port : (LongInt): Multicast IP Port Values: 0→65535 (Input) Address : (String): Multicast IP Address	Sets the configuration parameters for multicast mode
3.20	VIDEOMulticastConfigurationGet	(Output) Enabled : (Integer): Values: 0: Disabled 1: Enabled (Output) TTL : (Integer): Time To Live value Values: 0→254 seconds (Output) Port : (LongInt): Multicast IP Port Values: 0→65535 (Output) Address : (String): Multicast IP Address	Returns the configuration parameters for multicast mode
3.21	VIDEOQualitySet	(Input) Quality : (Integer): Quality value Values: 1→100 %	Sets the video encoding quality
3.22	VIDEOQualityGet	(Output) Quality : (Integer): Quality value Values: 1→100 %	Returns current video encoding quality
3.25	VIDEOSnapshotURLGet	(Output) URL : (String): Snapshot URL	Returns URL to request video snapshot
3.26	VIDEOSourceFormatGet	(Output) Format : (Integer): Values: 1: PAL 2: NTSC	Returns the source video format
3.34	VIDEOHTTPPortSet	(Input) Port : (Integer): HTTP is always enabled on the same port as the RTSP port	Sets the HTTP port
3.35	VIDEOHTTPPortGet	(Output) Port : (Integer): HTTP Port	Requests the value of the current HTTP Port
3.42	VIDEOSourceFormatSet	(Input) Format : (Integer): Values: 1: PAL 2: NTSC	Sets video source format
3.43	VIDEONableMulticastStreaming	(Input) Enable : (Integer): 0, 1 Values: 0: Off 1: On	enables/disables the video multicast streaming

3.44	VIDEOImageSizePresetConfigGet	(Input) Preset : (Integer): Resolution preset Values: 0: 1080p (1920x1080) 1: 720p (1280x720) 2: D1 (960x540) 3: 4SIF (640x360) (Output) Width : (Integer): Width of the resolution preset (Output) Height : (Integer): Height of the resolution preset (Output) Name : (String): Name of the resolution preset	Requests width, height and name of the resolution preset
3.45	VIDEOSnapshotOnDemandURLGet	(Output) URL : (String): On demand Snapshot URL	Returns URL to request a video snapshot
3.46	VIDEOBitrateRangeGet	(Output) Min : (Integer): Bitrate Min value (Output) Max : (Integer): Bitrate Max value	Returns Bitrate limits
3.47	VIDEOQualityRangeGet	(Output) Min : (Integer): Quality Min value (Output) Max : (Integer): Quality Max value	Returns Quality limits
4.1	VIDEOContrastSet	(Input) Contrast : (Integer): Contrast	Sets contrast of video input
4.2	VIDEOContrastGet	(Output) Contrast : (Integer): Contrast	Requests the contrast value
4.3	VIDEObrightnessSet	(Input) Brightness : (Integer): Brightness	Sets brightness of video input
4.4	VIDEObrightnessGet	(Output) Brightness : (Integer): Brightness	Requests the brightness value
4.5	VIDEOSaturationSet	(Input) Saturation : (Integer): Saturation	Sets color saturation on video input
4.6	VIDEOSaturationGet	(Output) Saturation : (Integer): Saturation	Requests the color saturation value
5.35	VIDEOIMDAvailableGet	(Output) Available : (Integer): Values: 0: Not available 1: Available	Returns whether video Intelligent Motion Detection is available or not
5.36	VIDEOTZAvailableGet	(Output) Available : (Integer): Values: 0: Not available 1: Available	Returns whether video Trip Zones are available or not
6.1	VIDEOTriggerAlarm	(Input) Id : (Integer): Alarm Id (Input) Alarm : (String): NMEA Formatted status	Internal Use Only
7.1	VIDEOProfileActiveSet	(Input) Index : (Integer): Profile index selection Values: 0→4	Changes and applies the video profile
7.2	VIDEOProfileActiveGet	(Output) Index : (Integer): Profile index selection Values: 0→4	Returns current video profile. 0 means custom
7.3	VIDEOProfileNameGet	(Input) Index : (Integer): Profile index Values: 0→4 (Output) Name : (String): Profile name	Returns the name of a video profile
8.2	VIDEOMaskAllGet	(Output) Enabled : (Integer): Video mask status Values: 0: Off 1: On	Requests video mask status
20.1	VIDEOHealthGet	(Output) Health : (Integer): Health state of device	Requests health state of device
21.1	VIDEObitExecute	No parameters	Starts execution of BIT routine associated to this device
21.2	VIDEObitAbort	No parameters	Stops execution of BIT routine associated to this device
21.3	VIDEObitResult	(Output) BIT_Result : (Integer): Result of the last BIT routine executed associated to this device	Requests result of last BIT routine associated to this device

21.4	VIDEOLastNMEAGet	(Output) DeviceType : (Integer): Device Type (Output) DeviceId : (Integer): Device Id (Output) Health : (Integer): Health Status of Device (Output) BIT : (Integer): Result of last BIT routine in this device (Output) Timestamp : (String): Timestamp of the moment when this info was generated (Output) Source_Type : (Integer): Device type of video source (Output) Source_Id : (Integer): Device id. of video source (Output) Transmission_type : (Integer): Transmission type (Output) Destination_net : (String): Destination network if multicast (Output) Destination_port : (Integer): Destination port number if multicast (Output) CODEC_Format : (Integer): CODEC Format (Output) Input : (Integer): Video Input Selected (Output) Inputs : (Integer): Number of video inputs (Output) Width : (Integer): Width of the video (Output) Height : (Integer): Height of the video (Output) MuxFormat : (Integer): Multiplex format (Output) Bitrate : (LongInt): Bit rate of the video stream (Output) Deinterlace : (Integer): 0=Disabled, 1=Enabled (Output) AnalyticsChangedTimestamp : (String): Timestamp updated when Analytics configuration changes	Requests the value of the current NMEA string of this device.
21.5	VIDEOLongBITResult	(Output) BITResult : (String): Result string of the last BIT routine executed associated to this device.	Requests result string of last BIT routine executed associated to this device
21.6	VIDEODeviceVersionGet	(Output) rx_data : (String): version string	Requests the device version string
21.7	VIDEODeviceInfoGet	(Output) rx_data : (String): info string	Requests the device info string

Documentation generated from: dictionary\_VIDEO.txt v1.2 (2023/11/20 11:20:19)  
 dictionary\_VIDEO\_M300Video.txt v0.2 (2023/11/20 11:20:19)  
 dictionary\_VIDEO\_M300.txt v0.0 (2019/14/09 11:24:11)

## RADAR INTERFACE Device Functions

Id	Function Name	Parameters	Description
1.1	RADARIFRemoteSensorSet	(input) IP : (String): Remote Sensor IP Address (input) Port : (Integer): Remote Sensor Port	Sets the Remote Sensor IP and Port
1.2	RADARIFRemoteSensorGet	(output) IP : (String): Remote Sensor IP Address (output) Port : (Integer): Remote Sensor Port	Gets the Remote Sensor IP and Port
2.1	RADARIFActiveSet	(input) Active : (Integer): RADARIF Operation Active Values: 0: Disabled 1: Enabled	Sets the Active state of the RADARIF Operation
2.2	RADARIFActiveGet	(output) Active : (Integer): RADARIF Operation Active Values: 0: Disabled 1: Enabled	Gets the Active state of the RADARIF Operation

Documentation generated from: dictionary.txt v0.0  
dictionary\_RADAR\_INTERFACE.txt v0.0

## PAN and TILT device functions

Id	Function Name	Parameters	Description
1.1	PTInitialize	No parameters	Initializes platform control parameters and moves to the origin position of the encoders
1.2	PTAzimuthElevationSet	(Input) Azimuth : (Float): Azimuth in degrees Values: 0→360 degrees (Input) Elevation : (Float): Elevation in degrees(degrees)	Moves platform to a position defined by azimuth and elevation from platform's own reference axis.
1.3	PTAzimuthElevationGet	(Output) Azimuth : (Float): Azimuth in degrees Values: 0→360 degrees (Output) Elevation : (Float): Elevation in degrees(degrees)	Requests platform azimuth and elevation values
1.4	PTMaxVelocityAccelerationSet	(Input) Azimuth_Velocity : (Float): Velocity in azimuth (degrees/second) (Input) Elevation_Velocity : (Float): Velocity in elevation (degrees/second) (Input) Azimuth_Acceleration : (Float): Acceleration in azimuth (degrees/second/second) (Input) Elevation_Acceleration : (Float): Acceleration in elevation (degrees/second/second)	This command sets the inertial parameters to model positioning motion of the platform.
1.5	PTMaxVelocityAccelerationGet	(Output) Azimuth_Velocity : (Float): Velocity in azimuth (degrees/second) (Output) Elevation_Velocity : (Float): Velocity in elevation (degrees/second) (Output) Azimuth_Acceleration : (Float): Acceleration in azimuth (degrees/second/second) (Output) Elevation_Acceleration : (Float): Acceleration in elevation (degrees/second/second)	This command gets the current inertial parameters of the platform.
1.6	PTSpeedModeSet	(Input) Azimuth_Speed : (Float): Speed in azimuth axis(degrees/second) (Input) Elevation_Speed : (Float): Speed in elevation axis(degrees/second)	Sets platform speed in both axis
1.7	PTSpeedGet	(Output) Azimuth_Speed : (Float): Speed in azimuth axis(degrees/second) (Output) Elevation_Speed : (Float): Speed in elevation axis(degrees/second)	Requests platform speed in both axis
1.8	PTStop	No parameters	Stops platform
1.9	PTAzimuthElevationIncrement	(Input) Azimuth : (Float): Increment in azimuth(degrees) (Input) Elevation : (Float): Increment in elevation(degrees)	Increments platform's azimuth and/or elevation values (increments can be negative)
1.10	PTPark	No parameters	Moves platform to park position

1.11	PTModeGet	(Output) Mode : (Integer): Platform mode Values: -1: Not initialized 0: Manual 1: Autoscan 2: Tracking 3: Slaved 4: Parked 5: Scan List 6: Radar Track Scan 7: Radar Track Engage Last 8: Radar Track Engage 9: Radar Track NMEA 10: Heading Hold 11: Alarm Manager 12: Gyro Null	Requests platform mode
1.12	PTCalibrate	No parameters	Performs a recalibration of the platform
1.13	PTAzimuthElevationAtSpeedSet	(Input) Azimuth : (Float): Azimuth in degrees (Input) Elevation : (Float): Elevation in degrees (Input) Azimuth_Rate : (Float): Azimuth speed in degrees/sec (Input) Elevation_Rate : (Float): Elevation Speed in degrees/sec	Moves platform to a position defined by azimuth and elevation from platform's own reference axis at the azimuth and elevation rates specified.
1.14	PTFixedAzimuthElevationSet	(Input) Azimuth : (Float): Azimuth in degrees (Input) Elevation : (Float): Elevation in degrees	Sets fixed azimuth and elevation specified
1.16	PTAzimuthElevationGeoRangeSet	(Input) Left : (Float): Min azimuth in degrees (Input) Right : (Float): Max azimuth in degrees (Input) Up : (Float): Max elevation in degrees (Input) Down : (Float): Min elevation in degrees	Set azimuth and elevation Geo software limits
1.17	PTAzimuthElevationGeoRangeGet	(Output) Left : (Float): Min azimuth in degrees (Output) Right : (Float): Max azimuth in degrees (Output) Up : (Float): Max elevation in degrees (Output) Down : (Float): Min elevation in degrees	Request azimuth and elevation Geo software limits
1.18	PTAzimuthElevationRangeSet	(Input) Left : (Float): Min azimuth in degrees (Input) Right : (Float): Max azimuth in degrees (Input) Up : (Float): Max elevation in degrees (Input) Down : (Float): Min elevation in degrees	Set azimuth and elevation software limits
1.19	PTAzimuthElevationRangeGet	(Output) Left : (Float): Min azimuth in degrees (Output) Right : (Float): Max azimuth in degrees (Output) Up : (Float): Max elevation in degrees (Output) Down : (Float): Min elevation in degrees	Request azimuth and elevation Geo software limits
1.22	PTSpeedModeJoystickSet	(Input) Azimuth_Speed : (Float): Speed percentage in azimuth axis (Input) Elevation_Speed : (Float): Speed percentage in elevation axis (Input) Model : (Integer): Model of dependence between joystick and speed	Sets platform speed in both axis

1.23	PTSpeedModeJoystickFOVDependentSet	(Input) Azimuth_Speed : (Float): Speed percentage in azimuth axis (Input) Elevation_Speed : (Float): Speed percentage in elevation axis (Input) Model : (Integer): Model of dependence between joystick and speed (Input) Factor : (Float): Constant FOV speed (Input) Active_cam : (Integer): Active camera (Input) Cam_type : (Integer): Type camera (Input) Cam_id : (Integer): Camera Id	Sets platform speed in both axis with FOV Dependent
1.24	PTAzimuthMoveTimeoutSet	(Input) TimeToStop : (Integer): Time to stop pan continuous movement	Sets the time to stop pan continuous movement
1.25	PTAzimuthMoveTimeoutGet	(Output) TimeToStop : (Integer): Time to stop pan continuous movement	Request time to stop pan continuous movement
1.26	PTElevationMoveTimeoutSet	(Input) TimeToStop : (Integer): Time to stop tilt continuous movement	Sets the time to stop tilt continuous movement
1.27	PTElevationMoveTimeoutGet	(Output) TimeToStop : (Integer): Time to stop tilt continuous movement	Request time to stop tilt continuous movement
1.28	PTLiftUpDownCommandSet	(Input) Command : (Integer): Values: 0: Stop 1: Down 2: Up	Commands the Up/Down Lift device
1.29	PTLiftUpDownCommandGet	(Output) Command : (Integer): Values: 0: Stop 1: Down 2: Up	Returns current command status for the Up/Down lift device
1.30	PTLiftUpDownStateGet	(Output) State : (Integer): Values: -1: Unknown 0: Stopped 1: Down 2: Up 3: Moving 4: No power	Returns current state of the Up/Down lift device
1.31	PTAzimuthZeroSet	No parameters	Stores current PLAT Azimuth as Zero Azimuth
1.32	PTElevationZeroSet	No parameters	Stores current PLAT Elevation as Zero Elevation
1.33	PTAzElOffsetGet	(Output) Offset_Azimuth : (Float): Offset azimuth (Output) Offset_Elevation : (Float): Offset Elevation	Returns current Az/El offset values
1.34	PTAxisAvailable	(Output) PanAvailable : (Integer): Azimuth movement enabled (Output) TiltAvailable : (Integer): Elevation movement enabled	Returns the availability of each axis
1.35	PTAzimuthElevationOnScreenSet	(Input) ScreenX : (Float): Screen X coordinate in percentage from the left (Input) ScreenY : (Float): Screen Y coordinate in percentage from the top (Input) Active_cam : (Integer): 0=Use specific camera FOV, 1=Use Active camera FOV (Input) Cam_type : (Integer): Camera type (4=DLTV, 5=IR) when Active_cam is 0 (Input) Cam_id : (Integer): Camera id when Active_cam is 0	Commands the PT to cue to the specified screen location

2.1	PTGeoAzimuthElevationSet	(Input) Geo_Azimuth : (Float): Geographic azimuth(degrees) (Input) Geo_Elevation : (Float): Elevation from horizontal plane(degrees)	Moves platform to a position defined by geographic azimuth from true North and elevation from horizontal plane.
2.2	PTGeoAzimuthElevationGet	(Output) Geo_Azimuth : (Float): Geographic azimuth(degrees) (Output) Geo_Elevation : (Float): Elevation from horizontal plane(degrees)	Requests platform georeferenced azimuth and elevation values
2.3	PTGeoPointXYZ	(Input) UTM_Zone_Number : (Byte): UTM Zone Number (Input) UTM_Zone_Letter : (Byte): UTM Zone Letter (Input) X_UTM_Coordinate : (LongInt): X UTM Coordinate (Input) Y_UTM_Coordinate : (LongInt): Y UTM Coordinate (Input) Height : (Integer): Height	Points platform to a geographic position defined by UTM coordinates and height above MSL
2.4	PTGeoPointllh	(Input) Latitude_Degrees : (Byte): Latitude degrees (0 - 90) (Input) Latitude_Sign : (Byte): Latitude sign (N/S) (Input) Latitude_Minutes : (Byte): Latitude minutes (0 - 59) (Input) Latitude_Seconds : (Byte): Latitude seconds (0 - 59) (Input) Latitude_Millisecs : (Integer): Latitude milliseconds (0 - 999) (Input) Longitude_Degrees : (Byte): Longitude degrees (0 - 180) (Input) Longitude_Sign : (Byte): Longitude sign (East - West) (Input) Longitude_Minutes : (Byte): Longitude minutes (0 - 59) (Input) Longitude_Seconds : (Byte): Longitude seconds (0 - 59) (Input) Longitude_Millisecs : (Integer): Longitude milliseconds (0 - 999) (Input) Altitude : (Integer): Altitude in meters	Points platform to a geographic position defined by geographical coordinates and height above MSL.
2.5	PTGeoPointllh2	(Input) Latitude : (Float): Latitude in degrees (Input) Longitude : (Float): Longitude in degrees (Input) Altitude : (Integer): Altitude in meters	Points platform to a geographic position defined by geographical coordinates and height above MSL. The latitude and longitude values are given as floats.
2.6	PTGeoAzimuthElevationAtSpeedSet	(Input) Geo_Azimuth : (Float): Geographic azimuth (Input) Geo_Elevation : (Float): Elevation from horizontal plane (Input) Azimuth_Rate : (Float): Azimuth speed in degrees/sec (Input) Elevation_Rate : (Float): Elevation Speed in degrees/sec	Moves platform to a position defined by geographic azimuth from true North and elevation from horizontal plane at a specified speed in azimuth and elevation.
2.7	PTGeoLLHtoAzEl	(Input) Lat : (Float): Latitude in degrees (Input) Lon : (Float): Longitude in degrees (Input) Alt : (Float): Altitude in meters (Output) Geo_Azimuth : (Float): Geographic azimuth (Output) Geo_Elevation : (Float): Elevation from horizontal plane (Output) Geo_Distance : (Float): Distance in meters	Calculates the Geo Azimuth/Elevation for a specific Geo location.
3.1	PTAutoScanLimitsSet	(Input) Left_Azimuth : (Float): Left limit for autoscan Values: -180→180 degrees (Input) Right_Azimuth : (Float): Right limit for autoscan Values: -180→180 degrees	Sets autoscan limits
3.2	PTAutoScanSpeedSet	(Input) Speed : (Float): Speed for autoscan(degrees/second)	Sets platform's speed for autoscan
3.3	PTAutoScanModeOn	No parameters	Sets autoscan mode on
3.4	PTAutoScanModeOff	No parameters	Sets autoscan mode off
3.5	PTAutoScanModeGet	(Output) AutoScan : (Integer): Autoscan mode Values: 0: Off 1: On	Requests
3.6	PTAutoScanLimitsGeoSet	(Input) Left_Azimuth : (Float): Geo left limit for autoscan (Input) Right_Azimuth : (Float): Geo right limit for autoscan	Sets georeferenced autoscan limits



3.7	PTAutoScanValuesGet	(Output) LeftLimit : (Float): Autoscan left limit (Output) RightLimit : (Float): Autoscan right limit (Output) Speed : (Float): Autoscan speed	Requests autoscan values (left limit, right limit, speed)
3.8	PTAutoScanModeRelativeSet	(Input) AutoScan : (Integer): Autoscan mode Values: 0: Off 1: On	Sets the status (start/stop) of autoscan mode bu using relative parameters
3.9	PTAutoScanRelativeSpeedSet	(Input) Speed : (Float): Speed for relative autoscan. The value is a multiplier for the FOV.	Sets platform's speed for relative autoscan
3.10	PTAutoScanRelativeSpeedGet	(Output) Speed : (Float): Speed for relative autoscan. The value is a multiplier for the FOV.	Requests platform's speed for relative autoscan
3.11	PTAutoScanRelativeSpeedPreset Set	(Input) Speed : (Integer): Speed for relative autoscan (0 Slow, 1 Mid, 2 Fast) Values: 0: Slow 1: Mid 2: Fast	Sets platform's speed for relative autoscan
3.12	PTAutoScanRelativeSpeedPreset Get	(Output) Speed : (Integer): Speed for relative autoscan (0 Slow, 1 Mid, 2 Fast) Values: 0: Slow 1: Mid 2: Fast	Requests platform's speed for relative autoscan
3.13	PTAutoScanRelativeWidthSet	(Input) Width : (Float): Width in degrees for relative autoscan.	Sets width value for relative autoscan
3.14	PTAutoScanRelativeWidthGet	(Output) Width : (Float): Width in degrees for relative autoscan.	Requests width value for relative autoscan
3.15	PTAutoScanRelativeWidthPreset Set	(Input) Width : (Integer): Width for relative autoscan (0 Narrow, 1 Mid, 2 Wide) Values: 0: Narrow 1: Mid 2: Wide	Sets width preset value for relative autoscan
3.16	PTAutoScanRelativeWidthPreset Get	(Output) Width : (Integer): Width preset value for relative autoscan (0 Narrow, 1 Mid, 2 Wide) Values: 0: Narrow 1: Mid 2: Wide	Requests width preset value for relative autoscan
3.17	PTAutoScanRelativeModeToggle	No parameters	Toggles autoscan mode
3.18	PTAutoScanRelativeSpeedPreset Toggle	No parameters	Toggles platform's speed for relative autoscan
3.19	PTAutoScanRelativeWidthPreset Toggle	No parameters	Toggles width preset value for relative autoscan
4.1	PTSlaveModeOn	No parameters	Sets slave mode on
4.2	PTSlaveModeOff	No parameters	Sets slave mode off

5.1	PTScanListPointSet	(Input) Index : (Integer): Index of point. (Input) Azimuth : (Float): Azimuth of the point. (Input) Elevation : (Float): Elevation of the point. (Input) FOV : (Float): FOV of the associated camera in the point. (Input) Focus : (Float): Focus of the associated camera in the point. (Input) Autofocus : (Integer): Autofocus on or off (Input) Time : (Integer): Dwell time (seconds) in the point. (Input) Speed : (Float): Speed of the platform. (Input) Active : (Integer): Is point active?	Sets values for a point in a scan list
5.2	PTScanListPointGet	(Input) Index : (Integer): Index of point. (Output) Azimuth : (Float): Azimuth of the point. (Output) Elevation : (Float): Elevation of the point. (Output) FOV : (Float): FOV of the associated camera in the point. (Output) Focus : (Float): Focus of the associated camera in the point. (Output) Autofocus : (Integer): Autofocus on or off (Output) Time : (Integer): Dwell time (seconds) in the point. (Output) Speed : (Float): Speed of the platform. (Output) Active : (Integer): Is point active? (Output) Exists : (Integer): Point exists?	Requests values for a point in a scan list
5.3	PTScanListClear	No parameters	Clears a Scan List
5.4	PTScanListCameraSet	(Input) Camera : (Integer): Associated camera device type Values: 4: DLTV 5: IR	Sets the camera associated to a scan list.
5.5	PTScanListCameraGet	(Output) Camera : (Integer): Associated camera Values: 4: DLTV 5: IR	Requests the camera associated to a scan list.
5.6	PTScanListStart	No parameters	Starts a scan list
5.7	PTScanListStop	No parameters	Stops a scan list
5.8	PTScanListModeSet	(Input) Mode : (Integer): Scan list mode Values: 0: Normal 1: GEO	Sets platform's scan list mode
5.9	PTScanListModeGet	(Output) Mode : (Integer): Scan list mode Values: 0: Normal 1: GEO	Requests platform's scan list mode
5.10	PTScanListPointUTMSet	(Input) Index : (Integer): Index of point. (Input) UTMZoneNumber : (Byte): UTM Zone Number of the point. (Input) UTMZoneLetter : (Byte): UTM Zone Letter of the point. (Input) UTMX : (Float): UTM X coordinate of the point. (Input) UTM Y : (Float): UTM Y coordinate of the point. (Input) UTMZ : (Float): UTM Z coordinate of the point. (Input) FOV : (Float): FOV of the associated camera in the point. (Input) Focus : (Float): Focus of the associated camera in the point. (Input) Autofocus : (Integer): Autofocus on or off (Input) Time : (Integer): Dwell time (seconds) in the point. (Input) Speed : (Float): Speed of the platform. (Input) Active : (Integer): Is point active?	Sets values for a point in a scan list in UTM Coordinates

5.11	PTScanListPointUTMGet	(Input) Index : (Integer): Index of point. (Output) UTMZoneNumber : (Byte): UTM Zone Number of the point. (Output) UTMZoneLetter : (Byte): UTM Zone Letter of the point. (Output) UTMX : (Float): UTM X coordinate of the point. (Output) UTM Y : (Float): UTM Y coordinate of the point. (Output) UTMZ : (Float): UTM Z coordinate of the point. (Output) FOV : (Float): FOV of the associated camera in the point. (Output) Focus : (Float): Focus of the associated camera in the point. (Output) Autofocus : (Integer): Autofocus on or off (Output) Time : (Integer): Dwell time (seconds) in the point. (Output) Speed : (Float): Speed of the platform. (Output) Active : (Integer): Is point active? (Output) Exists : (Integer): Point exists?	Requests values for a point in a scan list in UTM coordinates
5.12	PTScanListPointLLHSet	(Input) Index : (Integer): Index of point. (Input) Latitude : (Double): Latitude of the point. (Input) Longitude : (Double): Longitude of the point. (Input) Altitude : (Float): Altitude of the point. (Input) FOV : (Float): FOV of the associated camera in the point. (Input) Focus : (Float): Focus of the associated camera in the point. (Input) Autofocus : (Integer): Autofocus on or off (Input) Time : (Integer): Dwell time (seconds) in the point. (Input) Speed : (Float): Speed of the platform. (Input) Active : (Integer): Is point active?	Sets values for a point in a scan list in LLH Coordinates
5.13	PTScanListPointLLHGet	(Input) Index : (Integer): Index of point. (Output) Latitude : (Double): Latitude of the point. (Output) Longitude : (Double): Longitude of the point. (Output) Altitude : (Float): Altitude of the point. (Output) FOV : (Float): FOV of the associated camera in the point. (Output) Focus : (Float): Focus of the associated camera in the point. (Output) Autofocus : (Integer): Autofocus on or off (Output) Time : (Integer): Dwell time (seconds) in the point. (Output) Speed : (Float): Speed of the platform. (Output) Active : (Integer): Is point active? (Output) Exists : (Integer): Point exists?	Requests values for a point in a scan list in LLH coordinates
5.14	PTScanListPause	No parameters	Pauses a scan list
5.15	PTScanListResume	No parameters	Resumes a paused scan list
5.16	PTScanListLoad	(Input) ScanList : (String): Scan list name	Loads a saved scan list
5.17	PTScanListSave	(Input) ScanList : (String): Scan list name	Saves a scan list in the server with the name given
5.18	PTScanListsList	(Output) ScanLists : (String): Scan lists	Requests names of scan lists saved in the server. ScanLists is a comma separated list of names
5.19	PTScanListDelete	(Input) ScanList : (String): Scan list name	Deletes given scan list from the server
5.20	PTScanListPointRemove	(Input) Index : (Integer): Scan list point index	Removes a given point from the current server scan list
5.21	PTScanListPointGoTo	(Input) Index : (Integer): Scan list point index	Goes to a given point from the current server scan list
5.22	PTScanListPointCurrentValuesSet	(Input) Index : (Integer): Scan list point index	Stores current values in the preset number specified by index

5.23	PTScanListPointClear	(Input) Index : (Integer): Scan list point index	Clears a given point from the current server scan list
5.24	PTScanListPointSwap	(Input) Index1 : (Integer): Scan list point index for first point (Input) Index2 : (Integer): Scan list point index for second point	Swaps two given points from the current scan list
5.25	PTScanListPointNameSet	(Input) Index : (Integer): Scan list point index (Input) Name : (String): New name for Scan list point	Sets the name for a specific scan list point
5.26	PTScanListPointNameGet	(Input) Index : (Integer): Scan list point index (Output) Name : (String): Current name of the Scan list point	Returns the current name of a specific scan list point
5.27	PTScanListPointDwellingTimeSet	(Input) Index : (Integer): Scan list point index (Input) DwellingTimeSeconds : (Integer): New dwelling time for Scan list point	Sets the dwelling time for a specific scan list point
5.28	PTScanListPointSpeedSet	(Input) Index : (Integer): Scan list point index (Input) Speed : (Float): New speed for Scan list point	Sets the speed for a specific scan list point
5.29	PTScanListAllPointsDwellingTimeSet	(Input) IDwellingTimeSeconds : (Integer): New dwelling time for Scan list points	Sets the dwelling time for all scan list points
5.30	PTScanListAllPointsSpeedSet	(Input) Speed : (Float): New speed for all the scan list points	Sets the speed for all scan list points
5.31	PTScanListPointZoomFocusPctg Set	(Input) Index : (Integer): Index of point. (Input) Azimuth : (Float): Azimuth of the point. (Input) Elevation : (Float): Elevation of the point. (Input) Zoom_Pctg : (Float): Zoom Percentage of the associated camera in the point. (Input) Focus_Pctg : (Float): Focus Percentage of the associated camera in the point. (Input) Autofocus : (Integer): Autofocus on or off (Input) Time : (Integer): Dwell time (seconds) in the point. (Input) Speed : (Float): Speed of the platform. (Input) Active : (Integer): Is point active?	Sets values for a point in a scan list Zoom and Focus in Percentage
5.32	PTScanListPointZoomFocusPctg Get	(Input) Index : (Integer): Index of point. (Output) Azimuth : (Float): Azimuth of the point. (Output) Elevation : (Float): Elevation of the point. (Output) Zoom_Pctg : (Float): Zoom Percentage of the associated camera in the point. (Output) Focus_Pctg : (Float): Focus Percentage of the associated camera in the point. (Output) Autofocus : (Integer): Autofocus on or off (Output) Time : (Integer): Dwell time (seconds) in the point. (Output) Speed : (Float): Speed of the platform. (Output) Active : (Integer): Is point active?	Gets values from a point in a scan list Zoom and Focus in Percentage
5.33	PTScanListAllPointsNameGet	(Output) Names : (String): Comma separated list with the indexes and names of points	Returns the names of all existing scan list points
7.1	PTTrackModeSet	(Input) Mode : (Integer): Track mode Values: 0: Manual 1: Scan 2: Engage Last 3: Engage 4: NMEA 5: Engage closest	Sets platform's radar track mode
7.2	PTTrackEngageSet	(Input) RadarId : (String): Host Id. of Radar Server (Input) TrackId : (Integer): Id. of track to engage	Sets id and server of track to engage

7.3	PTTrackModeGet	(Output) Mode : (Integer): Track mode Values: 0: Manual 1: Scan 2: Engage Last 3: Engage 4: NMEA 5: Engage closest	Gets platform's radar track mode
7.4	PTTrackModeToggle	No parameters	Toggles between platform's radar track modes
7.5	PtradarTrackNMEAModeSet	(Input) Enabled : (Integer): Track NMEA mode enabled Values: 0: Disabled 1: Enabled	Sets platform's radar track NMEA mode
7.6	PtradarTrackNMEAModeGet	(Output) Enabled : (Integer): Track NMEA mode enabled Values: 0: Disabled 1: Enabled	Gets platform's radar track NMEA mode
7.7	PtradarTrackNMEAModeToggle	No parameters	Toggles between enable and disable platform's radar track NMEA mode
7.8	PtradarTrackNMEACursorSet	(Input) Enabled : (Integer): Radar track NMEA cursor process enabled Values: 0: Disabled 1: Enabled	Enables/disables platform's radar track NMEA cursor processing
7.9	PtradarTrackNMEACursorGet	(Output) Enabled : (Integer): Radar track NMEA cursor process enabled Values: 0: Disabled 1: Enabled	Gets if platform's radar track NMEA cursor processing is enabled
7.10	PtradarTrackNMEACursorToggle	No parameters	Toggles between enabled and disabled platform's radar track NMEA cursor processing
7.11	PtradarTrackNMEAWaypointSet	(Input) Enabled : (Integer): Radar track NMEA waypoint process enabled Values: 0: Disabled 1: Enabled	Enables/disables platform's radar track NMEA waypoint processing
7.12	PtradarTrackNMEAWaypointGet	(Output) Enabled : (Integer): Radar track NMEA waypoints process enabled Values: 0: Disabled 1: Enabled	Gets if platform's radar track NMEA waypoint processing is enabled
7.13	PtradarTrackNMEAWaypointToggle	No parameters	Toggles between enable and disable platform's radar track NMEA waypoint processing
7.14	PtradarTrackNMEATracksSet	(Input) Enabled : (Integer): Radar track NMEA tracks process enabled Values: 0: Disabled 1: Enabled	Enables/disables platform's radar track NMEA tracks processing

7.15	PTRadarTrackNMEATracksGet	(Output) Enabled : (Integer): Radar track NMEA tracks process enabled Values: 0: Disabled 1: Enabled	Gets if platform's radar track NMEA tracks processing is enabled
7.16	PTRadarTrackNMEATracksToggle	No parameters	Toggles between enable and disable platform's radar track NMEA tracks processing
7.17	PTRadarTrackDwellingTimeSet	(Input) Dwelling_time : (Integer): Dwelling time in seconds	Sets radar scan dwelling time
7.18	PTRadarTrackDwellingTimeGet	(Output) Dwelling_time : (Integer): Dwelling time in seconds	Gets current radar scan dwelling time
7.19	PTRadarTrackingAlgorithmSet	(Input) Algorithm : (Integer): Radar tracking algorithm	Sets radar track algorithm
7.20	PTRadarTrackingAlgorithmGet	(Output) Algorithm : (Integer): Radar tracking algorithm	Gets radar track algorithm
8.1	PTSubsystemOn	No parameters	Turns PLAT subsystem on
8.2	PTSubsystemOff	No parameters	Turns PLAT subsystem off
8.4	PTSendHome	No parameters	Moves PLAT to Home position
8.5	PTSetHome	No parameters	Stores current PLAT position (Az/El) as Home position
8.6	PTSubsystemPowerSet	(Input) Power : (Integer): Power state Values: 0: Off 1: On	Sets value of subsystem power
8.7	PTSetHomeAzimuthElevation	(Input) Azimuth : (Float): Azimuth value in degrees (Input) Elevation : (Float): Elevation value in degrees	Stores parameter values (Az/El) as Home position
8.8	PTParkSet	No parameters	Stores current PLAT position (Az/El) as Park position
8.9	PTParkAzimuthElevationSet	(Input) Azimuth : (Float): Azimuth value in degrees (Input) Elevation : (Float): Elevation value in degrees	Stores parameter values (Az/El) as Park position
8.10	PTUpSideDownSet	(Input) Enable : (Integer): Values: 0: Off 1: On	Sets the UpSide Down configuration
8.11	PTUpSideDownGet	(Output) Enable : (Integer): Values: 0: Off 1: On	Requests the UpSide Down configuration
8.12	PTHighTorqueSet	(Input) Enable : (Integer): Values: 0: Off 1: On	Sets the High Torque configuration
8.14	PTMotorActiveStandbySet	(Input) Enable : (Integer): Values: 0: Off 1: On	Sets the state for motors during standby
8.16	PTHomeGeoAzimuthElevationGet	(Output) Azimuth : (Float): Azimuth value in degrees (Output) Elevation : (Float): Elevation value in degrees	Request home geo position
8.17	PTHomeAzimuthElevationGet	(Output) Azimuth : (Float): Azimuth value in degrees (Output) Elevation : (Float): Elevation value in degrees	Request home position
8.18	PTUpSideDownToggle	No parameters	Toggles the UpSide Down configuration
9.1	PTHeadingHoldModeSet	(Input) Mode : (Integer): Heading hold mode Values: 0: Disabled 1: Enabled	Sets platform's heading hold mode

9.2	PTHeadingHoldModeGet	(Output) Mode : (Integer): Heading hold mode Values: 0: Disabled 1: Enabled	Requests platform's heading hold mode
9.3	PTGyroNullModeSet	(Input) Mode : (Integer): Gyro null mode Values: 0: Off 1: On	Sets platform's gyro null mode
10.1	PTGyroStabilizationSet	(Input) Status : (Integer): Gyrostabilization status Values: 0: Off 1: On	Sets gyrostabilization status
10.2	PTGyroStabilizationGet	(Output) Status : (Integer): Gyrostabilization status Values: 0: Off 1: On	Gets gyrostabilization status
10.3	PTAzimuthGyroStabilizationSet	(Input) Status : (Integer): Azimuth Gyrostabilization status Values: 0: Disabled 1: Enabled	Sets azimuth gyrostabilization status
10.4	PTAzimuthGyroStabilizationGet	(Output) Status : (Integer): Azimuth Gyrostabilization status Values: 0: Disabled 1: Enabled	Gets azimuth gyrostabilization status
10.5	PTAzimuthGyroStabilizationToggle	No parameters	Toggles azimuth gyrostabilization status
10.6	PTGyroStabilizationToggle	No parameters	Toggles gyrostabilization status
10.7	PTGyroStabilizationPointSet	(Input) Status : (Integer): Gyrostabilization point status Values: 0: Disabled 1: Enabled	Sets gyrostabilization point status
10.8	PTGyroStabilizationPointGet	(Output) Status : (Integer): Gyrostabilization point status Values: 0: Disabled 1: Enabled	Gets gyrostabilization point status
12.1	PTFunctionKeySend	(Input) Key : (Integer): Key stroke	Sends a key stroke to the pan&tilt
12.2	PTFunctionKeyPress	(Input) Key : (Integer): Key stroke	Sends a key press sequence to the pan&tilt
12.3	PTFunctionKeyRelease	(Input) Key : (Integer): Key stroke	Sends a key release sequence to the pan&tilt
19.1	PTRawCommandSend	(Input) cmd_timeout : (Integer): timeout for command execution (Input) rx_expected : (Integer): reponse expected bytes (Input) tx_data : (String): command to be sent (Output) rx_data : (String): command response	Sends a command to the PLAT
19.2	PTRawCommandASCIISend	(Input) cmd_timeout : (Integer): timeout for command execution (Input) rx_expected : (Integer): reponse expected bytes (Input) tx_data : (String): command to be sent (Output) rx_data : (String): command response	Sends a command to the PLAT
21.2	PTBITAbort	No parameters	Aborts execution of BIT routine associated to this device

21.3	PTBITResult	(Output) BIT_Result : (Integer): Result of the last BIT routine executed associated to this device Values: 0: OK 1: Busy 2: Error 3: Unavailable	Requests result of last BIT routine associated to this device
21.4	PTLastNMEAGet	(Output) DeviceType : (Integer): Device Type (Output) DeviceId : (Integer): Device Id (Output) Health : (Integer): Health Status of Device (Output) BIT : (Integer): Result of last BIT routine in this device (Output) Timestamp : (String): Timestamp of the moment when this info was generated (Output) Mode : (Integer): Platform mode (Output) Abs_Azimuth : (Float): Absolute Azimuth (Output) Abs_Elevation : (Float): Absolute Elevation (Output) Geo_Azimuth : (Float): Georeferenced Azimuth (Output) Geo_Elevation : (Float): Georeferenced Elevation (Output) Speed_X : (Float): Speed in Azimuth (Output) Speed_Y : (Float): Speed in Elevation (Output) Max_Velocity_X : (Float): Maximum Velocity in Azimuth (Output) Max_Acceleration_X : (Float): Maximum Acceleration in Azimuth (Output) Max_Velocity_Y : (Float): Maximum Velocity in Elevation (Output) Max_Acceleration_Y : (Float): Maximum Acceleration in Elevation (Output) ScanList_Current_Point : (Integer): If in ScanList mode, indicates the current point. If the platform is moving, indicates the next point (Output) ScanList_Current_Time : (LongInt): If in ScanList mode, indicates the number of seconds already spent in the current point (-1 indicates movement) (Output) Radar_Sensor_Id : (String): Identifier of the associated radar server (Output) Track_Id : (LongInt): Identifier of the associated track (Output) Gyro_Stabilization_Enabled : (Integer): 0=Disabled,1=Enabled (Output) Aiming_Sensor_Enabled : (Integer): 0=Disabled,1=Enabled (Output) Aiming_Sensor_IP_Address : (String): IP Address of the associated aiming sensor (Output) Aiming_Sensor_Port : (Integer): Port of the associated aiming sensor (Output) Scan_List_Timestamp : (String): Timestamp of the last scan list change (Output) Scan_List_Time_Left : (Integer): Scan List time left (Output) Scan_List_Paused : (Integer): 0=Running 1=Paused (Output) PanStabilization : (Integer): 0=Off 1=On (Output) RadarCursor : (Integer): 0=Off 1=On (Output) RadarWaypoint : (Integer): 0=Off 1=On (Output) RadarTracks : (Integer): 0=Off 1=On (Output) HomeStatus : (Integer): 0=Not at home 1=At home (Output) RadarTrackLock : (Integer): The track is locked until lost or unlocked 0=Unlocked 1=Locked	Requests the value of the current NMEA string of this device.



21.5	PTLongBITResult	(Output) BITResult : (String): Result string of the last BIT routine executed associated to this device.	Requests result string of last BIT routine executed associated to this device
21.6	PTDeviceVersionGet	(Output) rx_data : (String): version string	Requests the device version string
21.7	PTDeviceInfoGet	(Output) rx_data : (String): info string	Requests the device info string
22.1	PTExpertModeSet	(Input) OnOff : (Integer): 0 Expert Mode Off, 1 On (Input) Type : (Integer): 1 ASCII Type, 2 Binary (Input) ETX : (Integer): End of Transmission. 0 None, 1 CRLF, 2 LFCR, 3 CR, 4 LF (Input) ERX : (Integer): End of Reception. 0 None, 1 CRLF, 2 LFCR, 3 CR, 4 LF	Sets the configuration for the Expert Communications Mode
22.3	PTExpertDataWrite	(Input) CountTx : (Integer): Number of bytes to transmit (Input) TimeoutRx : (Integer): Timeout in milliseconds (Input) DataTx : (String): Data to transmit (Output) CountRx : (Integer): Number of bytes received (Output) DataRx : (String): Data received	In Expert Mode, transmits raw data and waits for the answer
22.4	PTExpertDataRead	(Input) TimeoutRx : (Integer): Timeout in milliseconds (Output) CountRx : (Integer): Number of bytes received (Output) DataRx : (String): Data received	In Expert Mode, reads raw data from the device

Documentation generated from: dictionary\_PT.txt v0.2 (2021/04/07 09:31:27)  
dictionary\_PT\_HikoPT.txt v0.1 (2019/09/09 15:46:32)  
dictionary\_PT\_M300.txt v0.0 (2019/10/09 13:39:37)

## Visible camera functions

Id	Function Name	Parameters	Description
1.1	DLTVZoomCountsSet	(Input) Zoom : (Integer): Optic Zoom Range: 0x0000-0x4000 Values: 0:Wide→31424:0x7AC0: Narrow	Sets the value of the zoom in counts
1.2	DLTVZoomCountsGet	(Output) Zoom : (Integer): Optic Zoom Range: 0x0000-0x4000 Values: 0:Wide→31424:0x7AC0: Narrow	Gets the value of the zoom in counts
1.3	DLTVZoomDegreesSet	(Input) Zoom : (Float): Zoom degrees Values:(degrees) Min: Min FOV (param Min_FOV of function DLTVFOVRangeGet ) Max: Max FOV (param Max_FOV of function DLTVFOVRangeGet )	Sets the value of the zoom in degrees
1.4	DLTVZoomDegreesGet	(Output) Zoom : (Float): Zoom degrees Values:(degrees) Min: Min FOV (param Min_FOV of function DLTVFOVRangeGet ) Max: Max FOV (param Max_FOV of function DLTVFOVRangeGet )	Gets the value of the zoom in degrees
1.5	DLTVZoomPercentageSet	(Input) Zoom : (Float): Zoom Percentage Values: 0→100 %	Sets the value of the zoom in percentage
1.6	DLTVZoomPercentageGet	(Output) Zoom : (Float): Zoom Percentage Values: 0→100 %	Gets the value of the zoom in percentage
1.7	DLTVZoomChangeRateCountsSet	(Input) Zoom_Rate : (Integer): Zoom change rate in counts Values: 0:Slow→7:Fast	Sets the value of the zoom change rate in counts
1.8	DLTVZoomChangeRateCountsGet	(Output) Zoom_Rate : (Integer): Zoom change rate in counts Values: 0:Slow→7:Fast	Gets the value of the zoom change rate in counts
1.9	DLTVZoomChangeRatePercentageSet	(Input) Zoom_Rate : (Float): Zoom rate in percentage Values: 0→100 %	Sets the value of the zoom change rate in percentage
1.10	DLTVZoomChangeRatePercentageGet	(Output) Zoom_Rate : (Float): Zoom rate in percentage Values: 0→100 %	Gets the value of the zoom change rate in percentage
1.11	DLTVZoomCountsIncrement	No parameters	Increments the value of the zoom
1.12	DLTVZoomCountsDecrement	No parameters	Decrements the value of the zoom
1.13	DLTVZoomStop	No parameters	Aborts zoom changes
1.14	DLTVZoomSlaveSet	(Input) Slave_Zoom : (Integer): Enables (1) or disables (0) slave zoom Values: 0: Off 1: On	If Slave_Zoom is 1, slaves DLTV camera zoom to IR camera FOV. If Slave_Zoom is 0, disables slave zoom associated to IR camera FOV
1.15	DLTVZoomSlaveGet	(Output) Slave_Zoom : (Integer): State of slave zoom Values: 0: Off 1: On	Requests state of slave zoom
1.16	DLTVDigitalZoomSet	(Input) Digital_Zoom : (Integer): State of digital zoom Values: 0: Off 1: On	Sets digital zoom on/off
1.20	DLTVFOVMagnificationSet	(Input) Magnification : (Float): FOV Magnification (maxFOV/currentFOV) Values: 1→30: Optical Zoom 30→360: Digital Zoom	Changes the FOV to achieve the requested magnification

1.21	DLTVFOVMagnificationGet	(Output) Magnification : (Float): FOV Magnification Values: 1→30: Optical Zoom 30→360: Digital Zoom	Requests current magnification (maxFOV/currentFOV)
1.22	DLTVFOVRangeGet	(Output) Min_FOV : (Float): Minimum FOV Values: 0→1000 degrees (Output) Max_FOV : (Float): Maximum FOV Values: 0→1000 degrees	Requests FOV achievable range (optical and electronic)
1.24	DLTVDigitalZoomMagnificationGet	(Output) Magnification : (Float): Digital Zoom Magnification	Requests current Digital Zoom Magnification
1.25	DLTVZoomMoveTimeoutSet	(Input) TimeToStop : (Integer): Time to stop zoom continuous movement Values:(seconds) 0: Disabled 1→30	Sets the time to stop zoom continuous movement
1.26	DLTVZoomMoveTimeoutGet	(Output) TimeToStop : (Integer): Time to stop zoom continuous movement Values:(seconds) 0: Disabled 1→30	Request time to stop zoom continuous movement
1.27	DLTVZoomSlaveToggle	(Toggle) : Values: 0: Off 1: On	Toggles zoom slave function
1.28	DLTVDigitalZoomEnableSet	(Input) Enable : (Integer): Digital zoom state Values: 0: Disabled 1: Enabled	Sets digital zoom enable/disable
1.29	DLTVDigitalZoomEnableGet	(Output) Enable : (Integer): Digital zoom state. Values: 0: Disabled 1: Enabled	Requests state of digital zoom (enable/disable)
1.30	DLTVDigitalZoomEnableToggle	(Toggle) : Values: 0: Disabled 1: Enabled	Sets digital zoom enable/disable
1.33	DLTVZoomCountsLongSet	(Input) Zoom : (LongInt): Optic Zoom Range: 0x0000-0x4000 Values: 0:Wide→31424:0x7ACO: Narrow	Sets the value of the zoom in counts
1.34	DLTVZoomCountsLongGet	(Output) Zoom : (LongInt): Optic Zoom Range: 0x0000-0x4000 Values: 0:Wide→31424:0x7ACO: Narrow	Gets the long value of the zoom in counts
1.35	DLTVZoomIncrementPercentage	(Input) Increment : (Float): Zoom Increment Percentage Values: -100→100 %	Increments zoom value in percentage. Use negative value to decrement
2.1	DLTVFocusCountsSet	(Input) Focus : (Integer): Focus in counts Values: 4096→32767	Sets value of focus in counts
2.2	DLTVFocusCountsGet	(Output) Focus : (Integer): Focus in counts Values: 4096→32767	Requests value of focus in counts
2.3	DLTVFocusPercentageSet	(Input) Focus : (Float): Focus Percentage Values: 0→100 %	Sets value of focus in percentage
2.4	DLTVFocusPercentageGet	(Output) Focus : (Float): Focus Percentage Values: 0→100 %	Requests value of focus in percentage
2.5	DLTVFocusChangeRateCountsSet	(Input) Focus_Rate : (Integer): Focus rate in counts Values: 0:Slow→7:Fast	Sets the value of the focus change rate in counts
2.6	DLTVFocusChangeRateCountsGet	(Output) Focus_Rate : (Integer): Focus rate in counts Values: 0:Slow→7:Fast	Requests the value of the focus change rate in counts

2.7	DLTVFocusChangeRatePercentageSet	(Input) Focus_Rate : (Float): Focus rate in percentage Values: 0→100 %	Sets the value of the focus change rate in percentage
2.8	DLTVFocusChangeRatePercentageGet	(Output) Focus_Rate : (Float): Focus rate in percentage Values: 0→100 %	Requests the value of the focus change rate in percentage
2.9	DLTVFocusCountsIncrement	No parameters	Increments the value of the focus
2.10	DLTVFocusCountsDecrement	No parameters	Decrements the value of the focus in one count
2.11	DLTVFocusStop	No parameters	Aborts zoom changes
2.12	DLTVAutoFocusSet	(Input) AutoFocus : (Integer): 2: Push Values: 0: Off 1: On	Sets autofocus on/off
2.13	DLTVAutoFocusGet	(Output) AutoFocus : (Integer): 2: Push Values: 0: Off 1: On	Requests state of autofocus
2.14	DLTVFocusInfinity	No parameters	Sets focus to infinity
2.15	DLTVAutoFocusPush	No parameters	Autofocus Push
2.16	DLTVAutoFocusSensitivitySet	(Input) AutoFocusSensitivity : (Integer): AutoFocus Sensitivity Values: 0: Normal 1: Low	Sets Autofocus Sensitivity
2.17	DLTVAutoFocusSensitivityGet	(Output) AutoFocusSensitivity : (Integer): AutoFocus Sensitivity Values: 0: Normal 1: Low	Requests AutoFocus Sensitivity
2.18	DLTVAutoFocusModeSet	(Input) AutoFocusMode : (Integer): AutoFocus Mode Values: 0: Normal 1: Interval 2: ZoomTrigger	Requests AutoFocus Mode
2.19	DLTVAutoFocusModeGet	(Output) AutoFocusMode : (Integer): AutoFocus Mode Values: 0: Normal 1: Interval 2: ZoomTrigger	Requests AutoFocus Mode
2.24	DLTVFocusMoveTimeoutSet	(Input) TimeToStop : (Integer): Time to stop focus continuous movement Values:(seconds) 0: Disabled 1→30	Sets the time to stop focus continuous movement
2.25	DLTVFocusMoveTimeoutGet	(Output) TimeToStop : (Integer): Time to stop focus continuous movement Values:(seconds) 0: Disabled 1→30	Request time to stop focus continuous movement
2.29	DLTVFocusCountsLongSet	(Input) Focus : (LongInt): Focus in counts Values: -4096→32767	Sets long value of focus in counts
2.30	DLTVFocusCountsLongGet	(Output) Focus : (LongInt): Focus in counts Values: 4096→32767	Requests long value of focus in counts
2.31	DLTVFocusAvailableGet	(Output) Available : (Integer): 0 Focus not available, 1 Focus available Values: 0: Not Available 1: Available	Returns whether focus is available or not

3.1	DLTVIrisCountsSet	(Input) Iris : (Integer): iris in counts Values: 0: Close 5→17	Sets value of iris in counts
3.2	DLTVIrisCountsGet	(Output) Iris : (Integer): iris in counts Values: 0: Close 5→17	Requests value of iris in counts
3.3	DLTVIrisPercentageSet	(Input) Iris : (Float): iris in percentage Values: 0→100 %	Sets value of iris in percentage
3.4	DLTVIrisPercentageGet	(Output) Iris : (Float): iris in percentage Values: 0→100 %	Requests value of iris in percentage
3.5	DLTVIrisChangeRateCountsSet	(Input) Iris_Rate : (Integer): Iris change rate in counts Values: 0:Slow→7:Fast	Sets iris change rate in counts
3.6	DLTVIrisChangeRateCountsGet	(Output) Iris_Rate : (Integer): Iris change rate in counts Values: 0:Slow→7:Fast	Requests iris change rate in counts
3.7	DLTVIrisRatePercentageSet	(Input) Iris_Rate : (Float): Iris change rate in percentage Values: 0→100 %	Sets iris change rate in percentage
3.8	DLTVIrisRatePercentageGet	(Output) Iris_Rate : (Float): Iris change rate in percentage Values: 0→100 %	Requests iris change rate in percentage
3.9	DLTVIrisCountsIncrement	No parameters	Increments the value of the iris
3.10	DLTVIrisCountsDecrement	No parameters	Decrements the value of the iris
3.11	DLTVIrisStop	No parameters	Aborts iris changes
3.12	DLTVAutoIrisSet	(Input) AutoIris : (Integer): Autoiris state Values: 0: Off 1: On	Sets autoiris on/off
3.13	DLTVAutoIrisGet	(Output) AutoIris : (Integer): Autoiris state Values: 0: Off 1: On	Requests state of autoiris
3.14	DLTVIrisMoveTimeoutSet	(Input) TimeToStop : (Integer): Time to stop iris continuous movement Values:(seconds) 0: Disabled 1→30	Sets the time to stop iris continuous movement
3.15	DLTVIrisMoveTimeoutGet	(Output) TimeToStop : (Integer): Time to stop iris continuous movement Values:(seconds) 0: Disabled 1→30	Request time to stop iris continuous movement
4.7	DLTVGainSet	(Input) Gain : (Integer): Gain Values: 1→15	Sets gain
4.8	DLTVGainGet	(Output) Gain : (Integer): Gain Values: 1→15	Requests gain
4.11	DLTVICRModeAutoSet	(Input) ICRAutoMode : (Integer): ICR auto mode Values: 0: Off 1: On	Sets ICR auto mode
4.12	DLTVICRModeAutoGet	(Output) ICRAutoMode : (Integer): ICR auto mode Values: 0: Off 1: On	Requests ICR auto mode

4.13	DLTVICRModeSet	(Input) ICRMode : (Integer): ICR Mode Values: 0: Off 1: On	Sets ICR mode
4.14	DLTVICRModeGet	(Output) ICRMode : (Integer): ICR Mode Values: 0: Off 1: On	Requests ICR mode
4.15	DLTVGainIncrement	No parameters	Increments gain
4.16	DLTVGainDecrement	No parameters	Decrements gain
4.18	DLTVGainPercentageSet	(Input) Gain : (Float): Gain percentage Values: 0→100 %	Sets gain value in percentage
4.19	DLTVGainPercentageGet	(Output) Gain : (Float): Gain percentage Values: 0→100 %	Requests gain value in percentage
4.21	DLTVLightControlModeSet	(Input) LightControlMode : (Integer): Light Control Mode value Values: 0: ICR off (Low Light off) 1: ICR on (Low Light on) 2: ICR auto (Low Light auto)	Sets light control mode value
4.22	DLTVLightControlModeGet	(Output) LightControlMode : (Integer): Light control mode value Values: 0: ICR off (Low Light off) 1: ICR on (Low Light on) 2: ICR auto (Low Light auto)	Requests light control mode value
4.35	DLTVGainIncrementStep	(Input) Gain : (Integer): Gain increment	Increments gain (increment value can be negative)
4.39	DLTVAntiFogModeSet	(Input) AntiFog : (Integer): Anti fog Mode Values: 0: Off 1: On	Sets anti fog mode
4.40	DLTVAntiFogModeGet	(Output) AntiFog : (Integer): Anti fog Mode Values: 0: Off 1: On	Requests anti fog mode
4.44	DLTVICRModeAutoThresholdSet	(Input) Threshold : (Float): Percentage of threshold level Values: 0→100 %	Sets the percentage of threshold level
4.45	DLTVICRModeAutoThresholdGet	(Output) Threshold : (Float): Percentage of threshold level Values: 0→100 %	Requests the percentage of threshold level
4.46	DLTVICRModeAutoToggle	(Toggle) : Values: 0: Off 1: On	Toggles ICR Auto Mode
4.47	DLTVICRModeToggle	(Toggle) : Values: 0: Off 1: On	Toggles ICR Mode
4.48	DLTVColorSaturationPercentageSet	(Input) ColorSaturation : (Float): Color Saturation percentage Values: 0→100 %	Sets color saturation value in percentage
4.49	DLTVColorSaturationPercentageGet	(Output) ColorSaturation : (Float): Color Saturation percentage Values: 0→100 %	Requests color saturation value in percentage

4.50	DLTVAntiFogLevelSet	(Input) AntifogLevel : (Float): Defog filter level Values: 0: None 1: Low 2: Middle 3: High	Sets the defog filter level
4.51	DLTVAntiFogLevelGet	(Output) AntifogLevel : (Float): Defog filter level Values: 0: None 1: Low 2: Middle 3: High	Requests the defog filter level
4.52	DLTVLightControlModeToggle	(Toggle) : Values: 0: ICR off (Low Light off) 1: ICR on (Low Light on) 2: ICR auto (Low Light auto)	Toggles the light control mode
5.4	DLTVRegisterValueSet	(Input) Register : (Integer): register indicated (Input) Value : (Integer): value	Sets a value for a register
5.5	DLTVRegisterValueGet	(Input) Register : (Integer): register indicated (Output) Value : (Integer): value	returns the value of the indicated register
6.1	DLTVActiveSourceSet	(Input) ActiveSource : (Integer): Active Source Values: 0,1	Sets as active source. 0=unset,1=set
6.2	DLTVActiveSourceGet	(Output) ActiveSource : (Integer): Active Source Values: 0,1	Requests if camera is the active source. 0=no,1=yes
7.1	DLTVWhiteBalanceModeSet	(Input) WhiteBalanceMode : (Integer): White Balance Mode Values: 0: Auto 1: Indoor 2: Outdoor 3: One Push WB 4: ATW 5: Manual 6: Outdoor Auto 7: Sodium Lamp Auto 8: Sodium Lamp 9: Sodium Lamp Outdoor Auto	Sets white balance mode
7.2	DLTVWhiteBalanceModeGet	(Output) WhiteBalanceMode : (Integer): White Balance Mode Values: 0: Auto 1: Indoor 2: Outdoor 3: One Push WB 4: ATW 5: Manual 6: Outdoor Auto 7: Sodium Lamp Auto 8: Sodium Lamp 9: Sodium Lamp Outdoor Auto	Requests white balance mode

7.3	DLTVAutoExposureModeSet	(Input) AutoExposure : (Integer): Auto Exposure Mode Values: 0: Full Auto 1: Manual 2: Shutter Priority 3: Iris Priority 4: Bright	Sets auto exposure mode
7.4	DLTVAutoExposureModeGet	(Output) AutoExposure : (Integer): Auto Exposure Mode Values: 0: Full Auto 1: Manual 2: Shutter Priority 3: Iris Priority 4: Bright	Requests auto exposure mode
7.5	DLTVSlowShutterModeSet	(Input) SlowShutter : (Integer): Slow Shutter Mode Values: 0: Manual 1: Auto	Sets slow shutter mode
7.6	DLTVSlowShutterModeGet	(Output) SlowShutter : (Integer): Slow Shutter Mode Values: 0: Manual 1: Auto	Requests slow shutter mode
7.7	DLTVShutterPositionSet	(Input) ShutterPosition : (Integer): Shutter Position Values: 0→21	Sets shutter position
7.8	DLTVShutterPositionGet	(Output) ShutterPosition : (Integer): Shutter Position Values: 0→21	Requests shutter position
7.9	DLTVExposureCompensationSet	(Input) ExposureCompensation : (Integer): Exposure Compensation 0=off,1=on Values: 0: Off 1: On	Sets exposure comp
7.10	DLTVExposureCompensationGet	(Output) ExposureCompensation : (Integer): Exposure Compensation 0=off,1=on Values: 0: Off 1: On	Requests exposure comp
7.11	DLTVExposureCompensationPositionSet	(Input) ExposureCompensationPosition : (Integer): Exposure Compensation Position Values: 0→14	Sets exposure comp position
7.12	DLTVExposureCompensationPositionGet	(Output) ExposureCompensationPosition : (Integer): Exposure Compensation Position Values: 0→14	Requests exposure comp position
7.13	DLTVBackLightCompensationSet	(Input) BackLightCompensation : (Integer): Back Light Compensation Values: 0: Off 1: On	Sets back light compensation
7.14	DLTVBackLightCompensationGet	(Output) BackLightCompensation : (Integer): Back Light Compensation Values: 0: Off 1: On	Requests back light compensation
7.15	DLTVLensInitialize	No parameters	Initializes Lens
7.16	DLTVPixelCorrectionInitialize	No parameters	Initializes Pixel Correction
7.17	DLTVWhiteBalanceTrigger	No parameters	Triggers White Balance



7.18	DLTVRGainSet	(Input) RGain : (Integer): Red Gain Values: 0→255	Sets red gain
7.19	DLTVRGainGet	(Output) RGain : (Integer): Red Gain Values: 0→255	Requests red gain
7.20	DLTVBGainSet	(Input) BGain : (Integer): Blue Gain Values: 0→255	Sets blue gain
7.21	DLTVBGainGet	(Output) BGain : (Integer): Blue Gain Values: 0→255	Requests blue gain
7.22	DLTVShutterIncrement	No parameters	Increments a step the shutter
7.23	DLTVShutterDecrement	No parameters	Decrements a step the shutter
7.29	DLTVExposureTimeSet	(Input) Miliseconds : (Float): Exposure time in miliseconds. Values: 0.1→1000 milliseconds	Sets the exposure time
7.30	DLTVExposureTimeGet	(Output) Miliseconds : (Float): Exposure time in miliseconds. Values: 0.1→1000 milliseconds	Gets the exposure time
7.44	DLTVRGainOffsetPercentageSet	(Input) RGainOffsetPercentage : (Float): RGain Offset Percentage Values: 0→100 %	Sets RGain Offset Percentage
7.45	DLTVRGainOffsetPercentageGet	(Output) RGainOffsetPercentage : (Float): RGain Offset Percentage Values: 0→100 %	Requests RGain Offset Percentage
7.46	DLTVBGainOffsetPercentageSet	(Input) BGainOffsetPercentage : (Float): BGain Offset Percentage Values: 0→100 %	Sets BGain Offset Percentage
7.47	DLTVBGainOffsetPercentageGet	(Output) BGainOffsetPercentage : (Float): BGain Offset Percentage Values: 0→100 %	Requests BGain Offset Percentage
7.48	DLTVGammaModeSet	(Input) Mode : (Integer): Gamma Mode Values: 0: Standard 1: Straight	Sets Gamma Mode
7.49	DLTVGammaModeGet	(Output) Mode : (Integer): Gamma Mode Values: 0: Standard 1: Straight	Requests Gamma Mode
7.50	DLTVAutoExposureSpotOnOffSet	(Input) OnOff : (Integer): Auto exposure spot state Values: 0: Off 1: On	Sets the spot auto exposure state
7.51	DLTVAutoExposureSpotOnOffGet	(Output) OnOff : (Integer): Auto exposure spot state Values: 0: Off 1: On	Gets the spot auto exposure state
7.52	DLTVAutoExposureSpotPositionSet	(Input) posX : (Integer): Auto exposure position X Values: 0→15 (Input) posY : (Integer): Auto exposure position Y Values: 0→15	Sets the auto exposure spot position
7.53	DLTVAutoExposureSpotPositionGet	(Output) posX : (Integer): Auto exposure spot position X Values: 0→15 (Output) posY : (Integer): Auto exposure spot position Y Values: 0→15	Gets the auto exposure spot position
7.54	DLTVChromaSuppressSet	(Input) chroma : (Integer): Chroma suppress setting level Values: 0: Off 1→3: On. Effect increases as the level number increases	Sets the chroma suppress setting level

7.55	DLTVChromaSuppressGet	(Output) chroma : (Integer): Chroma suppress setting level Values: 0: Off 1→3: On. Effect increases as the level number increases	Gets the chroma suppress setting level
7.65	DLTVExposureTimeRangeGet	(Output) MinTime : (Float): Min Exposure Time in Miliseconds Values: 0→100 (Output) MaxTime : (Float): Max Exposure Time in Miliseconds	Request Exposure Time Range
7.67	DLTVExpCompPercentageSet	(Input) Percentage : (Float): Exp Comp Percentage Values: 0→100 %	Sets the exposure compensation percentage
7.68	DLTVExpCompPercentageGet	(Output) Percentage : (Float): Exp Comp Percentage Values: 0→100 %	Requests the exposure compensation percentage
7.69	DLTVSharpnessPositionSet	(Input) SharpnessPosition : (Integer): Sharpness Position Values: 0→15	Sets sharpness position
7.70	DLTVSharpnessPositionGet	(Output) SharpnessPosition : (Integer): Sharpness Position Values: 0→15	Requests sharpness position
7.71	DLTVSharpnessPercentageSet	(Input) Percentage : (Float): Sharpness Percentage Values: 0→100 %	Sets Sharpness Percentage
7.72	DLTVSharpnessPercentageGet	(Output) Percentage : (Float): Sharpness Percentage Values: 0→100 %	Requests Sharpness Percentage
7.73	DLTVICRModeAutoLevelSet	(Input) Percentage : (Float): Auto ICR Level Percentage Values: 0→100 %	Sets Auto ICR level Percentage
7.74	DLTVICRModeAutoLevelGet	(Output) Percentage : (Float): Auto ICR Level Percentage Values: 0→100 %	Request Auto ICR level Percentage
7.75	DLTVGammaOffsetSet	(Input) GammaOffset : (Integer): Gamma Offset Values: -16→64	Sets Gamma Offset level
7.76	DLTVGammaOffsetGet	(Output) GammaOffset : (Integer): Gamma Offset Values: -16→64	Requests Gamma Offset Level
7.77	DLTVSharpnessSet	(Input) Sharpness : (Float): Sharpness Values: 0→15	Sets Sharpness
7.78	DLTVSharpnessGet	(Output) Sharpness : (Float): Sharpness Values: 0→15	Requests Sharpness
8.1	DLTVSubsystemOn	No parameters	Turns DLTV subsystem on
8.2	DLTVSubsystemOff	No parameters	Turns DLTV subsystem off
8.3	DLTVSubsystemPowerGet	(Output) Power : (Integer): Power state Values: 0: Off 1: On	Requests value of DLTV subsystem power
8.8	DLTVSubsystemPowerSet	(Input) Power : (Integer): Power state 0=Off,1=On,2=Standby Values: 0: Off 1: On 2: Standby	Sets value of subsystem power
8.9	DLTVTemperatureGet	(Output) TemperatureMonitor : (Float): Gets Temperature Monitor(Kelvin)	Requests Temperature Monitor
9.1	DLTVPictureEffectSet	(Input) PictureEffect : (Integer): Picture Effect Values: 0: OFF 2: NegArt 4: B&W	Sets picture effect
9.2	DLTVPictureEffectGet	(Output) PictureEffect : (Integer): Picture Effect Values: 0: OFF 2: NegArt 4: B&W	Requests picture effect

9.5	DLTVFlipModeSet	(Input) FlipMode : (Integer): Flip Mode Values: 0: Off 1: On	Sets flip Mode
9.6	DLTVFlipModeGet	(Output) FlipMode : (Integer): Flip Mode Values: 0: Off 1: On	Requests flip Mode
9.7	DLTVReverseModeSet	(Input) ReverseMode : (Integer): Reverse Mode Values: 0: Off 1: On	Sets reverse mode
9.8	DLTVReverseModeGet	(Output) ReverseMode : (Integer): Reverse Mode Values: 0: Off 1: On	Requests reverse mode
9.9	DLTVFreezeSet	(Input) Freeze : (Integer): Freeze Values: 0: Off 1: On	Sets freeze
9.10	DLTVFreezeGet	(Output) Freeze : (Integer): Freeze Values: 0: Off 1: On	Requests freeze
9.15	DLTVNoiseSupressionModeSet	(Input) Mode : (Integer): Enable/Disable Noise Supression Values: 0: Off 1→5	Sets the status for Noise Supression
9.16	DLTVNoiseSupressionModeGet	(Output) Mode : (Integer): Enable/Disable Noise Supression Values: 0: Off 1→5	Requests the status of Noise Supression
9.27	DLTVContrastAdjustPercentageSet	(Input) Level : (Float): Contrast Adjust Percentage Value Values: 0→100 %	Sets the contrast adjust in percentage
9.28	DLTVContrastAdjustPercentageGet	(Output) Level : (Float): Contrast Adjust Percentage Value Values: 0→100 %	Gets the contrast adjust in percentage
9.36	DLTVWideDynamicModeSet	(Input) Mode : (Integer): Wide dynamic mode Values: 0: Off 1: On 2: Visibility Enhancer	Sets the wide dynamic mode
9.37	DLTVWideDynamicModeGet	(Output) Mode : (Integer): Wide dynamic mode Values: 0: Off 1: On 2: Visibility Enhancer	Gets the wide dynamic mode

9.38	DLTVWideDynamicSettingsSet	(Input) Brightness : (Integer): Display brightness level Values: 0:Dark→6:Bright (Input) Compensation : (Integer): Brightness compensation selection Values: 0: Very dark 1: Dark 2: Standard 3: Bright (Input) CompensationLevel : (Integer): Compensation level Values: 0: Low 1: Mid→2:High	Sets the wide dynamic settings
9.39	DLTVWideDynamicSettingsGet	(Output) Brightness : (Integer): Display brightness level Values: 0:Dark→6:Bright (Output) Compensation : (Integer): Brightness compensation selection Values: 0: Very dark 1: Dark 2: Standard 3: Bright (Output) CompensationLevel : (Integer): Compensation level Values: 0: Low 1: Mid→2:High	Gets the wide dynamic settings
9.43	DLTVNoiseSuppressionPosition2D3DSet	(Input) Value2D : (Integer): Level for 2D Noise Suppression Values: 0: Off 1→5 (Input) Value3D : (Integer): Level for 3D Noise Suppression	Sets the level for Noise Suppression when 2D/3D mode is active
9.44	DLTVNoiseSuppressionPosition2D3DGet	(Output) Value2D : (Integer): Level for 2D Noise Suppression Values: 0: Off 1→5 (Output) Value3D : (Integer): Level for 3D Noise Suppression	Requests the current levels of Noise Suppression when in 2D/3D mode
9.45	DLTVHighLightCorrectionLevelSet	(Input) Level : (Integer): HLC Level (Input) Mask : (Integer): HLC Mask Level (0=Off, 1 to F from low to high)	Sets the High Light Correction Level
9.46	DLTVHighLightCorrectionLevelGet	(Output) Level : (Integer): HLC Level (Output) Mask : (Integer): HLC Mask Level (0=Off, 1 to F from low to high)	Gets the High Light Correction Level
9.47	DLTVImageOrientationSet	(Input) ImageOrientation : (Integer): Image orientation Values: 0: ball down off / rearview off 1: ball down on / rearview off 2: ball down off / rearview on 3: ball down on / rearview on	Sets image orientation
9.48	DLTVImageOrientationGet	(Output) ImageOrientation : (Integer): Image orientation Values: 0: ball down off / rearview off 1: ball down on / rearview off 2: ball down off / rearview on 3: ball down on / rearview on	Requests state of image orientation

10.1	DLTVTitleOnOffSet	(Input) Title : (Integer): Title On/Off 0=off,1=on Values: 0: Off 1: On	Sets title on/off
10.2	DLTVTitleOnOffGet	(Output) Title : (Integer): Title On/Off 0=off,1=on Values: 0: Off 1: On	Requests title state
10.3	DLTVTitleSettingsSet	(Input) VerticalPosition : (Integer): Vertical Position Values: 0→10 (Input) HorizontalPosition : (Integer): Horizontal Position Values: 0→31 (Input) Color : (Integer): Color Values: 0: White 1: Yellow 2: Violet 3: Red 4: Cyan 5: Green 6: Blue (Input) Blink : (Integer): Blink Values: 0: Off 1: On	Sets title settings
10.4	DLTVTitleClear	No parameters	Clears title
10.5	DLTVTitleCharactersSet	(Input) Index : (Integer): Index Values: 1,2 (Input) Characters : (String): Null terminated string	Sets the tile characters
11.11	DLTVHDMModeSet	(Input) Mode : (Integer): 0=AnalogPAL,1=AnalogNTSC,2=DIGITAL Values: 0: PAL 1: NTSC 2: Digital (Input) Resolution : (Integer): Resolution. 720,1080 Values: 720,1080 (Input) Frequency : (Integer): 0=25,1=30,2=50Hz,3=60Hz,4=29'97,5=59'94 Values:(Hz) 0: 25 4: 29.97 1: 30 2: 50 5: 59.94 3: 60	Selects HD Mode, resolution and frequency.

11.12	DLTVHDMoDeGet	(Output) Mode : (Integer): 0=AnalogPAL,1=AnalogNTSC,2=DIGITAL Values: 0: PAL 1: NTSC 2: Digital (Output) Resolution : (Integer): Resolution. 720,1080 Values: 720,1080 (Output) Frequency : (Integer): 0=25,1=30,2=50Hz,3=60Hz,4=29'97,5=59'94 Values:(Hz) 0: 25 4: 29.97 1: 30 2: 50 5: 59.94 3: 60	Requests HD Mode, resolution and frequency.
11.15	DLTVHighSensitivityMoDeSet	(Input) Mode : (Integer): High Sensitivity Mode Values: 0: Off 1: On	Selects High Sensitivity Mode.
11.16	DLTVHighSensitivityMoDeGet	(Output) Mode : (Integer): High Sensitivity Mode Values: 0: Off 1: On	Requests High Sensitivity Mode.
14.1	DLTVStabilizationMoDeSet	(Input) Mode : (Integer): Stabilization mode 0=off, 1=on Values: 0: Off 1: On 2: Hold	Sets stabilization mode
14.2	DLTVStabilizationMoDeGet	(Output) Mode : (Integer): Stabilization mode 0=off, 1=on Values: 0: Off 1: On 2: Hold	Requests stabilization mode
14.21	DLTVStabilizationMoDeToggle	No parameters	Toggles stabilization mode
15.1	DLTVCameraDefaultsSet	No parameters	Sets current values as defaults for the camera
15.2	DLTVCameraDefaultsRestore	No parameters	Restores the default values for the camera
15.3	DLTVCameraReset	No parameters	Resets the camera device
17.1	DLTVCropConfigGet	(Output) Left : (Float): Percentage of image to crop in the left Values: 0→100 % (Output) Right : (Float): Percentage of image to crop in the right Values: 0→100 % (Output) Top : (Float): Percentage of image to crop in the top Values: 0→100 % (Output) Bottom : (Float): Percentage of image to crop in the bottom Values: 0→100 %	Requests crop configuration
17.2	DLTVVideoSnapshotURLGet	(Output) URL : (String): URL string	Returns the URL to get a video snapshot
18.1	DLTVRangeGet	(Output) Range : (LongInt): Range of the camera in meters Values: 0→50000 meters	Requests range of the camera

19.3	DLTVRawCommandSend	(Input) cmd_timeout : (Integer): timeout for command execution (Input) rx_expected : (Integer): reponse expected bytes (Input) tx_data : (String): command to be sent (Output) rx_data : (String): command response	Sends a command to the DLTV
19.4	DLTVRawCommandASCIISend	(Input) cmd_timeout : (Integer): timeout for command execution (Input) rx_expected : (Integer): reponse expected bytes (Input) tx_data : (String): command to be sent (Output) rx_data : (String): command response	Sends a command to the DLTV
19.7	DLTVLensRawCommandSend	(Input) cmd_timeout : (Integer): Timeout for command execution (Input) rx_expected : (Integer): Response expected bytes (Input) tx_data : (String): Command to be sent (Output) rx_data : (String): Command response	Sends a command to the Lens attached to the DLTV
19.8	DLTVLensRawCommandASCIISend	(Input) cmd_timeout : (Integer): Timeout for command execution (Input) rx_expected : (Integer): Response expected bytes (Input) tx_data : (String): Command to be sent (Output) rx_data : (String): Command response	Sends a command to the Lens attached to the DLTV
20.1	DLTVHealthGet	(Output) Health : (Integer): Health state of device Values: 0: OK 1: Busy 2: Error 3: Unavailable	Requests health state of device
21.1	DLTVBITExecute	No parameters	Starts execution of BIT routine associated to this device
21.2	DLTVBITAbort	No parameters	Aborts execution of BIT routine associated to this device
21.3	DLTVBITResult	(Output) BIT_Result : (Integer): Result of the last BIT routine executed associated to this device Values: 0: OK 1: Busy 2: Error 3: Unavailable	Requests result of last BIT routine associated to this device

21.4	DLTVLastNMEAGet	(Output) DeviceType : (Integer): Device Type (Output) DeviceId : (Integer): Device Id (Output) Health : (Integer): Health Status of Device 0=OK,1=Busy,2=Error,3=Not available (Output) BIT : (Integer): Result of last BIT routine in this device 0=OK,1=Busy,2=Error,3=Not available (Output) Timestamp : (String): Timestamp of the moment when this info was generated (Output) Zoom : (Float): Value of zoom (Output) Zoom_pctg : (Float): Zoom percentage (0-100) (Output) Focus_pctg : (Float): Focus percentage (0-100) (Output) AGC : (Integer): Value of AGC (Output) Autoiris : (Integer): Autoiris (Output) Iris_pctg : (Float): Iris percentage (0-100) (Output) Filter_index : (Integer): Index of selected filter (Output) Wiper : (Integer): Wiper (Output) Extender : (Integer): Extender (Output) Autofocus : (Integer): Autofocus (Output) Digital_Zoom : (Integer): Digital Zoom (Output) Enhancer : (Integer): Enhancer (Output) Slave : (Integer): Slave mode (Output) ActiveSource : (Integer): Is source active? 0=no,1=yes (Output) Frame_Size_X : (Integer): Frame Size X (Output) Frame_Size_Y : (Integer): Frame Size Y (Output) Power : (Integer): Camera (Output) Gain_Percentage : (Float): Gain percentage (Output) Range : (Integer): Range of camera in meters (Output) Freeze : (Integer): 0=Off, 1=On (Output) Orientation : (Integer): Image Orientation 0=Normal 1=Vertical flip 2=Horizontal revert 3=Both Horizontal and Vertical (Output) Video_Masked : (Integer): Video Masked (Output) Integration_Time : (Float): Integration Time in milliseconds (Output) Frame_Time : (Float): Frame Time in milliseconds (Output) Integration_Time_pctg : (Float): Integration Time percentage (0-100) (Output) Frame_Time_pctg : (Float): Frame Time percentage (0-100) (Output) EStab : (Integer): Electronic Stabilization mode (Output) Descintillation : (Integer): Descintillation mode (Output) DescintillationLevel : (Float): Descintillation Level percentage (Output) DZoom_Mag_Pctg : (Float): Digital Zoom Magnification Percentage (0-100)	Requests the value of the current NMEA string of this device.
21.5	DLTVLongBITResult	(Output) BITResult : (String): Result string of the last BIT routine executed associated to this device.	Requests result string of last BIT routine executed associated to this device
21.6	DLTVDeviceVersionGet	(Output) rx_data : (String): version string	Requests the device version string
21.7	DLTVDeviceInfoGet	(Output) rx_data : (String): info string	Requests the device info string
21.11	DLTVWebSettingsSet	(Input) Settings : (String): Web driver settings in JSON format (driver-specific) (Output) SettingsReturns : (String): Web driver returns settings in JSON format (driver-specific)	Sets the most important settings of camera driver
21.12	DLTVWebSettingsGet	(Output) Settings : (String): Web driver settings in JSON format (driver-specific)	Requests the most important settings of camera driver



22.1	DLTVExpertModeSet	(Input) OnOff : (Integer): 0 Expert Mode Off, 1 On Values: 0: Off 1: On (Input) Type : (Integer): 1 ASCII Type, 2 Binary Values: 1: ASCII 2: Binary (Input) ETX : (Integer): End of Transmission. 0 None, 1 CRLF, 2 LFCR, 3 CR, 4 LF Values: 0: None 1: CRLF 2: LFCR 3: CR 4: LF (Input) ERX : (Integer): End of Reception. 0 None, 1 CRLF, 2 LFCR, 3 CR, 4 LF	Sets the configuration for the Expert Communications Mode
22.2	DLTVExpertModeGet	(Output) OnOff : (Integer): 0 Expert Mode Off, 1 On Values: 0: Off 1: On (Output) Type : (Integer): 1 ASCII Type, 2 Binary Values: 1: ASCII 2: Binary (Output) ETX : (Integer): End of Transmission. 0 None, 1 CRLF, 2 LFCR, 3 CR, 4 LF Values: 0: None 1: CRLF 2: LFCR 3: CR 4: LF (Output) ERX : (Integer): End of Reception. 0 None, 1 CRLF, 2 LFCR, 3 CR, 4 LF	Requests the configuration for the Expert Communications Mode
22.3	DLTVExpertDataWrite	(Input) CountTx : (Integer): Number of bytes to transmit (Input) TimeoutRx : (Integer): Timeout in milliseconds (Input) DataTx : (String): Data to transmit (Output) CountRx : (Integer): Number of bytes received (Output) DataRx : (String): Data received	In Expert Mode, transmits raw data and waits for the answer
22.4	DLTVExpertDataRead	(Input) TimeoutRx : (Integer): Timeout in milliseconds (Output) CountRx : (Integer): Number of bytes received (Output) DataRx : (String): Data received	In Expert Mode, reads raw data from the device

Documentation generated from: dictionary\_DLTv.txt v0.10 (2023/10/09 18:55:13)  
 dictionary\_DLTv\_SONYEV7520DLTV.txt v0.3 (2020/10/27 16:40:00)  
 dictionary\_DLTv\_M300.txt v0.1 (2019/09/09 13:39:37)

## Thermal camera functions

Id	Function Name	Parameters	Description
1.3	IRFieldOfViewDegreesSet	(Input) FOV_Degrees : (Float): Field of view in degrees Values: 6→24 degrees	Sets field of view in degrees
1.4	IRFieldOfViewDegreesGet	(Output) FOV_Degrees : (Float): field of view in degrees Values: 6→24 degrees	Requests value of field of view in degrees
1.5	IRZoomPercentageSet	(Input) Zoom : (Float): Zoom Percentage Values: 0→100 %	Sets the value of the zoom in percentage
1.6	IRZoomPercentageGet	(Output) Zoom : (Float): Zoom Percentage Values: 0→100 %	Gets the value of the zoom in percentage
1.7	IRZoomRatePercentageSet	(Input) ZoomRate : (Float): Zoom Rate Percentage Values: 0→100 %	Sets the value of the zoom rate in percentage
1.8	IRZoomRatePercentageGet	(Output) ZoomRate : (Float): Zoom Rate Percentage Values: 0→100 %	Gets the value of the zoom rate in percentage
1.9	IRZoomIn	No parameters	Zooms in
1.10	IRZoomOut	No parameters	Zooms out
1.11	IRZoomStop	No parameters	Stops zoom movement
1.12	IRZoomSlaveSet	(Input) Slave_Zoom : (Integer): Enables (1) or disables (0) slave zoom Values: 0: Off 1: On	If Slave_Zoom is 1, slaves IR camera zoom to DLTV camera FOV. If Slave_Zoom is 0, disables slave zoom
1.13	IRZoomSlaveGet	(Output) Slave_Zoom : (Integer): State of slave zoom Values: 0: Off 1: On	Requests state of slave zoom
1.16	IRFOVMagnificationSet	(Input) Magnification : (Float): FOV Magnification (maxFOV/currentFOV) Values: 1→4	Changes the FOV to achieve the requested magnification
1.17	IRFOVMagnificationGet	(Output) Magnification : (Float): FOV Magnification Values: 1→4	Requests current magnification (maxFOV/currentFOV)
1.18	IRFOVRangeGet	(Output) Min_FOV : (Float): Minimum FOV Values: 0→1000 degrees (Output) Max_FOV : (Float): Maximum FOV Values: 0→1000 degrees	Requests FOV achievable range (optical and electronic)
1.19	IRZoomMoveTimeoutSet	(Input) TimeToStop : (Integer): Time to stop zoom continuous movement Values:(seconds) 0: Disabled 1→30	Sets the time to stop zoom continuous movement
1.20	IRZoomMoveTimeoutGet	(Output) TimeToStop : (Integer): Time to stop zoom continuous movement Values:(seconds) 0: Disabled 1→30	Request time to stop zoom continuous movement
1.21	IRZoomSlaveToggle	(Toggle) : Values: 0: Off 1: On	Toggles zoom slave mode
1.24	IROpticalZoomPercentageSet	(Input) Optical_Zoom_Percentage : (Float): Optical zoom percentage Values: 0→100 %	Sets optical zoom percentage
1.29	IRZoomCombinedControlEnableGet	(Output) Enabled : (Integer): enable/disable combined zoom control Values: 0: Disable 1: Enable	Requests current status of combined electronic/optical zoom control

1.30	IRZoomIncrementPercentage	(Input) Increment : (Float): Zoom Percentage Increment Values: -100→100	Increments zoom value in percentage. Use negative value to decrement
2.1	IRFocusPercentageSet	(Input) Focus : (Float): Focus in percentage Values: 0→100 %	Sets value of focus in percentage
2.2	IRFocusPercentageGet	(Output) Focus : (Float): Focus in percentage Values: 0→100 %	Requests value of focus in percentage
2.10	IRFocusRatePercentageSet	(Input) Rate : (Float): Rate in percentage Values: 0→100	Sets focus rate in percentage
2.11	IRFocusRatePercentageGet	(Output) Rate : (Float): Rate in percentage Values: 0→100 %	Requests value of focus in percentage
2.12	IRFocusInfinitySet	(Input) State : (Integer): Focus Infinity state Values: 0: Off 1: On	Sets Focus Infinity on/off
2.14	IRFocusMoveTimeoutSet	(Input) TimeToStop : (Integer): Time to stop focus continuous movement Values:(seconds) 0: Disabled 1→30	Sets the time to stop focus continuous movement
2.15	IRFocusMoveTimeoutGet	(Output) TimeToStop : (Integer): Time to stop focus continuous movement Values:(seconds) 0: Disabled 1→30	Request time to stop focus continuous movement
2.25	IRFocusAvailableGet	(Output) Available : (Integer): 0 Focus not available, 1 Focus available Values: 0: Not available 1: Available	Returns whether focus is available or not
4.3	IRNUCCalibrationStart	(Input) Calibration_type : (Integer): Type of calibration Values: 0: External 1: Internal	Initiates a calibration routine
4.13	IRNUCFramesSet	(Input) Frames : (Integer): Value Values: 2,4,8,16 frames	Sets the number of frames to average
4.14	IRNUCFramesGet	(Output) Frames : (Integer): Value Values: 2,4,8,16 frames	Gets the number of frames to average
4.15	IRGainModeSet	(Input) Gain_Mode : (Integer): Gain Mode Values: 0: High 1: Low 2: Auto 3: Dual 4: Manual	Sets Gain Mode
4.16	IRGainModeGet	(Output) Gain_Mode : (Integer): Active Gain Mode Values: 0: High 1: Low 3: Dual 4: Manual	Requests Gain Mode
4.17	IRAutoGainHighToLowIntensityThresholdSet	(Input) Threshold : (Float): HTOL Intensity Threshold Values: 0→100	Sets value of High To Low Intensity Threshold
4.18	IRAutoGainHighToLowIntensityThresholdGet	(Output) Threshold : (Float): HTOL Intensity Threshold Values: 0→100	Requests value of High To Low Intensity Threshold
4.19	IRAutoGainHighToLowPopulationThresholdSet	(Input) Threshold : (Float): HTOL Population Threshold Values: 0→100	Sets value of High To Low Population Threshold

4.20	IRAutoGainHighToLowPopulationThresholdGet	(Output) Threshold : (Float): HTOL Population Threshold Values: 0→100	Requests value of High To Low Population Threshold
4.21	IRAutoGainLowToHighPopulationThresholdSet	(Input) Threshold : (Float): LToH Population Threshold Values: 0→100	Sets value of Low To High Population Threshold
4.22	IRAutoGainLowToHighPopulationThresholdGet	(Output) Threshold : (Float): LToH Population Threshold Values: 0→100	Requests value of Low To High Population Threshold
5.1	IRGainPercentageSet	(Input) Gain : (Float): Gain percentage Values: 0→100 %	Sets value of gain in percentage
5.2	IRGainPercentageGet	(Output) Gain : (Float): Gain percentage Values: 0→100 %	Requests value of gain in percentage
5.5	IROffsetPercentageSet	(Input) Offset : (Float): Offset percentage Values: 0→100 %	Sets value of offset in percentage
5.6	IROffsetPercentageGet	(Output) Offset : (Float): Offset percentage Values: 0→100 %	Requests value of offset in percentage
5.17	IRAGCMaxGainSet	(Input) MaxGain : (Integer): Maximum gain Values: 25→800	Sets value of maximum gain
5.18	IRAGCMaxGainGet	(Output) MaxGain : (Integer): Maximum gain Values: 25→800	Requests value of maximum gain
5.23	IRAGCROINamesGet	(Output) ROI_Names : (String): Names of ROIs (Regions of Interest) stored in camera	Requests names of ROIs in camera
5.24	IRAGCActiveROISet	(Input) Active_ROI : (String): ROI name to be set as active Values: 0: Custom 1: Full screen 2: Horizon 3: Sky 4: Ground 5: Center 75 6: Center 50 7: Center 25	Sets given ROI as active
5.25	IRAGCActiveROIGet	(Output) Active_ROI : (String): ROI name Values: 0: Custom 1: Full screen 2: Horizon 3: Sky 4: Ground 5: Center 75 6: Center 50 7: Center 25	Requests name of active ROI
5.26	IRAGCROIParamsSet	(Input) XPos : (Integer): X position of ROI Values: 0→319 pixels (Input) YPos : (Integer): Y position of ROI Values: 0→255 pixels (Input) Width : (Integer): Width of ROI Values: 0→319 pixels (Input) Height : (Integer): Height of ROI Values: 0→255 pixels	Sets ROI parameters

5.27	IRAGCROIParamsGet	(Input) ROIName : (String): ROI name (Output) XPos : (Integer): X position of ROI Values: 0→319 pixels (Output) YPos : (Integer): Y position of ROI Values: 0→255 pixels (Output) Width : (Integer): Width of ROI Values: 0→319 pixels (Output) Height : (Integer): Height of ROI Values: 0→255 pixels	Requests parameters of active ROI
5.34	IRScenePresetSet	(Input) Preset : (Integer): Preset index. Values: 0,1,2,3	Sets a specific scene preset
5.35	IRScenePresetGet	(Output) Preset : (Integer): Preset index. Values: 0,1,2,3	Returns current scene preset
5.36	IRScenePresetToggle	(Toggle) : Values: 0,1,2,3	Toggles the scene preset
5.42	IRScenePresetNameByIdGet	(Input) ScenePresetId : (Integer): Scene preset Id Values: 0: Night 1: Day 2: High Contrast 3: Docking (Output) ScenePresetName : (String): Name of scene preset. Values: Night,Day,High Contrast,Docking	Returns the name of scene preset indicated by Id
5.43	IRScenePresetNameCurrentGet	(Output) ScenePresetName : (String): Name of scene preset. Values: Night,Day,High Contrast,Docking	Returns the name of current scene preset
5.44	IRScenePresetByNameSet	(Input) ScenePresetName : (String): Name of scene preset. Values: Night,Day,High Contrast,Docking	Sets the scene preset specified
5.45	IRScenePresetNumberGet	(Output) SceneNumber : (Integer): Number of scene presets. Values: 4	Returns the number of scene presets available
5.46	IRAGCROIParamsPercentageSet	(Input) XPos : (Float): X position of ROI (pctg) Values: 0→100 % (Input) YPos : (Float): Y position of ROI (pctg) Values: 0→100 % (Input) Width : (Float): Width of ROI (pctg) Values: 0→100 % (Input) Height : (Float): Height of ROI (pctg) Values: 0→100 %	Sets ROI parameters
5.47	IRAGCROIParamsPercentageGet	(Input) ROIName : (String): ROI name (Output) XPos : (Float): X position of ROI (pctg) Values: 0→100 % (Output) YPos : (Float): Y position of ROI (pctg) Values: 0→100 % (Output) Width : (Float): Width of ROI (pctg) Values: 0→100 % (Output) Height : (Float): Height of ROI (pctg) Values: 0→100 %	Requests parameters of active ROI
5.50	IRAGCFilterPercentageSet	(Input) Filter : (Float): AGC Filter value (0 to 100) Values: 0→100 %	Sets AGC Filter value
5.51	IRAGCFilterPercentageGet	(Output) Filter : (Float): AGC Filter value (0 to 100) Values: 0→100 %	Returns AGC Filter value
5.67	IRGainCorrectionSet	(Input) Enable : (Integer): Enable Gain Correction per pixel Values: 0: Disable 1: Enable	Enable/Disable Gain Correction per pixel

5.68	IRGainCorrectionGet	(Output) Enable : (Integer): Status of Gain per pixel Values: 0: Disable 1: Enable	Get the current status of the Gain Correction per pixel
5.69	IRSpatialPatternNoiseReductionSet	(Input) Enable : (Integer): Enable Spatial Pattern Noise Reduction Values: 0: Disable 1: Enable	Enable the Spatial Spatial Pattern Noise Reduction
5.70	IRSpatialPatternNoiseReductionGet	(Output) Enable : (Integer): Status of Spatial Pattern Noise Reduction Values: 0: Disable 1: Enable	Get the current status of the Spatial Spatial Pattern Noise Reduction
5.71	IRNoiseReductionColumnSet	(Input) Enable : (Integer): Enable Column Noise Reduction Values: 0: Disable 1: Enable	Enable the Column Noise Reduction
5.72	IRNoiseReductionColumnGet	(Output) Enable : (Integer): Status of Column Noise Reduction Values: 0: Disable 1: Enable	Get the current status of the Column Noise Reduction
5.73	IRNoiseReductionRowSet	(Input) Enable : (Integer): Enable state for RNS Values: 0: Disable 1: Enable	Enable the Row Noise Suppression algorithm
5.74	IRNoiseReductionRowGet	(Output) Enable : (Integer): Status of RNS Values: 0: Disable 1: Enable	Get the current status of the Row Noise Suppression algorithm
5.75	IRTemperatureCompensationLagrangeSet	(Input) Enable : (Integer): Enable state for Lagrange Values: 0: Disable 1: Enable	Enable the temperature compensation
5.76	IRTemperatureCompensationLagrangeGet	(Output) Enable : (Integer): Status of Lagrange Values: 0: Disable 1: Enable	Get the current status of the temperature compensation
6.1	IRPolaritySet	(Input) Polarity : (Integer): Polarity Values: 0→7	Sets polarity to black or white hot
6.2	IRPolarityGet	(Output) Polarity : (Integer): Polarity Values: 0→7	Requests value of polarity
6.5	IRLookupTableColorEnableSet	(Input) Enable : (Integer): 0=Disabled,1=Enabled Values: 0: Disable 1: Enable	Enables/disables the use of color LUTs
6.6	IRLookupTableColorEnableGet	(Output) Enable : (Integer): 0=Disabled,1=Enabled Values: 0: Disable 1: Enable	Reports the status of color LUTS enabled or disabled

6.7	IRLookupTableSet	(Input) Index : (Integer): Index of required Lookup Table Values: 0: WhiteHot 1: BlackHot 2: RedHot 3: RedHot Inverse 4: Fusion 5: Fusion Inverse 6: Firelce 7: Firelce Inverse	Sets the required Lookup Table index
6.8	IRLookupTableGet	(Output) Index : (Integer): Index of required Lookup Table Values: 0: WhiteHot 1: BlackHot 2: RedHot 3: RedHot Inverse 4: Fusion 5: Fusion Inverse 6: Firelce 7: Firelce Inverse	Requests the current Lookup Table index
6.9	IRLookupTableToggle	(Toggle) :The real values depend on the current polarity value. Only half of this list is valid. Values: 0,1,2,3,4,5,6,7	Toggles the current Lookup Table
6.10	IRLookupTableCountGet	(Output) Count : (Integer): Number of available Lookup tables Values: 0→8	Requests the current Lookup Table index
6.11	IRLookupTableNameGet	(Input) Index : (Integer): LUT index. Range depends of number of LUT Values: 0→8 (Output) Name : (String): Name of required Lookup table Values: WhiteHot,BlackHot,RedHot,RedHot Inverse, Fusion, Fusion Inverse, Firelce, Firelce Inverse	Requests Name of required Lookup table
6.12	IRPolarityToggle	(Toggle) : Values: 0: WhiteHot 1: BlackHot	Toggles the current polarity
6.17	IRLookupTableNamesGet	(Output) Names : (String): Names of available Lookup tables	Requests the list of available LUTs
6.18	IRLookupTableReverseEnabledGet	(Output) ReverseCapability : (Integer): 0,1 Values: 0: Disable 1: Enable	returns the ability of reverting palettes (polarity)
9.1	IRElectronicZoomSet	(Input) Electronic_Zoom : (Integer): Electronic zoom. Values: 0: x1 1: x2 2: x4 3: x8	Sets electronic zoom on/off
9.2	IRElectronicZoomGet	(Output) Electronic_Zoom : (Integer): Electronic zoom state. Values: 0: x1 1: x2 2: x4 3: x8	Requests state of electronic zoom
9.3	IRElectronicZoomMagnificationSet	(Input) Electronic_Zoom : (Float): Electronic zoom magnification. Values: 1:x1→8:x8	Sets electronic zoom magnification

9.4	IRElectronicZoomMagnificationGet	(Output) Electronic_Zoom : (Float): Electronic zoom magnification. Values: 1:x1→8:x8	Requests current magnification value for electronic zoom
9.5	IRElectronicZoomIncrementSet	(Input) Increment : (Integer): Electronic zoom increment (1 in, -1 out, 0 stop). Values: -1: Out 0: Stop 1: In	Increments electronic zoom
9.6	IRElectronicZoomPercentageSet	(Input) Electronic_Zoom_Percentage : (Float): Electronic zoom percentage Values: 0→100 %	Sets electronic zoom percentage
9.7	IRElectronicZoomPercentageGet	(Output) Electronic_Zoom_Percentage : (Float): Electronic zoom percentage Values: 0→100 %	Requests current percentage value for electronic zoom
9.8	IRElectronicZoomEnableSet	(Input) Enable : (Integer): Electronic zoom state Values: 0: Disable 1: Enable	Sets electronic zoom enable/disable
9.9	IRElectronicZoomEnableGet	(Output) Enable : (Integer): Electronic zoom state. Values: 0: Disable 1: Enable	Requests state of electronic zoom (enable/disable)
9.10	IRElectronicZoomEnableToggle	(Toggle) : Values: 0: Disable 1: Enable	Sets electronic zoom enable/disable
10.1	IRFreezeSet	(Input) Freeze : (Integer): Freeze state Values: 0: Off 1: On	Sets freeze on/off
10.2	IRFreezeGet	(Output) Freeze : (Integer): Freeze state Values: 0: Off 1: On	Requests state of freeze
10.3	IRImageOrientationSet	(Input) ImageOrientation : (Integer): Image orientation Values: 0: BallDownOff-RearViewOff 1: BallDownOn-RearViewOff 2: BallDownOff-RearViewOn 3: BallDownOn-RearViewOn	Sets image orientation
10.4	IRImageOrientationGet	(Output) ImageOrientation : (Integer): Image orientation Values: 0: BallDownOff-RearViewOff 1: BallDownOn-RearViewOff 2: BallDownOff-RearViewOn 3: BallDownOn-RearViewOn	Requests state of image orientation
10.10	IRFreezeToggle	(Toggle) : Values: 0: Off 1: On	Toggles image freeze state
10.11	IRImageOrientationHorizontalToggle	(Toggle) : Values: 0: BallDownOff-RearViewOff 1: BallDownOn-RearViewOff 2: BallDownOff-RearViewOn 3: BallDownOn-RearViewOn	Toggles horizontal image orientation



10.30	IRBlendModeSet	(Input) BlendMode : (Integer): Blend mode (0=off,1=ctv,2=msx) Values: 0: off 1: ctv 2: msx	Sets blend mode
10.31	IRBlendModeGet	(Output) BlendMode : (Integer): Blend mode (0=off,1=ctv,2=msx) Values: 0: off 1: ctv 2: msx	Requests blend mode
10.32	IRMSXBlendLevelSet	(Input) BlendLevel : (Float): MSX blend level Values: 0→100	Sets the MSX blend value
10.33	IRMSXBlendLevelGet	(Output) BlendLevel : (Float): MSX blend level Values: 0→100	Requests MSX blend value
10.34	IRCNVBlendLevelSet	(Input) BlendLevel : (Float): CNV blend level Values: 0→100	Sets the CNV blend value (deprecated)
10.35	IRCNVBlendLevelGet	(Output) BlendLevel : (Float): CNV blend level Values: 0→100	Requests CNV blend value (deprecated)
10.36	IRBlendModeToggleByIndex	(Input) BlendModelIndex : (Integer): Blend mode index (1 CTV, 2 MSX) Values: 0→2	Toggles blend mode by index
10.37	IRBlendOffsetXSet	(Input) BlendOffset : (Integer): Values: -32→32	Sets blending registration offset X
10.38	IRBlendOffsetXGet	(Output) BlendOffset : (Integer): Values: -32→32	Requests blending registration offset X
10.39	IRBlendOffsetYSet	(Input) BlendOffset : (Integer): Values: -32→32	Sets blending registration offset Y
10.40	IRBlendOffsetYGet	(Output) BlendOffset : (Integer): Values: -32→32	Requests blending registration offset Y
10.45	IRCTVBlendLevelSet	(Input) BlendLevel : (Float): CTV blend level Values: 0→100	Sets the CTV blend value
10.46	IRCTVBlendLevelGet	(Output) BlendLevel : (Float): CTV blend level Values: 0→100	Requests CTV blend value
12.1	IRFunctionKeySend	(Input) Key : (Integer): Key stroke	Sends a key stroke to the camera
12.2	IRFunctionKeyPress	(Input) Key : (Integer): Key stroke	Sends a key press sequence to the camera
12.3	IRFunctionKeyRelease	(Input) Key : (Integer): Key stroke	Sends a key release sequence to the camera
12.11	IROverlayIconLevelGet	(Output) Level : (Integer): 0=None,1=Minimal,2=All	Gets the level for OSD icons
13.1	IRActiveSourceSet	(Input) ActiveSource : (Integer): Active Source Values: 0,1	Sets as active source. 0=unset,1=set
13.2	IRActiveSourceGet	(Output) ActiveSource : (Integer): Active Source Values: 0,1	Requests if camera is the active source. 0=no,1=yes
13.3	IRActiveSourceToggle	(Toggle) : Values: 0,1	toggles the active source
14.1	IRCameraDefaultsSet	No parameters	Sets default camera values. This function may be automatically called after changing specific settings
14.3	IRFactoryDefaultsSet	No parameters	Resets factory defaults
14.4	IRSerialNumberGet	(Output) Serial : (LongInt): Serial number	Requests serial number
14.5	IRFPATemperatureGet	(Output) Temperature : (Float): FPA temperature(degrees Celsius)	Requests FPA temperature
14.6	IRReboot	No parameters	Reboots camera

14.10	IRRawCommandSend	(Input) cmd_timeout : (Integer): timeout for command execution(milliseconds) (Input) rx_expected : (Integer): reponse expected bytes(bytes) (Input) tx_data : (String): command to be sent (Output) rx_data : (String): command response	Sends a command to the IR
14.11	IRRawCommandASCIISend	(Input) cmd_timeout : (Integer): timeout for command execution(milliseconds) (Input) rx_expected : (Integer): reponse expected bytes(bytes) (Input) tx_data : (String): command to be sent (Output) rx_data : (String): command response	Sends a command to the IR
14.16	IRLensRawCommandSend	(Input) cmd_timeout : (Integer): Timeout for command execution (Input) rx_expected : (Integer): Response expected bytes (Input) tx_data : (String): Command to be sent (Output) rx_data : (String): Command response	Sends a command to the Lens attached to the IR
14.17	IRLensRawCommandASCIISend	(Input) cmd_timeout : (Integer): Timeout for command execution (Input) rx_expected : (Integer): Response expected bytes (Input) tx_data : (String): Command to be sent (Output) rx_data : (String): Command response	Sends a command to the Lens attached to the IR
14.19	IRPartNumberGet	(Output) PartNumber : (String): Part number string	Returns camera part number
14.20	IRSensorSerialNumberGet	(Output) Serial : (String): Sensor Serial number	Requests sensor serial number
14.21	IRCameraDefaultsRestore	No parameters	Restores the default values for the camera
15.3	IRFFCModeSet	(Input) Mode : (Integer): FFC Mode Values: 0: Manual 1: Auto 2: External	Sets FFC Mode
15.4	IRFFCModeGet	(Output) Mode : (Integer): FFC Mode Values: 0: Manual 1: Auto 2: External	Requests FFC Mode
15.7	IRPlateauValueSet	(Input) Plateau : (Integer): Plateau value Values: 0→100	Sets plateau value
15.8	IRPlateauValueGet	(Output) Plateau : (Integer): Plateau value Values: 0→100	Requests plateau value
15.15	IRFFCIntervalSet	(Input) FFCInterval : (Integer): FFC Interval in frames Values: 0→32767 frames	Sets FFC interval
15.16	IRFFCIntervalGet	(Output) FFCInterval : (Integer): FFC Interval in frames Values: 0→32767 frames	Requests value of FFC interval
15.17	IRFFCTemperatureDeltaSet	(Input) FFCTemperatureDelta : (Integer): FFC Temperature Delta in steps of 0.1C Values: 0→32767 0.1 degC	Sets value of FFC temperature delta
15.18	IRFFCTemperatureDeltaGet	(Output) FFCTemperatureDelta : (Integer): FFC Temperature Delta in steps of 0.1C Values: 0→32767 0.1 degC	Requests value of FFC temperature delta
15.25	IRDDEGainToggle	No parameters	Toggles DDE Gain value
15.26	IRPlateauValueToggle	No parameters	Toggles AGC Plateau value
15.27	IRDDEGainAutoToggle	No parameters	Toggles DDE Gain value in auto mode
15.40	IRDigitalDetailEnhancementGainAutoSet	(Input) Gain : (Integer): Gain value Values: 0→600	Sets DDE Automatic Gain value
15.41	IRDigitalDetailEnhancementGainAutoGet	(Output) Gain : (Integer): Gain value Values: 0→600	Returns current DDE Auto Gain value

15.44	IRActiveContrastEnhancementSet	(Input) Contrast : (Integer): Active Contrast Enhancement value, ranges from -8 to 8 Values: 50→400	Sets Active Contrast Enhancement value
15.45	IRActiveContrastEnhancementGet	(Output) Contrast : (Integer): Active Contrast Enhancement value, ranges from -8 to 8 Values: 50→400	Returns current Active Contrast Enhancement value
15.46	IRTailRejectionSet	(Input) Tail : (Float): Tail Rejection percentage value, TAU ranges from 0 to 20, BOSON 0 to 49 Values: 0→49	Sets Tail Rejection value
15.47	IRTailRejectionGet	(Output) Tail : (Float): Tail Rejection percentage value, TAU ranges from 0 to 20, BOSON 0 to 49 Values: 0→49	Returns current Tail Rejection percentage value
15.50	IRDampingFactorSet	(Input) DampingFactor : (Float): Damping Factor percentage value Values: 0.0→100.0	Sets Damping Factor value
15.51	IRDampingFactorGet	(Output) DampingFactor : (Float): Damping Factor percentage value Values: 0.0→100.0	Returns current Damping Factor percentage value
15.52	IRPercentPerBinSet	(Input) PercentPerBin : (Float): Percent Per Bin value Values: 0.0→100.0	Sets Percent Per Bin value
15.53	IRPercentPerBinGet	(Output) PercentPerBin : (Float): Percent Per Bin value Values: 0→100	Returns current Percent Per Bin value
15.54	IRLinearPercentSet	(Input) LinearPercent : (Float): Linear Percent value Values: 0→100	Sets Linear Percent value
15.55	IRLinearPercentGet	(Output) LinearPercent : (Float): Linear Percent value Values: 0.0→100.0	Returns current Linear Percent value
15.56	IRDetailHeadroomSet	(Input) DetailHeadroom : (Float): Detail Headroom value Values: 0.0→127.0	Sets Detail Headroom value
15.57	IRDetailHeadroomGet	(Output) DetailHeadroom : (Float): Detail Headroom value Values: 0.0→127.0	Returns current Detail Headroom value
15.58	IRSigmaRSet	(Input) SigmaR : (Float): SigmaR value Values: 1→8191	Sets SigmaR value
15.59	IRSigmaRGet	(Output) SigmaR : (Float): SigmaR value Values: 1→8191	Returns current SigmaR value
15.60	IREntropyEnableSet	(Input) Enable : (Integer): Use entropy mode for AGC Values: 0: Disable 1: Enable	Sets entropy mode for AGC
15.61	IREntropyEnableGet	(Output) Enable : (Integer): Use entropy mode for AGC Values: 0: Disable 1: Enable	Returns current Use Entropy mode
15.62	IRFFCTimeIntervalSet	(Input) FFCInterval : (Integer): FFC Time Interval in seconds Values: 0→32767 seconds	Sets FFC Time interval
15.63	IRFFCTimeIntervalGet	(Output) FFCInterval : (Integer): FFC Time Interval in seconds Values: 0→32767 seconds	Requests value of FFC Time interval
15.64	IRFFCOffsetCorrectionSet	(Input) GAOFFCState : (Integer): Enable / Disable state for GAO FFC Values: 0,1	Enable or Disable the FFC per pixel
15.65	IRFFCOffsetCorrectionGet	(Output) GAOFFCState : (Integer): Status of FFC in GAO module Values: 0,1	Requests the status of the FFC per pixel
15.66	IRDDEGainPercentageSet	(Input) Gain : (Float): Sharpness gain value from 0 to 100 Values: 0→100 %	Configures sharpness gain
15.67	IRDDEGainPercentageGet	(Output) Gain : (Float): Sharpness gain value from 0 to 100 Values: 0→100 %	Returns the current sharpness gain

17.1	IRCropConfigGet	(Output) Left : (Float): Percentage of image to crop in the left Values: 0→100 % (Output) Right : (Float): Percentage of image to crop in the right Values: 0→100 % (Output) Top : (Float): Percentage of image to crop in the top Values: 0→100 % (Output) Bottom : (Float): Percentage of image to crop in the bottom Values: 0→100 %	Requests crop configuration
17.3	IRFrameRateGet	(Output) Rate : (Float): Frame Rate in Hertz (frames per second) Values: 9,30,60 fps	Requests the frame rate
17.15	IRVideoFormatGet	(Output) Format : (Integer): Video Format	Requests the video format
17.16	IRVideoSnapshotURLGet	(Output) URL : (String): URL string	Returns the URL to get a video snapshot
17.21	IRVideoDecimatedSizeGet	(Output) Columns : (Integer): Number of columns (Output) Rows : (Integer): Number of rows	Requests video output decimated size
19.1	IRRangeGet	(Output) Range : (LongInt): Range of the camera in meters(meters)	Requests range of the camera
20.1	IRHealthGet	(Output) Health : (Integer): Health state of device Values: 0: OK 1: Busy 2: Error 3: Unavailable	Requests health state of device
21.1	IRBITExecute	No parameters	Starts execution of BIT routine associated to this device
21.2	IRBITAbort	No parameters	Aborts execution of BIT routine associated to this device
21.3	IRBITResult	(Output) BIT_Result : (Integer): Result of the last BIT routine executed associated to this device Values: 0: OK 1: Busy 2: Error 3: Unavailable	Requests result of last BIT routine executed associated to this device

21.4	IRLastNMEAGet	(Output) DeviceType : (Integer): Device Type (Output) DeviceId : (Integer): Device Id (Output) Health : (Integer): Health Status of Device (Output) BIT : (Integer): Result of last BIT routine in this device (Output) Timestamp : (String): Timestamp of the moment when this info was generated (Output) FOV : (Float): Value of FOV (Output) FOV_Index : (Integer): Index of FOV (Output) Focus_pctg : (Float): Focus percentage (0-100) (Output) AGC : (Integer): Value of AGC (Output) AGC_Low : (Float): AGC Low Limit value (Output) AGC_High : (Float): AGC High Limit value (Output) Gain_pctg : (Float): Gain percentage (Output) Level_pctg : (Float): Level percentage (Output) Polarity : (Integer): Polarity (Output) LUT_name : (String): Name of LUT (Output) NUC_index : (Integer): Index of selected NUC table (Output) NUC_name : (String): Name of selected NUC (Output) Integration_time : (Float): Value of integration time (Output) NUC_status_str : (String): NUC status string (Output) NUC_status_num : (Integer): NUC status number (Output) X0 : (Integer): Not used (Output) Lens_atherm : (Integer): Lens athermalization (Output) OnOff : (Integer): Cooler/camera (Output) Electronic_zoom : (Integer): Electronic zoom (Output) Freeze : (Integer): Freeze (Output) OpMode : (Integer): Operational Mode (Output) ActiveSource : (Integer): Is source active? 0=no,1=yes (Output) Autofocus : (Integer): Autofocus (Output) Frame_Size_X : (Integer): Frame Size X (Output) Frame_Size_Y : (Integer): Frame Size Y (Output) Range : (Integer): Range of camera in meters (Output) Extender : (Integer): Extender status (Output) Zoom_Pctg : (Float): Zoom Percentage (Output) DDE_Mode : (Integer): DDE Mode (Output) DDE_Gain_Pctg : (Float): DDE Gain Percentage (Output) Lens_Cover : (Integer): Lens cover status 0=OPEN 1=CLOSED (Output) THG_ItemsChangedTimestamp : (String): Timestamp updated when THG Items change (Output) Slave : (Integer): Slave mode (Output) Orientation : (Integer): Image Orientation 0=Normal 1=Vertical flip 2=Horizontal revert 3=Both Horizontal and Vertical (Output) ScenePreset : (Integer): Scene Preset index (Output) AdvancedMode : (Integer): 0=Normal 1=InstAlert 2=IceAlert 3=FireFighter (Output) FireFighterTemp : (Float): FireFighter Temperature value (Output) InstAlertValue : (Float): InstAlert Adjust value (Output) IceAlertValue : (Float): IceAlert Adjust value (Output) FireFighterValue : (Float): FireFighter Adjust value (Output) IsothermThreshold1 : (Integer): First Isotherm Threshold (Output) IsothermThreshold2 : (Integer): Second Isotherm Threshold (Output) IsothermThreshold3 : (Integer): Third Isotherm Threshold (Output) IsothermThreshold4 : (Integer): Fourth Isotherm Threshold (Output) VideoMasked : (Integer): Indicates if the video is masked or blanked (Output) EStab : (Integer): Electronio Stabilization mode (Output) Descintillation : (Integer): Descintillation mode (Output) DescintillationLevel : (Float): Descintillation Level percentage (Output) Cooler : (Integer): Cooler/camera state. (Output) BlendMode : (Integer): Blend mode (Output) MSX_BlendValue : (Float): MSX Blend value (Output) CNV_BlendValue : (Float): CNV Blend value (deprecated) (Output) BlendOffsetX : (Integer): Blending Registration Offset X (Output) BlendOffsetY : (Integer): Blending Registration Offset Y (Output) BlendOffsetWidth : (Integer): Blending Registration Offset Width (Output) BlendOffsetHeight : (Integer): Blending Registration Offset Height (Output) CTV_BlendValue : (Float): CTV Blend value	Requests the value of the current NMEA string of this device
------	---------------	--	--

21.5	IRLongBITResult	(Output) BITResult : (String): Result string of the last BIT routine executed associated to this device.	Requests result string of last BIT routine executed associated to this device
21.6	IRDeviceVersionGet	(Output) rx_data : (String): Version string indicating Mayor, Minor and Patch numbers	Requests the device version string
21.7	IRDeviceInfoGet	(Output) rx_data : (String): Returns Part Number	Requests the device info string
21.10	IRConfigurationReportGet	(Output) Info : (String): Configuration Information	Requests the configuration information
21.11	IRWebSettingsSet	(Input) Settings : (String): Web driver settings in JSON format (driver-specific) (Output) SettingsReturns : (String): Web driver returns settings in JSON format (driver-specific)	Sets the most important settings of camera driver
21.12	IRWebSettingsGet	(Output) Settings : (String): Web driver settings in JSON format (driver-specific)	Requests the most important settings of camera driver
23.94	IRTHGDiffAlarmThresholdValueGet	(Input) DiffIndex : (Integer): Diff index Values: 1→10 (Output) Value : (Float): Diff alarm threshold value	Gets the alarm threshold value for the specified diff
24.1	IRBadPixelReplacementSet	(Input) Enable : (Integer): Enable Bad Pixel Replace Values: 0: Disable 1: Enable	Enable the Bad Pixel Replace
24.2	IRBadPixelReplacementGet	(Output) Enable : (Integer): Status of Bad Pixel Replace Values: 0: Disable 1: Enable	Get the current status of the Bad Pixel Replace
24.3	IRTemporalFilterSet	(Input) Enable : (Integer): Enable Temporal Filter Values: 0: Disable 1: Enable	Enable the Temporal Filter
24.4	IRTemporalFilterGet	(Output) Enable : (Integer): Status of Temporal Filter Values: 0: Disable 1: Enable	Get the current status of the Temporal Filter

Documentation generated from: dictionary\_IR.txt v0.7 (2023/10/10 11:01:11)  
dictionary\_IR\_FLIRBoson.txt v0.3 (2019/10/09 17:19:39)  
dictionary\_IR\_M300.txt v0.1 (2019/09/09 13:39:37)

## VA Device Functions

Id	Function Name	Parameters	Description
1.1	VAEnableSet	(Input) Enable : (Integer): Turns On (1) or Off (0 ) the video analytics Values: 0: Disabled 1: Enabled	Turns On or Off the video analytics
1.2	VAEnableGet	(Output) Enable : (Integer): state of the video analytics Values: 0: Disabled 1: Enabled	Returns the state of the video analytics
2.1	VASensitivityLevelSet	(Input) Level : (LongInt): sensitivity level Values: 0→15	sets the sensitivity level
2.2	VASensitivityLevelGet	(Output) Level : (LongInt): sensitivity level Values: 0→15	Returns the sensitivity level
2.10	VAEnvironmentSet	(Input) Environment : (Integer): Environment (0 open sea 1 coastal) Values: 0: Open Sea 1: Coastal	Sets the type of environment for the va algorithm
2.11	VAEnvironmentGet	(Output) Environment : (Integer): Environment (0 open sea 1 coastal) Values: 0: Open Sea 1: Coastal	Gets the type of environment for the va algorithm

Documentation generated from: dictionary\_VA.txt v0.1 (2023/11/16 13:24:57)  
dictionary\_VA\_M300.txt v0.0 (2023/11/16 13:39:37)

## IO Device Functions

Func. /Subf	Function Name	Parameters	Description
2.2	IOSENSOROutputStateSet	(Input) Port : (Integer): Port Id (Input) Output : (Integer): Output Id (Input) State : (Integer): State to set	Sets state of an output on an IO sensor
2.3	IOSENSOROutputStateGet	(Input) Port : (Integer): Port Id (Input) Output : (Integer): Output Id (Output) State : (Integer): Sensor state	Requests state of an output on an IO sensor
2.4	IOSENSORAlarmStatusSet	(Input) io : (Integer): IO Id (Input) Status : (Integer): alarm status	Sets the alarm status of an IO
2.5	IOSENSORAlarmStatusGet	(Input) io : (Integer): IO Id (Output) Status : (Integer): alarm status	Requests the alarm status of an IO
2.6	IOSENSOROutputResetIntervalSet	(Input) io : (Integer): IO Id (Input) ResetInterval : (Integer): output reset interval in seconds	Sets the alarm status of an IO
2.7	IOSENSOROutputResetIntervalGet	(Input) io : (Integer): IO Id (Output) ResetInterval : (Integer): output reset interval in seconds	Requests the alarm status of an IO
2.8	IOSENSOROutputDefaultsSet	(Input) io : (Integer): IO Id	Sets current state as default
2.9	IOSENSOROutputDefaultsRestore	(Input) io : (Integer): IO Id	Restores default state value
4.1	IOSENSORGeolocationSet	(Input) Port : (Integer): Port Values: 0:Fixed Value (Input) Id : (Integer): IO index (Input) Latitude : (Double): Latitude Values: -90.0:South→90.0:North Decimal degrees (Input) Longitude : (Double): Longitude Values: -180.0:West→180.0:East Decimal degrees (Input) Height : (Float): Height	Sets the location of a sensor
4.2	IOSENSORGeolocationGet	(Input) Port : (Integer): Port Values: 0:Fixed Value (Input) Id : (Integer): IO index (Output) Latitude : (Double): Latitude Values: -90.0:South→90.0:North Decimal degrees (Output) Longitude : (Double): Longitude Values: -180.0:West→180.0:East Decimal degrees (Output) Height : (Float): Height	Requests configuration of an IO sensor IO
19.1	IOSENSORRawCommandSend	(Input) cmd_timeout : (Integer): timeout for command execution (Input) rx_expected : (Integer): reponse expected bytes (Input) tx_data : (String): command to be sent (Output) rx_data : (String): command response	Only for FLIR internal use
19.2	IOSENSORRawCommandASCII Send	(Input) cmd_timeout : (Integer): timeout for command execution (Input) rx_expected : (Integer): reponse expected bytes (Input) tx_data : (String): command to be sent (Output) rx_data : (String): command response	Only for FLIR internal use
20.1	IOSENSORHealthGet	(Output) Health : (Integer): Health state of device Values: 0: OK 1: Busy 2: Error 3: Unavailable	Requests health state of device
21.1	IOSENSORBITExecute	No parameters	Starts execution of BIT routine associated to this device
21.2	IOSENSORBITAbort	No parameters	Stops execution of BIT routine associated to this device



21.3	IOSENSORBITResult	(Output) BIT_Result : (Integer): Result of the last BIT routine executed associated to this device	Requests result of last BIT routine associated to this device
21.4	IOSENSORLastNMEAGet	(Output) DeviceType : (Integer): Device Type (Output) DeviceId : (Integer): Device Id (Output) Health : (Integer): Health Status of Device (Output) BIT : (Integer): Result of last BIT routine in this device (Output) Timestamp : (String): Timestamp of the moment when this info was generated (Output) NumberOfIOs : (Integer): Number Of IOs available in this notification (Output) RawNotification : (String): Info about the IOs	Requests the value of the current NMEA string of this device
21.5	IOSENSORLongBITResult	(Output) BITResult : (String): Result string of the last BIT routine executed associated to this device.	Requests result string of last BIT routine executed associated to this device
21.6	IOSENSORDeviceVersionGet	(Output) rx_data : (String): version string	Requests the device version string
21.7	IOSENSORDeviceInfoGet	(Output) rx_data : (String): info string	Requests the device info string
21.11	IOSENSORWebSettingsSet	(Input) Settings : (String): Web driver settings in JSON format (driver-specific) (Output) SettingsReturns : (String): Web driver returns settings in JSON format (driver-specific)	Sets the most important settings of camera driver
21.12	IOSENSORWebSettingsGet	(Output) Settings : (String): Web driver settings in JSON format (driver-specific)	Requests the most important settings of camera driver
21.16	IOSENSORRestoreFactoryDefault	No parameters	Restores factory default settings

Documentation generated from: dictionary\_IO.txt v1.2 (2023/11/22 11:13:35)  
dictionary\_IO\_M300.txt v0.0 (2023/11/16 13:39:37)