# Access

|  |
| --- |
| **getLockStatus** This function returns if the device is locked and if the current client is authorized to use the device. |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| Out | errNo | Not present in Python and C# API! errorCode |
| locked | Is the device locked? |
| authorized | Is the client authorized? |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: getLockStatus |
| params: [] |
| Result: [errNo, locked, authorized] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_getLockStatus**(int deviceHandle, bool\* locked, bool\* authorized) |

|  |
| --- |
| **Python** |

|  |
| --- |
| locked, authorized = **[dev].access.getLockStatus**() |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [locked, authorized] = **AMC\_getLockStatus**() |

|  |
| --- |
| **C#** |

|  |
| --- |
| Tuple<bool,bool> value = [Device].**GetLockStatus**() |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **grantAccess** Grants access to a locked device for the requesting IP by checking against the password |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | password | string the current password |
| Out | errNo | Not present in Python and C# API! errorCode |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: grantAccess |
| params: [password] |
| Result: [errNo] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_grantAccess**(int deviceHandle, const char\* password) |

|  |
| --- |
| **Python** |

|  |
| --- |
| **[dev].access.grantAccess**(password) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [] = **AMC\_grantAccess**(password) |

|  |
| --- |
| **C#** |

|  |
| --- |
| void value = [Device].**GrantAccess**(string password) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **lock** This function locks the device with a password, so the calling of functions is only possible with this password. The locking IP is automatically added to the devices which can access functions |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | password | string the password to be set |
| Out | errNo | Not present in Python and C# API! errorCode |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: lock |
| params: [password] |
| Result: [errNo] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_lock**(int deviceHandle, const char\* password) |

|  |
| --- |
| **Python** |

|  |
| --- |
| **[dev].access.lock**(password) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [] = **AMC\_lock**(password) |

|  |
| --- |
| **C#** |

|  |
| --- |
| void value = [Device].**Lock**(string password) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **unlock** This function unlocks the device, so it will not be necessary to execute the grantAccess function to run any function |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | password | string the current password |
| Out | errNo | Not present in Python and C# API! errorCode |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: unlock |
| params: [password] |
| Result: [errNo] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_unlock**(int deviceHandle, const char\* password) |

|  |
| --- |
| **Python** |

|  |
| --- |
| **[dev].access.unlock**(password) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [] = **AMC\_unlock**(password) |

|  |
| --- |
| **C#** |

|  |
| --- |
| void value = [Device].**Unlock**(string password) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

# Amcids

|  |
| --- |
| **getLowerSoftLimit** Gets the lower boundary of the soft limit protection.  This protection is needed if the IDS working range is smaller than the positioners travel range.  It is no hard limit, so, it is possible to overshoot it! |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | Axis of the AMC to get the soft limit status from |
| Out | errNo | Not present in Python and C# API! int32 Error number if one occured, 0 in case of no error |
| limit | double Lower boundary in pm |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.amcids.getLowerSoftLimit |
| params: [axis] |
| Result: [errNo, limit] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_amcids\_getLowerSoftLimit**(int deviceHandle, int axis, double\* limit) |

|  |
| --- |
| **Python** |

|  |
| --- |
| limit = **[dev].amcids.getLowerSoftLimit**(axis) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [limit] = **amcids\_getLowerSoftLimit**(axis) |

|  |
| --- |
| **C#** |

|  |
| --- |
| double value = [Device].**Amcids\_GetLowerSoftLimit**(int axis) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **getSoftLimitEnabled** Gets whether the soft limit protection is enabled.  This protection is needed if the IDS working range is smaller than the positioners travel range.  It is no hard limit, so, it is possible to overshoot it! |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | Axis of the AMC to get the soft limit status from |
| Out | errNo | Not present in Python and C# API! int32 Error number if one occured, 0 in case of no error |
| enabled | boolean True, if the soft limit should be enabled on this axis |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.amcids.getSoftLimitEnabled |
| params: [axis] |
| Result: [errNo, enabled] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_amcids\_getSoftLimitEnabled**(int deviceHandle, int axis, bool\* enabled) |

|  |
| --- |
| **Python** |

|  |
| --- |
| enabled = **[dev].amcids.getSoftLimitEnabled**(axis) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [enabled] = **amcids\_getSoftLimitEnabled**(axis) |

|  |
| --- |
| **C#** |

|  |
| --- |
| bool value = [Device].**Amcids\_GetSoftLimitEnabled**(int axis) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **getSoftLimitReached** Gets whether the current position is out of the soft limit boundaries.  This protection is needed if the IDS working range is smaller than the positioners travel range.  It is no hard limit, so, it is possible to overshoot it! |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | Axis of the AMC to get the soft limit status from |
| Out | errNo | Not present in Python and C# API! int32 Error number if one occured, 0 in case of no error |
| enabled | boolean True, if the position is not within the boundaries |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.amcids.getSoftLimitReached |
| params: [axis] |
| Result: [errNo, enabled] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_amcids\_getSoftLimitReached**(int deviceHandle, int axis, bool\* enabled) |

|  |
| --- |
| **Python** |

|  |
| --- |
| enabled = **[dev].amcids.getSoftLimitReached**(axis) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [enabled] = **amcids\_getSoftLimitReached**(axis) |

|  |
| --- |
| **C#** |

|  |
| --- |
| bool value = [Device].**Amcids\_GetSoftLimitReached**(int axis) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **getUpperSoftLimit** Gets the upper lower boundary of the soft limit protection.  This protection is needed if the IDS working range is smaller than the positioners travel range.  It is no hard limit, so, it is possible to overshoot it! |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | Axis of the AMC to get the soft limit status from |
| Out | errNo | Not present in Python and C# API! int32 Error number if one occured, 0 in case of no error |
| limit | double Upper boundary in pm |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.amcids.getUpperSoftLimit |
| params: [axis] |
| Result: [errNo, limit] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_amcids\_getUpperSoftLimit**(int deviceHandle, int axis, double\* limit) |

|  |
| --- |
| **Python** |

|  |
| --- |
| limit = **[dev].amcids.getUpperSoftLimit**(axis) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [limit] = **amcids\_getUpperSoftLimit**(axis) |

|  |
| --- |
| **C#** |

|  |
| --- |
| double value = [Device].**Amcids\_GetUpperSoftLimit**(int axis) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **resetIdsAxis** Resets the position value to zero of a specific measurement axis.  Use this for positioners with an IDS as sensor.  This method does not work for NUM and RES sensors. Use com.attocube.amc.control.resetAxis instead. |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | Axis of the IDS to reset the position |
| Out | errNo | Not present in Python and C# API! int32 Error number if one occured, 0 in case of no error |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.amcids.resetIdsAxis |
| params: [axis] |
| Result: [errNo] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_amcids\_resetIdsAxis**(int deviceHandle, int axis) |

|  |
| --- |
| **Python** |

|  |
| --- |
| **[dev].amcids.resetIdsAxis**(axis) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [] = **amcids\_resetIdsAxis**(axis) |

|  |
| --- |
| **C#** |

|  |
| --- |
| void value = [Device].**Amcids\_ResetIdsAxis**(int axis) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **setLowerSoftLimit** Sets the lower boundary of the soft limit protection in pm.  This protection is needed if the IDS working range is smaller than the positioners travel range.  It is no hard limit, so, it is possible to overshoot it! |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | Axis of the AMC where the soft limit should be changed |
| limit | Lower boundary in pm |
| Out | errNo | Not present in Python and C# API! int32 Error number if one occured, 0 in case of no error |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.amcids.setLowerSoftLimit |
| params: [axis, limit] |
| Result: [errNo] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_amcids\_setLowerSoftLimit**(int deviceHandle, int axis, double limit) |

|  |
| --- |
| **Python** |

|  |
| --- |
| **[dev].amcids.setLowerSoftLimit**(axis, limit) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [] = **amcids\_setLowerSoftLimit**(axis, limit) |

|  |
| --- |
| **C#** |

|  |
| --- |
| void value = [Device].**Amcids\_SetLowerSoftLimit**(int axis, double limit) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **setSoftLimitEnabled** Enables/disables the soft limit protection.  This protection is needed if the IDS working range is smaller than the positioners travel range.  It is no hard limit, so, it is possible to overshoot it! |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | Axis of the AMC where the soft limit should be changed |
| enabled | True, if the soft limit should be enabled on this axis |
| Out | errNo | Not present in Python and C# API! int32 Error number if one occured, 0 in case of no error |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.amcids.setSoftLimitEnabled |
| params: [axis, enabled] |
| Result: [errNo] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_amcids\_setSoftLimitEnabled**(int deviceHandle, int axis, bool enabled) |

|  |
| --- |
| **Python** |

|  |
| --- |
| **[dev].amcids.setSoftLimitEnabled**(axis, enabled) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [] = **amcids\_setSoftLimitEnabled**(axis, enabled) |

|  |
| --- |
| **C#** |

|  |
| --- |
| void value = [Device].**Amcids\_SetSoftLimitEnabled**(int axis, bool enabled) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **setUpperSoftLimit** Sets the upper boundary of the soft limit protection in pm.  This protection is needed if the IDS working range is smaller than the positioners travel range.  It is no hard limit, so, it is possible to overshoot it! |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | Axis of the AMC where the soft limit should be changed |
| limit | Upper boundary in pm |
| Out | errNo | Not present in Python and C# API! int32 Error number if one occured, 0 in case of no error |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.amcids.setUpperSoftLimit |
| params: [axis, limit] |
| Result: [errNo] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_amcids\_setUpperSoftLimit**(int deviceHandle, int axis, double limit) |

|  |
| --- |
| **Python** |

|  |
| --- |
| **[dev].amcids.setUpperSoftLimit**(axis, limit) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [] = **amcids\_setUpperSoftLimit**(axis, limit) |

|  |
| --- |
| **C#** |

|  |
| --- |
| void value = [Device].**Amcids\_SetUpperSoftLimit**(int axis, double limit) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

# Control

|  |
| --- |
| **MultiAxisPositioning** Simultaneously set 3 axes positions  and get positions to minimize network latency |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | set1 | axis1 otherwise pos1 target is ignored |
| set2 | axis2 otherwise pos2 target is ignored |
| set3 | axis3 otherwise pos3 target is ignored |
| target1 | target position of axis 1 |
| target2 | target position of axis 2 |
| target3 | target position of axis 3 |
| Out | errNo | Not present in Python and C# API! errNo |
| ref1 | Status of axis 1 |
| ref2 | Status of axis 2 |
| ref3 | Status of axis 3 |
| refpos1 | reference Position of axis 1 |
| refpos2 | reference Position of axis 2 |
| refpos3 | reference Position of axis 3 |
| pos1 | position of axis 1 |
| pos2 | position of axis 2 |
| pos3 | position of axis 3 |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.control.MultiAxisPositioning |
| params: [set1, set2, set3, target1, target2, target3] |
| Result: [errNo, ref1, ref2, ref3, refpos1, refpos2, refpos3, pos1, pos2, pos3] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_control\_MultiAxisPositioning**(int deviceHandle, bool set1, bool set2, bool set3, int target1, int target2, int target3, bool\* ref1, bool\* ref2, bool\* ref3, int\* refpos1, int\* refpos2, int\* refpos3, int\* pos1, int\* pos2, int\* pos3) |

|  |
| --- |
| **Python** |

|  |
| --- |
| ref1, ref2, ref3, refpos1, refpos2, refpos3, pos1, pos2, pos3 = **[dev].control.MultiAxisPositioning**(set1, set2, set3, target1, target2, target3) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [ref1, ref2, ref3, refpos1, refpos2, refpos3, pos1, pos2, pos3] = **control\_MultiAxisPositioning**(set1, set2, set3, target1, target2, target3) |

|  |
| --- |
| **C#** |

|  |
| --- |
| Tuple<bool,bool,bool,int,int,int, Tuple<int,int,int>> value = [Device].**Control\_MultiAxisPositioning**(bool set1, bool set2, bool set3, int target1, int target2, int target3) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **getActorName** This function gets the name of the positioner of the selected axis. |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| Out | errNo | Not present in Python and C# API! errNo |
| actor\_name | actor\_name |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.control.getActorName |
| params: [axis] |
| Result: [errNo, actor\_name] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_control\_getActorName**(int deviceHandle, int axis, char\* actor\_name, int size0) |

|  |
| --- |
| **Python** |

|  |
| --- |
| actor\_name = **[dev].control.getActorName**(axis) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [actor\_name] = **control\_getActorName**(axis) |

|  |
| --- |
| **C#** |

|  |
| --- |
| string value = [Device].**Control\_GetActorName**(int axis) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **getActorParametersActorName** Control the actors parameter: actor name |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| Out | errNo | Not present in Python and C# API! errNo |
| actorname | actorname |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.control.getActorParametersActorName |
| params: [axis] |
| Result: [errNo, actorname] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_control\_getActorParametersActorName**(int deviceHandle, int axis, char\* actorname, int size0) |

|  |
| --- |
| **Python** |

|  |
| --- |
| actorname = **[dev].control.getActorParametersActorName**(axis) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [actorname] = **control\_getActorParametersActorName**(axis) |

|  |
| --- |
| **C#** |

|  |
| --- |
| string value = [Device].**Control\_GetActorParametersActorName**(int axis) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **getActorSensitivity** Get the setting for the actor parameter sensitivity |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| Out | errNo | Not present in Python and C# API! errNo |
| sensitivity | sensitivity |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.control.getActorSensitivity |
| params: [axis] |
| Result: [errNo, sensitivity] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_control\_getActorSensitivity**(int deviceHandle, int axis, int\* sensitivity) |

|  |
| --- |
| **Python** |

|  |
| --- |
| sensitivity = **[dev].control.getActorSensitivity**(axis) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [sensitivity] = **control\_getActorSensitivity**(axis) |

|  |
| --- |
| **C#** |

|  |
| --- |
| int value = [Device].**Control\_GetActorSensitivity**(int axis) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **getActorType** This function gets the type of the positioner of the selected axis. |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| Out | errNo | Not present in Python and C# API! errNo |
| actor\_type | 0: linear , 1: goniometer, 2: rotator |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.control.getActorType |
| params: [axis] |
| Result: [errNo, actor\_type] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_control\_getActorType**(int deviceHandle, int axis, int\* actor\_type) |

|  |
| --- |
| **Python** |

|  |
| --- |
| actor\_type = **[dev].control.getActorType**(axis) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [actor\_type] = **control\_getActorType**(axis) |

|  |
| --- |
| **C#** |

|  |
| --- |
| int value = [Device].**Control\_GetActorType**(int axis) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **getAutoMeasure** This function returns if the automeasurement on axis enable is enabled |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| Out | errNo | Not present in Python and C# API! errNo |
| enable | boolean true: enable automeasurement, false: disable automeasurement |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.control.getAutoMeasure |
| params: [axis] |
| Result: [errNo, enable] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_control\_getAutoMeasure**(int deviceHandle, int axis, bool\* enable) |

|  |
| --- |
| **Python** |

|  |
| --- |
| enable = **[dev].control.getAutoMeasure**(axis) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [enable] = **control\_getAutoMeasure**(axis) |

|  |
| --- |
| **C#** |

|  |
| --- |
| bool value = [Device].**Control\_GetAutoMeasure**(int axis) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **getControlAmplitude** This function gets the amplitude of the actuator signal of the selected axis. |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| Out | errNo | Not present in Python and C# API! errNo |
| amplitude | in mV |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.control.getControlAmplitude |
| params: [axis] |
| Result: [errNo, amplitude] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_control\_getControlAmplitude**(int deviceHandle, int axis, int\* amplitude) |

|  |
| --- |
| **Python** |

|  |
| --- |
| amplitude = **[dev].control.getControlAmplitude**(axis) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [amplitude] = **control\_getControlAmplitude**(axis) |

|  |
| --- |
| **C#** |

|  |
| --- |
| int value = [Device].**Control\_GetControlAmplitude**(int axis) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **getControlAutoReset** This function resets the position every time the reference position is detected. |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| Out | errNo | Not present in Python and C# API! errNo |
| enabled | boolean |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.control.getControlAutoReset |
| params: [axis] |
| Result: [errNo, enabled] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_control\_getControlAutoReset**(int deviceHandle, int axis, bool\* enabled) |

|  |
| --- |
| **Python** |

|  |
| --- |
| enabled = **[dev].control.getControlAutoReset**(axis) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [enabled] = **control\_getControlAutoReset**(axis) |

|  |
| --- |
| **C#** |

|  |
| --- |
| bool value = [Device].**Control\_GetControlAutoReset**(int axis) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **getControlFixOutputVoltage** This function gets the DC level output of the selected axis. |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| Out | errNo | Not present in Python and C# API! errNo |
| amplitude\_mv | in mV |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.control.getControlFixOutputVoltage |
| params: [axis] |
| Result: [errNo, amplitude\_mv] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_control\_getControlFixOutputVoltage**(int deviceHandle, int axis, int\* amplitude\_mv) |

|  |
| --- |
| **Python** |

|  |
| --- |
| amplitude\_mv = **[dev].control.getControlFixOutputVoltage**(axis) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [amplitude\_mv] = **control\_getControlFixOutputVoltage**(axis) |

|  |
| --- |
| **C#** |

|  |
| --- |
| int value = [Device].**Control\_GetControlFixOutputVoltage**(int axis) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **getControlFrequency** This function gets the frequency of the actuator signal of the selected axis. |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| Out | errNo | Not present in Python and C# API! errNo |
| frequency | in mHz |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.control.getControlFrequency |
| params: [axis] |
| Result: [errNo, frequency] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_control\_getControlFrequency**(int deviceHandle, int axis, int\* frequency) |

|  |
| --- |
| **Python** |

|  |
| --- |
| frequency = **[dev].control.getControlFrequency**(axis) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [frequency] = **control\_getControlFrequency**(axis) |

|  |
| --- |
| **C#** |

|  |
| --- |
| int value = [Device].**Control\_GetControlFrequency**(int axis) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **getControlMove** This function gets the approach of the selected axis’ positioner to the target position. |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| Out | errNo | Not present in Python and C# API! errNo |
| enable | boolean true: closed loop control enabled, false: closed loop control disabled |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.control.getControlMove |
| params: [axis] |
| Result: [errNo, enable] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_control\_getControlMove**(int deviceHandle, int axis, bool\* enable) |

|  |
| --- |
| **Python** |

|  |
| --- |
| enable = **[dev].control.getControlMove**(axis) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [enable] = **control\_getControlMove**(axis) |

|  |
| --- |
| **C#** |

|  |
| --- |
| bool value = [Device].**Control\_GetControlMove**(int axis) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **getControlOutput** This function gets the status of the output relays of the selected axis. |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| Out | errNo | Not present in Python and C# API! errNo |
| value\_boolean1 | boolean power status (true = enabled,false = disabled) |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.control.getControlOutput |
| params: [axis] |
| Result: [errNo, value\_boolean1] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_control\_getControlOutput**(int deviceHandle, int axis, bool\* value\_boolean1) |

|  |
| --- |
| **Python** |

|  |
| --- |
| value\_boolean1 = **[dev].control.getControlOutput**(axis) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [value\_boolean1] = **control\_getControlOutput**(axis) |

|  |
| --- |
| **C#** |

|  |
| --- |
| bool value = [Device].**Control\_GetControlOutput**(int axis) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **getControlReferenceAutoUpdate** This function gets the status of whether the reference position is updated when the reference mark is hit.  When this function is disabled, the reference marking will be considered only the first time and after then ignored. |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| Out | errNo | Not present in Python and C# API! errNo |
| enabled | boolen |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.control.getControlReferenceAutoUpdate |
| params: [axis] |
| Result: [errNo, enabled] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_control\_getControlReferenceAutoUpdate**(int deviceHandle, int axis, bool\* enabled) |

|  |
| --- |
| **Python** |

|  |
| --- |
| enabled = **[dev].control.getControlReferenceAutoUpdate**(axis) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [enabled] = **control\_getControlReferenceAutoUpdate**(axis) |

|  |
| --- |
| **C#** |

|  |
| --- |
| bool value = [Device].**Control\_GetControlReferenceAutoUpdate**(int axis) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **getControlTargetRange** This function gets the range around the target position in which the flag "In Target Range" becomes active. |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| Out | errNo | Not present in Python and C# API! errNo |
| targetrange | in nm |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.control.getControlTargetRange |
| params: [axis] |
| Result: [errNo, targetrange] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_control\_getControlTargetRange**(int deviceHandle, int axis, int\* targetrange) |

|  |
| --- |
| **Python** |

|  |
| --- |
| targetrange = **[dev].control.getControlTargetRange**(axis) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [targetrange] = **control\_getControlTargetRange**(axis) |

|  |
| --- |
| **C#** |

|  |
| --- |
| int value = [Device].**Control\_GetControlTargetRange**(int axis) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **getCrosstalkThreshold** This function gets the threshold range and slip phase time which is used while moving another axis |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| Out | errNo | Not present in Python and C# API! errNo |
| range | in pm |
| time | after slip phase which is waited until the controller is acting again in microseconds |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.control.getCrosstalkThreshold |
| params: [axis] |
| Result: [errNo, range, time] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_control\_getCrosstalkThreshold**(int deviceHandle, int axis, int\* range, int\* time) |

|  |
| --- |
| **Python** |

|  |
| --- |
| range, time = **[dev].control.getCrosstalkThreshold**(axis) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [range, time] = **control\_getCrosstalkThreshold**(axis) |

|  |
| --- |
| **C#** |

|  |
| --- |
| Tuple<int,int> value = [Device].**Control\_GetCrosstalkThreshold**(int axis) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **getCurrentOutputVoltage** This function gets the current Voltage which is applied to the Piezo |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| Out | errNo | Not present in Python and C# API! errNo |
| amplitude | in mV |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.control.getCurrentOutputVoltage |
| params: [axis] |
| Result: [errNo, amplitude] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_control\_getCurrentOutputVoltage**(int deviceHandle, int axis, int\* amplitude) |

|  |
| --- |
| **Python** |

|  |
| --- |
| amplitude = **[dev].control.getCurrentOutputVoltage**(axis) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [amplitude] = **control\_getCurrentOutputVoltage**(axis) |

|  |
| --- |
| **C#** |

|  |
| --- |
| int value = [Device].**Control\_GetCurrentOutputVoltage**(int axis) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **getExternalSensor** This function gets whether the sensor source of closed loop is IDS  It is only available when the feature AMC/IDS closed loop has been activated |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| Out | errNo | Not present in Python and C# API! errNo |
| enabled | enabled |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.control.getExternalSensor |
| params: [axis] |
| Result: [errNo, enabled] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_control\_getExternalSensor**(int deviceHandle, int axis, bool\* enabled) |

|  |
| --- |
| **Python** |

|  |
| --- |
| enabled = **[dev].control.getExternalSensor**(axis) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [enabled] = **control\_getExternalSensor**(axis) |

|  |
| --- |
| **C#** |

|  |
| --- |
| bool value = [Device].**Control\_GetExternalSensor**(int axis) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **getMotionControlThreshold** This function gets the threshold range within the closed-loop controlled movement stops to regulate. |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| Out | errNo | Not present in Python and C# API! errNo |
| range | in pm |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.control.getMotionControlThreshold |
| params: [axis] |
| Result: [errNo, range] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_control\_getMotionControlThreshold**(int deviceHandle, int axis, int\* range) |

|  |
| --- |
| **Python** |

|  |
| --- |
| range = **[dev].control.getMotionControlThreshold**(axis) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [range] = **control\_getMotionControlThreshold**(axis) |

|  |
| --- |
| **C#** |

|  |
| --- |
| int value = [Device].**Control\_GetMotionControlThreshold**(int axis) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **getPositionsAndVoltages** Simultaneously get 3 axes positions as well as the DC offset  to maximize sampling rate over network |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| Out | errNo | Not present in Python and C# API! errNo |
| pos1 | position of axis 1 |
| pos2 | position of axis 2 |
| pos3 | position of axis 3 |
| val1 | dc voltage of of axis 1 in mV |
| val2 | dc voltage of of axis 2 in mV |
| val3 | dc voltage of of axis 3 in mV |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.control.getPositionsAndVoltages |
| params: [] |
| Result: [errNo, pos1, pos2, pos3, val1, val2, val3] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_control\_getPositionsAndVoltages**(int deviceHandle, int\* pos1, int\* pos2, int\* pos3, int\* val1, int\* val2, int\* val3) |

|  |
| --- |
| **Python** |

|  |
| --- |
| pos1, pos2, pos3, val1, val2, val3 = **[dev].control.getPositionsAndVoltages**() |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [pos1, pos2, pos3, val1, val2, val3] = **control\_getPositionsAndVoltages**() |

|  |
| --- |
| **C#** |

|  |
| --- |
| Tuple<int,int,int,int,int,int> value = [Device].**Control\_GetPositionsAndVoltages**() |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **getReferencePosition** This function gets the reference position of the selected axis. |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| Out | errNo | Not present in Python and C# API! errNo |
| position | position: For linear type actors the position is defined in nm for goniometer an rotator type actors it is µ°. |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.control.getReferencePosition |
| params: [axis] |
| Result: [errNo, position] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_control\_getReferencePosition**(int deviceHandle, int axis, int\* position) |

|  |
| --- |
| **Python** |

|  |
| --- |
| position = **[dev].control.getReferencePosition**(axis) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [position] = **control\_getReferencePosition**(axis) |

|  |
| --- |
| **C#** |

|  |
| --- |
| int value = [Device].**Control\_GetReferencePosition**(int axis) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **getSensorDirection** This function gets whether the IDS sensor source of closed loop is inverted  It is only available when the feature AMC/IDS closed loop has been activated |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| Out | errNo | Not present in Python and C# API! errNo |
| inverted | boolen |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.control.getSensorDirection |
| params: [axis] |
| Result: [errNo, inverted] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_control\_getSensorDirection**(int deviceHandle, int axis, bool\* inverted) |

|  |
| --- |
| **Python** |

|  |
| --- |
| inverted = **[dev].control.getSensorDirection**(axis) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [inverted] = **control\_getSensorDirection**(axis) |

|  |
| --- |
| **C#** |

|  |
| --- |
| bool value = [Device].**Control\_GetSensorDirection**(int axis) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **getSensorEnabled** Get sensot power supply status |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| Out | errNo | Not present in Python and C# API! errNo |
| value | true if enabled, false otherwise |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.control.getSensorEnabled |
| params: [axis] |
| Result: [errNo, value] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_control\_getSensorEnabled**(int deviceHandle, int axis, bool\* value) |

|  |
| --- |
| **Python** |

|  |
| --- |
| value = **[dev].control.getSensorEnabled**(axis) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [value] = **control\_getSensorEnabled**(axis) |

|  |
| --- |
| **C#** |

|  |
| --- |
| bool value = [Device].**Control\_GetSensorEnabled**(int axis) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **getStatusMovingAllAxes** Get Status of all axes, see getStatusMoving for coding of the values |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| Out | errNo | Not present in Python and C# API! errNo |
| moving1 | status of axis 1 |
| moving2 | status of axis 2 |
| moving3 | status of axis 3 |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.control.getStatusMovingAllAxes |
| params: [] |
| Result: [errNo, moving1, moving2, moving3] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_control\_getStatusMovingAllAxes**(int deviceHandle, int\* moving1, int\* moving2, int\* moving3) |

|  |
| --- |
| **Python** |

|  |
| --- |
| moving1, moving2, moving3 = **[dev].control.getStatusMovingAllAxes**() |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [moving1, moving2, moving3] = **control\_getStatusMovingAllAxes**() |

|  |
| --- |
| **C#** |

|  |
| --- |
| Tuple<int,int,int> value = [Device].**Control\_GetStatusMovingAllAxes**() |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **searchReferencePosition** This function searches for the reference position of the selected axis. |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| Out | errNo | Not present in Python and C# API! errNo |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.control.searchReferencePosition |
| params: [axis] |
| Result: [errNo] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_control\_searchReferencePosition**(int deviceHandle, int axis) |

|  |
| --- |
| **Python** |

|  |
| --- |
| **[dev].control.searchReferencePosition**(axis) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [] = **control\_searchReferencePosition**(axis) |

|  |
| --- |
| **C#** |

|  |
| --- |
| void value = [Device].**Control\_SearchReferencePosition**(int axis) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **setActorParametersByName** This function sets the name for the positioner on the selected axis. The possible names can be retrieved by executing getPositionersList.vi |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| actorname | name of the actor |
| Out | errNo | Not present in Python and C# API! errNo |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.control.setActorParametersByName |
| params: [axis, actorname] |
| Result: [errNo] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_control\_setActorParametersByName**(int deviceHandle, int axis, const char\* actorname) |

|  |
| --- |
| **Python** |

|  |
| --- |
| **[dev].control.setActorParametersByName**(axis, actorname) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [] = **control\_setActorParametersByName**(axis, actorname) |

|  |
| --- |
| **C#** |

|  |
| --- |
| void value = [Device].**Control\_SetActorParametersByName**(int axis, string actorname) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **setActorParametersJson** Select and override a positioner out of the Current default list only override given parameters set others default |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| json\_dict | dict with override params |
| Out | errNo | Not present in Python and C# API! errorCode |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.control.setActorParametersJson |
| params: [axis, json\_dict] |
| Result: [errNo] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_control\_setActorParametersJson**(int deviceHandle, int axis, const char\* json\_dict) |

|  |
| --- |
| **Python** |

|  |
| --- |
| **[dev].control.setActorParametersJson**(axis, json\_dict) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [] = **control\_setActorParametersJson**(axis, json\_dict) |

|  |
| --- |
| **C#** |

|  |
| --- |
| void value = [Device].**Control\_SetActorParametersJson**(int axis, string json\_dict) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **setActorSensitivity** Control the actor parameter closed loop sensitivity |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| sensitivity |  |
| Out | errNo | Not present in Python and C# API! errNo |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.control.setActorSensitivity |
| params: [axis, sensitivity] |
| Result: [errNo] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_control\_setActorSensitivity**(int deviceHandle, int axis, int sensitivity) |

|  |
| --- |
| **Python** |

|  |
| --- |
| **[dev].control.setActorSensitivity**(axis, sensitivity) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [] = **control\_setActorSensitivity**(axis, sensitivity) |

|  |
| --- |
| **C#** |

|  |
| --- |
| void value = [Device].**Control\_SetActorSensitivity**(int axis, int sensitivity) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **setAutoMeasure** This function enables/disables the automatic C/R measurement on axis enable |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| enable | boolean true: enable automeasurement, false: disable automeasurement |
| Out | errNo | Not present in Python and C# API! errNo |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.control.setAutoMeasure |
| params: [axis, enable] |
| Result: [errNo] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_control\_setAutoMeasure**(int deviceHandle, int axis, bool enable) |

|  |
| --- |
| **Python** |

|  |
| --- |
| **[dev].control.setAutoMeasure**(axis, enable) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [] = **control\_setAutoMeasure**(axis, enable) |

|  |
| --- |
| **C#** |

|  |
| --- |
| void value = [Device].**Control\_SetAutoMeasure**(int axis, bool enable) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **setControlAmplitude** This function sets the amplitude of the actuator signal of the selected axis. |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| amplitude | in mV |
| Out | errNo | Not present in Python and C# API! errNo |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.control.setControlAmplitude |
| params: [axis, amplitude] |
| Result: [errNo] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_control\_setControlAmplitude**(int deviceHandle, int axis, int amplitude) |

|  |
| --- |
| **Python** |

|  |
| --- |
| **[dev].control.setControlAmplitude**(axis, amplitude) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [] = **control\_setControlAmplitude**(axis, amplitude) |

|  |
| --- |
| **C#** |

|  |
| --- |
| void value = [Device].**Control\_SetControlAmplitude**(int axis, int amplitude) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **setControlAutoReset** This function resets the position every time the reference position is detected. |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| enable | boolean |
| Out | errNo | Not present in Python and C# API! errNo |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.control.setControlAutoReset |
| params: [axis, enable] |
| Result: [errNo] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_control\_setControlAutoReset**(int deviceHandle, int axis, bool enable) |

|  |
| --- |
| **Python** |

|  |
| --- |
| **[dev].control.setControlAutoReset**(axis, enable) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [] = **control\_setControlAutoReset**(axis, enable) |

|  |
| --- |
| **C#** |

|  |
| --- |
| void value = [Device].**Control\_SetControlAutoReset**(int axis, bool enable) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **setControlFixOutputVoltage** This function sets the DC level output of the selected axis. ( must perform applyControlFixOutputVoltage to apply on the positioner) |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| amplitude\_mv | in mV |
| Out | errNo | Not present in Python and C# API! errNo |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.control.setControlFixOutputVoltage |
| params: [axis, amplitude\_mv] |
| Result: [errNo] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_control\_setControlFixOutputVoltage**(int deviceHandle, int axis, int amplitude\_mv) |

|  |
| --- |
| **Python** |

|  |
| --- |
| **[dev].control.setControlFixOutputVoltage**(axis, amplitude\_mv) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [] = **control\_setControlFixOutputVoltage**(axis, amplitude\_mv) |

|  |
| --- |
| **C#** |

|  |
| --- |
| void value = [Device].**Control\_SetControlFixOutputVoltage**(int axis, int amplitude\_mv) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **setControlFrequency** This function sets the frequency of the actuator signal of the selected axis.  Note: Approximate the slewrate of the motion controller according to Input Frequency |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| frequency | in mHz |
| Out | errNo | Not present in Python and C# API! errNo |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.control.setControlFrequency |
| params: [axis, frequency] |
| Result: [errNo] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_control\_setControlFrequency**(int deviceHandle, int axis, int frequency) |

|  |
| --- |
| **Python** |

|  |
| --- |
| **[dev].control.setControlFrequency**(axis, frequency) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [] = **control\_setControlFrequency**(axis, frequency) |

|  |
| --- |
| **C#** |

|  |
| --- |
| void value = [Device].**Control\_SetControlFrequency**(int axis, int frequency) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **setControlMove** This function sets the approach of the selected axis’ positioner to the target position. |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| enable | boolean true: eanble the approach , false: disable the approach |
| Out | errNo | Not present in Python and C# API! errNo |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.control.setControlMove |
| params: [axis, enable] |
| Result: [errNo] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_control\_setControlMove**(int deviceHandle, int axis, bool enable) |

|  |
| --- |
| **Python** |

|  |
| --- |
| **[dev].control.setControlMove**(axis, enable) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [] = **control\_setControlMove**(axis, enable) |

|  |
| --- |
| **C#** |

|  |
| --- |
| void value = [Device].**Control\_SetControlMove**(int axis, bool enable) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **setControlOutput** This function sets the status of the output relays of the selected axis.  Enable only if cable is connected and FlyBack is enabled  use a PWM startup of 1sec |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| enable | boolean true: enable drives, false: disable drives |
| Out | errNo | Not present in Python and C# API! errNo |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.control.setControlOutput |
| params: [axis, enable] |
| Result: [errNo] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_control\_setControlOutput**(int deviceHandle, int axis, bool enable) |

|  |
| --- |
| **Python** |

|  |
| --- |
| **[dev].control.setControlOutput**(axis, enable) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [] = **control\_setControlOutput**(axis, enable) |

|  |
| --- |
| **C#** |

|  |
| --- |
| void value = [Device].**Control\_SetControlOutput**(int axis, bool enable) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **setControlReferenceAutoUpdate** This function sets the status of whether the reference position is updated when the reference mark is hit.  When this function is disabled, the reference marking will be considered only the first time and after then ignored. |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| enable | boolean |
| Out | errNo | Not present in Python and C# API! errNo |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.control.setControlReferenceAutoUpdate |
| params: [axis, enable] |
| Result: [errNo] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_control\_setControlReferenceAutoUpdate**(int deviceHandle, int axis, bool enable) |

|  |
| --- |
| **Python** |

|  |
| --- |
| **[dev].control.setControlReferenceAutoUpdate**(axis, enable) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [] = **control\_setControlReferenceAutoUpdate**(axis, enable) |

|  |
| --- |
| **C#** |

|  |
| --- |
| void value = [Device].**Control\_SetControlReferenceAutoUpdate**(int axis, bool enable) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **setControlTargetRange** This function sets the range around the target position in which the flag "In Target Range" (see VIII.7.a) becomes active. |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| range | in nm |
| Out | errNo | Not present in Python and C# API! errNo |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.control.setControlTargetRange |
| params: [axis, range] |
| Result: [errNo] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_control\_setControlTargetRange**(int deviceHandle, int axis, int range) |

|  |
| --- |
| **Python** |

|  |
| --- |
| **[dev].control.setControlTargetRange**(axis, range) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [] = **control\_setControlTargetRange**(axis, range) |

|  |
| --- |
| **C#** |

|  |
| --- |
| void value = [Device].**Control\_SetControlTargetRange**(int axis, int range) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **setCrosstalkThreshold** This function sets the threshold range and slip phase time which is used while moving another axis |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| threshold | in pm |
| slipphasetime | time after slip phase which is waited until the controller is acting again in microseconds |
| Out | errNo | Not present in Python and C# API! errNo |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.control.setCrosstalkThreshold |
| params: [axis, threshold, slipphasetime] |
| Result: [errNo] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_control\_setCrosstalkThreshold**(int deviceHandle, int axis, int threshold, int slipphasetime) |

|  |
| --- |
| **Python** |

|  |
| --- |
| **[dev].control.setCrosstalkThreshold**(axis, threshold, slipphasetime) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [] = **control\_setCrosstalkThreshold**(axis, threshold, slipphasetime) |

|  |
| --- |
| **C#** |

|  |
| --- |
| void value = [Device].**Control\_SetCrosstalkThreshold**(int axis, int threshold, int slipphasetime) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **setExternalSensor** This function sets the sensor source of closed loop to the IDS when enabled. Otherwise the normal AMC Sensor depending on the configuration (e.g. NUM or RES) is used  It is only available when the feature AMC/IDS closed loop has been activated |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| enabled | boolean |
| Out | warning | warning |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.control.setExternalSensor |
| params: [axis, enabled] |
| Result: [warning] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_control\_setExternalSensor**(int deviceHandle, int axis, bool enabled, int\* warning) |

|  |
| --- |
| **Python** |

|  |
| --- |
| warning = **[dev].control.setExternalSensor**(axis, enabled) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [warning] = **control\_setExternalSensor**(axis, enabled) |

|  |
| --- |
| **C#** |

|  |
| --- |
| int value = [Device].**Control\_SetExternalSensor**(int axis, bool enabled) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **setMotionControlThreshold** This function sets the threshold range within the closed-loop controlled movement stops to regulate. Default depends on connected sensor type |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| threshold | in pm |
| Out | errNo | Not present in Python and C# API! errNo |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.control.setMotionControlThreshold |
| params: [axis, threshold] |
| Result: [errNo] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_control\_setMotionControlThreshold**(int deviceHandle, int axis, int threshold) |

|  |
| --- |
| **Python** |

|  |
| --- |
| **[dev].control.setMotionControlThreshold**(axis, threshold) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [] = **control\_setMotionControlThreshold**(axis, threshold) |

|  |
| --- |
| **C#** |

|  |
| --- |
| void value = [Device].**Control\_SetMotionControlThreshold**(int axis, int threshold) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **setReset** This function resets the actual position of the selected axis given by the NUM sensor to zero and marks the reference position as invalid.  It does not work for RES positioners and positions read by IDS.  For IDS, use com.attocube.ids.displacement.resetAxis() or com.attocube.amc.amcids.resetIdsAxis() instead. |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| Out | errNo | Not present in Python and C# API! errNo |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.control.setReset |
| params: [axis] |
| Result: [errNo] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_control\_setReset**(int deviceHandle, int axis) |

|  |
| --- |
| **Python** |

|  |
| --- |
| **[dev].control.setReset**(axis) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [] = **control\_setReset**(axis) |

|  |
| --- |
| **C#** |

|  |
| --- |
| void value = [Device].**Control\_SetReset**(int axis) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **setSensorDirection** This function sets the IDS sensor source of closed loop to inverted when true.  It is only available when the feature AMC/IDS closed loop has been activated |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| inverted |  |
| Out | errNo | Not present in Python and C# API! errNo |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.control.setSensorDirection |
| params: [axis, inverted] |
| Result: [errNo] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_control\_setSensorDirection**(int deviceHandle, int axis, bool inverted) |

|  |
| --- |
| **Python** |

|  |
| --- |
| **[dev].control.setSensorDirection**(axis, inverted) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [] = **control\_setSensorDirection**(axis, inverted) |

|  |
| --- |
| **C#** |

|  |
| --- |
| void value = [Device].**Control\_SetSensorDirection**(int axis, bool inverted) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **setSensorEnabled** Set sensor power supply status, can be switched off to save heat generated by sensor [NUM or RES]  Positions retrieved will be invalid when activating this, so closed-loop control should be switched off beforehand |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| value | true if enabled, false otherwise |
| Out | errNo | Not present in Python and C# API! errNo |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.control.setSensorEnabled |
| params: [axis, value] |
| Result: [errNo] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_control\_setSensorEnabled**(int deviceHandle, int axis, bool value) |

|  |
| --- |
| **Python** |

|  |
| --- |
| **[dev].control.setSensorEnabled**(axis, value) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [] = **control\_setSensorEnabled**(axis, value) |

|  |
| --- |
| **C#** |

|  |
| --- |
| void value = [Device].**Control\_SetSensorEnabled**(int axis, bool value) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

# Description

|  |
| --- |
| **checkChassisNbr** Get Chassis and Slot Number, only works when AMC is within a Rack |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| Out | errNo | Not present in Python and C# API! errorCode |
| slotNbr | slotNbr |
| chassisNbr | chassisNbr |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.description.checkChassisNbr |
| params: [] |
| Result: [errNo, slotNbr, chassisNbr] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_description\_checkChassisNbr**(int deviceHandle, int\* slotNbr, int\* chassisNbr) |

|  |
| --- |
| **Python** |

|  |
| --- |
| slotNbr, chassisNbr = **[dev].description.checkChassisNbr**() |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [slotNbr, chassisNbr] = **description\_checkChassisNbr**() |

|  |
| --- |
| **C#** |

|  |
| --- |
| Tuple<int,int> value = [Device].**Description\_CheckChassisNbr**() |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **getDeviceType** This function gets the device type based on its EEPROM configuration. |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| Out | errNo | Not present in Python and C# API! errNo |
| devicetype | Device name (AMC100, AMC300) with attached feature ( AMC100\\NUM, AMC100\\NUM\\PRO) |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.description.getDeviceType |
| params: [] |
| Result: [errNo, devicetype] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_description\_getDeviceType**(int deviceHandle, char\* devicetype, int size0) |

|  |
| --- |
| **Python** |

|  |
| --- |
| devicetype = **[dev].description.getDeviceType**() |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [devicetype] = **description\_getDeviceType**() |

|  |
| --- |
| **C#** |

|  |
| --- |
| string value = [Device].**Description\_GetDeviceType**() |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **getFeaturesActivated** Get the activated features and return as a string |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| Out | errNo | Not present in Python and C# API! errNo |
| features | activated on device concatenated by comma e.g. Closed loop Operation, Pro, Wireless Controller, IO |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.description.getFeaturesActivated |
| params: [] |
| Result: [errNo, features] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_description\_getFeaturesActivated**(int deviceHandle, char\* features, int size0) |

|  |
| --- |
| **Python** |

|  |
| --- |
| features = **[dev].description.getFeaturesActivated**() |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [features] = **description\_getFeaturesActivated**() |

|  |
| --- |
| **C#** |

|  |
| --- |
| string value = [Device].**Description\_GetFeaturesActivated**() |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **getPositionersList** This function reads the actor names that can be connected to the device. |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| Out | errNo | Not present in Python and C# API! errNo |
| PositionersList | PositionersList |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.description.getPositionersList |
| params: [] |
| Result: [errNo, PositionersList] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_description\_getPositionersList**(int deviceHandle, char\* PositionersList, int size0) |

|  |
| --- |
| **Python** |

|  |
| --- |
| PositionersList = **[dev].description.getPositionersList**() |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [PositionersList] = **description\_getPositionersList**() |

|  |
| --- |
| **C#** |

|  |
| --- |
| string value = [Device].**Description\_GetPositionersList**() |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

# Diagnostic

|  |
| --- |
| **getDiagnosticPower** Returns the current power consumption |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| Out | errNo | Not present in Python and C# API! errNo |
| power | power |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.diagnostic.getDiagnosticPower |
| params: [axis] |
| Result: [errNo, power] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_diagnostic\_getDiagnosticPower**(int deviceHandle, int axis, int\* power) |

|  |
| --- |
| **Python** |

|  |
| --- |
| power = **[dev].diagnostic.getDiagnosticPower**(axis) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [power] = **diagnostic\_getDiagnosticPower**(axis) |

|  |
| --- |
| **C#** |

|  |
| --- |
| int value = [Device].**Diagnostic\_GetDiagnosticPower**(int axis) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **getDiagnosticResults** Returns the results of the last diagnostic run and an error, if there was no run, it is currently running or the run failed |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| Out | errNo | Not present in Python and C# API! errNo |
| capacity | in nF |
| resistance | in Ohm |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.diagnostic.getDiagnosticResults |
| params: [axis] |
| Result: [errNo, capacity, resistance] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_diagnostic\_getDiagnosticResults**(int deviceHandle, int axis, int\* capacity, int\* resistance) |

|  |
| --- |
| **Python** |

|  |
| --- |
| capacity, resistance = **[dev].diagnostic.getDiagnosticResults**(axis) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [capacity, resistance] = **diagnostic\_getDiagnosticResults**(axis) |

|  |
| --- |
| **C#** |

|  |
| --- |
| Tuple<int,int> value = [Device].**Diagnostic\_GetDiagnosticResults**(int axis) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **getDiagnosticTemperature** Returns the current axis temperature |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| Out | errNo | Not present in Python and C# API! errNo |
| temperature | temperature |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.diagnostic.getDiagnosticTemperature |
| params: [axis] |
| Result: [errNo, temperature] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_diagnostic\_getDiagnosticTemperature**(int deviceHandle, int axis, int\* temperature) |

|  |
| --- |
| **Python** |

|  |
| --- |
| temperature = **[dev].diagnostic.getDiagnosticTemperature**(axis) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [temperature] = **diagnostic\_getDiagnosticTemperature**(axis) |

|  |
| --- |
| **C#** |

|  |
| --- |
| int value = [Device].**Diagnostic\_GetDiagnosticTemperature**(int axis) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **startDiagnostic** Start the diagnosis procedure for the given axis |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| Out | errNo | Not present in Python and C# API! errNo |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.diagnostic.startDiagnostic |
| params: [axis] |
| Result: [errNo] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_diagnostic\_startDiagnostic**(int deviceHandle, int axis) |

|  |
| --- |
| **Python** |

|  |
| --- |
| **[dev].diagnostic.startDiagnostic**(axis) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [] = **diagnostic\_startDiagnostic**(axis) |

|  |
| --- |
| **C#** |

|  |
| --- |
| void value = [Device].**Diagnostic\_StartDiagnostic**(int axis) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

# Move

|  |
| --- |
| **getControlContinuousBkwd** This function gets the axis’ movement status in backward direction. |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| Out | errNo | Not present in Python and C# API! errNo |
| value\_boolean1 | boolean true if movement backward is active , false otherwise |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.move.getControlContinuousBkwd |
| params: [axis] |
| Result: [errNo, value\_boolean1] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_move\_getControlContinuousBkwd**(int deviceHandle, int axis, bool\* value\_boolean1) |

|  |
| --- |
| **Python** |

|  |
| --- |
| value\_boolean1 = **[dev].move.getControlContinuousBkwd**(axis) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [value\_boolean1] = **move\_getControlContinuousBkwd**(axis) |

|  |
| --- |
| **C#** |

|  |
| --- |
| bool value = [Device].**Move\_GetControlContinuousBkwd**(int axis) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **getControlContinuousFwd** This function gets the axis’ movement status in positive direction. |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| Out | errNo | Not present in Python and C# API! errNo |
| value\_boolean1 | boolean true if movement Fwd is active , false otherwise |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.move.getControlContinuousFwd |
| params: [axis] |
| Result: [errNo, value\_boolean1] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_move\_getControlContinuousFwd**(int deviceHandle, int axis, bool\* value\_boolean1) |

|  |
| --- |
| **Python** |

|  |
| --- |
| value\_boolean1 = **[dev].move.getControlContinuousFwd**(axis) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [value\_boolean1] = **move\_getControlContinuousFwd**(axis) |

|  |
| --- |
| **C#** |

|  |
| --- |
| bool value = [Device].**Move\_GetControlContinuousFwd**(int axis) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **getControlEotOutputDeactive** This function gets the output applied to the selected axis on the end of travel. /PRO feature. |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| Out | errNo | Not present in Python and C# API! errNo |
| value\_boolean1 | boolean If true, the output of the axis will be deactivated on positive EOT detection. |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.move.getControlEotOutputDeactive |
| params: [axis] |
| Result: [errNo, value\_boolean1] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_move\_getControlEotOutputDeactive**(int deviceHandle, int axis, bool\* value\_boolean1) |

|  |
| --- |
| **Python** |

|  |
| --- |
| value\_boolean1 = **[dev].move.getControlEotOutputDeactive**(axis) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [value\_boolean1] = **move\_getControlEotOutputDeactive**(axis) |

|  |
| --- |
| **C#** |

|  |
| --- |
| bool value = [Device].**Move\_GetControlEotOutputDeactive**(int axis) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **getControlTargetPosition** This function gets the target position for the movement on the selected axis. |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| Out | errNo | Not present in Python and C# API! errNo |
| position | defined in nm for goniometer an rotator type actors it is µ°. |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.move.getControlTargetPosition |
| params: [axis] |
| Result: [errNo, position] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_move\_getControlTargetPosition**(int deviceHandle, int axis, double\* position) |

|  |
| --- |
| **Python** |

|  |
| --- |
| position = **[dev].move.getControlTargetPosition**(axis) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [position] = **move\_getControlTargetPosition**(axis) |

|  |
| --- |
| **C#** |

|  |
| --- |
| double value = [Device].**Move\_GetControlTargetPosition**(int axis) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **getGroundAxis** Pull axis piezo drive to GND actively  only in AMC300 |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | montion controler axis [0|1|2] |
| Out | errNo | Not present in Python and C# API! 0 or error |
| grounded | true or false |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.move.getGroundAxis |
| params: [axis] |
| Result: [errNo, grounded] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_move\_getGroundAxis**(int deviceHandle, int axis, bool\* grounded) |

|  |
| --- |
| **Python** |

|  |
| --- |
| grounded = **[dev].move.getGroundAxis**(axis) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [grounded] = **move\_getGroundAxis**(axis) |

|  |
| --- |
| **C#** |

|  |
| --- |
| bool value = [Device].**Move\_GetGroundAxis**(int axis) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **getGroundAxisAutoOnTarget** Pull axis piezo drive to GND if positioner is in ground target range  ONLY DUMMY RIGHT NOW  only in AMC300 |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | montion controler axis [0|1|2] |
| Out | errNo | Not present in Python and C# API! 0 or error |
| value | true or false |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.move.getGroundAxisAutoOnTarget |
| params: [axis] |
| Result: [errNo, value] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_move\_getGroundAxisAutoOnTarget**(int deviceHandle, int axis, bool\* value) |

|  |
| --- |
| **Python** |

|  |
| --- |
| value = **[dev].move.getGroundAxisAutoOnTarget**(axis) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [value] = **move\_getGroundAxisAutoOnTarget**(axis) |

|  |
| --- |
| **C#** |

|  |
| --- |
| bool value = [Device].**Move\_GetGroundAxisAutoOnTarget**(int axis) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **getGroundTargetRange** Retrieves the range around the target position in which the auto grounding becomes active.  only in AMC300 |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| Out | errNo | Not present in Python and C# API! errNo |
| targetrange | in nm |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.move.getGroundTargetRange |
| params: [axis] |
| Result: [errNo, targetrange] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_move\_getGroundTargetRange**(int deviceHandle, int axis, int\* targetrange) |

|  |
| --- |
| **Python** |

|  |
| --- |
| targetrange = **[dev].move.getGroundTargetRange**(axis) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [targetrange] = **move\_getGroundTargetRange**(axis) |

|  |
| --- |
| **C#** |

|  |
| --- |
| int value = [Device].**Move\_GetGroundTargetRange**(int axis) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **getNSteps** This function gets the number of Steps in desired direction. |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| Out | errNo | Not present in Python and C# API! errNo |
| nbrstep | nbrstep |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.move.getNSteps |
| params: [axis] |
| Result: [errNo, nbrstep] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_move\_getNSteps**(int deviceHandle, int axis, int\* nbrstep) |

|  |
| --- |
| **Python** |

|  |
| --- |
| nbrstep = **[dev].move.getNSteps**(axis) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [nbrstep] = **move\_getNSteps**(axis) |

|  |
| --- |
| **C#** |

|  |
| --- |
| int value = [Device].**Move\_GetNSteps**(int axis) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **getPosition** This function gets the current position of the positioner on the selected axis.  The axis on the web application are indexed from 1 to 3 |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| Out | errNo | Not present in Python and C# API! errNo |
| position | defined in nm for goniometer an rotator type actors it is µ°. |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.move.getPosition |
| params: [axis] |
| Result: [errNo, position] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_move\_getPosition**(int deviceHandle, int axis, double\* position) |

|  |
| --- |
| **Python** |

|  |
| --- |
| position = **[dev].move.getPosition**(axis) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [position] = **move\_getPosition**(axis) |

|  |
| --- |
| **C#** |

|  |
| --- |
| double value = [Device].**Move\_GetPosition**(int axis) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **moveReference** This function starts an approach to the reference position. A running motion command is aborted; closed loop moving is switched on. Requires a valid reference position. |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| Out | errNo | Not present in Python and C# API! errNo |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.move.moveReference |
| params: [axis] |
| Result: [errNo] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_move\_moveReference**(int deviceHandle, int axis) |

|  |
| --- |
| **Python** |

|  |
| --- |
| **[dev].move.moveReference**(axis) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [] = **move\_moveReference**(axis) |

|  |
| --- |
| **C#** |

|  |
| --- |
| void value = [Device].**Move\_MoveReference**(int axis) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **performNSteps** Perform the OL command for N steps |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| backward | Selects the desired direction. False triggers a forward step, true a backward step |
| Out | errNo | Not present in Python and C# API! errNo |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.move.performNSteps |
| params: [axis, backward] |
| Result: [errNo] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_move\_performNSteps**(int deviceHandle, int axis, const char\* backward) |

|  |
| --- |
| **Python** |

|  |
| --- |
| **[dev].move.performNSteps**(axis, backward) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [] = **move\_performNSteps**(axis, backward) |

|  |
| --- |
| **C#** |

|  |
| --- |
| void value = [Device].**Move\_PerformNSteps**(int axis, string backward) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **setControlContinuousBkwd** This function sets a continuous movement on the selected axis in backward direction. |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| enable | If enabled a present movement in the opposite direction is stopped. The parameter "false" stops all movement of the axis regardless its direction |
| Out | errNo | Not present in Python and C# API! errNo |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.move.setControlContinuousBkwd |
| params: [axis, enable] |
| Result: [errNo] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_move\_setControlContinuousBkwd**(int deviceHandle, int axis, bool enable) |

|  |
| --- |
| **Python** |

|  |
| --- |
| **[dev].move.setControlContinuousBkwd**(axis, enable) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [] = **move\_setControlContinuousBkwd**(axis, enable) |

|  |
| --- |
| **C#** |

|  |
| --- |
| void value = [Device].**Move\_SetControlContinuousBkwd**(int axis, bool enable) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **setControlContinuousFwd** This function sets a continuous movement on the selected axis in positive direction. |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| enable | If enabled a present movement in the opposite direction is stopped. The parameter "false" stops all movement of the axis regardless its direction. |
| Out | errNo | Not present in Python and C# API! errNo |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.move.setControlContinuousFwd |
| params: [axis, enable] |
| Result: [errNo] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_move\_setControlContinuousFwd**(int deviceHandle, int axis, bool enable) |

|  |
| --- |
| **Python** |

|  |
| --- |
| **[dev].move.setControlContinuousFwd**(axis, enable) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [] = **move\_setControlContinuousFwd**(axis, enable) |

|  |
| --- |
| **C#** |

|  |
| --- |
| void value = [Device].**Move\_SetControlContinuousFwd**(int axis, bool enable) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **setControlEotOutputDeactive** This function sets the output applied to the selected axis on the end of travel. |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| enable | boolean If enabled, the output of the axis will be deactivated on positive EOT detection. |
| Out | errNo | Not present in Python and C# API! errNo |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.move.setControlEotOutputDeactive |
| params: [axis, enable] |
| Result: [errNo] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_move\_setControlEotOutputDeactive**(int deviceHandle, int axis, bool enable) |

|  |
| --- |
| **Python** |

|  |
| --- |
| **[dev].move.setControlEotOutputDeactive**(axis, enable) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [] = **move\_setControlEotOutputDeactive**(axis, enable) |

|  |
| --- |
| **C#** |

|  |
| --- |
| void value = [Device].**Move\_SetControlEotOutputDeactive**(int axis, bool enable) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **setControlTargetPosition** This function sets the target position for the movement on the selected axis.  careful: the maximum positon in nm is 2\*\*47/1000 |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| target | absolute position : For linear type actors the position is defined in nm for goniometer an rotator type actors it is µ°. |
| Out | errNo | Not present in Python and C# API! errNo |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.move.setControlTargetPosition |
| params: [axis, target] |
| Result: [errNo] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_move\_setControlTargetPosition**(int deviceHandle, int axis, double target) |

|  |
| --- |
| **Python** |

|  |
| --- |
| **[dev].move.setControlTargetPosition**(axis, target) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [] = **move\_setControlTargetPosition**(axis, target) |

|  |
| --- |
| **C#** |

|  |
| --- |
| void value = [Device].**Move\_SetControlTargetPosition**(int axis, double target) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **setGroundAxis** Pull axis piezo drive to GND actively  only in AMC300  this is used in MIC-Mode |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | motion controler axis [0|1|2] |
| enabled | true or false |
| Out | errNo | Not present in Python and C# API! 0 or error |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.move.setGroundAxis |
| params: [axis, enabled] |
| Result: [errNo] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_move\_setGroundAxis**(int deviceHandle, int axis, bool enabled) |

|  |
| --- |
| **Python** |

|  |
| --- |
| **[dev].move.setGroundAxis**(axis, enabled) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [] = **move\_setGroundAxis**(axis, enabled) |

|  |
| --- |
| **C#** |

|  |
| --- |
| void value = [Device].**Move\_SetGroundAxis**(int axis, bool enabled) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **setGroundAxisAutoOnTarget** Pull axis piezo drive to GND if positioner is in ground target range  ONLY DUMMY RIGHT NOW  only in AMC300  this is used in MIC-Mode |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | montion controler axis [0|1|2] |
| enabled | true or false |
| Out | errNo | Not present in Python and C# API! 0 or error |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.move.setGroundAxisAutoOnTarget |
| params: [axis, enabled] |
| Result: [errNo] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_move\_setGroundAxisAutoOnTarget**(int deviceHandle, int axis, bool enabled) |

|  |
| --- |
| **Python** |

|  |
| --- |
| **[dev].move.setGroundAxisAutoOnTarget**(axis, enabled) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [] = **move\_setGroundAxisAutoOnTarget**(axis, enabled) |

|  |
| --- |
| **C#** |

|  |
| --- |
| void value = [Device].**Move\_SetGroundAxisAutoOnTarget**(int axis, bool enabled) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **setGroundTargetRange** Set the range around the target position in which the auto grounding becomes active.  only in AMC300 |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| range | in nm |
| Out | errNo | Not present in Python and C# API! errNo |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.move.setGroundTargetRange |
| params: [axis, range] |
| Result: [errNo] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_move\_setGroundTargetRange**(int deviceHandle, int axis, int range) |

|  |
| --- |
| **Python** |

|  |
| --- |
| **[dev].move.setGroundTargetRange**(axis, range) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [] = **move\_setGroundTargetRange**(axis, range) |

|  |
| --- |
| **C#** |

|  |
| --- |
| void value = [Device].**Move\_SetGroundTargetRange**(int axis, int range) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **setNSteps** This function triggers n steps on the selected axis in desired direction. /PRO feature. |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| backward | Selects the desired direction. False triggers a forward step, true a backward step |
| step | number of step |
| Out | errNo | Not present in Python and C# API! errNo |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.move.setNSteps |
| params: [axis, backward, step] |
| Result: [errNo] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_move\_setNSteps**(int deviceHandle, int axis, bool backward, int step) |

|  |
| --- |
| **Python** |

|  |
| --- |
| **[dev].move.setNSteps**(axis, backward, step) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [] = **move\_setNSteps**(axis, backward, step) |

|  |
| --- |
| **C#** |

|  |
| --- |
| void value = [Device].**Move\_SetNSteps**(int axis, bool backward, int step) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **setSingleStep** This function triggers one step on the selected axis in desired direction. |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| backward | Selects the desired direction. False triggers a forward step, true a backward step |
| step | number of step |
| Out | errNo | Not present in Python and C# API! errNo |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.move.setSingleStep |
| params: [axis, backward, step] |
| Result: [errNo] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_move\_setSingleStep**(int deviceHandle, int axis, bool backward, int step) |

|  |
| --- |
| **Python** |

|  |
| --- |
| **[dev].move.setSingleStep**(axis, backward, step) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [] = **move\_setSingleStep**(axis, backward, step) |

|  |
| --- |
| **C#** |

|  |
| --- |
| void value = [Device].**Move\_SetSingleStep**(int axis, bool backward, int step) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **writeNSteps** Sets the number of steps to perform on stepwise movement. /PRO feature. |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| step | number of step |
| Out | errNo | Not present in Python and C# API! errNo |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.move.writeNSteps |
| params: [axis, step] |
| Result: [errNo] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_move\_writeNSteps**(int deviceHandle, int axis, int step) |

|  |
| --- |
| **Python** |

|  |
| --- |
| **[dev].move.writeNSteps**(axis, step) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [] = **move\_writeNSteps**(axis, step) |

|  |
| --- |
| **C#** |

|  |
| --- |
| void value = [Device].**Move\_WriteNSteps**(int axis, int step) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

# Res

|  |
| --- |
| **getChainGain** Get chain gain |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | number of axis |
| Out | errNo | Not present in Python and C# API! errNo |
| gaincoeff | gaincoeff |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.res.getChainGain |
| params: [axis] |
| Result: [errNo, gaincoeff] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_res\_getChainGain**(int deviceHandle, int axis, int\* gaincoeff) |

|  |
| --- |
| **Python** |

|  |
| --- |
| gaincoeff = **[dev].res.getChainGain**(axis) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [gaincoeff] = **res\_getChainGain**(axis) |

|  |
| --- |
| **C#** |

|  |
| --- |
| int value = [Device].**Res\_GetChainGain**(int axis) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **getLinearization** Gets wether linearization is enabled or not |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| Out | errNo | Not present in Python and C# API! errNo |
| enabled | true when enabled |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.res.getLinearization |
| params: [axis] |
| Result: [errNo, enabled] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_res\_getLinearization**(int deviceHandle, int axis, bool\* enabled) |

|  |
| --- |
| **Python** |

|  |
| --- |
| enabled = **[dev].res.getLinearization**(axis) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [enabled] = **res\_getLinearization**(axis) |

|  |
| --- |
| **C#** |

|  |
| --- |
| bool value = [Device].**Res\_GetLinearization**(int axis) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **getLutSn** get the identifier of the loaded lookuptable (will be empty if disabled) |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| Out | errNo | Not present in Python and C# API! errNo |
| value\_string1 | string : identifier |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.res.getLutSn |
| params: [axis] |
| Result: [errNo, value\_string1] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_res\_getLutSn**(int deviceHandle, int axis, char\* value\_string1, int size0) |

|  |
| --- |
| **Python** |

|  |
| --- |
| value\_string1 = **[dev].res.getLutSn**(axis) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [value\_string1] = **res\_getLutSn**(axis) |

|  |
| --- |
| **C#** |

|  |
| --- |
| string value = [Device].**Res\_GetLutSn**(int axis) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **getMode** Get mode of RES application |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| Out | errNo | Not present in Python and C# API! errNo |
| mode | mode |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.res.getMode |
| params: [] |
| Result: [errNo, mode] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_res\_getMode**(int deviceHandle, int\* mode) |

|  |
| --- |
| **Python** |

|  |
| --- |
| mode = **[dev].res.getMode**() |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [mode] = **res\_getMode**() |

|  |
| --- |
| **C#** |

|  |
| --- |
| int value = [Device].**Res\_GetMode**() |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **setChainGain** Set signal chain gain to control overall power |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | number of axis |
| gainconfig | 0: 0dB ( power 600mVpkpk^2/R), 1 : -10 dB , 2 : -15 dB , 3 : -20 dB |
| Out | errNo | Not present in Python and C# API! errNo |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.res.setChainGain |
| params: [axis, gainconfig] |
| Result: [errNo] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_res\_setChainGain**(int deviceHandle, int axis, int gainconfig) |

|  |
| --- |
| **Python** |

|  |
| --- |
| **[dev].res.setChainGain**(axis, gainconfig) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [] = **res\_setChainGain**(axis, gainconfig) |

|  |
| --- |
| **C#** |

|  |
| --- |
| void value = [Device].**Res\_SetChainGain**(int axis, int gainconfig) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **setConfigurationFile** Load configuration file which either contains JSON parameters or the LUT file itself (as legacy support) |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| content | 1k \* 24 bit string or JSON File |
| Out | errNo | Not present in Python and C# API! errNo |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.res.setConfigurationFile |
| params: [axis, content] |
| Result: [errNo] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_res\_setConfigurationFile**(int deviceHandle, int axis, const char\* content) |

|  |
| --- |
| **Python** |

|  |
| --- |
| **[dev].res.setConfigurationFile**(axis, content) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [] = **res\_setConfigurationFile**(axis, content) |

|  |
| --- |
| **C#** |

|  |
| --- |
| void value = [Device].**Res\_SetConfigurationFile**(int axis, string content) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **setLinearization** Control if linearization is enabled or not |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| enable | boolean ( true: enable linearization) |
| Out | errNo | Not present in Python and C# API! errNo |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.res.setLinearization |
| params: [axis, enable] |
| Result: [errNo] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_res\_setLinearization**(int deviceHandle, int axis, bool enable) |

|  |
| --- |
| **Python** |

|  |
| --- |
| **[dev].res.setLinearization**(axis, enable) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [] = **res\_setLinearization**(axis, enable) |

|  |
| --- |
| **C#** |

|  |
| --- |
| void value = [Device].**Res\_SetLinearization**(int axis, bool enable) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **setMode** Get mode of RES application |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | mode | 1: Individual mode with triple ortho frequency rejection method 2: Mic Mode with dual frequency rejection method |
| Out | errNo | Not present in Python and C# API! errNo |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.res.setMode |
| params: [mode] |
| Result: [errNo] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_res\_setMode**(int deviceHandle, int mode) |

|  |
| --- |
| **Python** |

|  |
| --- |
| **[dev].res.setMode**(mode) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [] = **res\_setMode**(mode) |

|  |
| --- |
| **C#** |

|  |
| --- |
| void value = [Device].**Res\_SetMode**(int mode) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

# Rotcomp

|  |
| --- |
| **getControlTargetRanges** Checks if all three axis are in target range. |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| Out | errNo | Not present in Python and C# API! int32 Error code, if there was an error, otherwise 0 for ok |
| in\_target\_range | boolean true all three axes are in target range, false at least one axis is not in target range |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.rotcomp.getControlTargetRanges |
| params: [] |
| Result: [errNo, in\_target\_range] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_rotcomp\_getControlTargetRanges**(int deviceHandle, bool\* in\_target\_range) |

|  |
| --- |
| **Python** |

|  |
| --- |
| in\_target\_range = **[dev].rotcomp.getControlTargetRanges**() |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [in\_target\_range] = **rotcomp\_getControlTargetRanges**() |

|  |
| --- |
| **C#** |

|  |
| --- |
| bool value = [Device].**Rotcomp\_GetControlTargetRanges**() |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **getEnabled** Gets the enabled status of the rotation compensation |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| Out | errNo | Not present in Python and C# API! int32 Error code, if there was an error, otherwise 0 for ok |
| enabled | boolean true Rotation compensation is enabled, false Rotation compensation is disabled |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.rotcomp.getEnabled |
| params: [] |
| Result: [errNo, enabled] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_rotcomp\_getEnabled**(int deviceHandle, bool\* enabled) |

|  |
| --- |
| **Python** |

|  |
| --- |
| enabled = **[dev].rotcomp.getEnabled**() |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [enabled] = **rotcomp\_getEnabled**() |

|  |
| --- |
| **C#** |

|  |
| --- |
| bool value = [Device].**Rotcomp\_GetEnabled**() |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **getLUT** Gets the LUT file as JSON string |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| Out | errNo | Not present in Python and C# API! int32 Error code, if there was an error, otherwise 0 for ok |
| lut | string JSON string of the LUT file for the rotation compensation |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.rotcomp.getLUT |
| params: [] |
| Result: [errNo, lut] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_rotcomp\_getLUT**(int deviceHandle, char\* lut, int size0) |

|  |
| --- |
| **Python** |

|  |
| --- |
| lut = **[dev].rotcomp.getLUT**() |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [lut] = **rotcomp\_getLUT**() |

|  |
| --- |
| **C#** |

|  |
| --- |
| string value = [Device].**Rotcomp\_GetLUT**() |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **setEnabled** Enables and disables the rotation compensation |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | enabled | true Rotation compensation is enabled, false Rotation compensation is disabled |
| Out | errNo | Not present in Python and C# API! int32 Error code, if there was an error, otherwise 0 for ok |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.rotcomp.setEnabled |
| params: [enabled] |
| Result: [errNo] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_rotcomp\_setEnabled**(int deviceHandle, bool enabled) |

|  |
| --- |
| **Python** |

|  |
| --- |
| **[dev].rotcomp.setEnabled**(enabled) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [] = **rotcomp\_setEnabled**(enabled) |

|  |
| --- |
| **C#** |

|  |
| --- |
| void value = [Device].**Rotcomp\_SetEnabled**(bool enabled) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **setLUT** Sets the LUT file from a JSON string |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | lut\_string | JSON string of the LUT file for the rotation compensation |
| Out | errNo | Not present in Python and C# API! int32 Error code, if there was an error, otherwise 0 for ok |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.rotcomp.setLUT |
| params: [lut\_string] |
| Result: [errNo] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_rotcomp\_setLUT**(int deviceHandle, const char\* lut\_string) |

|  |
| --- |
| **Python** |

|  |
| --- |
| **[dev].rotcomp.setLUT**(lut\_string) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [] = **rotcomp\_setLUT**(lut\_string) |

|  |
| --- |
| **C#** |

|  |
| --- |
| void value = [Device].**Rotcomp\_SetLUT**(string lut\_string) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **updateOffsets** Updates the start offsets of the axes |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | offset\_axis0 | Offset of axis 1 in [nm] |
| offset\_axis1 | Offset of axis 2 in [nm] |
| offset\_axis2 | Offset of axis 3 in [nm] |
| Out | errNo | Not present in Python and C# API! int32 Error code, if there was an error, otherwise 0 for ok |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.rotcomp.updateOffsets |
| params: [offset\_axis0, offset\_axis1, offset\_axis2] |
| Result: [errNo] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_rotcomp\_updateOffsets**(int deviceHandle, int offset\_axis0, int offset\_axis1, int offset\_axis2) |

|  |
| --- |
| **Python** |

|  |
| --- |
| **[dev].rotcomp.updateOffsets**(offset\_axis0, offset\_axis1, offset\_axis2) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [] = **rotcomp\_updateOffsets**(offset\_axis0, offset\_axis1, offset\_axis2) |

|  |
| --- |
| **C#** |

|  |
| --- |
| void value = [Device].**Rotcomp\_UpdateOffsets**(int offset\_axis0, int offset\_axis1, int offset\_axis2) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

# Rtin

|  |
| --- |
| **apply** Apply all realtime input function |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| Out | errNo | Not present in Python and C# API! errNo |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.rtin.apply |
| params: [] |
| Result: [errNo] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_rtin\_apply**(int deviceHandle) |

|  |
| --- |
| **Python** |

|  |
| --- |
| **[dev].rtin.apply**() |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [] = **rtin\_apply**() |

|  |
| --- |
| **C#** |

|  |
| --- |
| void value = [Device].**Rtin\_Apply**() |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **discard** Discard all values beting set and not yet applieds |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| Out | errNo | Not present in Python and C# API! errNo |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.rtin.discard |
| params: [] |
| Result: [errNo] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_rtin\_discard**(int deviceHandle) |

|  |
| --- |
| **Python** |

|  |
| --- |
| **[dev].rtin.discard**() |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [] = **rtin\_discard**() |

|  |
| --- |
| **C#** |

|  |
| --- |
| void value = [Device].**Rtin\_Discard**() |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **getControlAQuadBIn** check if AQuadB input is enabled. NOT USED |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| Out | errNo | Not present in Python and C# API! errNo |
| value\_boolean1 | boolean |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.rtin.getControlAQuadBIn |
| params: [axis] |
| Result: [errNo, value\_boolean1] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_rtin\_getControlAQuadBIn**(int deviceHandle, int axis, int\* value\_boolean1) |

|  |
| --- |
| **Python** |

|  |
| --- |
| value\_boolean1 = **[dev].rtin.getControlAQuadBIn**(axis) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [value\_boolean1] = **rtin\_getControlAQuadBIn**(axis) |

|  |
| --- |
| **C#** |

|  |
| --- |
| int value = [Device].**Rtin\_GetControlAQuadBIn**(int axis) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **getControlAQuadBInResolution** This function gets the AQuadB input resolution for setpoint parameter. |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| tempvalue | boolean if true get the tempory value ( from the set function) |
| Out | errNo | Not present in Python and C# API! errNo |
| resolution | ion nm |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.rtin.getControlAQuadBInResolution |
| params: [axis, tempvalue] |
| Result: [errNo, resolution] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_rtin\_getControlAQuadBInResolution**(int deviceHandle, int axis, bool tempvalue, int\* resolution) |

|  |
| --- |
| **Python** |

|  |
| --- |
| resolution = **[dev].rtin.getControlAQuadBInResolution**(axis, tempvalue) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [resolution] = **rtin\_getControlAQuadBInResolution**(axis, tempvalue) |

|  |
| --- |
| **C#** |

|  |
| --- |
| int value = [Device].**Rtin\_GetControlAQuadBInResolution**(int axis, bool tempvalue) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **getControlMoveGPIO** This function gets the status for real time input on the selected axis in closed-loop mode. |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| Out | errNo | Not present in Python and C# API! errNo |
| enable | boolean true: approach enabled , false: approach disabled |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.rtin.getControlMoveGPIO |
| params: [axis] |
| Result: [errNo, enable] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_rtin\_getControlMoveGPIO**(int deviceHandle, int axis, bool\* enable) |

|  |
| --- |
| **Python** |

|  |
| --- |
| enable = **[dev].rtin.getControlMoveGPIO**(axis) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [enable] = **rtin\_getControlMoveGPIO**(axis) |

|  |
| --- |
| **C#** |

|  |
| --- |
| bool value = [Device].**Rtin\_GetControlMoveGPIO**(int axis) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **getGpioMode** get the GPIO mode for Mic Mode feature |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| Out | errNo | Not present in Python and C# API! errNo |
| gpio\_mode | gpio\_mode: 0: Standard GPIO 1: NSL-/Mic-Mode |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.rtin.getGpioMode |
| params: [] |
| Result: [errNo, gpio\_mode] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_rtin\_getGpioMode**(int deviceHandle, int\* gpio\_mode) |

|  |
| --- |
| **Python** |

|  |
| --- |
| gpio\_mode = **[dev].rtin.getGpioMode**() |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [gpio\_mode] = **rtin\_getGpioMode**() |

|  |
| --- |
| **C#** |

|  |
| --- |
| int value = [Device].**Rtin\_GetGpioMode**() |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **getNslMux** get the axis the NSL multiplexer is set to |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | mux\_mode | [0|1|2|3]  0: Off  1: Axis 1  2: Axis 2  3: Axis 3 |
| Out | errNo | Not present in Python and C# API! errNo |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.rtin.getNslMux |
| params: [mux\_mode] |
| Result: [errNo] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_rtin\_getNslMux**(int deviceHandle, int mux\_mode) |

|  |
| --- |
| **Python** |

|  |
| --- |
| **[dev].rtin.getNslMux**(mux\_mode) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [] = **rtin\_getNslMux**(mux\_mode) |

|  |
| --- |
| **C#** |

|  |
| --- |
| void value = [Device].**Rtin\_GetNslMux**(int mux\_mode) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **getRealTimeInChangePerPulse** This function gets the change per pulse for the selected axis under real time input in the closed-loop mode. |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| tempvalue | boolean if true get the tempory value ( from the set function) |
| Out | errNo | Not present in Python and C# API! errNo |
| resolution | to be added in current pos in nm |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.rtin.getRealTimeInChangePerPulse |
| params: [axis, tempvalue] |
| Result: [errNo, resolution] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_rtin\_getRealTimeInChangePerPulse**(int deviceHandle, int axis, bool tempvalue, int\* resolution) |

|  |
| --- |
| **Python** |

|  |
| --- |
| resolution = **[dev].rtin.getRealTimeInChangePerPulse**(axis, tempvalue) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [resolution] = **rtin\_getRealTimeInChangePerPulse**(axis, tempvalue) |

|  |
| --- |
| **C#** |

|  |
| --- |
| int value = [Device].**Rtin\_GetRealTimeInChangePerPulse**(int axis, bool tempvalue) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **getRealTimeInFeedbackLoopMode** Get if the realtime function must operate in close loop operation or open loop operation |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| tempvalue | boolean if true get the tempory value ( from the set function) |
| Out | errNo | Not present in Python and C# API! errNo |
| mode | 0: open loop, 1 : close-loop |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.rtin.getRealTimeInFeedbackLoopMode |
| params: [axis, tempvalue] |
| Result: [errNo, mode] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_rtin\_getRealTimeInFeedbackLoopMode**(int deviceHandle, int axis, bool tempvalue, int\* mode) |

|  |
| --- |
| **Python** |

|  |
| --- |
| mode = **[dev].rtin.getRealTimeInFeedbackLoopMode**(axis, tempvalue) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [mode] = **rtin\_getRealTimeInFeedbackLoopMode**(axis, tempvalue) |

|  |
| --- |
| **C#** |

|  |
| --- |
| int value = [Device].**Rtin\_GetRealTimeInFeedbackLoopMode**(int axis, bool tempvalue) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **getRealTimeInHsslClk** Get the HSSL clock |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| tempvalue | boolean if true get the tempory value ( from the set function) |
| Out | errNo | Not present in Python and C# API! errNo |
| clk | clock is given in nanoseconds |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.rtin.getRealTimeInHsslClk |
| params: [axis, tempvalue] |
| Result: [errNo, clk] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_rtin\_getRealTimeInHsslClk**(int deviceHandle, int axis, bool tempvalue, int\* clk) |

|  |
| --- |
| **Python** |

|  |
| --- |
| clk = **[dev].rtin.getRealTimeInHsslClk**(axis, tempvalue) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [clk] = **rtin\_getRealTimeInHsslClk**(axis, tempvalue) |

|  |
| --- |
| **C#** |

|  |
| --- |
| int value = [Device].**Rtin\_GetRealTimeInHsslClk**(int axis, bool tempvalue) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **getRealTimeInHsslGap** Get the HSSL Gap |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| tempvalue | boolean if true get the tempory value ( from the set function) |
| Out | errNo | Not present in Python and C# API! errNo |
| gap | indicates the gap between the end of the HSSL word and the beginning of the next HSSL word. The unit of G is HSSL clock cycles. |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.rtin.getRealTimeInHsslGap |
| params: [axis, tempvalue] |
| Result: [errNo, gap] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_rtin\_getRealTimeInHsslGap**(int deviceHandle, int axis, bool tempvalue, int\* gap) |

|  |
| --- |
| **Python** |

|  |
| --- |
| gap = **[dev].rtin.getRealTimeInHsslGap**(axis, tempvalue) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [gap] = **rtin\_getRealTimeInHsslGap**(axis, tempvalue) |

|  |
| --- |
| **C#** |

|  |
| --- |
| int value = [Device].**Rtin\_GetRealTimeInHsslGap**(int axis, bool tempvalue) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **getRealTimeInHsslHigh** Get the higher part of the HSSL resolution |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| tempvalue | boolean if true get the tempory value ( from the set function) |
| Out | errNo | Not present in Python and C# API! errNo |
| highresolution | highresolution |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.rtin.getRealTimeInHsslHigh |
| params: [axis, tempvalue] |
| Result: [errNo, highresolution] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_rtin\_getRealTimeInHsslHigh**(int deviceHandle, int axis, bool tempvalue, int\* highresolution) |

|  |
| --- |
| **Python** |

|  |
| --- |
| highresolution = **[dev].rtin.getRealTimeInHsslHigh**(axis, tempvalue) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [highresolution] = **rtin\_getRealTimeInHsslHigh**(axis, tempvalue) |

|  |
| --- |
| **C#** |

|  |
| --- |
| int value = [Device].**Rtin\_GetRealTimeInHsslHigh**(int axis, bool tempvalue) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **getRealTimeInHsslLow** Get the lower part of the HSSL resolution |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| tempvalue | boolean if true get the tempory value ( from the set function) |
| Out | errNo | Not present in Python and C# API! errNo |
| lowresolution | lowresolution |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.rtin.getRealTimeInHsslLow |
| params: [axis, tempvalue] |
| Result: [errNo, lowresolution] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_rtin\_getRealTimeInHsslLow**(int deviceHandle, int axis, bool tempvalue, int\* lowresolution) |

|  |
| --- |
| **Python** |

|  |
| --- |
| lowresolution = **[dev].rtin.getRealTimeInHsslLow**(axis, tempvalue) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [lowresolution] = **rtin\_getRealTimeInHsslLow**(axis, tempvalue) |

|  |
| --- |
| **C#** |

|  |
| --- |
| int value = [Device].**Rtin\_GetRealTimeInHsslLow**(int axis, bool tempvalue) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **getRealTimeInMode** This function sets or gets the real time input mode for the selected axis. |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| tempvalue | boolean if true get the tempory value ( from the set function) |
| Out | errNo | Not present in Python and C# API! errNo |
| mode | see `RT\_IN\_MODES` |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.rtin.getRealTimeInMode |
| params: [axis, tempvalue] |
| Result: [errNo, mode] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_rtin\_getRealTimeInMode**(int deviceHandle, int axis, bool tempvalue, int\* mode) |

|  |
| --- |
| **Python** |

|  |
| --- |
| mode = **[dev].rtin.getRealTimeInMode**(axis, tempvalue) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [mode] = **rtin\_getRealTimeInMode**(axis, tempvalue) |

|  |
| --- |
| **C#** |

|  |
| --- |
| int value = [Device].**Rtin\_GetRealTimeInMode**(int axis, bool tempvalue) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **getRealTimeInStepsPerPulse** Get the change in step per pulse of the realtime input when trigger and stepper mode is used |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| tempvalue | boolean if true get the tempory value ( from the set function) |
| Out | errNo | Not present in Python and C# API! errNo |
| steps | number of steps to applied |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.rtin.getRealTimeInStepsPerPulse |
| params: [axis, tempvalue] |
| Result: [errNo, steps] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_rtin\_getRealTimeInStepsPerPulse**(int deviceHandle, int axis, bool tempvalue, int\* steps) |

|  |
| --- |
| **Python** |

|  |
| --- |
| steps = **[dev].rtin.getRealTimeInStepsPerPulse**(axis, tempvalue) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [steps] = **rtin\_getRealTimeInStepsPerPulse**(axis, tempvalue) |

|  |
| --- |
| **C#** |

|  |
| --- |
| int value = [Device].**Rtin\_GetRealTimeInStepsPerPulse**(int axis, bool tempvalue) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **setControlAQuadBIn** AQuadB input enable. NOT USED |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| enable |  |
| Out | errNo | Not present in Python and C# API! errNo |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.rtin.setControlAQuadBIn |
| params: [axis, enable] |
| Result: [errNo] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_rtin\_setControlAQuadBIn**(int deviceHandle, int axis, bool enable) |

|  |
| --- |
| **Python** |

|  |
| --- |
| **[dev].rtin.setControlAQuadBIn**(axis, enable) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [] = **rtin\_setControlAQuadBIn**(axis, enable) |

|  |
| --- |
| **C#** |

|  |
| --- |
| void value = [Device].**Rtin\_SetControlAQuadBIn**(int axis, bool enable) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **setControlAQuadBInResolution** This function sets the AQuadB input resolution for setpoint parameter. |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| resolution | ion nm |
| Out | errNo | Not present in Python and C# API! errNo |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.rtin.setControlAQuadBInResolution |
| params: [axis, resolution] |
| Result: [errNo] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_rtin\_setControlAQuadBInResolution**(int deviceHandle, int axis, int resolution) |

|  |
| --- |
| **Python** |

|  |
| --- |
| **[dev].rtin.setControlAQuadBInResolution**(axis, resolution) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [] = **rtin\_setControlAQuadBInResolution**(axis, resolution) |

|  |
| --- |
| **C#** |

|  |
| --- |
| void value = [Device].**Rtin\_SetControlAQuadBInResolution**(int axis, int resolution) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **setControlMoveGPIO** This function sets the status for real time input on the selected axis in closed-loop mode. |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| enable | boolean true: eanble the approach , false: disable the approach |
| Out | errNo | Not present in Python and C# API! errNo |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.rtin.setControlMoveGPIO |
| params: [axis, enable] |
| Result: [errNo] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_rtin\_setControlMoveGPIO**(int deviceHandle, int axis, bool enable) |

|  |
| --- |
| **Python** |

|  |
| --- |
| **[dev].rtin.setControlMoveGPIO**(axis, enable) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [] = **rtin\_setControlMoveGPIO**(axis, enable) |

|  |
| --- |
| **C#** |

|  |
| --- |
| void value = [Device].**Rtin\_SetControlMoveGPIO**(int axis, bool enable) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **setGpioMode** set the GPIO mode for Mic Mode feature |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | gpio\_mode | [0|1]  0: Standard GPIO  1: NSL-/Mic-Mode |
| Out | errNo | Not present in Python and C# API! errNo |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.rtin.setGpioMode |
| params: [gpio\_mode] |
| Result: [errNo] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_rtin\_setGpioMode**(int deviceHandle, int gpio\_mode) |

|  |
| --- |
| **Python** |

|  |
| --- |
| **[dev].rtin.setGpioMode**(gpio\_mode) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [] = **rtin\_setGpioMode**(gpio\_mode) |

|  |
| --- |
| **C#** |

|  |
| --- |
| void value = [Device].**Rtin\_SetGpioMode**(int gpio\_mode) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **setNslMux** set the axis the NSL multiplexer is set to |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | mux\_mode | [0|1|2|3]  0: Off  1: Axis 1  2: Axis 2  3: Axis 3 |
| Out | errNo | Not present in Python and C# API! errNo |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.rtin.setNslMux |
| params: [mux\_mode] |
| Result: [errNo] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_rtin\_setNslMux**(int deviceHandle, int mux\_mode) |

|  |
| --- |
| **Python** |

|  |
| --- |
| **[dev].rtin.setNslMux**(mux\_mode) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [] = **rtin\_setNslMux**(mux\_mode) |

|  |
| --- |
| **C#** |

|  |
| --- |
| void value = [Device].**Rtin\_SetNslMux**(int mux\_mode) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **setRealTimeInChangePerPulse** This function sets the change per pulse for the selected axis under real time input in the closed-loop mode.  only used in closed loop operation |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| resolution | to be added in current pos in nm |
| Out | errNo | Not present in Python and C# API! errNo |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.rtin.setRealTimeInChangePerPulse |
| params: [axis, resolution] |
| Result: [errNo] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_rtin\_setRealTimeInChangePerPulse**(int deviceHandle, int axis, int resolution) |

|  |
| --- |
| **Python** |

|  |
| --- |
| **[dev].rtin.setRealTimeInChangePerPulse**(axis, resolution) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [] = **rtin\_setRealTimeInChangePerPulse**(axis, resolution) |

|  |
| --- |
| **C#** |

|  |
| --- |
| void value = [Device].**Rtin\_SetRealTimeInChangePerPulse**(int axis, int resolution) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **setRealTimeInFeedbackLoopMode** Set if the realtime function must operate in close loop operation or open loop operation |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| mode | 0: open loop, 1 : close-loop |
| Out | errNo | Not present in Python and C# API! errNo |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.rtin.setRealTimeInFeedbackLoopMode |
| params: [axis, mode] |
| Result: [errNo] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_rtin\_setRealTimeInFeedbackLoopMode**(int deviceHandle, int axis, int mode) |

|  |
| --- |
| **Python** |

|  |
| --- |
| **[dev].rtin.setRealTimeInFeedbackLoopMode**(axis, mode) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [] = **rtin\_setRealTimeInFeedbackLoopMode**(axis, mode) |

|  |
| --- |
| **C#** |

|  |
| --- |
| void value = [Device].**Rtin\_SetRealTimeInFeedbackLoopMode**(int axis, int mode) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **setRealTimeInHsslClk** Set the HSSL clock |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| hssl\_clk | clock is given in nanoseconds: N = data/40 - 1 |
| Out | errNo | Not present in Python and C# API! errNo |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.rtin.setRealTimeInHsslClk |
| params: [axis, hssl\_clk] |
| Result: [errNo] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_rtin\_setRealTimeInHsslClk**(int deviceHandle, int axis, int hssl\_clk) |

|  |
| --- |
| **Python** |

|  |
| --- |
| **[dev].rtin.setRealTimeInHsslClk**(axis, hssl\_clk) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [] = **rtin\_setRealTimeInHsslClk**(axis, hssl\_clk) |

|  |
| --- |
| **C#** |

|  |
| --- |
| void value = [Device].**Rtin\_SetRealTimeInHsslClk**(int axis, int hssl\_clk) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **setRealTimeInHsslGap** Set the HSSL Gaps |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| hssl\_gap | indicates the gap between the end of the HSSL word and the beginning of the next HSSL word in units of HSSL clock cycles. |
| Out | errNo | Not present in Python and C# API! errNo |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.rtin.setRealTimeInHsslGap |
| params: [axis, hssl\_gap] |
| Result: [errNo] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_rtin\_setRealTimeInHsslGap**(int deviceHandle, int axis, int hssl\_gap) |

|  |
| --- |
| **Python** |

|  |
| --- |
| **[dev].rtin.setRealTimeInHsslGap**(axis, hssl\_gap) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [] = **rtin\_setRealTimeInHsslGap**(axis, hssl\_gap) |

|  |
| --- |
| **C#** |

|  |
| --- |
| void value = [Device].**Rtin\_SetRealTimeInHsslGap**(int axis, int hssl\_gap) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **setRealTimeInHsslHigh** Set the higher part of the HSSL resolution |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| resohigh |  |
| Out | errNo | Not present in Python and C# API! errNo |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.rtin.setRealTimeInHsslHigh |
| params: [axis, resohigh] |
| Result: [errNo] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_rtin\_setRealTimeInHsslHigh**(int deviceHandle, int axis, int resohigh) |

|  |
| --- |
| **Python** |

|  |
| --- |
| **[dev].rtin.setRealTimeInHsslHigh**(axis, resohigh) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [] = **rtin\_setRealTimeInHsslHigh**(axis, resohigh) |

|  |
| --- |
| **C#** |

|  |
| --- |
| void value = [Device].**Rtin\_SetRealTimeInHsslHigh**(int axis, int resohigh) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **setRealTimeInHsslLow** Set the lower part of the HSSL resolution |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| resolow |  |
| Out | errNo | Not present in Python and C# API! errNo |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.rtin.setRealTimeInHsslLow |
| params: [axis, resolow] |
| Result: [errNo] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_rtin\_setRealTimeInHsslLow**(int deviceHandle, int axis, int resolow) |

|  |
| --- |
| **Python** |

|  |
| --- |
| **[dev].rtin.setRealTimeInHsslLow**(axis, resolow) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [] = **rtin\_setRealTimeInHsslLow**(axis, resolow) |

|  |
| --- |
| **C#** |

|  |
| --- |
| void value = [Device].**Rtin\_SetRealTimeInHsslLow**(int axis, int resolow) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **setRealTimeInMode** This function sets the real time input mode for the selected axis. |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| mode | see `RT\_IN\_MODES` @see realtime |
| Out | errNo | Not present in Python and C# API! errNo |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.rtin.setRealTimeInMode |
| params: [axis, mode] |
| Result: [errNo] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_rtin\_setRealTimeInMode**(int deviceHandle, int axis, int mode) |

|  |
| --- |
| **Python** |

|  |
| --- |
| **[dev].rtin.setRealTimeInMode**(axis, mode) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [] = **rtin\_setRealTimeInMode**(axis, mode) |

|  |
| --- |
| **C#** |

|  |
| --- |
| void value = [Device].**Rtin\_SetRealTimeInMode**(int axis, int mode) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **setRealTimeInStepsPerPulse** Set the change in step per pulse of the realtime input when trigger and stepper mode is used  only used in open loop operation |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| steps | number of steps to applied |
| Out | errNo | Not present in Python and C# API! errNo |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.rtin.setRealTimeInStepsPerPulse |
| params: [axis, steps] |
| Result: [errNo] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_rtin\_setRealTimeInStepsPerPulse**(int deviceHandle, int axis, int steps) |

|  |
| --- |
| **Python** |

|  |
| --- |
| **[dev].rtin.setRealTimeInStepsPerPulse**(axis, steps) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [] = **rtin\_setRealTimeInStepsPerPulse**(axis, steps) |

|  |
| --- |
| **C#** |

|  |
| --- |
| void value = [Device].**Rtin\_SetRealTimeInStepsPerPulse**(int axis, int steps) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

# Rtout

|  |
| --- |
| **apply** Apply for all rtout function |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| Out | errNo | Not present in Python and C# API! errNo |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.rtout.apply |
| params: [] |
| Result: [errNo] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_rtout\_apply**(int deviceHandle) |

|  |
| --- |
| **Python** |

|  |
| --- |
| **[dev].rtout.apply**() |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [] = **rtout\_apply**() |

|  |
| --- |
| **C#** |

|  |
| --- |
| void value = [Device].**Rtout\_Apply**() |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **applyAxis** Apply for rtout function of specific axis |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| Out | errNo | Not present in Python and C# API! errNo |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.rtout.applyAxis |
| params: [axis] |
| Result: [errNo] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_rtout\_applyAxis**(int deviceHandle, int axis) |

|  |
| --- |
| **Python** |

|  |
| --- |
| **[dev].rtout.applyAxis**(axis) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [] = **rtout\_applyAxis**(axis) |

|  |
| --- |
| **C#** |

|  |
| --- |
| void value = [Device].**Rtout\_ApplyAxis**(int axis) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **discard** Discard all rtout value set by the set function(not applied yet) |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| Out | errNo | Not present in Python and C# API! errNo |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.rtout.discard |
| params: [] |
| Result: [errNo] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_rtout\_discard**(int deviceHandle) |

|  |
| --- |
| **Python** |

|  |
| --- |
| **[dev].rtout.discard**() |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [] = **rtout\_discard**() |

|  |
| --- |
| **C#** |

|  |
| --- |
| void value = [Device].**Rtout\_Discard**() |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **discardAxis** Discard rtout value of specific axis set by the set function(not applied yet) |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| Out | errNo | Not present in Python and C# API! errNo |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.rtout.discardAxis |
| params: [axis] |
| Result: [errNo] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_rtout\_discardAxis**(int deviceHandle, int axis) |

|  |
| --- |
| **Python** |

|  |
| --- |
| **[dev].rtout.discardAxis**(axis) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [] = **rtout\_discardAxis**(axis) |

|  |
| --- |
| **C#** |

|  |
| --- |
| void value = [Device].**Rtout\_DiscardAxis**(int axis) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **discardSignalMode** Discard value set by setSignalMode |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| Out | errNo | Not present in Python and C# API! errNo |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.rtout.discardSignalMode |
| params: [] |
| Result: [errNo] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_rtout\_discardSignalMode**(int deviceHandle) |

|  |
| --- |
| **Python** |

|  |
| --- |
| **[dev].rtout.discardSignalMode**() |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [] = **rtout\_discardSignalMode**() |

|  |
| --- |
| **C#** |

|  |
| --- |
| void value = [Device].**Rtout\_DiscardSignalMode**() |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **getControlAQuadBOut** This function gets status of AQuadB output for position indication. |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| tempvalue | boolean if true get the tempory value ( from the set function) |
| Out | errNo | Not present in Python and C# API! errNo |
| value\_boolean1 | boolean |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.rtout.getControlAQuadBOut |
| params: [axis, tempvalue] |
| Result: [errNo, value\_boolean1] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_rtout\_getControlAQuadBOut**(int deviceHandle, int axis, int tempvalue, bool\* value\_boolean1) |

|  |
| --- |
| **Python** |

|  |
| --- |
| value\_boolean1 = **[dev].rtout.getControlAQuadBOut**(axis, tempvalue) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [value\_boolean1] = **rtout\_getControlAQuadBOut**(axis, tempvalue) |

|  |
| --- |
| **C#** |

|  |
| --- |
| bool value = [Device].**Rtout\_GetControlAQuadBOut**(int axis, int tempvalue) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **getControlAQuadBOutClock** This function gets the clock for AQuadB output. |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| tempvalue | boolean if true get the tempory value ( from the set function) |
| Out | errNo | Not present in Python and C# API! errNo |
| clock\_in\_ns | Clock in multiples of 20ns. Minimum 2 (40ns), maximum 65535 (1,310700ms) |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.rtout.getControlAQuadBOutClock |
| params: [axis, tempvalue] |
| Result: [errNo, clock\_in\_ns] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_rtout\_getControlAQuadBOutClock**(int deviceHandle, int axis, bool tempvalue, int\* clock\_in\_ns) |

|  |
| --- |
| **Python** |

|  |
| --- |
| clock\_in\_ns = **[dev].rtout.getControlAQuadBOutClock**(axis, tempvalue) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [clock\_in\_ns] = **rtout\_getControlAQuadBOutClock**(axis, tempvalue) |

|  |
| --- |
| **C#** |

|  |
| --- |
| int value = [Device].**Rtout\_GetControlAQuadBOutClock**(int axis, bool tempvalue) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **getControlAQuadBOutResolution** This function gets the AQuadB output resolution for position indication. |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| tempvalue | boolean if true get the tempory value ( from the set function) |
| Out | errNo | Not present in Python and C# API! errNo |
| resolution | in nm |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.rtout.getControlAQuadBOutResolution |
| params: [axis, tempvalue] |
| Result: [errNo, resolution] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_rtout\_getControlAQuadBOutResolution**(int deviceHandle, int axis, bool tempvalue, int\* resolution) |

|  |
| --- |
| **Python** |

|  |
| --- |
| resolution = **[dev].rtout.getControlAQuadBOutResolution**(axis, tempvalue) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [resolution] = **rtout\_getControlAQuadBOutResolution**(axis, tempvalue) |

|  |
| --- |
| **C#** |

|  |
| --- |
| int value = [Device].**Rtout\_GetControlAQuadBOutResolution**(int axis, bool tempvalue) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **getMode** Get Mode |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| tempvalue |  |
| Out | errNo | Not present in Python and C# API! errNo |
| mode | 0: Off, 1: AquadB, 2: Trigger |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.rtout.getMode |
| params: [axis, tempvalue] |
| Result: [errNo, mode] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_rtout\_getMode**(int deviceHandle, int axis, bool tempvalue, int\* mode) |

|  |
| --- |
| **Python** |

|  |
| --- |
| mode = **[dev].rtout.getMode**(axis, tempvalue) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [mode] = **rtout\_getMode**(axis, tempvalue) |

|  |
| --- |
| **C#** |

|  |
| --- |
| int value = [Device].**Rtout\_GetMode**(int axis, bool tempvalue) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **getSignalMode** This function gets the real time output mode for the selected axis. |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | tempvalue |  |
| Out | errNo | Not present in Python and C# API! errNo |
| mode | 0: TTL, 1: LVDS |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.rtout.getSignalMode |
| params: [tempvalue] |
| Result: [errNo, mode] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_rtout\_getSignalMode**(int deviceHandle, bool tempvalue, int\* mode) |

|  |
| --- |
| **Python** |

|  |
| --- |
| mode = **[dev].rtout.getSignalMode**(tempvalue) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [mode] = **rtout\_getSignalMode**(tempvalue) |

|  |
| --- |
| **C#** |

|  |
| --- |
| int value = [Device].**Rtout\_GetSignalMode**(bool tempvalue) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **getTriggerConfig** Get the real time output trigger config |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| tempvalue | boolean |
| Out | errNo | Not present in Python and C# API! errNo |
| higher | upper limit in nm / µdeg |
| lower | lower limit in nm / µdeg |
| epsilon | hysteresis in nm / µdeg |
| polarity | 0: active high, 1: active low |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.rtout.getTriggerConfig |
| params: [axis, tempvalue] |
| Result: [errNo, higher, lower, epsilon, polarity] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_rtout\_getTriggerConfig**(int deviceHandle, int axis, bool tempvalue, int\* higher, int\* lower, int\* epsilon, int\* polarity) |

|  |
| --- |
| **Python** |

|  |
| --- |
| higher, lower, epsilon, polarity = **[dev].rtout.getTriggerConfig**(axis, tempvalue) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [higher, lower, epsilon, polarity] = **rtout\_getTriggerConfig**(axis, tempvalue) |

|  |
| --- |
| **C#** |

|  |
| --- |
| Tuple<int,int,int,int> value = [Device].**Rtout\_GetTriggerConfig**(int axis, bool tempvalue) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **setControlAQuadBOutClock** This function sets the clock for AQuadB output. |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| clock | Clock in multiples of 20ns. Minimum 2 (40ns), maximum 65535 (1,310700ms) |
| Out | errNo | Not present in Python and C# API! errNo |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.rtout.setControlAQuadBOutClock |
| params: [axis, clock] |
| Result: [errNo] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_rtout\_setControlAQuadBOutClock**(int deviceHandle, int axis, int clock) |

|  |
| --- |
| **Python** |

|  |
| --- |
| **[dev].rtout.setControlAQuadBOutClock**(axis, clock) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [] = **rtout\_setControlAQuadBOutClock**(axis, clock) |

|  |
| --- |
| **C#** |

|  |
| --- |
| void value = [Device].**Rtout\_SetControlAQuadBOutClock**(int axis, int clock) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **setControlAQuadBOutResolution** This function sets the AQuadB output resolution for position indication. |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| resolution | in nm |
| Out | errNo | Not present in Python and C# API! errNo |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.rtout.setControlAQuadBOutResolution |
| params: [axis, resolution] |
| Result: [errNo] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_rtout\_setControlAQuadBOutResolution**(int deviceHandle, int axis, int resolution) |

|  |
| --- |
| **Python** |

|  |
| --- |
| **[dev].rtout.setControlAQuadBOutResolution**(axis, resolution) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [] = **rtout\_setControlAQuadBOutResolution**(axis, resolution) |

|  |
| --- |
| **C#** |

|  |
| --- |
| void value = [Device].**Rtout\_SetControlAQuadBOutResolution**(int axis, int resolution) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **setMode** Set the real time output signal mode |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| mode | 0: Off, 1: AquadB, 2: Trigger |
| Out | errNo | Not present in Python and C# API! errNo |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.rtout.setMode |
| params: [axis, mode] |
| Result: [errNo] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_rtout\_setMode**(int deviceHandle, int axis, int mode) |

|  |
| --- |
| **Python** |

|  |
| --- |
| **[dev].rtout.setMode**(axis, mode) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [] = **rtout\_setMode**(axis, mode) |

|  |
| --- |
| **C#** |

|  |
| --- |
| void value = [Device].**Rtout\_SetMode**(int axis, int mode) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **setSignalMode** This function sets the real time output mode for the selected axis. |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | mode | 0: TTL, 1: LVDS |
| Out | errNo | Not present in Python and C# API! errNo |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.rtout.setSignalMode |
| params: [mode] |
| Result: [errNo] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_rtout\_setSignalMode**(int deviceHandle, int mode) |

|  |
| --- |
| **Python** |

|  |
| --- |
| **[dev].rtout.setSignalMode**(mode) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [] = **rtout\_setSignalMode**(mode) |

|  |
| --- |
| **C#** |

|  |
| --- |
| void value = [Device].**Rtout\_SetSignalMode**(int mode) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **setTriggerConfig** Control the real time output trigger config |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| higher | upper limit in nm / µdeg |
| lower | lower limit in nm / µdeg |
| epsilon | hysteresis in nm / µdeg |
| polarity | 0: active high, 1: active low |
| Out | errNo | Not present in Python and C# API! errNo |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.rtout.setTriggerConfig |
| params: [axis, higher, lower, epsilon, polarity] |
| Result: [errNo] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_rtout\_setTriggerConfig**(int deviceHandle, int axis, int higher, int lower, int epsilon, int polarity) |

|  |
| --- |
| **Python** |

|  |
| --- |
| **[dev].rtout.setTriggerConfig**(axis, higher, lower, epsilon, polarity) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [] = **rtout\_setTriggerConfig**(axis, higher, lower, epsilon, polarity) |

|  |
| --- |
| **C#** |

|  |
| --- |
| void value = [Device].**Rtout\_SetTriggerConfig**(int axis, int higher, int lower, int epsilon, int polarity) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

# Status

|  |
| --- |
| **getFullCombinedStatus** Get the full combined status of a positioner axis and return the status as a string (to be used in the Webapplication) |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| Out | errNo | Not present in Python and C# API! errNo |
| value\_string1 | string can be "moving","in target range", "backward limit reached", "forward limit reached", "positioner not connected", "output not enabled" |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.status.getFullCombinedStatus |
| params: [axis] |
| Result: [errNo, value\_string1] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_status\_getFullCombinedStatus**(int deviceHandle, int axis, char\* value\_string1, int size0) |

|  |
| --- |
| **Python** |

|  |
| --- |
| value\_string1 = **[dev].status.getFullCombinedStatus**(axis) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [value\_string1] = **status\_getFullCombinedStatus**(axis) |

|  |
| --- |
| **C#** |

|  |
| --- |
| string value = [Device].**Status\_GetFullCombinedStatus**(int axis) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **getOlStatus** Get the Feedback status of the positioner |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| Out | errNo | Not present in Python and C# API! errNo |
| sensorstatus | as integer 0: NUM Positioner connected 1: OL positioner connected 2: No positioner connected , 3: RES positione connected |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.status.getOlStatus |
| params: [axis] |
| Result: [errNo, sensorstatus] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_status\_getOlStatus**(int deviceHandle, int axis, int\* sensorstatus) |

|  |
| --- |
| **Python** |

|  |
| --- |
| sensorstatus = **[dev].status.getOlStatus**(axis) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [sensorstatus] = **status\_getOlStatus**(axis) |

|  |
| --- |
| **C#** |

|  |
| --- |
| int value = [Device].**Status\_GetOlStatus**(int axis) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **getStatusConnected** This function gets information about the connection status of the selected axis’ positioner. |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| Out | errNo | Not present in Python and C# API! errNo |
| value\_boolean1 | boolean If true, the actor is connected |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.status.getStatusConnected |
| params: [axis] |
| Result: [errNo, value\_boolean1] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_status\_getStatusConnected**(int deviceHandle, int axis, bool\* value\_boolean1) |

|  |
| --- |
| **Python** |

|  |
| --- |
| value\_boolean1 = **[dev].status.getStatusConnected**(axis) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [value\_boolean1] = **status\_getStatusConnected**(axis) |

|  |
| --- |
| **C#** |

|  |
| --- |
| bool value = [Device].**Status\_GetStatusConnected**(int axis) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **getStatusEot** Retrieves the status of the end of travel (EOT) detection in backward direction or in forward direction. |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| Out | errNo | Not present in Python and C# API! errNo |
| value\_boolean1 | boolean true= detected$ |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.status.getStatusEot |
| params: [axis] |
| Result: [errNo, value\_boolean1] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_status\_getStatusEot**(int deviceHandle, int axis, bool\* value\_boolean1) |

|  |
| --- |
| **Python** |

|  |
| --- |
| value\_boolean1 = **[dev].status.getStatusEot**(axis) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [value\_boolean1] = **status\_getStatusEot**(axis) |

|  |
| --- |
| **C#** |

|  |
| --- |
| bool value = [Device].**Status\_GetStatusEot**(int axis) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **getStatusEotBkwd** This function gets the status of the end of travel detection on the selected axis in backward direction. |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| Out | errNo | Not present in Python and C# API! errNo |
| value\_boolean1 | boolean true= detected |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.status.getStatusEotBkwd |
| params: [axis] |
| Result: [errNo, value\_boolean1] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_status\_getStatusEotBkwd**(int deviceHandle, int axis, bool\* value\_boolean1) |

|  |
| --- |
| **Python** |

|  |
| --- |
| value\_boolean1 = **[dev].status.getStatusEotBkwd**(axis) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [value\_boolean1] = **status\_getStatusEotBkwd**(axis) |

|  |
| --- |
| **C#** |

|  |
| --- |
| bool value = [Device].**Status\_GetStatusEotBkwd**(int axis) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **getStatusEotFwd** This function gets the status of the end of travel detection on the selected axis in forward direction. |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| Out | errNo | Not present in Python and C# API! errNo |
| value\_boolean1 | boolean true= detected |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.status.getStatusEotFwd |
| params: [axis] |
| Result: [errNo, value\_boolean1] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_status\_getStatusEotFwd**(int deviceHandle, int axis, bool\* value\_boolean1) |

|  |
| --- |
| **Python** |

|  |
| --- |
| value\_boolean1 = **[dev].status.getStatusEotFwd**(axis) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [value\_boolean1] = **status\_getStatusEotFwd**(axis) |

|  |
| --- |
| **C#** |

|  |
| --- |
| bool value = [Device].**Status\_GetStatusEotFwd**(int axis) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **getStatusMoving** This function gets information about the status of the stage output. |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| Out | errNo | Not present in Python and C# API! errNo |
| status | 0: Idle, i.e. within the noise range of the sensor, 1: Moving, i.e the actor is actively driven by the output stage either for closed-loop approach or continous/single stepping and the output is active.  2 : Pending means the output stage is driving but the output is deactivated |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.status.getStatusMoving |
| params: [axis] |
| Result: [errNo, status] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_status\_getStatusMoving**(int deviceHandle, int axis, int\* status) |

|  |
| --- |
| **Python** |

|  |
| --- |
| status = **[dev].status.getStatusMoving**(axis) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [status] = **status\_getStatusMoving**(axis) |

|  |
| --- |
| **C#** |

|  |
| --- |
| int value = [Device].**Status\_GetStatusMoving**(int axis) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **getStatusReference** This function gets information about the status of the reference position. |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| Out | errNo | Not present in Python and C# API! errNo |
| value\_boolean1 | boolean true = valid, false = not valid |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.status.getStatusReference |
| params: [axis] |
| Result: [errNo, value\_boolean1] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_status\_getStatusReference**(int deviceHandle, int axis, bool\* value\_boolean1) |

|  |
| --- |
| **Python** |

|  |
| --- |
| value\_boolean1 = **[dev].status.getStatusReference**(axis) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [value\_boolean1] = **status\_getStatusReference**(axis) |

|  |
| --- |
| **C#** |

|  |
| --- |
| bool value = [Device].**Status\_GetStatusReference**(int axis) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **getStatusTargetRange** This function gets information about whether the selected axis’ positioner is in target range or not. |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | axis | [0|1|2] |
| Out | errNo | Not present in Python and C# API! errNo |
| value\_boolean1 | boolean (true = within the target range, false: not ion the target range) |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.amc.status.getStatusTargetRange |
| params: [axis] |
| Result: [errNo, value\_boolean1] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **AMC\_status\_getStatusTargetRange**(int deviceHandle, int axis, bool\* value\_boolean1) |

|  |
| --- |
| **Python** |

|  |
| --- |
| value\_boolean1 = **[dev].status.getStatusTargetRange**(axis) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [value\_boolean1] = **status\_getStatusTargetRange**(axis) |

|  |
| --- |
| **C#** |

|  |
| --- |
| bool value = [Device].**Status\_GetStatusTargetRange**(int axis) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

# About

|  |
| --- |
| **getInstalledPackages** Get list of packages installed on the device |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| Out | errNo | Not present in Python and C# API! errorCode |
| value\_string1 | string: Comma separated list of packages |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.system.about.getInstalledPackages |
| params: [] |
| Result: [errNo, value\_string1] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **system\_about\_getInstalledPackages**(int deviceHandle, char\* value\_string1, int size0) |

|  |
| --- |
| **Python** |

|  |
| --- |
| value\_string1 = **[dev].about.getInstalledPackages**() |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [value\_string1] = **system\_about\_getInstalledPackages**() |

|  |
| --- |
| **C#** |

|  |
| --- |
| string value = [Device].**About\_GetInstalledPackages**() |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **getPackageLicense** Get the license for a specific package |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | pckg | string: Package name |
| Out | errNo | Not present in Python and C# API! errorCode |
| value\_string1 | string: License for this package |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.system.about.getPackageLicense |
| params: [pckg] |
| Result: [errNo, value\_string1] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **system\_about\_getPackageLicense**(int deviceHandle, const char\* pckg, char\* value\_string1, int size0) |

|  |
| --- |
| **Python** |

|  |
| --- |
| value\_string1 = **[dev].about.getPackageLicense**(pckg) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [value\_string1] = **system\_about\_getPackageLicense**(pckg) |

|  |
| --- |
| **C#** |

|  |
| --- |
| string value = [Device].**About\_GetPackageLicense**(string pckg) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

# System\_service

|  |
| --- |
| **apply** Apply temporary system configuration |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| Out | errNo | Not present in Python and C# API! errorCode |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.system.apply |
| params: [] |
| Result: [errNo] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **system\_apply**(int deviceHandle) |

|  |
| --- |
| **Python** |

|  |
| --- |
| **[dev].system\_service.apply**() |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [] = **system\_apply**() |

|  |
| --- |
| **C#** |

|  |
| --- |
| void value = [Device].**Apply**() |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **errorNumberToRecommendation** Get a recommendation for the error code |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | language | integer: Language code |
| errNbr | interger: Error code to translate |
| Out | errNo | Not present in Python and C# API! errorCode |
| value\_string1 | string: Error recommendation (currently returning an int = 0 until we have recommendations) |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.system.errorNumberToRecommendation |
| params: [language, errNbr] |
| Result: [errNo, value\_string1] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **system\_errorNumberToRecommendation**(int deviceHandle, int language, int errNbr, char\* value\_string1, int size0) |

|  |
| --- |
| **Python** |

|  |
| --- |
| value\_string1 = **[dev].system\_service.errorNumberToRecommendation**(language, errNbr) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [value\_string1] = **system\_errorNumberToRecommendation**(language, errNbr) |

|  |
| --- |
| **C#** |

|  |
| --- |
| string value = [Device].**ErrorNumberToRecommendation**(int language, int errNbr) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **errorNumberToString** Get a description of an error code |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | language | integer: Language code 0 for the error name, 1 for a more user friendly error message |
| errNbr | interger: Error code to translate |
| Out | errNo | Not present in Python and C# API! errorCode |
| value\_string1 | string: Error description |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.system.errorNumberToString |
| params: [language, errNbr] |
| Result: [errNo, value\_string1] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **system\_errorNumberToString**(int deviceHandle, int language, int errNbr, char\* value\_string1, int size0) |

|  |
| --- |
| **Python** |

|  |
| --- |
| value\_string1 = **[dev].system\_service.errorNumberToString**(language, errNbr) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [value\_string1] = **system\_errorNumberToString**(language, errNbr) |

|  |
| --- |
| **C#** |

|  |
| --- |
| string value = [Device].**ErrorNumberToString**(int language, int errNbr) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **factoryReset** Turns on the factory reset flag. To perform the factory reset, a reboot is necessary afterwards. All settings will be set to default and the IDS will be configured as DHCP server. |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| Out | errNo | Not present in Python and C# API! errorCode |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.system.factoryReset |
| params: [] |
| Result: [errNo] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **system\_factoryReset**(int deviceHandle) |

|  |
| --- |
| **Python** |

|  |
| --- |
| **[dev].system\_service.factoryReset**() |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [] = **system\_factoryReset**() |

|  |
| --- |
| **C#** |

|  |
| --- |
| void value = [Device].**FactoryReset**() |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **getDeviceName** Get the actual device name |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| Out | errNo | Not present in Python and C# API! errorCode |
| value\_string1 | string: actual device name |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.system.getDeviceName |
| params: [] |
| Result: [errNo, value\_string1] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **system\_getDeviceName**(int deviceHandle, char\* value\_string1, int size0) |

|  |
| --- |
| **Python** |

|  |
| --- |
| value\_string1 = **[dev].system\_service.getDeviceName**() |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [value\_string1] = **system\_getDeviceName**() |

|  |
| --- |
| **C#** |

|  |
| --- |
| string value = [Device].**GetDeviceName**() |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **getFirmwareVersion** Get the firmware version of the system |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| Out | errNo | Not present in Python and C# API! errorCode |
| value\_string1 | string: The firmware version |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.system.getFirmwareVersion |
| params: [] |
| Result: [errNo, value\_string1] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **system\_getFirmwareVersion**(int deviceHandle, char\* value\_string1, int size0) |

|  |
| --- |
| **Python** |

|  |
| --- |
| value\_string1 = **[dev].system\_service.getFirmwareVersion**() |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [value\_string1] = **system\_getFirmwareVersion**() |

|  |
| --- |
| **C#** |

|  |
| --- |
| string value = [Device].**GetFirmwareVersion**() |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **getFluxCode** Get the flux code of the system |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| Out | errNo | Not present in Python and C# API! errorCode |
| value\_string1 | string: flux code |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.system.getFluxCode |
| params: [] |
| Result: [errNo, value\_string1] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **system\_getFluxCode**(int deviceHandle, char\* value\_string1, int size0) |

|  |
| --- |
| **Python** |

|  |
| --- |
| value\_string1 = **[dev].system\_service.getFluxCode**() |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [value\_string1] = **system\_getFluxCode**() |

|  |
| --- |
| **C#** |

|  |
| --- |
| string value = [Device].**GetFluxCode**() |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **getHostname** Return device hostname |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| Out | errNo | Not present in Python and C# API! errorCode |
| available | available |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.system.getHostname |
| params: [] |
| Result: [errNo, available] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **system\_getHostname**(int deviceHandle, char\* available, int size0) |

|  |
| --- |
| **Python** |

|  |
| --- |
| available = **[dev].system\_service.getHostname**() |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [available] = **system\_getHostname**() |

|  |
| --- |
| **C#** |

|  |
| --- |
| string value = [Device].**GetHostname**() |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **getMacAddress** Get the mac address of the system |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| Out | errNo | Not present in Python and C# API! errorCode |
| value\_string1 | string: Mac address of the system |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.system.getMacAddress |
| params: [] |
| Result: [errNo, value\_string1] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **system\_getMacAddress**(int deviceHandle, char\* value\_string1, int size0) |

|  |
| --- |
| **Python** |

|  |
| --- |
| value\_string1 = **[dev].system\_service.getMacAddress**() |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [value\_string1] = **system\_getMacAddress**() |

|  |
| --- |
| **C#** |

|  |
| --- |
| string value = [Device].**GetMacAddress**() |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **getSerialNumber** Get the serial number of the system |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| Out | errNo | Not present in Python and C# API! errorCode |
| value\_string1 | string: Serial number |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.system.getSerialNumber |
| params: [] |
| Result: [errNo, value\_string1] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **system\_getSerialNumber**(int deviceHandle, char\* value\_string1, int size0) |

|  |
| --- |
| **Python** |

|  |
| --- |
| value\_string1 = **[dev].system\_service.getSerialNumber**() |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [value\_string1] = **system\_getSerialNumber**() |

|  |
| --- |
| **C#** |

|  |
| --- |
| string value = [Device].**GetSerialNumber**() |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

# Network

|  |
| --- |
| **apply** Apply temporary IP configuration and load it |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| Out | errNo | Not present in Python and C# API! errorCode |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.system.network.apply |
| params: [] |
| Result: [errNo] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **system\_network\_apply**(int deviceHandle) |

|  |
| --- |
| **Python** |

|  |
| --- |
| **[dev].network.apply**() |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [] = **system\_network\_apply**() |

|  |
| --- |
| **C#** |

|  |
| --- |
| void value = [Device].**Network\_Apply**() |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **configureWifi** Change the wifi configuration and applies it |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | mode | 0: Access point, 1: Wifi client |
| ssid |  |
| psk | Pre-shared key |
| Out | errNo | Not present in Python and C# API! errorCode |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.system.network.configureWifi |
| params: [mode, ssid, psk] |
| Result: [errNo] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **system\_network\_configureWifi**(int deviceHandle, int mode, const char\* ssid, const char\* psk) |

|  |
| --- |
| **Python** |

|  |
| --- |
| **[dev].network.configureWifi**(mode, ssid, psk) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [] = **system\_network\_configureWifi**(mode, ssid, psk) |

|  |
| --- |
| **C#** |

|  |
| --- |
| void value = [Device].**Network\_ConfigureWifi**(int mode, string ssid, string psk) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **discard** Discard temporary IP configuration |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| Out | errNo | Not present in Python and C# API! errorCode |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.system.network.discard |
| params: [] |
| Result: [errNo] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **system\_network\_discard**(int deviceHandle) |

|  |
| --- |
| **Python** |

|  |
| --- |
| **[dev].network.discard**() |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [] = **system\_network\_discard**() |

|  |
| --- |
| **C#** |

|  |
| --- |
| void value = [Device].**Network\_Discard**() |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **getDefaultGateway** Get the default gateway of the device |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| Out | errNo | Not present in Python and C# API! errorCode |
| Default | gateway |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.system.network.getDefaultGateway |
| params: [] |
| Result: [errNo, Default] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **system\_network\_getDefaultGateway**(int deviceHandle, char\* Default, int size0) |

|  |
| --- |
| **Python** |

|  |
| --- |
| Default = **[dev].network.getDefaultGateway**() |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [Default] = **system\_network\_getDefaultGateway**() |

|  |
| --- |
| **C#** |

|  |
| --- |
| string value = [Device].**Network\_GetDefaultGateway**() |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **getDnsResolver** Get the DNS resolver |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | priority | of DNS resolver (Usually: 0 = Default, 1 = Backup) |
| Out | errNo | Not present in Python and C# API! errorCode |
| IP | address of DNS resolver |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.system.network.getDnsResolver |
| params: [priority] |
| Result: [errNo, IP] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **system\_network\_getDnsResolver**(int deviceHandle, int priority, char\* IP, int size0) |

|  |
| --- |
| **Python** |

|  |
| --- |
| IP = **[dev].network.getDnsResolver**(priority) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [IP] = **system\_network\_getDnsResolver**(priority) |

|  |
| --- |
| **C#** |

|  |
| --- |
| string value = [Device].**Network\_GetDnsResolver**(int priority) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **getEnableDhcpClient** Get the state of DHCP client |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| Out | errNo | Not present in Python and C# API! errorCode |
| value\_boolean1 | boolean: true = DHCP client enable, false = DHCP client disable |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.system.network.getEnableDhcpClient |
| params: [] |
| Result: [errNo, value\_boolean1] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **system\_network\_getEnableDhcpClient**(int deviceHandle, bool\* value\_boolean1) |

|  |
| --- |
| **Python** |

|  |
| --- |
| value\_boolean1 = **[dev].network.getEnableDhcpClient**() |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [value\_boolean1] = **system\_network\_getEnableDhcpClient**() |

|  |
| --- |
| **C#** |

|  |
| --- |
| bool value = [Device].**Network\_GetEnableDhcpClient**() |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **getEnableDhcpServer** Get the state of DHCP server |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| Out | errNo | Not present in Python and C# API! errorCode |
| value\_boolean1 | boolean: true = DHCP server enable, false = DHCP server disable |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.system.network.getEnableDhcpServer |
| params: [] |
| Result: [errNo, value\_boolean1] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **system\_network\_getEnableDhcpServer**(int deviceHandle, bool\* value\_boolean1) |

|  |
| --- |
| **Python** |

|  |
| --- |
| value\_boolean1 = **[dev].network.getEnableDhcpServer**() |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [value\_boolean1] = **system\_network\_getEnableDhcpServer**() |

|  |
| --- |
| **C#** |

|  |
| --- |
| bool value = [Device].**Network\_GetEnableDhcpServer**() |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **getIpAddress** Get the IP address of the device |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| Out | errNo | Not present in Python and C# API! errorCode |
| IP | address as string |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.system.network.getIpAddress |
| params: [] |
| Result: [errNo, IP] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **system\_network\_getIpAddress**(int deviceHandle, char\* IP, int size0) |

|  |
| --- |
| **Python** |

|  |
| --- |
| IP = **[dev].network.getIpAddress**() |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [IP] = **system\_network\_getIpAddress**() |

|  |
| --- |
| **C#** |

|  |
| --- |
| string value = [Device].**Network\_GetIpAddress**() |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **getProxyServer** Get the proxy settings of the devide |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| Out | errNo | Not present in Python and C# API! errorCode |
| Proxy | Server String, empty for no proxy |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.system.network.getProxyServer |
| params: [] |
| Result: [errNo, Proxy] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **system\_network\_getProxyServer**(int deviceHandle, char\* Proxy, int size0) |

|  |
| --- |
| **Python** |

|  |
| --- |
| Proxy = **[dev].network.getProxyServer**() |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [Proxy] = **system\_network\_getProxyServer**() |

|  |
| --- |
| **C#** |

|  |
| --- |
| string value = [Device].**Network\_GetProxyServer**() |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **getRealIpAddress** Get the real IP address of the device set to the network interface (br0, eth1 or eth0) |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| Out | errNo | Not present in Python and C# API! errorCode |
| IP | address as string |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.system.network.getRealIpAddress |
| params: [] |
| Result: [errNo, IP] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **system\_network\_getRealIpAddress**(int deviceHandle, char\* IP, int size0) |

|  |
| --- |
| **Python** |

|  |
| --- |
| IP = **[dev].network.getRealIpAddress**() |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [IP] = **system\_network\_getRealIpAddress**() |

|  |
| --- |
| **C#** |

|  |
| --- |
| string value = [Device].**Network\_GetRealIpAddress**() |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **getSubnetMask** Get the subnet mask of the device |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| Out | errNo | Not present in Python and C# API! errorCode |
| Subnet | mask as string |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.system.network.getSubnetMask |
| params: [] |
| Result: [errNo, Subnet] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **system\_network\_getSubnetMask**(int deviceHandle, char\* Subnet, int size0) |

|  |
| --- |
| **Python** |

|  |
| --- |
| Subnet = **[dev].network.getSubnetMask**() |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [Subnet] = **system\_network\_getSubnetMask**() |

|  |
| --- |
| **C#** |

|  |
| --- |
| string value = [Device].**Network\_GetSubnetMask**() |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **getWifiMode** Get the operation mode of the wifi adapter |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| Out | errNo | Not present in Python and C# API! errorCode |
| mode | 0: Access point, 1: Wifi client |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.system.network.getWifiMode |
| params: [] |
| Result: [errNo, mode] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **system\_network\_getWifiMode**(int deviceHandle, int\* mode) |

|  |
| --- |
| **Python** |

|  |
| --- |
| mode = **[dev].network.getWifiMode**() |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [mode] = **system\_network\_getWifiMode**() |

|  |
| --- |
| **C#** |

|  |
| --- |
| int value = [Device].**Network\_GetWifiMode**() |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **getWifiPassphrase** Get the the passphrase of the network hosted (mode: Access point) or connected to (mode: client) |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| Out | errNo | Not present in Python and C# API! errorCode |
| psk | Pre-shared key |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.system.network.getWifiPassphrase |
| params: [] |
| Result: [errNo, psk] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **system\_network\_getWifiPassphrase**(int deviceHandle, char\* psk, int size0) |

|  |
| --- |
| **Python** |

|  |
| --- |
| psk = **[dev].network.getWifiPassphrase**() |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [psk] = **system\_network\_getWifiPassphrase**() |

|  |
| --- |
| **C#** |

|  |
| --- |
| string value = [Device].**Network\_GetWifiPassphrase**() |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **getWifiPresent** Returns is a Wifi interface is present |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| Out | errNo | Not present in Python and C# API! errorCode |
| True | True, if interface is present |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.system.network.getWifiPresent |
| params: [] |
| Result: [errNo, True] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **system\_network\_getWifiPresent**(int deviceHandle, bool\* True) |

|  |
| --- |
| **Python** |

|  |
| --- |
| True = **[dev].network.getWifiPresent**() |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [True] = **system\_network\_getWifiPresent**() |

|  |
| --- |
| **C#** |

|  |
| --- |
| bool value = [Device].**Network\_GetWifiPresent**() |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **getWifiSSID** Get the the SSID of the network hosted (mode: Access point) or connected to (mode: client) |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| Out | errNo | Not present in Python and C# API! errorCode |
| SSID | SSID |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.system.network.getWifiSSID |
| params: [] |
| Result: [errNo, SSID] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **system\_network\_getWifiSSID**(int deviceHandle, char\* SSID, int size0) |

|  |
| --- |
| **Python** |

|  |
| --- |
| SSID = **[dev].network.getWifiSSID**() |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [SSID] = **system\_network\_getWifiSSID**() |

|  |
| --- |
| **C#** |

|  |
| --- |
| string value = [Device].**Network\_GetWifiSSID**() |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **setDefaultGateway** Set the default gateway of the device |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | gateway | Default gateway as string |
| Out | errNo | Not present in Python and C# API! errorCode |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.system.network.setDefaultGateway |
| params: [gateway] |
| Result: [errNo] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **system\_network\_setDefaultGateway**(int deviceHandle, const char\* gateway) |

|  |
| --- |
| **Python** |

|  |
| --- |
| **[dev].network.setDefaultGateway**(gateway) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [] = **system\_network\_setDefaultGateway**(gateway) |

|  |
| --- |
| **C#** |

|  |
| --- |
| void value = [Device].**Network\_SetDefaultGateway**(string gateway) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **setDnsResolver** Set the DNS resolver |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | priority | of DNS resolver (Usually: 0 = Default, 1 = Backup) |
| resolver | The resolver's IP address as string |
| Out | errNo | Not present in Python and C# API! errorCode |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.system.network.setDnsResolver |
| params: [priority, resolver] |
| Result: [errNo] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **system\_network\_setDnsResolver**(int deviceHandle, int priority, const char\* resolver) |

|  |
| --- |
| **Python** |

|  |
| --- |
| **[dev].network.setDnsResolver**(priority, resolver) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [] = **system\_network\_setDnsResolver**(priority, resolver) |

|  |
| --- |
| **C#** |

|  |
| --- |
| void value = [Device].**Network\_SetDnsResolver**(int priority, string resolver) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **setEnableDhcpClient** Enable or disable DHCP client |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | enable | boolean: true = enable DHCP client, false = disable DHCP client |
| Out | errNo | Not present in Python and C# API! errorCode |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.system.network.setEnableDhcpClient |
| params: [enable] |
| Result: [errNo] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **system\_network\_setEnableDhcpClient**(int deviceHandle, bool enable) |

|  |
| --- |
| **Python** |

|  |
| --- |
| **[dev].network.setEnableDhcpClient**(enable) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [] = **system\_network\_setEnableDhcpClient**(enable) |

|  |
| --- |
| **C#** |

|  |
| --- |
| void value = [Device].**Network\_SetEnableDhcpClient**(bool enable) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **setEnableDhcpServer** Enable or disable DHCP server |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | enable | boolean: true = enable DHCP server, false = disable DHCP server |
| Out | errNo | Not present in Python and C# API! errorCode |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.system.network.setEnableDhcpServer |
| params: [enable] |
| Result: [errNo] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **system\_network\_setEnableDhcpServer**(int deviceHandle, bool enable) |

|  |
| --- |
| **Python** |

|  |
| --- |
| **[dev].network.setEnableDhcpServer**(enable) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [] = **system\_network\_setEnableDhcpServer**(enable) |

|  |
| --- |
| **C#** |

|  |
| --- |
| void value = [Device].**Network\_SetEnableDhcpServer**(bool enable) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **setIpAddress** Set the IP address of the device |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | address | IP address as string |
| Out | errNo | Not present in Python and C# API! errorCode |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.system.network.setIpAddress |
| params: [address] |
| Result: [errNo] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **system\_network\_setIpAddress**(int deviceHandle, const char\* address) |

|  |
| --- |
| **Python** |

|  |
| --- |
| **[dev].network.setIpAddress**(address) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [] = **system\_network\_setIpAddress**(address) |

|  |
| --- |
| **C#** |

|  |
| --- |
| void value = [Device].**Network\_SetIpAddress**(string address) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **setProxyServer** Set the proxy server of the device |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | proxyServer | Proxy Server Setting as string |
| Out | errNo | Not present in Python and C# API! errorCode |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.system.network.setProxyServer |
| params: [proxyServer] |
| Result: [errNo] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **system\_network\_setProxyServer**(int deviceHandle, const char\* proxyServer) |

|  |
| --- |
| **Python** |

|  |
| --- |
| **[dev].network.setProxyServer**(proxyServer) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [] = **system\_network\_setProxyServer**(proxyServer) |

|  |
| --- |
| **C#** |

|  |
| --- |
| void value = [Device].**Network\_SetProxyServer**(string proxyServer) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **setSubnetMask** Set the subnet mask of the device |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | netmask | Subnet mask as string |
| Out | errNo | Not present in Python and C# API! errorCode |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.system.network.setSubnetMask |
| params: [netmask] |
| Result: [errNo] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **system\_network\_setSubnetMask**(int deviceHandle, const char\* netmask) |

|  |
| --- |
| **Python** |

|  |
| --- |
| **[dev].network.setSubnetMask**(netmask) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [] = **system\_network\_setSubnetMask**(netmask) |

|  |
| --- |
| **C#** |

|  |
| --- |
| void value = [Device].**Network\_SetSubnetMask**(string netmask) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **setWifiMode** Change the operation mode of the wifi adapter |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | mode | 0: Access point, 1: Wifi client |
| Out | errNo | Not present in Python and C# API! errorCode |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.system.network.setWifiMode |
| params: [mode] |
| Result: [errNo] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **system\_network\_setWifiMode**(int deviceHandle, int mode) |

|  |
| --- |
| **Python** |

|  |
| --- |
| **[dev].network.setWifiMode**(mode) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [] = **system\_network\_setWifiMode**(mode) |

|  |
| --- |
| **C#** |

|  |
| --- |
| void value = [Device].**Network\_SetWifiMode**(int mode) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **setWifiPassphrase** Change the passphrase of the network hosted (mode: Access point) or connected to (mode: client) |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | psk | Pre-shared key |
| Out | errNo | Not present in Python and C# API! errorCode |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.system.network.setWifiPassphrase |
| params: [psk] |
| Result: [errNo] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **system\_network\_setWifiPassphrase**(int deviceHandle, const char\* psk) |

|  |
| --- |
| **Python** |

|  |
| --- |
| **[dev].network.setWifiPassphrase**(psk) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [] = **system\_network\_setWifiPassphrase**(psk) |

|  |
| --- |
| **C#** |

|  |
| --- |
| void value = [Device].**Network\_SetWifiPassphrase**(string psk) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **setWifiSSID** Change the SSID of the network hosted (mode: Access point) or connected to (mode: client) |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | ssid |  |
| Out | errNo | Not present in Python and C# API! errorCode |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.system.network.setWifiSSID |
| params: [ssid] |
| Result: [errNo] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **system\_network\_setWifiSSID**(int deviceHandle, const char\* ssid) |

|  |
| --- |
| **Python** |

|  |
| --- |
| **[dev].network.setWifiSSID**(ssid) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [] = **system\_network\_setWifiSSID**(ssid) |

|  |
| --- |
| **C#** |

|  |
| --- |
| void value = [Device].**Network\_SetWifiSSID**(string ssid) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **verify** Verify that temporary IP configuration is correct |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| Out | errNo | Not present in Python and C# API! errorCode |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.system.network.verify |
| params: [] |
| Result: [errNo] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **system\_network\_verify**(int deviceHandle) |

|  |
| --- |
| **Python** |

|  |
| --- |
| **[dev].network.verify**() |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [] = **system\_network\_verify**() |

|  |
| --- |
| **C#** |

|  |
| --- |
| void value = [Device].**Network\_Verify**() |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

# System\_service

|  |
| --- |
| **rebootSystem** Reboot the system |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| Out | errNo | Not present in Python and C# API! errorCode |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.system.rebootSystem |
| params: [] |
| Result: [errNo] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **system\_rebootSystem**(int deviceHandle) |

|  |
| --- |
| **Python** |

|  |
| --- |
| **[dev].system\_service.rebootSystem**() |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [] = **system\_rebootSystem**() |

|  |
| --- |
| **C#** |

|  |
| --- |
| void value = [Device].**RebootSystem**() |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **setDeviceName** Set custom name for the device |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | name | string: device name |
| Out | errNo | Not present in Python and C# API! errorCode |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.system.setDeviceName |
| params: [name] |
| Result: [errNo] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **system\_setDeviceName**(int deviceHandle, const char\* name) |

|  |
| --- |
| **Python** |

|  |
| --- |
| **[dev].system\_service.setDeviceName**(name) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [] = **system\_setDeviceName**(name) |

|  |
| --- |
| **C#** |

|  |
| --- |
| void value = [Device].**SetDeviceName**(string name) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

# Update

|  |
| --- |
| **getLicenseUpdateProgress** Get the progress of running license update |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| Out | errNo | Not present in Python and C# API! errorCode |
| value\_int1 | int: progress in percent |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.system.update.getLicenseUpdateProgress |
| params: [] |
| Result: [errNo, value\_int1] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **system\_update\_getLicenseUpdateProgress**(int deviceHandle, int\* value\_int1) |

|  |
| --- |
| **Python** |

|  |
| --- |
| value\_int1 = **[dev].update.getLicenseUpdateProgress**() |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [value\_int1] = **system\_update\_getLicenseUpdateProgress**() |

|  |
| --- |
| **C#** |

|  |
| --- |
| int value = [Device].**Update\_GetLicenseUpdateProgress**() |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **getSwUpdateProgress** Get the progress of running update |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| Out | errNo | Not present in Python and C# API! errorCode |
| value\_int1 | int: progress in percent |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.system.update.getSwUpdateProgress |
| params: [] |
| Result: [errNo, value\_int1] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **system\_update\_getSwUpdateProgress**(int deviceHandle, int\* value\_int1) |

|  |
| --- |
| **Python** |

|  |
| --- |
| value\_int1 = **[dev].update.getSwUpdateProgress**() |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [value\_int1] = **system\_update\_getSwUpdateProgress**() |

|  |
| --- |
| **C#** |

|  |
| --- |
| int value = [Device].**Update\_GetSwUpdateProgress**() |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **licenseUpdateBase64** Execute the license update with base64 file uploaded. After execution, a manual reboot is nevessary. |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| Out | errNo | Not present in Python and C# API! errorCode |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.system.update.licenseUpdateBase64 |
| params: [] |
| Result: [errNo] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **system\_update\_licenseUpdateBase64**(int deviceHandle) |

|  |
| --- |
| **Python** |

|  |
| --- |
| **[dev].update.licenseUpdateBase64**() |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [] = **system\_update\_licenseUpdateBase64**() |

|  |
| --- |
| **C#** |

|  |
| --- |
| void value = [Device].**Update\_LicenseUpdateBase64**() |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **softwareUpdateBase64** Execute the update with base64 file uploaded. After completion, a manual reboot is necessary. |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| Out | errNo | Not present in Python and C# API! errorCode |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.system.update.softwareUpdateBase64 |
| params: [] |
| Result: [errNo] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **system\_update\_softwareUpdateBase64**(int deviceHandle) |

|  |
| --- |
| **Python** |

|  |
| --- |
| **[dev].update.softwareUpdateBase64**() |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [] = **system\_update\_softwareUpdateBase64**() |

|  |
| --- |
| **C#** |

|  |
| --- |
| void value = [Device].**Update\_SoftwareUpdateBase64**() |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **uploadLicenseBase64** Upload new license file in format base 64 |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | offset | int: offset of the data |
| b64Data | string: base64 data |
| Out | errNo | Not present in Python and C# API! errorCode |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.system.update.uploadLicenseBase64 |
| params: [offset, b64Data] |
| Result: [errNo] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **system\_update\_uploadLicenseBase64**(int deviceHandle, int offset, const char\* b64Data) |

|  |
| --- |
| **Python** |

|  |
| --- |
| **[dev].update.uploadLicenseBase64**(offset, b64Data) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [] = **system\_update\_uploadLicenseBase64**(offset, b64Data) |

|  |
| --- |
| **C#** |

|  |
| --- |
| void value = [Device].**Update\_UploadLicenseBase64**(int offset, string b64Data) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |

|  |
| --- |
| **uploadSoftwareImageBase64** Upload new firmware image in format base 64 |

|  |
| --- |
| **Function specific parameters** |

|  |  |  |
| --- | --- | --- |
| In | offset | int: offset of the data |
| b64Data | string: base64 data |
| Out | errNo | Not present in Python and C# API! errorCode |

|  |
| --- |
| **JSON Method** |

|  |
| --- |
| method: com.attocube.system.update.uploadSoftwareImageBase64 |
| params: [offset, b64Data] |
| Result: [errNo] |

|  |
| --- |
| **C-DLL call** |

|  |
| --- |
| int **system\_update\_uploadSoftwareImageBase64**(int deviceHandle, int offset, const char\* b64Data) |

|  |
| --- |
| **Python** |

|  |
| --- |
| **[dev].update.uploadSoftwareImageBase64**(offset, b64Data) |

|  |
| --- |
| **Matlab** |

|  |
| --- |
| [] = **system\_update\_uploadSoftwareImageBase64**(offset, b64Data) |

|  |
| --- |
| **C#** |

|  |
| --- |
| void value = [Device].**Update\_UploadSoftwareImageBase64**(int offset, string b64Data) |

|  |
| --- |
| **LabVIEW** |

|  |
| --- |
| Please look up in the Labview VI folder |