

# I/O service

axisio = <http://www.axis.com/vapix/ws/AxisIo>

The I/O service handles which I/O is connected where.

The product's I/O:s can be assigned to `IoUser` items.

- Use `GetIoInfoList()` to get information about all I/O:s.
- Use `GetIoUserInfoList()` to get information about all `IoUser` items.
- Use `GetIoAssignmentList()` to get information about which I/O:s are assigned to which `IoUser` items.
- Use `SetIoAssignment()` to assign an I/O to one or more `IoUser` items.

## PinInfo data structure

Information about a physical pin and which modes it can be used for.

The following fields are available:

`Name` -

Physical pin. Naming convention connector type name:pinnbr, some examples: Door IN 1:1:GND, Door IN 1:2:IN, Reader Data 1:5, Reader Data 1:6 GND means a dedicated ground pin, IN means this is an input, I/O means this is either an input or an output, OUT means this is an output.

`Description` -

Description of pin.

## IoInfo data structure

Information about which physical pin/pins an I/O uses and which modes it can be used for.

The following fields are available:

`IoName` -

## IoUser data structure

Entity to use for assigning I/O:s to a usage of a specific token.

The following fields are available:

Type -

Which type of I/O user is it.

token -

Token used to identify specific IoUser .

Usage -

Short name of usage.

MultiIo -

True if multiple I/O:s can be assigned to this IoUser .

## IoUserInfo data structure

Information about an IoUser . E.g. open/gnd and pu/gnd are possible modes for usage DoorLock of Door0 with token Door1234 of type Door .

The following fields are available:

Name -

Informative name of the user.

IoMode -

Possible modes for IoUser .

IoUser -

## IoAssignment data structure

The configuration entity to configure which mode an I/O should use and to assign it to one or more I/O users.

The following fields are available:

- ..

## IoAssignmentErrorCode data structure

The possible errors when assigning I/Os.

The following values are available:

`Other` -

For future extension.

`Unknown` -

For unknown error code.

`IoDoesNotExist` -

`Io` does not exist.

`IoUserServiceDoesNotExist` -

`IoUser` service does not exist.

`IoUserTokenDoesNotExist` -

`IoUser` token does not exist.

`IoUserUsageDoesNotExist` -

`IoUser Usage` does not exist.

`MultipleIoNotAllowed` -

Multiple I/Os not allowed for this `IoUser` .

`ModeAlreadyAssignedInRequest` -

Different I/O modes assigned multiple times in same request.

`ModeNotAllowedForIo` -

Mode not allowed for `Io` .

`ModeNotAllowedForIoUser` -

Mode not allowed for `IoUser` .

`DuplicateIoAssignment` -

The same `Io` is assigned multiple times in the same request.

The mode to configure the I/O to use.

`IoUser` -

`IoUser` to assign `Io` to.

`Error` -

Error `IoUser` to assign `Io` to.

## GetIoAssignmentList command

Use `GetIoAssignmentList` to retrieve all I/O assignments.

|  |  |
|--|--|
| <code>GetIoAssignmentList</code>         | Access Class: READ_SYSTEM_SENSITIVE  |
| <b>Message name</b>                      | <b>Description</b>   |
| <code>GetIoAssignmentListRequest</code>  | This message shall be empty.   |
| <code>GetIoAssignmentListResponse</code> | <p>This message contains:</p> <ul style="list-style-type: none"><li>• " <code>IoAssignment</code> ":</li></ul> <p><code>axisio:IoAssignment IoAssignment [0][unbounded]</code></p> |

## GetIoUserInfoList command

Use `GetIoUserInfoList` to retrieve all `IoUserInfo` items.

|                                       |                              |
|---------------------------------------|------------------------------|
| <code>GetIoUserInfoList</code>        | Access Class: READ_SYSTEM    |
| <b>Message name</b>                   | <b>Description</b>           |
| <code>GetIoUserInfoListRequest</code> | This message shall be empty. |

## GetIoInfoList command

Use `GetIoInfoList` to retrieve all `IoInfo` items.

|                                    |  |
|------------------------------------|--|
| <b>GetIoInfoList</b>               | Access Class: READ_SYSTEM  |
| <b>Message name</b>                | <b>Description</b>   |
| <code>GetIoInfoListRequest</code>  | This message shall be empty.   |
| <code>GetIoInfoListResponse</code> | <p>This message contains:</p> <ul style="list-style-type: none"><li>" <code>IoInfo</code> ":</li></ul> <p><code>axisio:IoInfo IoInfo [0][unbounded]</code></p> |

## SetIoAssignment command

Use `SetIoAssignment` to assign I/Os.

|                                      |  |
|--------------------------------------|--|
| <b>SetIoAssignment</b>               | Access Class: WRITE_SYSTEM   |
| <b>Message name</b>                  | <b>Description</b>   |
| <code>SetIoAssignmentRequest</code>  | <p>This message contains:</p> <ul style="list-style-type: none"><li>" <code>IoAssignment</code> ":</li></ul> <p><code>axisio:IoAssignment IoAssignment [0][unbounded]</code></p> |
| <code>SetIoAssignmentResponse</code> | <p>This message contains:</p> <ul style="list-style-type: none"><li>" <code>IoAssignmentError</code> ": List of failed assignments, empty if assignments ok.</li></ul>           |