Network Agent - Client

Part of Cindev's Agent Bundle

Compatible Control4 Systems:

Designed to work with OS 3.x+

Driver Download, Change Log & Documentation:

https://drivercentral.io/platforms/control4-drivers/utility/network-agent/

Content

Overview/Features

You can now utilize networking protocols to communicate directly with APIs and other endpoints on the network directly from your Control4 system. The Network Agent Client driver provides you with tools to transfer data using various network protocols including HTTP, TCP, UDP and WoL.

- Send custom HTTP requests
- Send ASCII based messages via TCP or UDP connections
- Global headers can be added to every HTTP request
- Send Wake-On-LAN messages to compatible devices
- Full programming control via conditionals for every portion of a message's request and response

To save money and add other cool features to your projects, consider purchasing as part of the Agent Bundle.

Dealer Notes

- Driver contains a buffer between each call to properly handle Request and Response events
- All headers and queries must use the following format: header1=value1&header2=value2...
- All HTTP requests are sent with the default headers as shown below. You can overwrite these headers by specifying them in the *HTTP Headers* property or clear them by setting them equal to nil (ex. ...&Connection=nil) Accept-Encoding: gzip, deflate, br Accept-Language': en-US,en;q=0.9 User-Agent: Control4/Cindev/[filename] Content-Type: application/json; charset=utf-8 Accept: application/json Connection: keep-alive

- Variables are cleared after each event is processed. To prevent clearing variables turn on Debug Mode in the driver. This is useful in order to determine why a command or conditional is failing.
- The driver utilizes Cindev's variable injection that allows you to insert any device variable into the following fields:
    - HTTP Request: Path, Query, Headers and Body
    - TCP/UDP: Command
- Variable injection can be used in the following format: {DEVICE*ID:VARIABLE}* *ex. {55:LAST*USER_ID}
- Additional variable injection items provided by the driver include:
    - PROJECT -- project name
    - NOW -- current formatted time
    - DATE -- formatted date, usage: {DATE %A, %B %d, %Y %I:%M %p}
    - VERSION -- composer version
    - NAME -- current device display name
    - AGENT -- allows you to used variables from composer agents, usage: {AGENT Email Notification Pro:LAST_RECIPIENT}

Agent Setup

1. Customize client settings (see Client Settings below)
2. Use the programming section of composer to create network requests

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Agent Properties

- *Cloud Status:* Displays driver license state
- *Driver Status:* Displays driver related information
- *Driver Version:* Displays driver version
- *Driver Actions:*
    - *View History:* View client requests/response history on the lua tab
- *Automatic Updates:* Allows the *Cloud Driver* to automatically update the driver when a new version is available

- *Debug Mode:* Displays additional information on the lua tab for debugging purposes

Client Settings

- *HTTP Headers:* global headers that will be used in every HTTP call
- *TCP/UDP Keep Alive:* time to wait for a response when sending TCP/UDP commands

Events

- **Request Sent** Triggered every time the driver sends out a programming command
- **Response Received** Triggered every time the driver receives a response after sending out a command. Certain calls (such as Wake-On-LAN) will not receive responses.

In order to leverage full control of the events utilize conditionals as described in the following section.

Conditionals

Conditionals utilize driver variables to uniquely process each request and response. Each conditional should be used with the corresponding event as follows:

- **Request Conditionals**
    - *Request Host Domain*: Used with HTTP TCP and UPD messages
    - *Request Method*: Used with HTTP messages
    - *Request Path Command* Used with HTTP TCP and UPD messages
    - *Request Headers* Used with HTTP messages
    - *Request Query* Used with HTTP messages
    - *Request Body* Used HTTP messages
    - *Request WoL MAC* Used with WoL messages
- **Response Conditionals**

- *Response Host Domain* Used with HTTP TCP and UPD messages
- *Response Status* Used with HTTP messages
- *Response Headers* Used with HTTP messages
- *Response Message* Used with HTTP TCP and UPD messages

Commands

- **HTTP Request** Send a HTTP request with these custom parameters:
  - *Method*: action the client wants to perform on the resource (GET, POST, PUT, PATCH or DELETE)
  - *Host/Domain*: server that the client is trying to communicate with
  - *Path*: location on the server where the resource resides
  - *Query*: used to pass parameters to the server
  - *Headers*: provide additional information about the request or instructions for the server
  - *Body*: contains data being sent to the server
- **TCP/UDP Command** Send a TCP or UDP command utilizing the following parameters:
  - *Protocol*: protocol used during data transmission
  - *Host/IP*: IP of the server that the client is trying to communicate with
  - *Port*: port of the server that the client is trying to communicate with
  - *Command*: message to send to the server
- **Wake-on-LAN** Power on a device from a low-power state over a network:
  - *MAC Address*: address of the device
  - *Port*: port on the device that accepts WoL command

Support

If you require additional driver assistance or are having some issues please visit our help desk: https://help.drivercentral.io

Showroom and Free Trial

All Cindev drivers for Control4 come with a 7-day trial. Simply add the DriverCentral licensing driver, *Cloud Driver*, along with this driver and you can fully test the driver before purchasing. Including Cindev drivers in your drivercentral showroom project will give you unlimited use without purchase.

Warranty & Disclaimer

www.cindev.com/terms-and-conditions

Developer Information

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Cinegration Development, LLC

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We are always looking to improve our drivers.
Please send your suggestions to: info@cindev.com