# Agilis AG-UC2 & AG-UC8

Agilis<sup>™</sup> Series Controllers











V1.0.x



For Motion, Think Newport<sup>™</sup>



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## Agilis AG-UC2 & AG-UC8 Agilis<sup>TM</sup> Series Controllers

## 1.0 Introduction

#### 1.1 Purpose

The purpose of this document is to provide instructions on how to use the Agilis-UC Applet.

#### 1.2 Overview

The Agilis-UC Applet is a software application that has a graphical user interface (GUI) which allows the user to interact with the AGILIS-UC2 or AGILIS-UC8 controller. An applet can be built to run as an MDI child window executing along side zero or more other applets within the NStruct Instrument Manager application, or it can be built to run as a standalone single window application.

#### **1.3** Controller State Diagram

The AGILIS-UC controller is defined by the following state diagram.



The numbers represent the values of the status that can be queried with the TS command.

Shown are only transitions made by command. Internal transitions like from STEPPING to READY at the end of a PR command are not shown.

#### **Controller's LED display:**

READY:	SOLID GREEN.
STEPPING:	FAST BLINKING GREEN.
JOGGING: MOVING TO LIMIT:	FAST BLINKING GREEN. FAST BLINKING GREEN.

#### 2.0 User Interface

#### 2.1 Configuration

The Configuration tab allows the user to view and / or change information related to the logging configuration and the instrument settings. Read only values are displayed for the log file name and the log file path. The logging level may be changed to any of the settings in the drop-down list on the right hand side. Trace is the most detailed of the settings and when this setting is selected the applet logs everything. Critical Error is the least detailed of the settings and when this setting is selected the applet of the setting is selected the applet will only log errors that are defined to be critical.

LogFileName       Newport.AGILISUC.Log         LogPath       \\Log         Level       Trace         InstrumentInformation       0         PolingFrequency       200         Diagnostics       0         Delay       1000         Models       0         InstrumentInfo       0         InstrumentInfo       0         InstrumentInfo       0         InstrumentInfo       0         InstrumentInfo       0         InstrumentType       AGILIS-UC2, AGILIS-UC8         NoOfInstruments       2         CommunicationChannel       USB	E LoggingConfiguration	0
LogPath       \\Log         Level       Trace         InstrumentInformation       0         PollingFrequency       200         Diagnostics       0         Delay       1000         Models       0         InstrumentInfo       0         InstrumentInfo       0         InstrumentInfo       0         InstrumentType       AGILIS-UC2, AGILIS-UC8         NoOfInstruments       2         CommunicationChannel       USB	LogFileName	Newport.AGILISUC.Log
Level       Trace         InstrumentInformation       0         PollingFrequency       200         Diagnostics       0         Delay       1000         Models       0         InstrumentInfo       0         InstrumentInfo       0         InstrumentInfo       0         InstrumentType       AGILIS-UC2, AGILIS-UC8         NoOfInstruments       2         CommunicationChannel       USB	LogPath	\\Log
□       InstrumentInformation       0         PollingFrequency       200         □       Diagnostics       0         □       Delay       1000         □       Models       0         □       InstrumentInfo       0         □       InstrumentType       AGILIS-UC2, AGILIS-UC8         NoOfInstruments       2         CommunicationChannel       USB	Level	Trace
PollingFrequency     200       Diagnostics     0       Delay     1000       Models     0       InstrumentInfo     0       Instrument Type     AGILIS-UC2, AGILIS-UC8       NoOFInstruments     2       CommunicationChannel     USB	Instrument Information	0
□ Diagnostics       0         □ Delay       1000         □ Models       0         □ InstrumentInfo       0         □ Instrument Type       AGILIS-UC2, AGILIS-UC8         NoOfInstruments       2         CommunicationChannel       USB	PollingFrequency	200
Delay 1000 Delay 0 Models 0 InstrumentInfo 0 InstrumentType AGILIS-UC2, AGILIS-UC8 NoOfInstruments 2 CommunicationChannel USB C:\Program Files\Newport\Instrument Manager\NSTRUCT\Instruments\AG-UC2,::: Save	Diagnostics	0
Models     O     InstrumentInfo     O     InstrumentType     AGILIS-UC2, AGILIS-UC8     NoOfInstruments     2     CommunicationChannel     USB  C:\Program Files\Newport\Instrument Manager\NSTRUCT\Instruments\AG-UC2,::     Save	Delay	1000
InstrumentInfo     InstrumentType     AGILIS-UC2, AGILIS-UC8     NoOfInstruments     2     CommunicationChannel     USB  C:\Program Files\Newport\Instrument Manager\NSTRUCT\Instruments\AG-UC2,;;     Save	E Models	0
Instrument Type     AGILIS-UC2, AGILIS-UC8       NoOfInstruments     2       CommunicationChannel     USB   C:\Program Files\Newport\Instrument Manager\NSTRUCT\Instruments\AG-UC2,;; Save		0
NoOfInstruments     2       CommunicationChannel     USB       C:\Program Files\Newport\Instrument Manager\NSTRUCT\Instruments\AG-UC2       Save	Instrument Type	AGILIS-UC2, AGILIS-UC8
CommunicationChannel USB C:\Program Files\Newport\Instrument Manager\NSTRUCT\Instruments\AG-UC2.;; Save	NoOfInstruments	2
C:\Program Files\Newport\Instrument Manager\NSTRUCT\Instruments\AG-UC2.;;	CommunicationChannel	USB
	C:\Program Files\Newport\Instru	ument Manager\NSTRUCT\Instruments\AG-UC2,.: Save

The polling interval defines the number of milliseconds between each time the applet polls the Conex-AGAP for the latest information. The user may change the polling interval by entering a value.

The **Save** button allows to save the current settings to the configuration file.

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#### **Configurable settings**

The following table describes all the settings that can be change by the user.

Parameter	Description	Values	Default
	LoggingConfiguratio	n	<u>.</u>
Level	Logging level. Trace is the most detailed of the settings and when this setting is selected the applet logs everything. Critical Error is the least detailed of the settings and when this setting is selected the applet will only log errors that are defined to be critical.	Trace Detail Equipment Message Info Warning Error Critical Errror	Trace
	InstrumentInformatio	n	
PollingFrequency	The polling interval defines the number of milliseconds between each time the applet polls the instrument for the latest information.	An Integer	200
	Diagnostics		
Delay	The Delay defines the number of milliseconds (delay) between each command of a file of commands in the diagnostics tab.	An Integer	1000
	Models\InstrumentInf	0	
CommunicationChannel	The communication channel	USB	USB

#### 2.2 Main

The Main tab displays the main controls in the applet like a virtual front panel. It is updated each time the polling interval timer expires.

N Agilis (FTTNQ45S)			_ 🗆 ×
Configuration Main	Diagnostics About		1
Current axis	Current channel	C #3 C #4	Stop
Step amplitude Negative direction	50 Positive	direction 50	Set
Jog Speed (st	ep/s)	Incremental Motion Nb steps	
For devices with lin Position in 1/10	nit switch only	Move to limit	/s)
	Go to target position		
			CLEA
			R

#### "Current axis"

In the "Current axis" area, the axis number is selected for the following functions.

#### "Current channel"

In the "Current channel" area, the piezo actuators are selected by pairs. This area is specific to AG-UC8.

#### "Step amplitude"

In the "Step amplitude", the currents steps amplitudes are displayed in a disabled text box: "Negative direction" and "Positive direction". These steps amplitude can be modified and saved with the "Set" button (Maximum 50).

#### "Jog"

In the "Jog" area, the speed can be defined (5, 100, 666, 1700 steps/s). A jog motion can be performing in the negative direction or a positive direction.

#### "Incremental Motion"

In the "Incremental Motion" area, the step can be defined. For this step, a relative move can be performing in the negative direction or a positive direction.

#### "Position in 1/1000<sup>th</sup>"

#### "Measure current position"

The distance of the current position to the limit in 1/1000th of the total travel is displayed after a measure. This measure is launched using the "Measure current position" button. This only works with devices that feature a limit switch like models AG-LS25, AG-M050L and AG-M100L.



Process of position measurement

#### "Go to target position"

The "Go to target position" button starts a process to move to an absolute position (see below). This only works with devices that feature a limit switch like models AG-LS25, AG-M050L and AG-M100L.



#### "Move to limit"

In the "Move to limit" area, the speed can be defined (5, 100, 666, 1700 steps/s) for starts a motion to the limits. This only works with devices that feature a limit switch like models AG-LS25, AG-M050L and AG-M100L.

#### 2.3 Diagnostics

The Diagnostics tab allows the user to enter instrument commands and to view the history of commands sent and responses received. This list of commands and the syntax of each command can be found in the user's manual for the instrument.

Command :	
Send Disconnect Send	Command file
Command History :	
>>VE	c
< <ag-uc2 td="" v2.2.0<=""><td>E</td></ag-uc2>	E
	R
distration and communication with instrument successful	
giardion and commanication with instanticity adocession	L
gistration and communication with instrument successful egistration and communication with instrument successful	

#### "Send" button

A command can be sent to the instrument with the "Send" button.

#### **Diconnect / Connect button**

The "Disconnect" button allows disconnecting the device. In this case, the button becomes "Connect".

The "Connect" button allows reconnecting the device after a disconnection due to a communication error or due to a click on the "Disconnect" button.

#### "Send Command file" button

A file of commands can be sent line by line to the instrument with the "Send Command file" button.

#### 2.4 About

The About tab allows to display information about the applet and the connected instrument. It displays the applet name, version, and copyright information. It also displays the instrument model, instrument key (serial number) and firmware version.

Property	Value	
Assembly	AGILIS-UC	
Assembly Version	1.0.0.1	
File Version	1.0.0.3	
Copyright	Copyright  Newport Corporation 2011	
Supported Models	AGILIS-UC2, AGILIS-UC8	
Device version	AG-UC2 v2.2.0	
Instrument Key	Agilis (FTTNQ45S)	



## **Service Form**

#### Your Local Representative

	1
Tel.:	
Fax:	

Name:	Return authorization #:
Company:	(Please obtain prior to return of item)
Address:	Date:
Country:	Phone Number:
P.O. Number:	Fax Number:
Item(s) Being Returned:	
Model#:	Serial #:
Description:	
Reasons of return of goods (please list any specific problems):	



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