



# SOLIDYNE NIAGARA DRIVER INSTALLATION GUIDE

## Install & Setup Guide for NIAGARA/JACE<sup>AX</sup> Solidyne Driver

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This document covers the initial NiagaraAX software installation and configuration for a QNX-based JACE controller, e.g. JACE-2, JACE-3, JACE-6, (JACE-2/3/6) or JACE-7 series, as well as any JACE-4/5 series, using Workbench AX-3.7 or later. It assumes that you are an engineer, technician, or service person who is performing control system installation.

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**Overview** The Solidyne Niagara Driver (Solidyne Driver) has been designed to allow the points from a Solidyne M2 and/or IZAC system to be imported/discovered within the Tridium Niagara Framework. The M2/IZAC controllers communication via 3 wire RS-485 and the Solidyne Driver requires the JACE to have 1 available RS-485 port. The JACE 2, 3 & 6 have one (1) onboard RS-485 COM port (COM2) which will be used in the examples throughout this document. Below is the list of supported functions. Configuration of these points and many other aspects of the M2/IZAC controllers and system still require the use of Solidyne’s ICMS programming/commissioning tool.

M2 POINT TYPE	READ ONLY	READ & WRITE	NIAGARA POINT TYPE
Universal Input (Average)	X		NUMERIC WRITABLE
Universal Input (Instant)	X		NUMERIC WRITABLE
Universal Input (Override)		X	BOOLEAN WRITABLE
Universal Input (Force)		X	NUMERIC WRITABLE
Digital Output	X		BOOLEAN WRITABLE
Digital Output (Force)		X	BOOLEAN WRITABLE
Analog Output	X		NUMERIC WRITABLE
Analog Output (Force)		X	NUMERIC WRITABLE
Virtual Point		X	NUMERIC WRITABLE

**Preparation** To prepare both your Niagara engineering tool (Workbench) and JACE platform for the driver installation, you must first download the **solidyne.jar** file to the modules directory of both the engineering tool and JACE. The driver jar file is freely available to download from our website <http://www.solidyne.com>

**Engineering Tool:**

Copy solidyne.jar file to C:\Niagara\Niagara-x.x.x.x\modules\

**JACE platform:**

After the solidyne.jar file has been copied to the path above, open the engineering tool (Niagara Workbench v3.7 or greater) and follow the steps below using the engineering tool:

1. Open Platform connection **File>Open>Open Platform**
2. Enter **IP address** of the JACE (typ. 192.168.1.12x where x is last number of serial# of JACE)
3. Enter **username & password** (typ. tridium & niagara)
4. Open **Platform>Software Manager**
5. Scroll down and select **solidyne** from the list
6. Click **Install button**
7. Click **Commit button**

The solidyne.jar file is now properly located on your PC and the JACE and ready to be used in the station's drivers folder.

**3 wire RS-485 connection** As previously stated, the M2/IZAC system uses RS-485 for communication. The JACE has one (1) onboard RS-485 port on COM2. To properly wire the 3 wire RS-485 into the 3 position terminal block of the JACE, please use the table below.

M2	JACE
B+	+
B-	-
C-C	S

**Add Solidyne Driver to station** To add the driver to the station, follow the steps below using the engineering tool:

1. Open Platform connection **File>Open>Open Station**
2. Enter **IP address** of the JACE (typ. 192.168.1.12x where x is last number of serial# of JACE)
3. Enter **username & password** (typ. admin without password)
4. Open **Station>Config>Drivers**
5. Click **New** button at bottom
6. Select **"Solidyne Network"** from the drop down list (Number to add should be 1)
7. Click **OK** button

**Configure Solidyne Driver properties** The driver, when added to the station, requires some configuration properties to be modified. Using the engineering tool, follow the steps below:

**Note:** *There are MANY configuration properties in the Solidyne Network Property Sheet, please only change properties listed in this document.*

1. Right click the newly added **Solidyne Network** in the Drivers list and select **Views>Property Sheet**
2. Expand **Communicator>Serial Port Parameters** and make the following selections

Port Name	COM2
Baud Rate	Baud9600*
Data Bits	Data Bits8
Stop Bits	Stop Bit1
Parity	None
Flow Control Mode	All unchecked

\*this selection should match the network baud rate (typ. 9600 baud)

### **Import points via CSV files**

The easiest way to import points from an M2/IZAC system into Niagara is to use the driver's Import tool. This import function uses .csv files that are created by the ICMS programming/commissioning tool. For more information on how to create these .csv files, view the ICMS software manual.

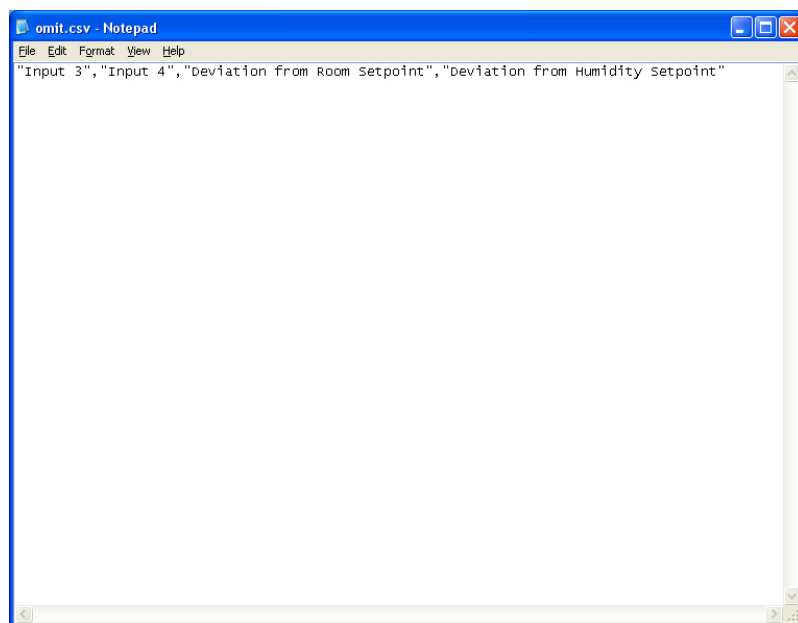
The .csv files can be located in any directory that the engineering tool can navigate to, even a network drive or USB memory stick. The .csv files hold all of the information and details about the network. Most importantly it holds the node addresses, controller names and point labels, making the point creation and engineering process quick and simple. To use the .csv files, follow the directions below detailing the driver import function.

1. Navigate to **Station>Config>Drivers>Solidyne Network**
2. Click **Import** button at bottom
3. A popup window appears, select the directory with the .csv files
4. Click **Choose** button
5. After a period of time, the import function will complete.

**Note:** This process will also change the name of the "Solidyne Network" to the name of the Network in the Network.csv file.

### **Filter unwanted points using omit.csv**

The driver's .csv file import tool automatically deselects points with the label "New device" and points without a label. If there are other points on the system that you would like the import tool to also deselect, you can create a filter by adding an "omit.csv" file in the same directory as the other .csv files. This is a comma separated file that should be created in Notepad. A screen shot example is below. Notice that the omit.csv file lists 4 point names that should be deselected in the import tool. Another screen shot is shown as the result of the omit.csv file filter in the input window.



### **Using the Driver on IZAC systems**

It is possible to use the Solidyne Driver on systems with IZAC controllers. The difficulty with using this driver on IZAC systems is that the driver does NOT issue request for publishing to the network. Thus, the IZAC's will NOT publish any data that the driver can "see".

It will be required to install an M206-AX module on the network to "force" the IZAC's to publish continually so that the driver can passively listen and display data.

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**Licensing** The driver will run unlicensed for 2 hours, requiring reboot for 2 more hours. When ordering the driver, please submit the JACE host ID. After submitting the host ID and order, a Solidyne representative will email you an unlock code. You can enter this code at the following Property Sheet location. After entering the code, click the Save button at the bottom and reboot the JACE.

Station>Config>Drivers>Solidyne Network>Code