# TA Instruments
# SA+ Software
# Installation Procedure

## Preparation to Update Existing SA or SA + Software

**1** Create a new directory and move any data to insure it is saved to the new directory. Do not use the path/name **C:\SA+ Data**.

**2** To save calibration and setup values, copy an existing calibration ini file to a safe location.

- For SA software updates, the file is usually named **FlowII.ini** and is in the existing Isotherm program directory in the root on the PC's C drive.

- For SA+ software updates, the file is in a subdirectory at C:\Program Files\ TA\ and will be named **TA_SA+.ini**.

**3** Run Windows Update. Install all available updates.

**4** Power the PC off.

## SA+ Software Installation

**1** Unplug the two SA/SA+ USB cables from the computer.

**2** For an installation from DVD, run **Setup.exe** on the DVD.

**3** Software downloaded from the TA web site is a single file with the extension exe. Simply run this file.

**4** If you are replacing old software, the new installation will likely request that all National Instrument software be uninstalled first. If this is the case:

- Go to Programs and Features

- Uninstall all National Instruments programs, including those named NI… such as NI LabVIEW Run-Time Engine.

**5** Authorize all the various licenses during the install.

**6** If you will be using a GIGE camera you may enter the IMAQdx license key at the request – or cancel it and do it later.

# Install the NI USB Devices

**1**   Run NI Measurement And Automation  (MAX).

**2**   Click on **Data Neighborhood** and then **NI-DAQmx Tasks**.

**3**   Verify that there are 12 tasks in a new installation. There may be more if you are installing over old software.

**4**   Click on **Devices and Interfaces**.

**5**   Delete all NI USB-6221 devices. There should be at least two.

**6**   Connect the USB cable to Device 1. Wait for it to appear under devices.

**7**   Connect the USB cable to Device 2. Wait for it to appear under devices.

**8**   Close MAX.

**9**   Reboot the PC.

# Enter Calibration Values

**1**   Rename the file **TA_SA+.ini** at C:\Program Files\ TA\ SA+ Programs to **TA_SA+.dmy**.

**2**   For SA+ updates or first time installation:

- On new units a calibration file with correct values is provided on the DVD.

- For SA+ updates use the TA_SA+.ini you saved with correct values earlier in this procedure.

- In these cases, simply copy your existing TA_SA+.ini file with correct values to C:\Program Files\ TA\ SA+ Programs.

**3**   Users updating from old SA code to SA+ code must edit their ini files by hand.

- Print this page and use the paper copy to follow the instructions.

- Make a copy of the TA_SA+.dmy file.

- Name it **TA_SA+.ini**.

- Open it with MS notepad on the right side of you monitor.

- Open the ini file with the correct value  with MS notepad on the left side of you monitor so the two file are sided by side.

- Copy the values from the left file and item specified in the left column below to the file in the right window at the corresponding item in the right column below. Use the table below to change the old name to the new name. Transfer and change only the values specified in this table.

- Save and close the file.

**4**   Close the C:\Program Files\ TA\ SA+ Program directory.

Installation is now complete

# SA to SA+ Calibration File Translation Table

| SA Name (FlowII.ini) | SA+ Name (TA_SA+.ini) |
|---|---|
| Analog Inputs ||
| DP Gain | DP Gain |
| EnclTemp Gain | SatTemp Gain |
| EnclTemp Intercept | SatTemp Intercept |
| EnclTemp Slope | SatTemp Slope |
| | |
| SampTemp Gain | BlockTemp Gain |
| SampTemp Intercept | BlockTemp Intercept |
| SampTemp Slope | BlockTemp Slope |
| SampTemp Tolerance | BlockTemp Tolerance |
| | |
| Analog Outputs ||
| Encl Temp Diff | Sat Temp Diff |
| Enclosure Gain | Saturator Gain |
| Enclosure Intercept | Saturator Intercept |
| Enclosure Slope | Saturator Slope |
| | |
| SampBath Factor A | BlockTemp Factor A |
| SampBath Factor B | BlockTemp Factor B |
| SampBath Intercept | BlockTemp Intercept |
| SampBath Slope | BlockTemp Slope |
| | |
| Calibration ||
| Last Cal | Last Cal |
| | |
| Microbalance ||
| BaudRate | BaudRate |
| ComPort | ComPort |
| Type | Type |
| WeightAtStart | WeightAtStart |
| | |
| RH ||
| DP Intercept | DP Intercept |
| DP Slope | DP Slope |
| Press Fact | Press Fact |