

ADAM-6024
12 channel Universal
Input/Output Module
User's Manual

ADAM-6024 12 channel Universal Input/Output Module

The ADAM-6024 is a 12 channel Universal Input/Output module. There are six analog input, two analog output, two digital input and two digital output channels. The analog input channels is 16-bit, universal signal accepted design. It provides programmable input ranges on all channels. It accepts various analog inputs $\pm 10V$, $0\sim 20mA$ and $4\sim 20mA$. The analog output channel is 12 bit with $0\sim 10V$, $0\sim 20mA$ and $4\sim 20mA$ acceptable input type. Each analog channel is allowed to configure an individual range for several applications.

ADAM-6024



Fig. 1 ADAM-6024 Drawing

Application Wiring

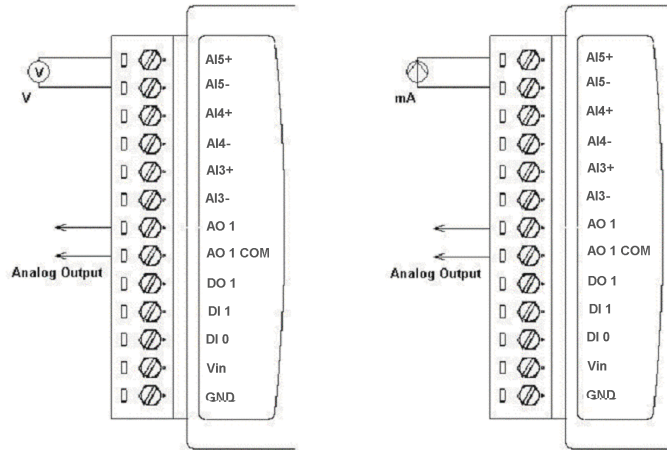


Fig. 2 Analog Input/Output Wiring Diagram

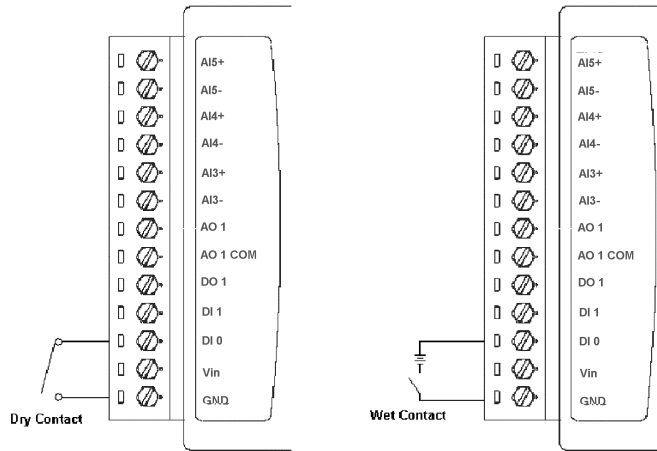


Fig. 3 Digital Input Wiring Diagram

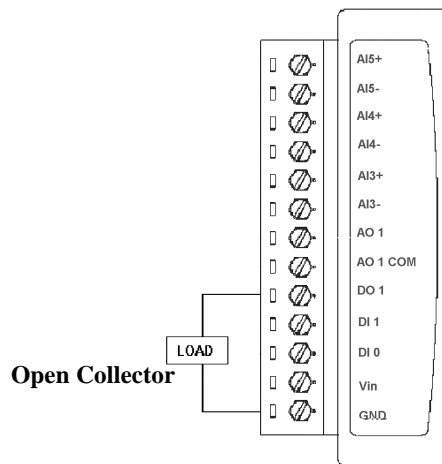
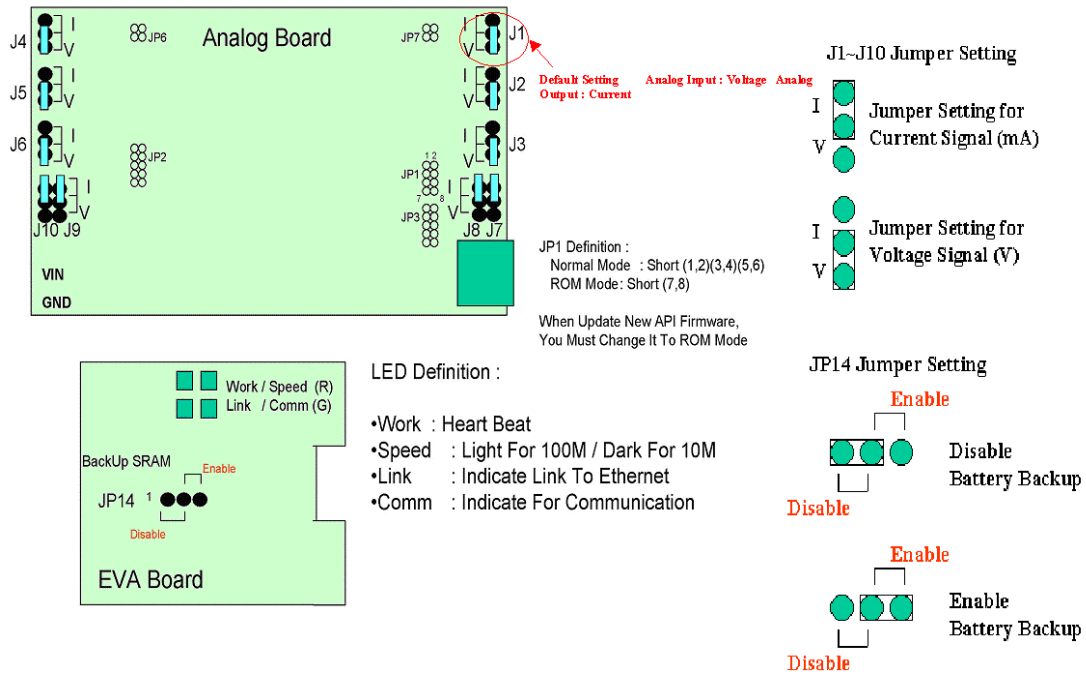


Fig. 4 Digital Output Wiring Diagram

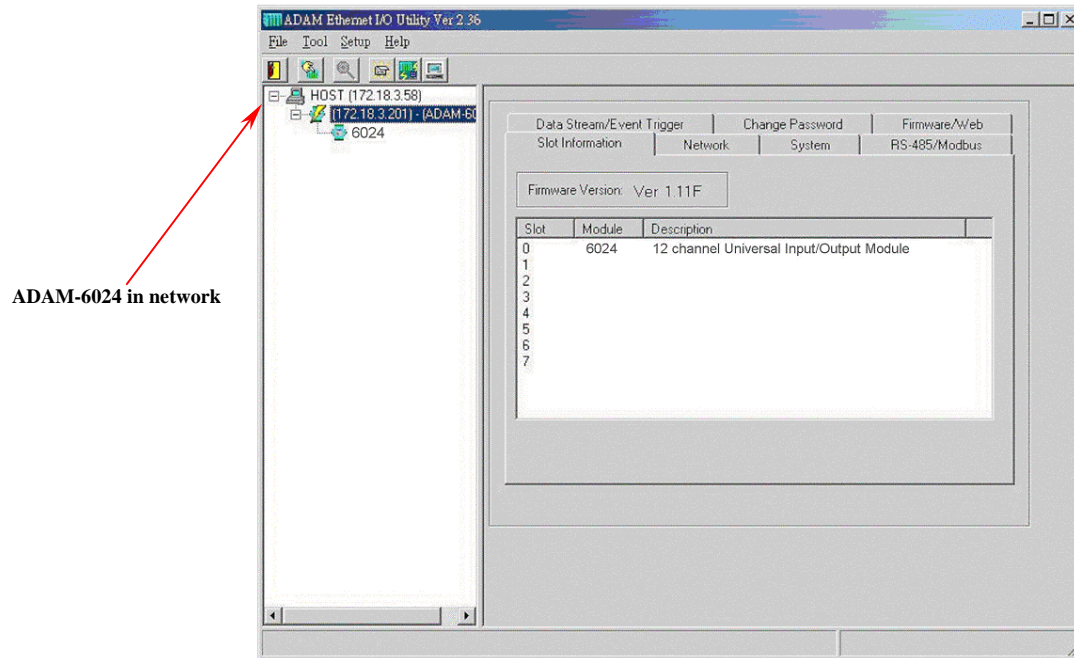
Jumper Setting



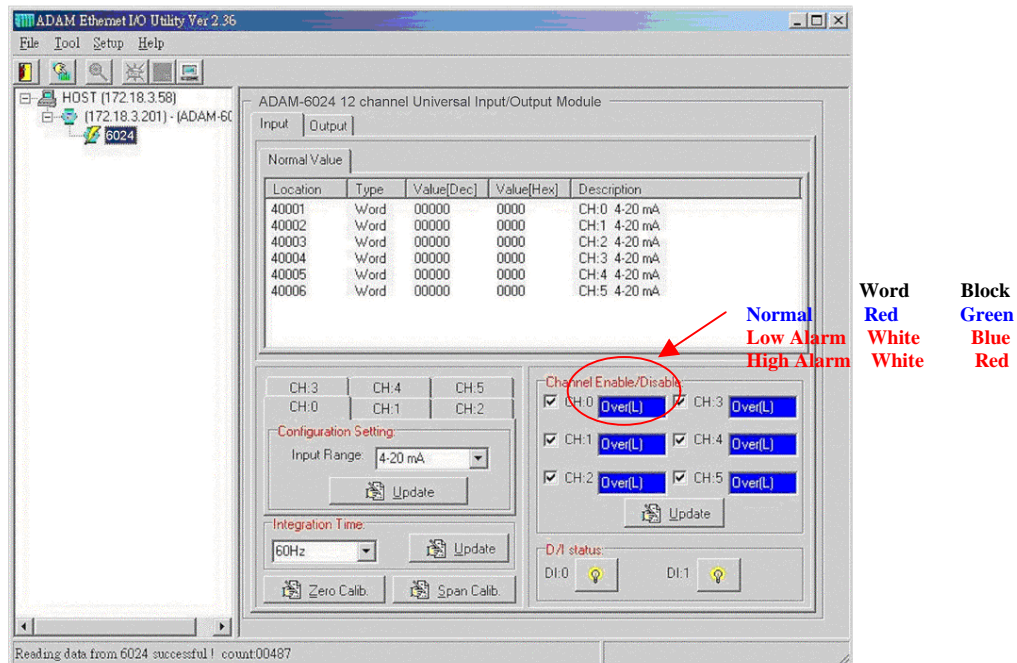
Note : If user want to re-configure the analog input/output signal type, not only change the setting in the utility software, but also the hardware jumper setting need to be changed.

Operation Interface

Open the ADAM Ethernet IO Utility Software, the software tool will auto-scan the ADAM Ethernet module through the network. Clicking the “6024” in the system tree of left dialog block,

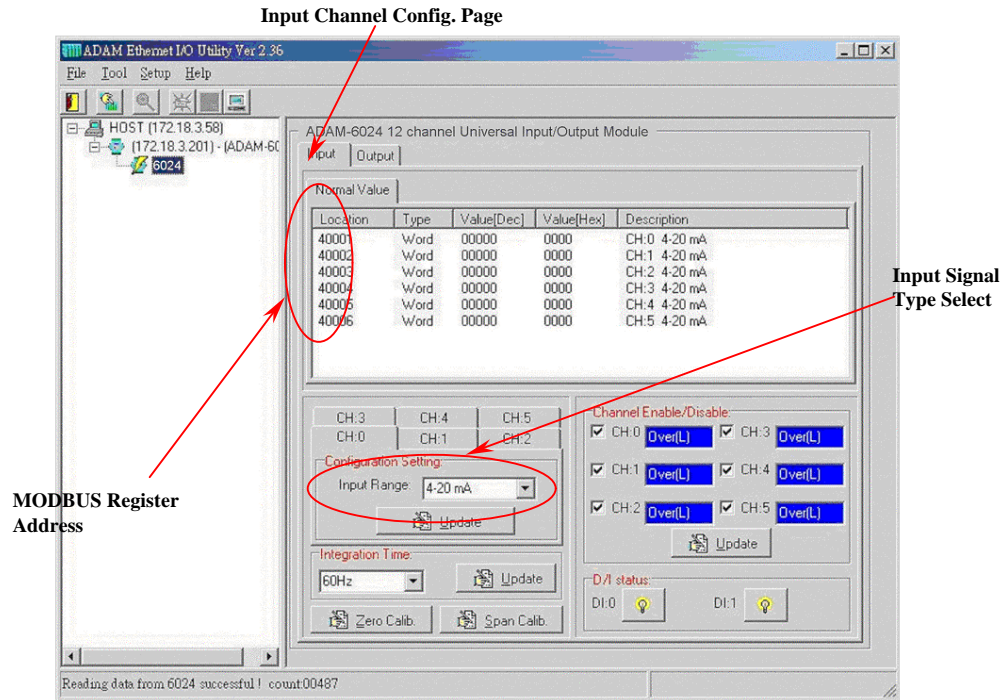


Clicking the “6024” in the system tree of left dialog block to go to ADAM-6024 configuration page. In this page, user can configure the input channel, output channel.

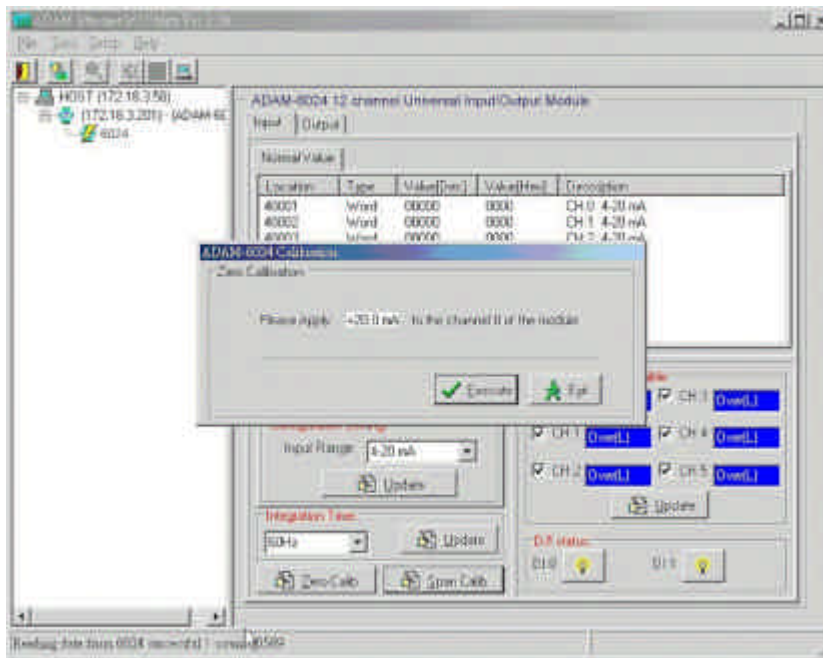
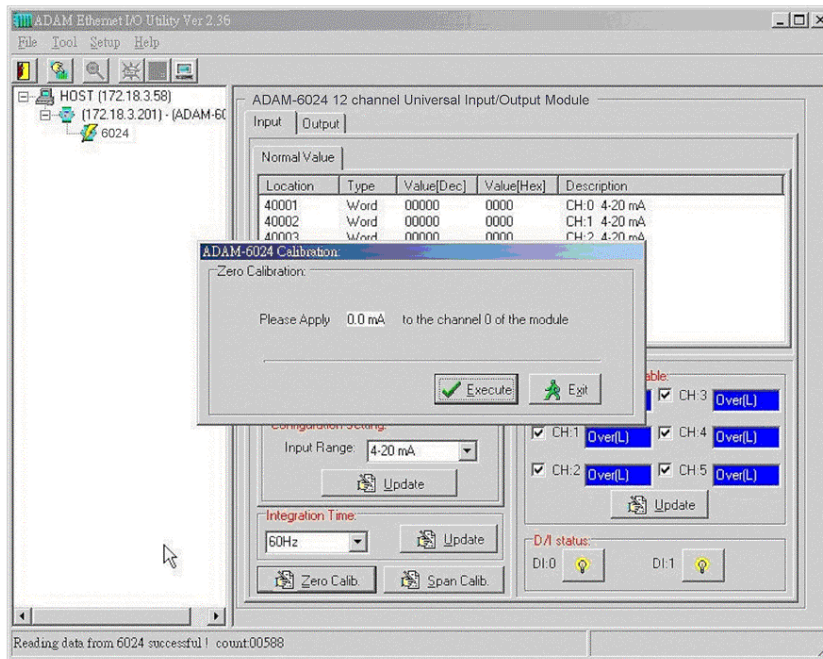


Input Channel Configuration Page :

In ADAM-6024 input channel configuration page, user can enable the input channel, select the input signal type and select the DI status. ADAM-6024 also support MODBUS/RTU protocol, user can see the detail MODBUS address register number for each channel in this page. It can be a very important reference for communication work.

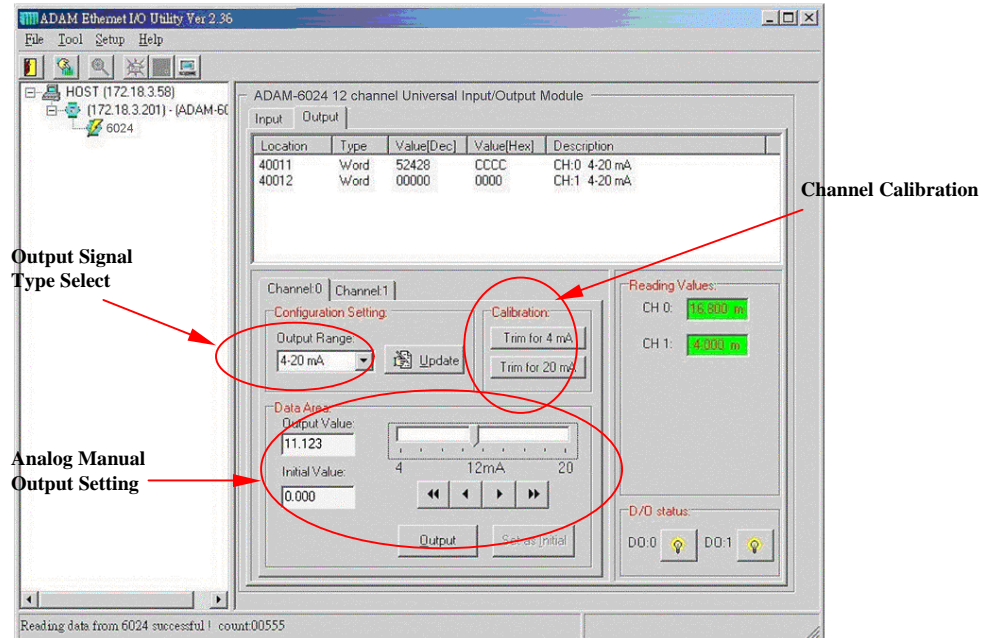


ADAM-6024 input channel configuration also support Zero and Span calibration function. Clicking the “Zero Calib” and “Span Calib” bottom to go to the calibration dialog block, user can set the initial zero value and span range then click the “Execute” bottom to proceed the channel calibration work. Please refer the following pictures for operation guideline.



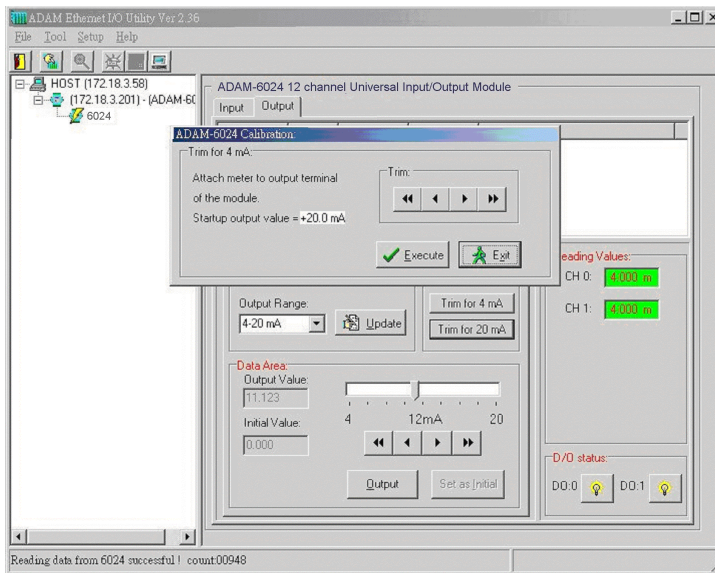
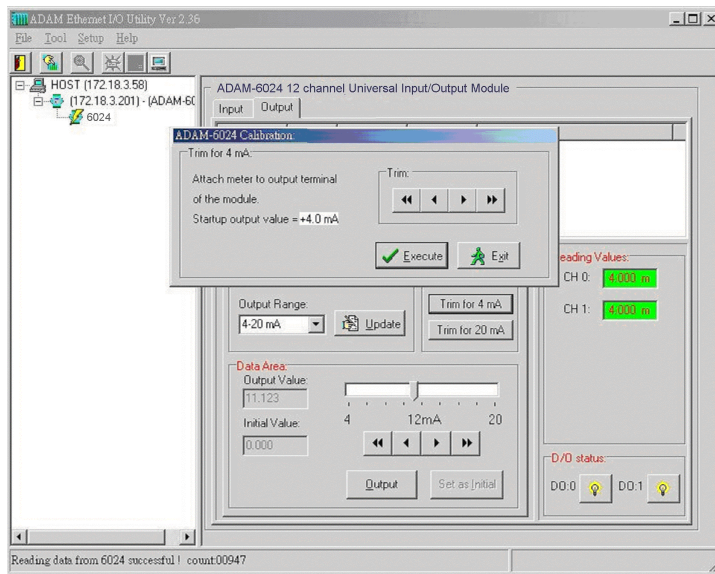
Output Channel Configuration Page :

For output channel configuration, there are two analog output channel in ADAM-6024. The configuration for output channel is quite similar as input configuration. User can easily to finish the configuration with the friendly operating interface of ADAM-6024 utility software.



User can use “Data Area” to setup the analog output to send a specific value for such kind application. This function can also be controlled with MODBUS/TCP protocol through Ethernet network for HMI/SCADA application.

For calibrating the analog output channel, user can use external certificated signal measured device as calibrator then use the “Trim for 4mA” and “Trim for 20mA” calibrating function to fine tuning the channel output signal for calibration requirement.



MODBUS TCP/UDP

MODBUS functions address mapping

For Coils

Address	Remarks
10001	DI 0 status
10002	DI 1 status
10003~10016	Reserved (for those reserved area, there will be no effect if you set it)
10017	DO 0 status
10018	DO 1 status
10019~10128	Reserved

For registers

Address	Remarks
40001	AI 0 value
40002	AI 1 value
40003	AI 2 value
40004	AI 3 value
40005	AI 4 value
40006	AI 5 value
40007~40010	Reserved
40011	AO 0 value
40012	AO 1 value
40013~40020	Reserved
40021	AI 0 status (0: normal; 1: over high; 2: over low; 3: invalid calibration)
40022	AI 1 status
40023	AI 2 status
40024	AI 3 status
40025	AI 4 status
40026	AI 5 status
40027~40064	Reserved
---	Not support
10000~(9999)~	MODBUS ASCII command data area