



# USB Control Module Software Utilities

## User Guide

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### About the Software

The USB Control Module Software Utilities is service application software installed on a personal computer that enables:

- Firmware updates be uploaded to a dome camera or USB Control Module
- SensorNet activity to be analyzed
- Control of a dome camera from a personal computer via the USB Control Module.

### Related Document

- ADACSNET USB Control Module Installation Guide, 8200-0310-01

### Hardware and Software Requirements

- **USB Control Module and Cable:**  
Supplied
- **PC/Laptop hardware:**  
PC system with USB port
- **Operating system:**  
Microsoft® Windows® XP or Windows Vista
- **Utilities:**  
WinZip® compression utility for Windows. Go to <http://www.winzip.com/> to download a trial version of this utility and/or to purchase it.

### Software Installation

This section describes how to install service application software.

#### Installing the USB Driver

1. On the Internet, go to:  
<http://americandynamics.net/home/default.aspx>
2. Click on the **Support** menu choice.
3. In the dropdown menu, select **Software Downloads**.
4. Scroll down to **SpeedDome and Accessories** and click on **USB Control Module (ADACSNET)**.
5. Click on **USB Control Module Drivers**.
6. Click on **ADACSNET\_Drivers.zip** to download the file.
7. Unzip the “ADACSNET\_Drivers.zip” file to a temporary folder on the Windows desktop.
8. Connect the USB control module to a PC using the supplied USB A/B cable. Windows should indicate that new USB hardware was found and will launch the Found New Hardware Wizard (Figure 1).

Figure 1. New hardware found screen



9. Click **Next**. The Install Hardware Device Drivers screen appears.

Figure 2. Install Hardware Device Drivers screen



10. Select **Search for a suitable driver for my device (recommended)** and click **Next**. The Locate Driver Files screen appears.

Figure 3. Locate Driver Files screen



11. Check **Specify a location** and click **Next**. The following screen appears.

Figure 4. Copy manufacturer's files screen



12. Click **Browse**, and select the path to the temporary folder created in Step 7.
13. Follow the installation wizard prompts to finish the USB driver installation.
14. Once the USB driver installation completes, delete the temporary folder from the desktop.

## Installing Software Utilities

1. On the Internet, go to: <http://americandynamics.net/home/default.aspx>
2. Click on the **Support** menu choice.
3. In the dropdown menu, select **Software Downloads**.
4. Scroll down to **SpeedDome and Accessories** and click on **USB Control Module (ADACSNET)**.
5. Click on **USB Control Module Utilities**.
6. Click on **AD Utilities6.06.zip** to download the file.
7. Unzip this file to a temporary folder on the Windows desktop.
8. In the temporary folder, double click the **Setup.exe** file.
9. Follow the installation wizard prompts until the installation is completed.

**Note:** To load new firmware, refer to the section, Loading New Firmware, on page 3.

## Using Utilities Software

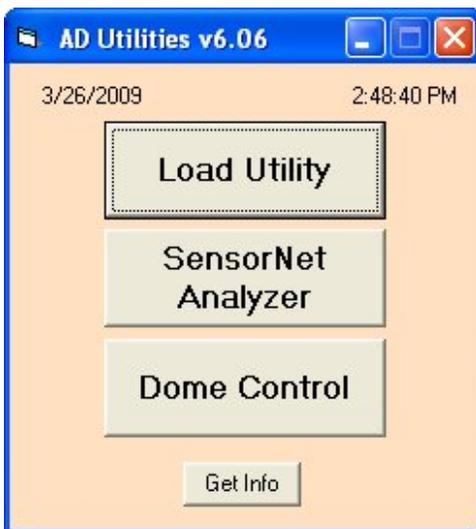
This section describes how to:

- Use the software Load Utility to upload firmware updates to a dome camera or a USB control module
- Use the software to monitor and display SensorNet activity
- Use the software to control a dome camera.

Do the following:

1. On the desktop, click **Start > Programs > American Dynamics**, and select **AD Utilities6.06**. The AD Utilities v6.06 menu appears (Figure 5).

Figure 5. AD Utilities v6.06 menu



The AD Utilities v6.06 menu displays buttons for three USB control module utilities: Load Utility, SensorNet Analyzer, and Dome Control.

**Note:** The time and date are also displayed. Also, a “Get Info” button provides version information for each utility, the USB module, and the “SnetUsb.dll” file (Figure 6).

Figure 6. Version Numbers



2. Select from the AD Utilities v6.06 menu buttons to do the following:
  - **Load Utility.** Use to upload new firmware code to either a dome camera or USB control module.
  - **SensorNet Analyzer.** Use to monitor a SensorNet Network and to display the communication protocol and timing between a controller and any SensorNet device.
  - **Dome Control.** Use to program and control a SensorNet dome camera.

## Loading New Firmware

Use the Load Utility button to upload new code to the dome camera (default) or USB Control Module.

**Note:** The Load Utility requires you to place the dome firmware into the folder:

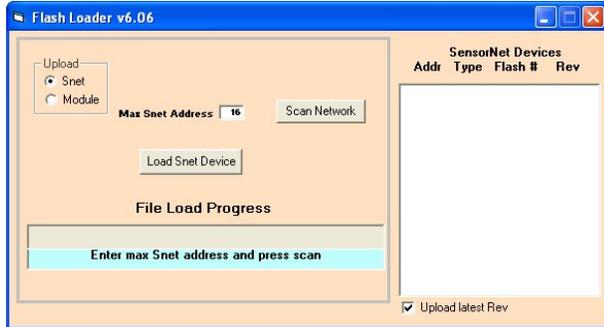
C:\Program Files\American Dynamics\AD Utilities 6-06.

## Uploading to a Dome Camera

1. On the Internet, go to:  
<http://americandynamics.net/home/default.aspx>
2. Click on the **Support** menu choice.
3. In the dropdown menu, select **Software Downloads**.
4. Scroll down to **SpeedDome and Accessories** and click on **SpeedDome Ultra & SpeedDome Optima**.
5. Locate and download the Ultra 8 Version 2 firmware .zip file to a temporary file on the Windows desktop.
6. Extract the zip file to the folder:  
C:\Program Files\American Dynamics\AD Utilities6-06.
7. Delete the temporary file from the desktop.

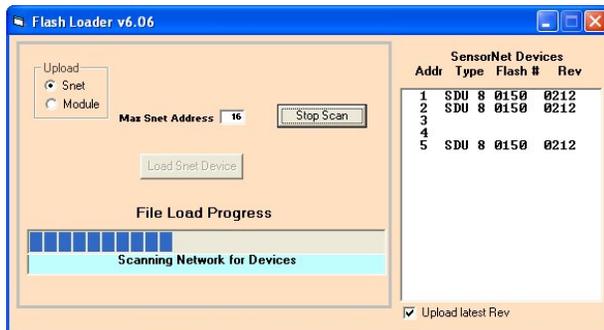
- On the AD Utilities v6.06 menu, press **Load Utility**. The Flash Loader panel appears (ensure Snet is selected).

Figure 7. Flash Loader panel



- Enter the maximum SensorNet address in the **Max Snet Address** window. Valid addresses are in the range 1-239.
- Click **Scan Network**. The SensorNet Devices window will list the address, type, flash number, and revision of each dome on the network.

Figure 8. File Loader scan complete panel



- Select a dome that is to be updated.  
**Note:** Select only one dome at a time for updating.
- Uncheck the **Upload latest Rev** box to permit the file selection box to be displayed. The interface displays the file selection list box on the left side of the screen (Figure 9).
- Click **Load Snet Device** to start the upload. If the message "File not found" appears and an error is reported, begin again at Step 1.

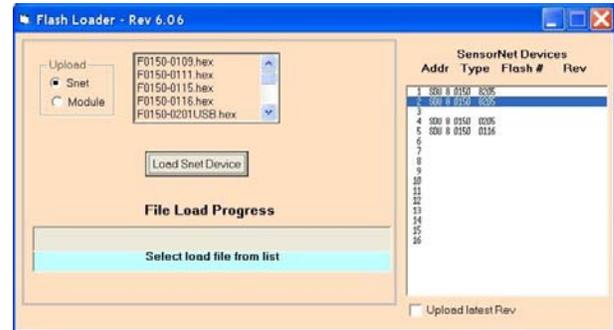
Loading progress is indicated in the File Load Progress window.

**Note:** If a dome does not respond with usable data for a device as shown in Figure 9, double click the device address to be loaded.

- Select the appropriate file to be loaded to the dome, and then click **Load Snet Device**. Load progress is indicated in the File Load Progress window.

**Note:** If only one hex file is present in the directory, it will be automatically loaded and Figure 9 will not be displayed.

Figure 9. SensorNet Devices window



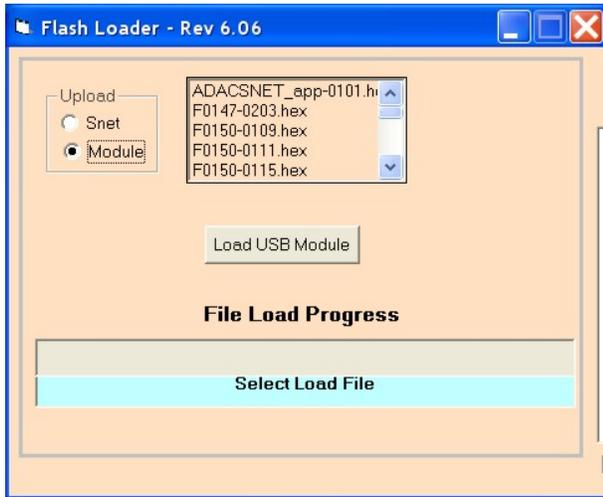
- After the upload has completed, return to the Dome Control Utility menu, and double click on **Init Dome** for this camera to initialize the dome and clear the memory on the IO board.

## Uploading to the USB Control Module

To upload new code to the USB Control Module, do the following:

- On the Internet, go to:  
<http://americandynamics.net/home/default.aspx>
- Click on the **Support** menu choice.
- In the dropdown menu, select **Software Downloads**.
- Scroll down to **SpeedDome and Accessories** and click on **USB Control Module (ADACSNET)**.
- Click on **USB Control Module Firmware**.
- Click on "ADACSNET\_Firmware.zip" to download the file to a temporary file on the Windows desktop.
- Extract the "ADACSNET\_Firmware.zip" file to "C:\Program Files\ADUtilX\_XX".  
**Note:** X\_XX represents the latest version number.
- When finished, delete the temporary file from the desktop.
- On the USB Module Utility Panel (Figure 7), click **Load Utility**. The Flash Loader panel appears.

Figure 10. Flash Loader panel



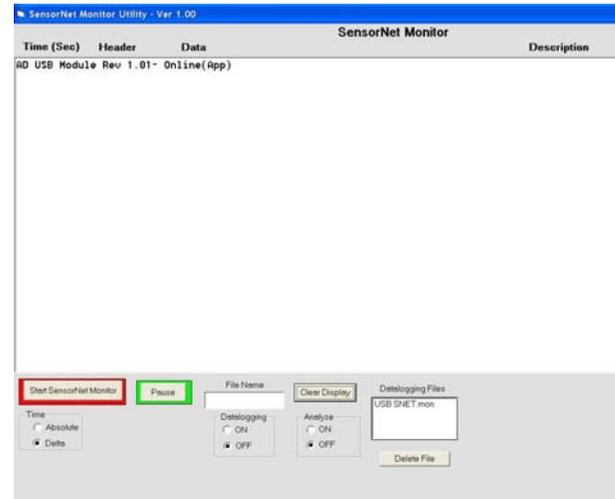
10. Click **Refresh** to display current files in the file selection window.
11. In the Upload box, select **Module**.
12. Click **Load USB Module** to start the upload process. Load progress is indicated in the File Load Progress window.
13. To complete the firmware update, power cycle the USB control module by temporarily disconnecting the USB connection.

## SensorNet Analyzer

The SensorNet Analyzer is used to monitor SensorNet activity. To use the analyzer:

1. Connect the SensorNet terminals of the USB control module to the SensorNet network to be monitored.
2. On the USB Module Utility Panel, click **SensorNet Analyzer**. The SensorNet Monitor Utility window appears.

Figure 11. SensorNet Monitor Utility window



This SensorNet Monitor Utility window displays SensorNet activity. Packet information is displayed with a time stamp and function description.

Functions that appear in this window are as follows:

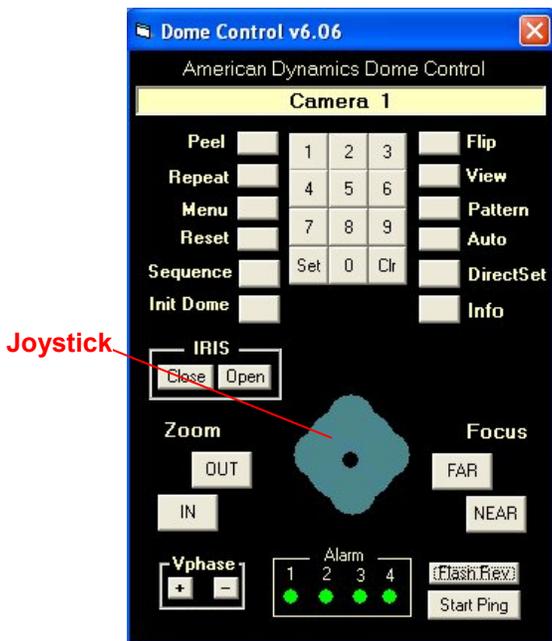
- **Start SensorNet Monitor.** Click (button turns green) to display SensorNet packet activity. To stop monitoring, click **Stop SensorNet Monitor** (button turns red). If datalogging is enabled, the datalog file is added to the Datalogging Files window list.
- **Pause.** Click (button turns red) to pause monitoring. Click again to continue monitoring (button turns green).
- **Clear Display.** Click to clear the main display window.
- **Datalogging Files.** This window lists currently stored datalogging files. Clicking a file name in this window enables the Analyze function.
- **Time.** Enables the time stamp to display time from the start of monitoring (Absolute) or the change from the previous packet (Delta).
- **Datalogging (ON, OFF).** Click **ON** to store SensorNet data packets to a file. The utility automatically generates a datalogging file name and displays it in the File Name window. The file name contains the date, time and has a “.mon” extension. Double clicking within the File Name window highlights the file name and allows a file name to be created using the keyboard. The “.mon” extension is automatically added.

- **Analyze (ON, OFF).** When **ON**, the utility displays the selected datalogging file in the main display window instead of current network activity. Select **OFF** to turn off this function.
- **Delete File.** Click file name in the Data Logging Files window. Click **Delete File** to delete the file.

## Dome Control

Connect the USB control module to the SensorNet input of the dome camera. Then, on the USB Module Utility Panel, click **Dome Control** to display the Dome Control panel.

Figure 12. Dome Control panel



Functions in the Dome Control window are as follows:

- **Select Dome Camera.** To enter the dome camera address, click the numeric (0-9) keys and then **Set**. The display indicates the currently selected camera. To erase an incorrect number, click **Clr** before **Set**.
- **Peel.** Click to have the dome perform the “Apple Peel” pattern. Initiate any PTZ function to cancel this pattern.
- **Repeat.** Click to repeat the current pattern.
- **Menu.** Click to display the Dome control menu view (Figure 16 on page 8).
- **Reset.** Double click to reset the dome camera.

- **Sequence.** Click to program a sequence of views. A sequence is a series of programmed presets with defined dwell times. You can have a maximum of 16 views for each sequence.
  - To define a sequence:
    1. Program your dome camera presets using the joystick and the Zoom and Focus buttons.
    2. Click **Set**, select a sequence number, and click **Sequence**. The display blinks in the first entry for the sequence.

Figure 13. Sequence display



Sequence display

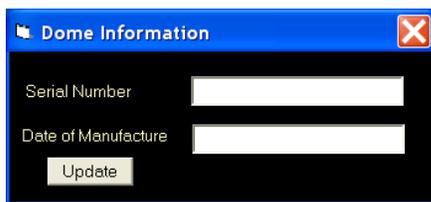
3. Click **Set** again to move to the preset field, select the preset number, and click **Set**.
  4. Select the dwell time (in seconds), click **Set**.
  5. Repeat step 1 through 4 to define additional entries in the sequence.
  6. When you are finished adding entries, click **End Sequence**.
- To run a stored sequence, select the sequence number, and then click **Sequence**.
  - To end a sequence that is running, click **Stop Sequence**.

**Note:** If you have defined sequences for different cameras, you can switch between cameras without clicking **Stop Sequence** to view these individual sequences. Clicking **Stop Sequence** will stop all the running sequences.

- **Init Dome.** Double click to initialize the dome. This clears all program data from the dome and I/O board.
- **Flip.** Click to move the pan axis of the dome camera 180°.

- **View (also known as Target, Preset).** To go to a stored view, use the numeric keypad to enter the view number and click **View**. To store a view, click **Set**, enter the number, and click **View**.
- **Pattern (also known as Tour).** To run a stored pattern, enter the pattern number (1-3) using the numeric keypad and click **Pattern**.
  - To repeat a pattern continuously, click **Repeat**, enter the pattern number (1-3) using the numeric keypad, and click **Pattern**.
  - To define a pattern, click **Set**, enter the pattern number (1-3) using the numeric keypad, and click **Pattern**. Pan, tilt, and zoom the dome until the pattern has run. To end the pattern, click **Pattern**.
  - To review the pattern just defined, click **Pattern**. If the pattern is acceptable, click **Set** and then **Pattern** to replace the pattern designated at the beginning of the definition sequence.
- **Auto.** Click to return iris and focus functions to automatic.
- **DirectSet.** Click to have the dome display the DirectSet menu. To begin any DirectSet function, enter the number on the video display and then click **DirectSet**. To clear the menu, click **DirectSet** again. If you know the number, enter it before clicking **DirectSet** to bypass the dome DirectSet menu.
- **Info.** Click to display the Dome Information dialog box (Figure 14), which shows the dome serial number and date of manufacture. If you want to change this information, enter the new data and click **Update**.

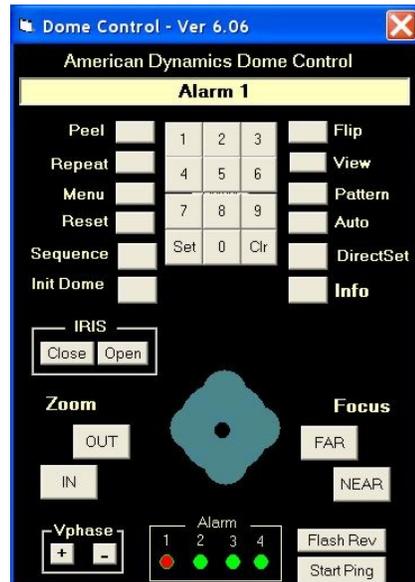
Figure 14. Dome Information dialog



- **Iris (Close, Open).** Click **Close** or **Open** to manually adjust the iris level of the dome.
- **Pan and Tilt.** Click and drag the black dot at the center of the joystick in the direction the dome is to go. The farther the drag, the faster the dome goes. Release the mouse button to release the dot and stop the dome.

- **Zoom (OUT, IN).** Click **OUT** or **IN** to change the dome's field of view (FOV).
- **Focus (FAR, NEAR).** Click **FAR** or **NEAR** to manually focus the dome.
- **Vphase.** To adjust the selected dome's video phase (Vphase), click **Vphase+** or **Vphase-**.
- **Alarm.** The state of each alarm input is indicated by Alarm LEDs (1-4). The number of Alarm LEDs that are enabled depends on the installed I/O board and dome combination. When the dome Alarm state is set to the Open position (default setting), a contact-switch closure activates the alarm. The LED is green in the No Alarm condition and red when the Alarm is activated (closed). Figure 15 indicates that the Alarm 1 switch is Closed (red LED), and the screen displays **Alarm 1** for about 4 seconds. If the PC has audio enabled, a brief (about 1 sec.) sound will also be heard.

Figure 15. Dome Control with Alarm 1 activated



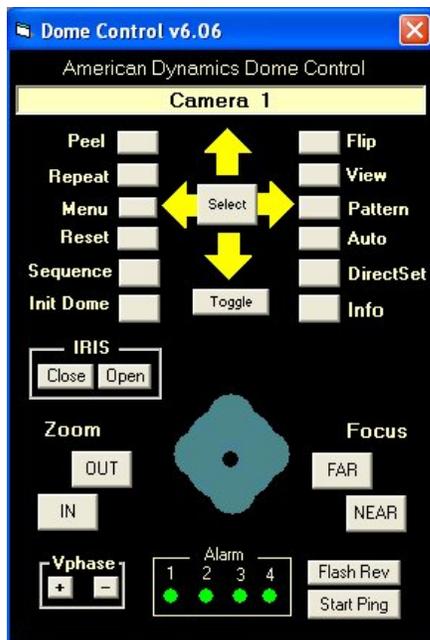
- **Flash Rev.** After starting this application, wait one minute to allow the USB control module to finish scanning the network for online domes before clicking the **Flash Rev** button. Click to display the dome flash revision level. This information is displayed on the user display at the top of the application screen.

- **Start Ping.** After starting this application, wait one minute to allow the USB control module to finish scanning the network for online domes before clicking the **Start Ping** button or when an address higher than 16 is set for the first time. Click to transmit a data packet to the dome's ping socket. The dome returns the data, and a comparison is made by the software application to determine if this data is the same as that transmitted. The user display window indicates the transmitted packets (Tx) and how many received packets (Rx) are good. To stop the ping test, click **Stop Ping**.

## Dome Menu Control Functions

Click **Menu** to command the dome to enter the monitor's on-screen menu mode, as well as change the numeric keypad to the Dome Control Menu View (highlighted arrows).

Figure 16. Dome control menu view



To select the desired function:

1. Click the **Up, Down, Left, or Right** arrows to highlight the desired function, and then click **Select**.
2. Click the **Toggle** key to change the value of the function.
3. Click **Menu** to return to the Control View.

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