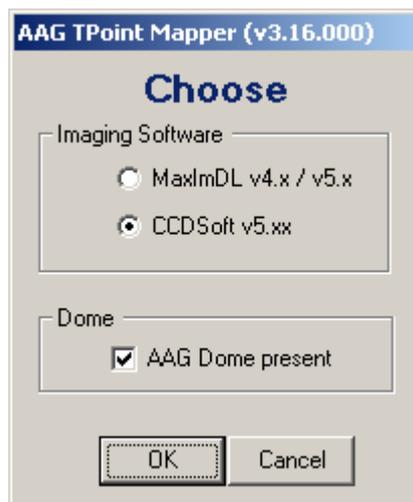# AAG Dome
(Version 3.14)

AAG_Dome v3.14 is a module (an ActiveX dynamic-link library developed in Visual Basic 6 (SP6)) designed to operate with the standard ASCOM Dome Control Software (ASCOM Platform 4.1 & 5 - http://ascom-standards.org/) **without** the Bisque AUTOMA DOME Software installed.

It provides a communication link between the AAG_TPointMapper v3.xx and the ASCOM Dome Control Software, allowing the dome to move as soon as the AAG_TPointMapper issues a GO-TO command to the *TheSky6-controlled* mount and it reports back the real time position of the dome.

The AAG_Dome is started through the AAG_TPointMapper v3.xx. When it is installed, the initial screen of AAG_TPointMapper v3.xx displays a new additional option which should be checked if one wishes to run AAG_Dome V3.14

Initial screen of AAG_TPointMapper V3.xx
after AAG_Dome v3.14 is installed

Operational Aspects

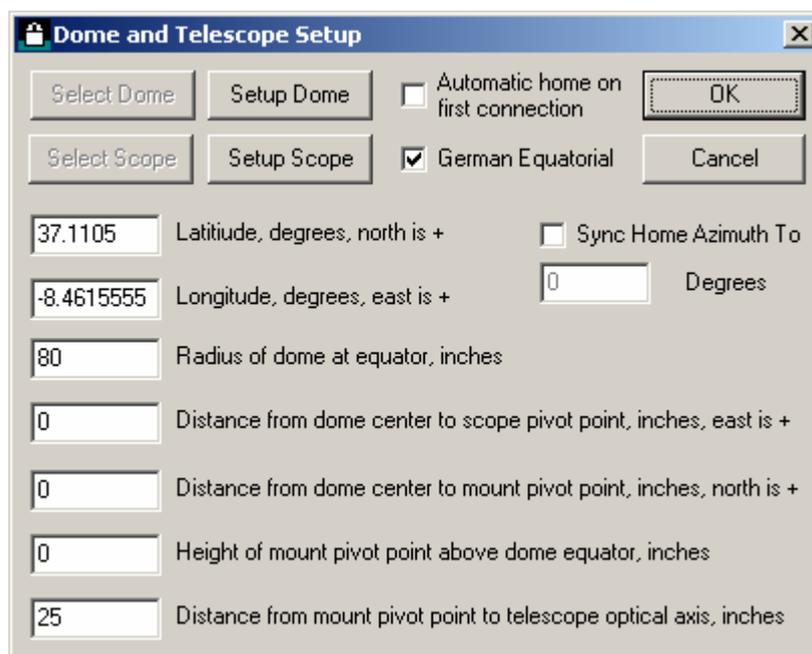When the AAG_TPointMapper is running the dome and telescope coordinates are displayed in the Run TAB (figure below).

Run **TAB**

Note that the version of ASCOM Dome Control Panel is displayed in dim color in the **Run** TAB. In the case of the above figure, the version of ASCOM Dome Control Panel is 5.2.
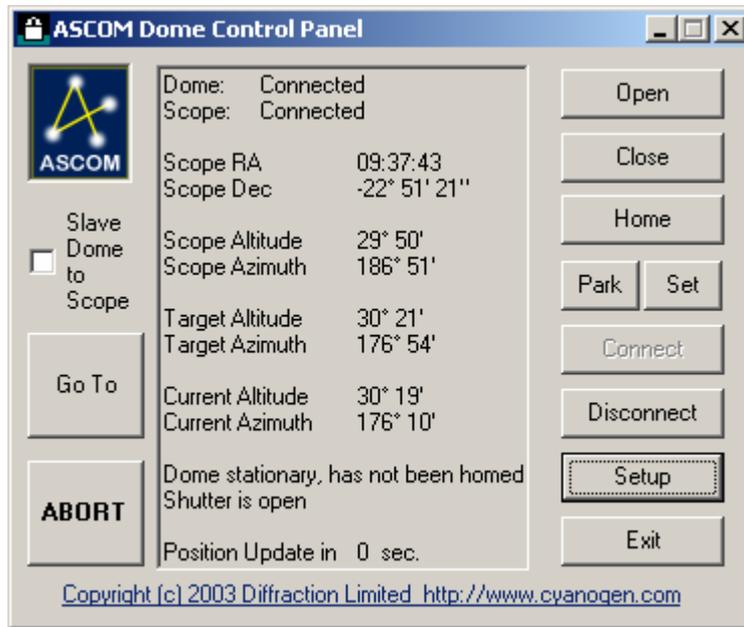
AAG_Dome v3.14 performs calculations based on the SETUP parameters defined in the ASCOM Dome Control Software and data provided by TheSky6 program. Thus it is important to ensure that the geographical coordinates defined for the ASCOM Dome Control software are exactly the same as those defined in TheSky6.

> **Important**: Latitude and Longitude values must be identical to those defined in TheSky6.

Dome and Telescope Setup Window
(ASCOM Dome Control Software)

AAG_Dome v3.14 automatically un-checks option *Slave Dome to Scope* as illustrated in figure below.
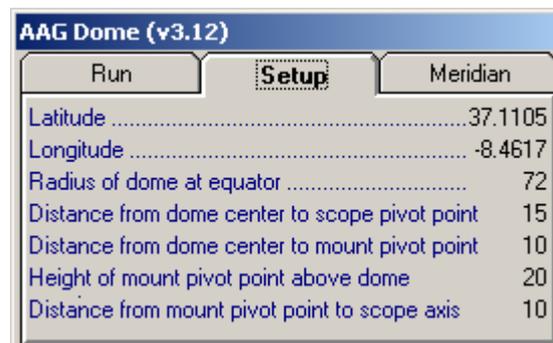

ASCOM Dome Control Panel Window
(ASCOM Dome Control Software)

This is required to avoid conflicts between the internal polling routine of the ASCOM Dome Control Software (which adjusts the dome position every 10 seconds) and the GO-TO commands issued by the AAG_TPointMapper v3.xx.
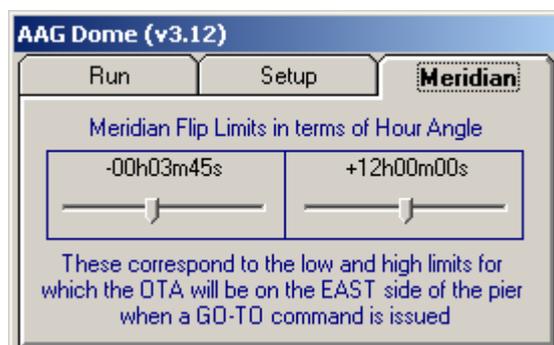
ASCOMDome Control Panel v4.x calculates the dome position in a different manner than **v5.x**. **AAG_Dome** calculates the dome position according to **v4.x** or **v5.x** depending on the version of **ASCOMDome Control Panel**. Apparently, the calculated dome position of **v5.x** is more correct than that of version **4.x**.

The setup parameters defined in the ASCOM Dome Control Software are displayed in the Setup TAB (figure below).

Setup **TAB**

The limits corresponding to the meridian flip are defined in the Meridian TAB (figure below)

Meridian **TAB**

The default limits of **-00h03m45s** and **+12h00m00s** were established by trial and error for a **Paramount ME**.

When a GO-TO command is issued by the AAG_TPointMapper v3.xx, the program will calculate the final position of the OTA with respect to the pier based on the following criteria:

> When the Hour Angle of the destination coordinates is greater than -00h03m 45s and less than +12h00m00s, it is assumed that the Paramount ME will place the OTA on the East side of the pier, otherwise the OTA is assumed to be placed on the West side of the pier.

Please bear in mind that this approach does not guarantee that the calculated OTA position with respect to the pier is always correct. Thus, it may happen that the dome position may be occasionally incorrect for points very close to the meridian flip limits.

Note that all the parameters are recorded in the file **AAG_Dome.dat** in the directory where the AAG_Dome.exe file is installed and they will become the default values in the subsequent use of the program.

The positions of the different program windows are also recorded in this file.

The **AAG_Dome.dat** file can be deleted to reset the default values to those present after the program is installed for the first time.
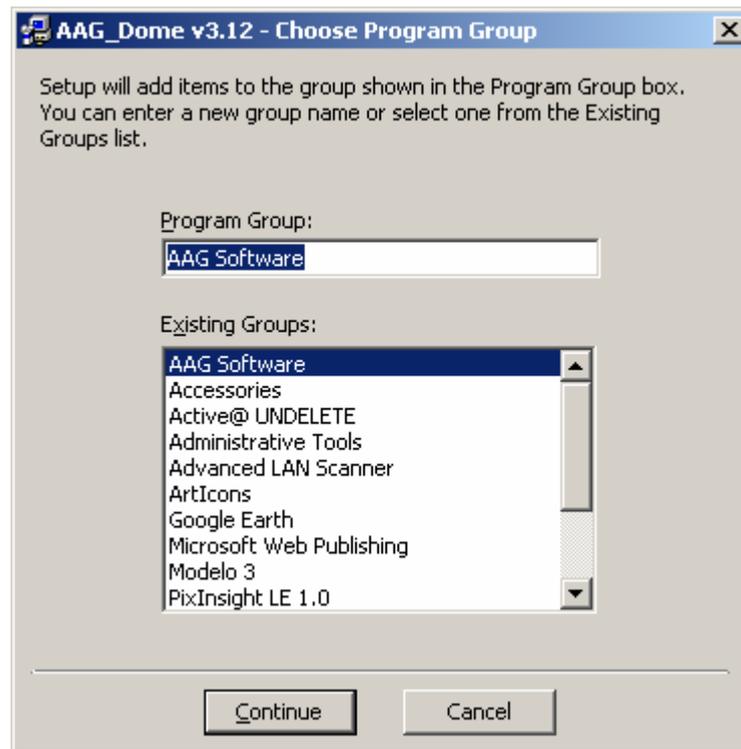
Setup procedure

Run *Setup.exe*

Welcome screen

The default directory where the files are installed, is
C:\Program Files\AAG_Dome

The default program group

After installation, one new menu option is available under *AAG Software* in the *Start / Programs* menu:

- *AAG_Dome v3.14 Information*