

COMBINED RELEASE NOTES FOR AUSTRALIS, VERSIONS 6.01, 6.0, 5.07 & 5.06

Release Notes for Version 6.01

January, 2004

1. Note that the Users Manual is now fully updated to include all new features incorporated in *Australis* to Release 6.01
2. The X-Y-Z axes for any 3D object point file can be set interactively via a so-called 3-2-1 process (Manual, Section 9.2)
3. Imaging rays can be shown in the 3D graphic view, individually or collectively (Manual, Section 7.2)
4. 3D data files can now be output in DXF format (Section 3.2.6)
5. Camera stations can be added as object points to any 3D data file (Section 7.1.7)

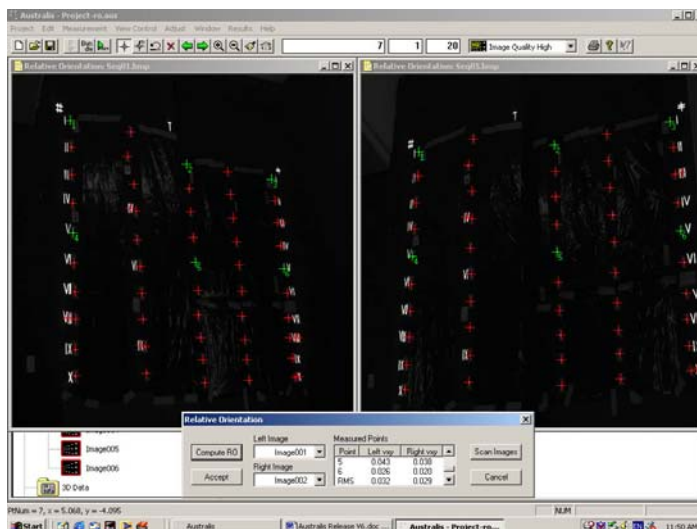
Australis Release Notes, Version 6.00

March, 2003

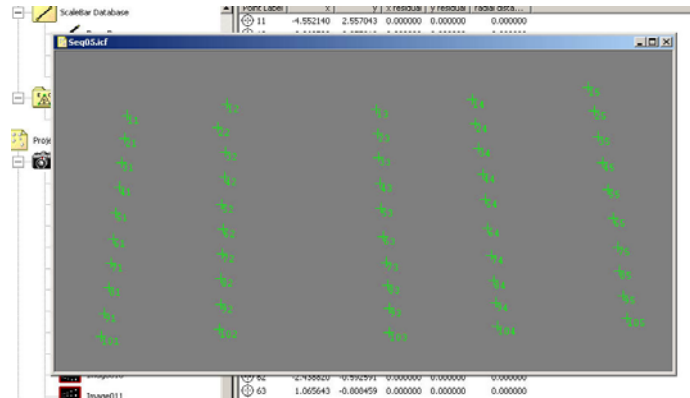
These release notes summarize important updates and corrections that have made to *Australis* in the generation of Version 6.00.

UPDATES

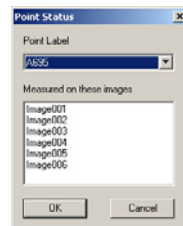
1. **Relative Orientation (RO)** – the RO capability incorporated into *Australis* has one primary purpose: to establish preliminary XYZ object point coordinates of a subset of 6 or more object points seen in two images such that these can be used to support subsequent resection and resection driveback. Thus, the user can start the survey with NO preliminary object space knowledge; neither an EO device nor preliminary approximate coordinates of 4 or more points are required. The RO would thus be performed only once and involve only two images (any two which are suitable). After RO, the process reverts to the standard resection driveback sequence familiar to *Australis* users. See the Users Manual for Version 6.01 for a guide to running the RO, the graphic presentation of which appears as below. In order to initiate RO, select the **Adjust** menu & then **Relative Orientation**.



2. **Display of image coordinates when images are absent** – When running Australis without images, for example utilising files of measured image coordinates (*.icf files) or simply opening a previous project (*.aus file) where the images have not been retained, it is now possible to display the positions of the image points. Simply double-click on the image icon in the project tree & the image points will be plotted as per below. You can toggle through the project 'images' using the green forward/reverse arrows on the toolbar.

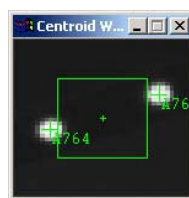


3. **Point Status Summary**- This is simply a feature to allow the user to ascertain the images and number of images upon which a particular object point appears. Select the **Measurement Menu** and **Point Status** and the following dialog box will appear.



The desired point label can be selected and a list of images 'seeing' the measured point will be provided.

4. **New Measurement Cursor** – There is a new cursor.
5. **Centre of ALT-M Measurement Window Shown** - As per the figure below, the inclusion of the small cross aids in more precise manual measurement of image feature points (it has no function in automatic measurement mode).



6. Other minor issues

- The automeasure dialog box and graphics presentation has been updated.
- Confirmation is sought before an image can be deleted from the project tree.
- For some older projects involving reverse fold-in within the bundle adjustment, additional data files may appear on the 3D-Data tree; these can be ignored or deleted.
- In Version 5 there was a warning message shown when it was desired to show camera station positions in the graphics view with any file other than the 'drive' file (usually the BUNDLE file). This message has now been removed.

Australis Release Notes, Version 5.07

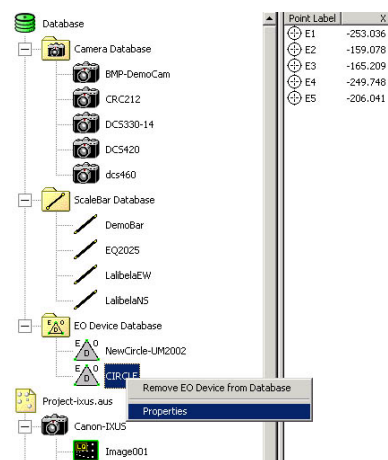
August, 2002

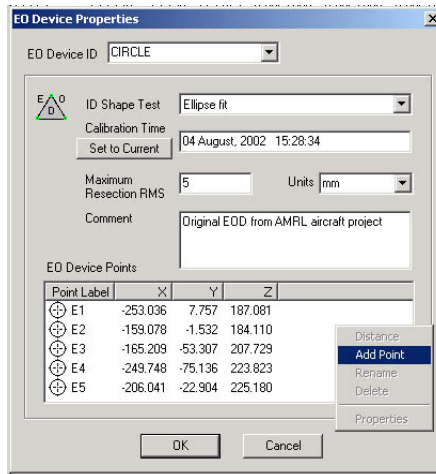
These release notes summarize important updates and corrections that have made to *Australis* in the generation of Version 5.07.

UPDATES

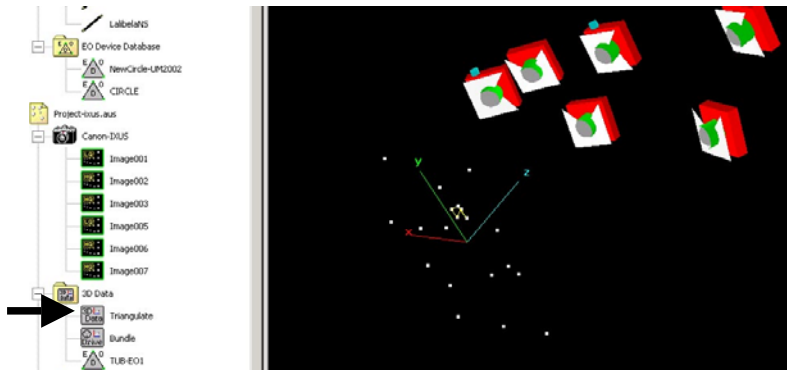
1. EO Device (EOD)

- The *Australis* EOD has previously required that all points are located within a bounding circle. This is no longer the case. Any shape for the bounding figure, rectangle, square, triangle, etc is now acceptable.
- To ensure that the automatic measurement of the EOD is as fast as possible, label the points in ascending numerical order from the centre point, then clockwise for the 'outer' points. This is not mandatory, but it represents the default labelling scheme for maximum performance.
- There is now an EOD database, in much the same way as there was previously just a camera and scale-bar database. The data for each EOD can be entered manually (coordinates entered via right clicking in the coordinate list area) or simply by importing an EOD file in the normal way via the **3D data** icon, and then dragging and dropping it into the EOD database.

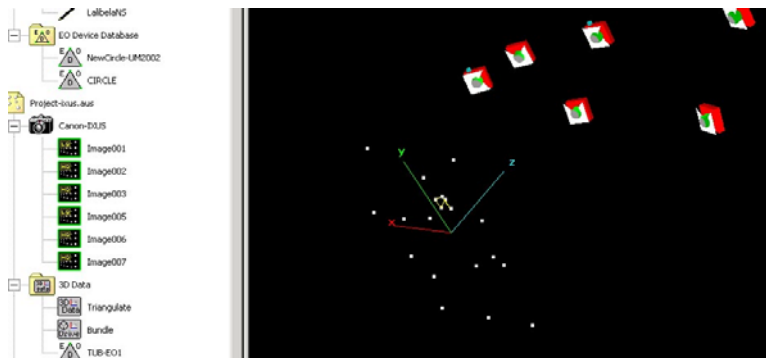




- It is now possible to display the camera positions of all resected images (icon green in colour) with the **EOD** coordinates and the **Triangulate** coordinates. It was previously only possible to do this with the bundle coordinates.



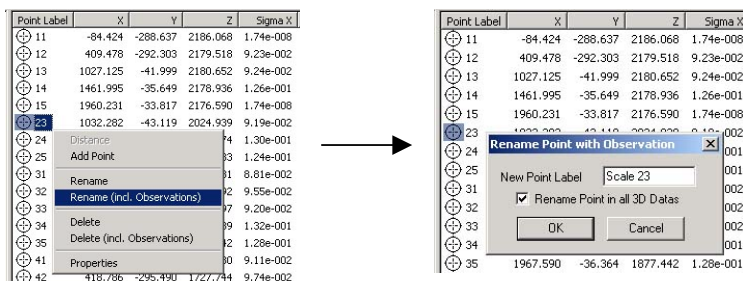
- A feature has been added whereby the camera station icons can be enlarged or reduced via the keyboard. '1' reduces the icons and '2' enlarges them. Also, the shortcomings in initial scaling of the camera icons have been rectified such they should not now initially plot either too large or too small.



- Australis will no longer import all image files residing in a project directory every time the *Set Image File Directory* option (right click on project camera)

is selected. Instead there will be a warning message associated with images already loaded into the project, such that the user can avoid duplicate entry of images. This may prove useful when handling very large projects or when additional images are added to the project.

- It is now possible to re-label a point in the object point list, and also possible to re-label all observations associated with that point. Single click on the **Bundle** icon in **3D Data** to list the XYZ coordinates and then right-click on the desired point label.



Bug Fixes

- An error in the computation of the degrees of freedom in the bundle adjustment has been fixed.
- A bug whereby point labels could on occasion not reappear after toggling the residual vectors on and off for an image (via the 'v' key) has been rectified. This occurred mostly when an image with the residual vector display was closed and then re-opened.
- The *Auto Measure* (and *Auto Scan*) process now functions with 'inverted targets'. For inverted targets (dark dots on a light background), tick *Invert Pixel Values* in the centroid dialog box accessed by the **Measurement** menu on the toolbar.
- In situations where there were >50 images and the *Resect All Images* option was selected, the display window that listed the residuals extended to beyond the screen borders, thus precluding the selection of *OK*. This has been rectified by replacing the old screen display box with one that has a scroll bar.

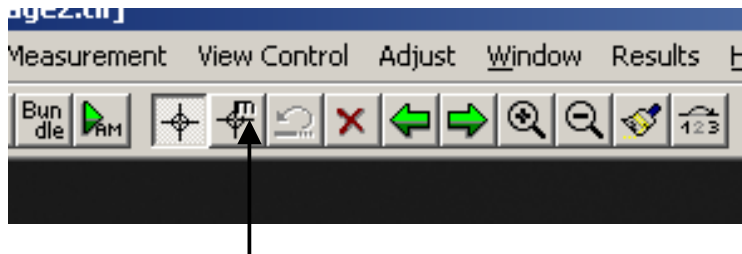
Australis Release Notes, Version 5.06

Dec. 2001

Note: The CD for Version 5.06 of *Australis* contains an extra demonstration set (Demo 3) and an updated users guide.

- There is an extra document (*Australis Notes-Demo3.pdf*) which is contained in the Demo3 directory. This guides the user through all processes.
- The users guide (pdf format) contains updated sections on output format, generating 'balanced' distortion and also on re-linking images to a project if the project file is moved to another directory.

3. The format for most *Australis* output files has been changed, especially that for the bundle output (*bundle.txt*). You can now print all files in Landscape format and there will be no wrap-around of a line of printing
4. *Manual Image Point Measurement*: There is now the possibility to set manual image point measurement from a button on the toolbar. In order to set the Manual option, the image measurement button must be already selected. Manual measurement is then invoked by simply clicking the second measurement button on which there is an 'M'. It should be remembered that manual measurement (yellow point labels) is not recommended in circumstances where the imagery has good targets which are suited to the more accurate automatic centroiding. It is, however, useful for natural features.



Depress for Manual image point measurement (default is always automatic)

5. Most important: Australis project file extensions have been changed to *.aus from *.apf. You can still open old projects with apf extensions, but this may require the process of selecting File & then Open. Double clicking on an old apf file may not allow you to open the project (this depends on the version of Windows). If in doubt, simply change the old extension to .aus.