

Release Notes for n4ce v4.10 (Onwards)

The tables below list the changes that have been made since the release of v4.10 in July 21018. The changes are colour coded for each release of the software as follows.

Changes for v4.10 (23rd July 2018) are in green

Changes for v4.10b (14th December 2018) are in cyan

Changes for v4.10c (22nd January 2019) are in red

Changes for v4.10d (26th March 2019) are in black

General

The Layers buttons did not work for changing the layer status of grid models in backcloths	Imp
The import and export of code prefixes from GeoMAX CSV files is now available in the code prefixes dialog	New
When zooming to extents, a resize is carried out on all backcloths	Imp
Option to launch TeamViewer from the Help menu of the n4c main window	New
When selecting a text style from the Text Styles dialog in the layer settings, the text style returned empty.	Bug
New favourites menu like the recent commands menu. Use Shift+Alt+F to save recent commands as favourites, use Shift+F to display favourites	New
The ability to close child windows on the windows taskbar had stopped working	Bug
New option to create a shortcut to n4ce as a viewer. In the command line of the shortcut, put the argument -v, case ignored, after the executable	New
You can now drag and drop SDB files into the main n4ce window and this will open the file as though the File Open command had been selected	New
Alternative shorter accelerator keys for pick modes using just Shift+E, Shift+R and Shift+L	Imp
Multi-Select to remove backcloth models only removed the first selected model	Bug
The Ctrl+E shortcut for file export was not working in any of the graphics views	Bug
New display option allows the display of only the borders of solid fills	New
You can now change the line spacing of text styles in the Text Style Defaults dialog box	New
A Test for not drawing text based upon a pixel size of less than 1 introduced	New
New option to not check for no selected data when creating a new model	Imp
You can now use a double-click on the left mouse button to move models between the available and selected lists in the backcloths dialog	Imp
The use of the Shift key to initiate the Pan function has been re-enabled. Works in model views but not CAD or DWG views where there are options on the stack	New
The option to add backcloths to elevation models has been added rather than a blanket no	Imp
You can now double-click on items in the list views and go straight to graphics	New
New option to create a DTM with a CAD backcloth from the right-click menu of the CAD model	New
New option to select alternate items in a spreadsheet view, accelerator Alt+A	New
When backcloths, some of the backcloth elements would overwrite group fills or height shading	Imp
New options to append a text string to the end of the remarks of selected points. Similar to the Add option but does not include a new line character	New
When renaming models that were in backcloths, they were lost. A check is now made to see if the model has been renamed	Imp
When exporting codes to Leica XML, any internal fields were exported as the Leica Quick Code	Bug
The import of stations from Leica XML did not always read in the GPS statistics	Imp
A new option in the Road Markings page of the line styles dialog box allows you to specify road markings to be drawn as solid, wide lines	New
A new option allows you to place the groups of the current model into the backcloth so that backcloth line and point data is not overwritten	New
A new algorithm for the 3D transformation of points has been implemented and only requires 3 points rather than the previous ones 5	Imp
When asking for an authorisation code, n4ce now copies the dongle or licence serial number onto the clipboard so that it can be pasted in an email	Imp
When curve-fitting complex line styles, markers may have been displayed in odd places	Bug
When creating symbol line styles, a symbol containing a solid or hatch would not display correctly	Bug
When using Lite or Professional, you are now able to backcloth alignment models	Imp
The mouse scroll wheel can now be used in the combo boxes in toolbars, such as pick modes, to change the settings	Imp

When drawing a text outline, the line style used was the last selected rather than a solid line	Bug
Arrow keys now work again for panning left, right, up or down.	Imp
When right-clicking an item on the tree and then selecting Reporting will have reported the previous item unless the tree item was clicked first	Bug
Moving backcloth images between the Available and Selected lists did not work correctly for multiple images	Bug
When saving the text in a report view, the odd class definition characters at the beginning of the file are no longer exported	Imp
When hovering over a point, the point remark will be displayed if it's there	

Survey and General I/O

When importing stations from GPS from EXP and LandXML formats, the GPS statistics are now stored in the stations remark	New
When importing free codes from Leica XML files, a check is made against the free code name if the attribute field is missing.	Imp
The import of image files as either attributes or media file records has now been implemented to the Trimble JXL import	Imp
New option to apply a scale factor to surveyed slope distances available in the observation grid	New
Some support of the GeoMAX codelist shapes on import and export (DRB, DSD, DC3, DCR	Imp
When offsetting point heights by a dimension value, then you can use the dimension from the previous point on the same feature	Imp
Feature widths, offsets and parallels can now vary along a feature with options for either parallel offsets of splayed offsets	New
New dimension FPL to change the prefix used for a parallel feature.	New
New dimension FCL to force a centre-line of a given prefix for parallel and width features	New
Check buttons in Fields Property page defines whether a given field is for internal use or not	New
New feature text alignment that takes three points and stretches text to fit	New
When using text macro maths and a number cannot be extracted from a dimension, this will be treated as no dimension being set	Imp
You have the option to override the symbol being used for a symbol feature using SYM=	New
Obsolete records 79, 02, and 07 now read in from Trimble DC if wrong output version selected	Imp
When using the comma code dialog in the spreadsheet views, if the Y coma code was set, the X and Z boxes were also checked	Bug
When creating a model from surveys and co-ordinates, you are now given the option to bring the prism constant dimension across	New
Following on from above, you can now specify that a TIME= and DATE= dimension is created. Check box must be set in point settings for the appropriate code prefix	New
The ability to import images in the project tree is now available to Lite	Imp
New option a select all observations with a target height of 0.0, i.e. reflectorless	New
When using O= and P= together, the parallel string was offset from the original string rather than the offset string	Bug
You can now export FXL files without the need for the Trimble Link Engine	New
Flag in survey observation settings to say whether Leica Free Codes come before or after the reading	New
When defining the SYM= dimension to override the symbol used at a point, you can now enter SYM=NONE for no symbol at a point	New
When importing LandXML files with observations that define parcels rather than features, a check for the observation was not made	Bug
When importing from or exporting to CSV files, the last filter that was used is now remembered	Imp
When reading a curve from Leica Captivate, the comma code sequence DCD is used rather than TCT or CCC	Imp
When returning from the Least Squares option, duplicate stations are no longer created	Imp
When performing a Free Station calculation, the standard errors for averaged observations are now added to the report	Imp
When exporting to LSS load files, any points that had an ignore comma code were also exported	Bug
A new dimension allows you to specify all the comma codes on a point as a dimension in the field. Dimension is CC= and only works on import from logger files	New
When exporting to LSS files, angles were being truncated rather than rounded before export	Imp
When offsetting width-scalable lines by half the width, negative values were assumed positive	Bug
Importing a model from LandXML would import duplicated triangles if they were there	Bug

Import of point coordinates from Trimble DC files now works	Imp
You can now define the W= and P= with no default as fields on the same feature code such that either could be used in field	Imp
Improved interpretation of the contents of Trimble JXL files including surveys, points and GPS	Imp
The Import of Leica XML files where parcels are used rather than features would not work correctly	Bug
The speed of import of XML files has now been improved	Imp
The Accept Defaults option for all lidar files was not being remembered when dragging and dropping multiple lidar files	Imp
When importing observations from Leica XML files, PPM corrections were assumed applied as in other Leica formats but this was not the case	Bug
Survey grid lines no longer create elements on top of each other when displaying, committing or exporting to DWG	Imp
A new value in the survey grid settings allows you to define the line style that is used for any survey grid intervals	New
The Must Plot Point option in where a height is displayed did not work correctly where shapes or symbol used the height on first point only	Bug
When exporting CSV files with photographs, the names of the photos would not be exported	Bug
In the multiple point/feature query dialog box, the list box now has the initial focus allowing the use of the arrow keys without the need to click into the list	Imp
When importing data from Trimble JXL files, the Descriptions or Remarks were not read in correctly	Bug
A new option for CSV export allows the export of code descriptions to the CSV file	Imp
New options to export co-ordinate blocks to beach section formats in SHL or TXT format	New
When reading Leica XML files, the Annotations values are now read in as comments	Imp
New option to import road alignment data from Trimble RXL files.	New
Importing GPS data from Leica XML files always assumed that the PointQuality fields, RMS2 and RMS3, were available	Bug
Importing of Leica ICON survey data caused problems when angles where exported as DMS using the degree symbol	Bug
When importing from data logger files, non-printable characters are now ignored	Imp

AutoCAD I/O

Export of a 2-point vertical feature exported the same level on both points	Bug
The Import of hatches contained different types of element caused a problem when displaying the data	Bug
When importing polylines, the array of polyline vertexes is set to the correct size to speed up the import	Imp
Issue with anonymous symbols where if a name already exists, it will use that symbol rather.	Bug
When exporting shapes where multiple elements are export, they will only be grouped into anonymous blocks if the line setting is set to export as such	Imp
Import of extruded arcs and justified text now improved.	Imp
Splines with two control points are now imported as single segment lines	New
Export of text styles where the name is changed because of illegal characters can cause conflict if text style of adjusted name already exists	Bug
Export of ellipses where sweep is 0.0 causes crash	Bug
When importing DWG/DXF with many anonymous blocks, the naming of the new blocks may have got confused if blocks were nested	Bug
Export of a layer with one of the road marking line styles as the layer style caused an error	Bug
Import and Export of hatches with nothing in caused a crash	Bug
The "Must Plot Point" option in height settings will now create an additional point on the heights layer if the markers are still on	Imp
When importing DXF and DWG files, a new setting allows you to apply layer colours and styles to elements as they are imported	New
New option to import 3DFACE objects as CAD polylines	New
The export of layouts where layout elements were very short could have caused polylines with only 1 point	Imp
When exporting text, the pacing factor was always set to 1.5 rather than the spacing defined in the text style.	Bug
Export of symbols with a line style set to one of the road marking line styles caused a crash	Bug
The import of multi-leaders was not working	Bug
Text that only contains spaces is no longer imported	Imp

Negative scales are now allowed to be exported for mirrored symbols.	Imp
When exporting, if an object had a width of 0.001 which is a throw back from very old versions on n4ce, this was exported into the DWG file	Bug
When importing DWG, the symbol duplicate name was being displayed when importing symbols within symbols	Bug
When importing an ellipse which is almost straight (a very small axis ratio), it is created as a single segment line else it could not be exported again	Imp
When importing text with an oblique angle of 180 degrees, the oblique angle is set to 0 else it could not be exported again	Imp
When importing splines with more than two points, they are now imported as polylines using the curve chord tolerance	Imp
When exporting backcloths using their own colour, symbols may have been exported with the incorrect colour if the Purge option was set	Bug
When exporting 3 point symbol features, the Y scale was not set to be negative if required	Bug
When importing text line styles, checks are made to ensure that they are symmetrical else n4ce will not display them correctly	Imp
Line styles that have no length in AutoCAD are now ignored	Imp
When exporting, new option to allow you to export shapes with multiple elements as anonymous blocks rather than rely on line export setting	New
The height of coded shape fills was exported as 0.0 if the shapes were not exported as anonymous blocks	Bug

Points and Features

The time taken to generate feature strings with a large number of points has been reduced considerably	Imp
When closing or opening line features, features with less than three points are now ignored	Imp
When indicating points for near neighbour heights, the highlights for the indicated points were not displayed	Bug
When using some of the extend and merge options, you are now given the option to move the end point if the feature is being lengthened rather than create an additional point	New
When committing line features, the prompt window telling you that a feature has been committed has been removed	Imp
New options in the grid view of the DTM points allows you to Reset strings numbers so that they are unique or to clear all string numbers and use ,N	New
When placing text in the dedicated CAD backcloth in the Tools Menu, the justification settings were not remembered correctly	Bug
New option in the CAD pop-up menu from the Tools Menu allows you to copy elements in the dedicated CAD backcloth	New
When the Must Plot Point option was set, the points were sent to their normal layers rather than the same layer as the height	Bug
Creating a legend which include text that was only displayed on the first and last segments of a line caused a crash	Bug
New option to apply curve fitting between two points with the indicated points being assigned as tangents	New
New option to apply tangents to the end points a line feature segment	New
If a model view is in elevation mode, the position of the cursor from the 3D view is now transformed into the elevation	Imp
When transforming a model to an elevation, the model backcloths are turned off. Turned back on when returning to plan view of model. (Not Images)	Imp
Option to create a parallel line feature from another line feature segment	New
Options to create parallel line features through another point from another line feature segment or points between another line feature	New
When using the Block Place option, the Undo engine was not set up correctly and it would undo everything.	Bug
New option in Block Place to calculate the height of block points relative the indicated point and the origin point of the block. Also, block selection merged into one dialog	New
When creating hatches in the DTM view, you are now given the option to indicate an orientation for the hatch pattern	New
System of creating co-ordinate blocks for Block Place changed to allow for an origin and an orientation	New

New Block Place options to allow for 1-, 2- or 3-point placing for origin, orientation and side	New
When copying and placing line features, the axis lock setting is now used.	Imp
The Must Plot height was not working when the point as removed using ,Y or ,Z	Bug
Option to densify all features. Only works for features on Active layers and cannot apply a start chainage	New
When joining two line features together, if you indicate both ends of an open line feature, it will be automatically closed	Imp
New option to break all line features where segment lengths are longer than a defined value	New
When filtering height annotation, you can now specify a maximum height difference for filtering. Therefore, building elevations with eave levels will not filter	New
If both point markers and heights are overridden, the point will still be displayed if Must Plot Point has been set	Bug
Using O= and P= together with the Close Ends on PW option, the ends were not correctly closed	Bug
Exporting code prefixes to Leica would still export white even though a white screen is used by Captivate. White now exported as black.	Imp
Option to create features representing a building roof from a four-point feature string	New
Options to set dimensions and remarks added to the graphic views in the Point → Attributes menu obeying the current pick mode	Imp
Option to Match point attributes moved to the new Point → Attributes menu and new options for matching dimensions and remarks only added	New
When using a parallel line with a height difference, the dZ was not applied to the asserted parallel lines	Bug
When creating a feature using existing points, a new check button allows you to specify that the default code is that of the first indicated point rather than a remembered default	New
You could not pick the closing leg of a line feature when auto-closing was defined in the code defaults	Bug
When creating parallel features, you can now default the code of the new string to that of the reference string	New
When generating points from CAD circles, the radius, diameter and circumference dimensions were not added when only the centre point was specified	Bug
New option to generate point numbers from closest text by text origin as well as text border	New
When generating points, string numbers and ,N are not added, even if specified, unless the new points form a line feature	Imp
A new dimension XZ=, which is similar to X=, allows the extension of a line feature segment in 3 dimensions	New
New options to generate points from just the first point of a line or from the midpoint of single segment lines	New
Additional check when loading points for a transformation. A match is found when the code of a point is blank and the numbers match	Imp
Generating points from a polyline did not take into account any bulge factors	Imp
The option to set the angle of all point annotation now works with all pick modes	Imp
In text macros, if a line has two dimensions and only one is missing, the line will still display without the missing text	Imp
When using the option to offset the heights of points using a dimension value, the dimensions OGL is now added	New
New option to Commit All features, lines, shapes and symbols. Also, the option to delete the points after the commit	New
Extending a line feature back by 1mm using linear interpolation may not have calculated the height change in the correct direction	Bug
Parallel lines with a value of 0.0 caused unwanted results	Imp
When creating a model with large numbers of point co-ordinates or survey observations would take a long time.	Imp
When extending a line to a reference and moving the point, the pull back 1mm option did not shorten the line but lengthened it. It worked OK if a new point was created	Bug
New option to add reverse chainage when projecting points onto a polyline or feature	New
New option to auto merge fillet the corners of a line feature	New
When generating points from a single segment CAD line, a ,C was always placed on the first and last points	Bug
New option to densify features whose points are ALL on the point list and on an active layer	New
New option in the parallel feature dialog box to indicate an item of text for the height of the new feature	New

New option to multi-parallel features where the parallel dialog is only displayed once. You can also define whether the new feature is on an indicated side, inside the reference feature or outside.	New
When starting a new project, the default spacing for points in generate from CAD is now 0.0	Imp
When generating points from vertical polylines from 3D faces, one point was always removed.	Imp
In the Segment Corner Insert option the line features menu did not reset ,N if the first segment was indicated and the first point had a ,N	Bug
You could not insert points using the DTM trend for height calculations unless the model had the triangles formed	Bug
When generating points with a height using closest text, there is now an option to set the maximum distance of the text from the points	Imp
When using Parallel Segment on the closing segment of a line feature, all the other segments were paralleled instead	Bug
Option to make a line feature segment parallel to another using the segment mid-point to define the perpendicular offset	New
If changing point attributes, if you quit from the dialog, n4ce hung when you left the DTM graphics window.	Bug
Parallel Features All can now use the List Pick mode for multiple features and the result can only be generated inside or outside the original. Indicated Text option for height will look for text inside the feature, first item assumed	New
When generating parallels by list as above or multi-indicate, a new setting allows you to copy the string number of the reference string into the new string. To do this, define the code to use for the new strings as the code prefix that you want to use	New
New "Type" option for projecting points where new points can be created halfway between the original and projected points	New
When creating points by segment intersection, the point and, if required, the point number prefix are now set	Imp
When densifying closed features, the undo action did not include remove the original close comma code	Imp
When copying CAD elements in the model view, the operation will now obey the current draw and lock modes	Imp

DTMs and Contours

When drawing grid models, more checks are made to see if the user has pressed the space bar to interrupt the redraw	Imp
When building an array of DTMs for the DTM Select Dialog in the grid model options, unloaded referenced triangle models caused a crash	Bug
No Zoom extents takes place when using the isopachyte and interpolation functions in a grid model	Imp
When selecting the model for isopachytes in the grid model, you now cannot select the current model.	Imp
When using the Group Settings options in a model and then saving straight away could cause a crash as current group not reset properly	Bug
When using the Interpolate All option for a grid model, points with no heights are now included	Imp
The option to remove all groups in a DTM has been speeded up substantially	Imp
Significant improvement in the speed of the operation to remove all triangles from DTM groups	Imp
When partitions are created in a model with the display of partitions is turned off, the display setting is toggled to on	Imp
Datum volume options for lidar models did not take into account the extra single triangles that could be formed around the model edges	Imp
New merge algorithm which is significantly quicker and more stable. Problems encountered are reported	New
New option to export a LandXML form Pavers	New
If a line feature is set to ISO Tree Canopy but still has the Force in DTM checked, the line between these points was forced	Imp
When creating cut and fill hatching, a crash will have occurred if there was not cut or no fill	Bug
When calculating contour areas, the maximum and minimum intervals were not being calculated correctly	Bug
When creating an isopachyte DTM, a text string appears in the dialog defining the height difference convention	Imp
The naming convention for Group Depths and Double Depths has changed to Model Group Depths and Both Group Depths	Imp

When creating an isopachyte model, information about which type of group depths is also include in the source description	Imp
New option to group triangles where group names can be recognised as a gradient range (%), for example 0-1 will select all triangles with slopes in the range 0-1%. 8+ selects 8% and above	New
Selecting a very large number of triangles for groups by rectangle, polygon or strike line took a long time	Imp
When saving the group defaults to the system default file, any deleted groups reappeared when a new project was created	Bug

Sections

When indicating section plots to delete, you now must indicate an element on the section layer rather than within the section profile part of the plot.	Imp
Option to move a section plot has been added. Locking will take place to the indicated section plot and locking and the axis draw modes will be honoured in the move	New
Option to set the section title to the bottom left of the section plot.	New
Option to plot the section cut-line co-ordinates at the bottom of the section plot area	New
When plotting section profiles with gaps, multiple polylines are now created rather than the previous gapped polylines	Imp
When plotting group depth profiles, polylines are now created rather than the previous single segment lines	Imp
New option to trim right end of section plots for variable length multiple cut-lines such as river sections	New
When plotting river cross sections, the water level profile is now trimmed to the SB between the left and right bank points	Imp
The water level and date and time dimensions on the water level point, if available are also added to the section plot	New
Options for section labels now allow you to not plot the chainage along the profile value	New
Options for section labels expanded to allow the formation of "datum" labels with a small, filled triangle	New
Option to create a section label by projected a point onto another profile	New
When plotting multi-sections, the option to use the section database name as a prefix to the section names	New
You can now use a \n to allow for multiple lines of text on datum labels	New
When defining the text prefix used for datum labels, previously entered labels are remembered and displayed in a drop list	New
New option to save datum labels created in river cross sections and then to plot them on the river long section	New
When applying datum labels to river long sections, labels on the first point were always missed off	Bug
When extracting Environment Agency CSD long sections, the soft bed and hard bed points used must now lie between the left and right banks	Imp
When plotting labels on river long sections, if the section was plotted in lengths, the labels may have been plotted in the incorrect place	Bug
When plotting long sections in lengths, the Trim Ends option is honoured for the last segment	Imp
When taking sections using a design line, the option to select the chainages to consider did not work	Bug
When defining the start and finish chainages for a series of cross sections, you can now type in the values rather than have to select them from a list	Imp
The co-ordinate block that is created when exporting section profile co-ordinates is now updated on the screen	Imp
The frequency of plotting drop lines now works correctly for each of the options available	Imp
When plotting a section using regular spacing drop lines, if the annotation requires the code, a warning is given that drop lines for coded points will also be plotted	Imp
The remove empty sections check box from multiple sections now also removes sections with just one point	Imp
When plotting codes on a section profile, you now have the option to use the colour of the line feature for the tex	New
When creating section labels by projection from a point onto a line, the pick mode may have caused the incorrect label to be created	Bug
New option on the section viewer allows for group depths to be taken into account when heights are displayed in the data pane	New

Trimming the water level on river sections did not work if the bank points were not also on the profile	Bug
The speed of calculation of cross-sections through large models now improved. It also shows a progress line to show how far the calculations have gone.	Imp

Design

When comparing point co-ordinates between models, you are now given the option to add the distance offset dimension, dD	New
The Lidar Interpolate Above and Below options renamed to avoid confusion and you can now select multiple DTMs to interpolate to	Imp
When comparing co-ordinates, round-off of the deltas meant that sometimes, the deltas did not match the co-ordinate values	Imp
When exporting multiple culverts in an EACSD section, you had to use the ,N comma code to ensure that all culverts were exported	Imp
Problems reading and displaying gradients for vertical alignments containing vertical circular curves	Imp
New option to balance a DTM to another with batters and bulking factors	New
When trying to create a footprint of points where there were no formed triangle models available, a crash may have occurred	Bug
Footprint creation now has options to allow the footprints with Datum or Null heights	New
New option to delete points from or crop points in grid models inside a CAD polyline	New
Saving a grid model to a lidar file would put heights of 0.0 on locations not covered by the grid model	Bug
The option to change contour and grid settings in a grid model have been included in Lite	Imp
When displaying horizontal elements in the vertical profile view, the start chainage was not taken into account	Bug
The delete and crop options by rectangle did not work	Bug
New option for Grade In-Fill allows the grading of features with a mix of 2d and 3d points	New
New setting in balancing options allows for a surplus to be created (positive material left to be exported, negative material required to be imported)	New
When creating an arc fillet on a line feature with height by linear interpolation, the points that were created were not in the correct position	Bug

3D Viewer

Buttons for creating an elevation from a 3D section, and vice versa	New
Option to import point cloud heights as depths, inverting the height about a definable water level	New
2D graphics (shading keys, scale bars, etc.) now visible in screenshots	Imp
Georeferenced elevation images are shown in the correct place in elevations, as long as the elevation was active when creating the image	Imp
Improved compatibility with lower end graphics cards by adding a new (lower performance) rendering mode	Imp
Setting the clipping box by drawing a rectangle now temporarily switches to a 2D camera to ensure the box is square on with the world	Imp
Fixed bug where point clouds disappeared after setting a clipping box multiple times	Bug
Added support for importing Autodesk Recap (RCS and RCP) point cloud files	Imp
Fixed bug where line picking tools failed to lock to certain string segments	Bug
Fixed bug with small windows where controls in collapsed ribbon bar panels failed to update their values correctly	Bug
Added option to point cloud grid creation for draping a grid over a section and laying it down flat. Useful for generating contours of an elevation.	Imp

CAD & Drawings

New options in element menus allow you to mirror elements about two selected positions rather than having to indicate a line segment	New
The normal windows copy command, Ctrl+C, will now start the copy elements command in CAD	New
The Cad copy option now allows you to place multiple copies of the indicated elements	New
When sketching in CAD, if you hold the shift key down, axis and 45-degree lock take place.	New
When sketching a multi-segment line, locking can take place to the points on the current sketch	New
Option similar to multi-segment line included to allow the sketching of closed polygons.	New

When creating cross-hatches in CAD, you are now given the option to define a hatch alignment as well as an origin. If no alignment is required, press the right mouse button	Imp
When creating symbols, the selected elements are no longer moved into the symbol. Instead, copies are made and the originals deleted. This overcomes an undo issue after creating a symbol	Imp
When creating partitions, if the partitions are turned off, they are turned on	Imp
Option in the Tools Menu of models to plot the border of an image in the backcloth	New
New options to mirror CAD objects about a horizontal or vertical axis through a single point	New
The option to move a table in CAD or model views now obeys the axis lock modes	Imp
You can no longer rename a layer in CAD to be the same as another layer irrespective of case sensitivity	Imp
When creating a DTM shading key, the units will now specify the format of the numbers, i.e if a value is 25m and mm is selected as the units, the key will display 25000mmm	Imp
New option to Merge Fillet a segment of a polyline to form a new corner	New
New option to project a single segment line into another polyline	New
New options to offset a segment of a polyline by either indication or a typed value	New
New option to introduce a corner into a polyline by indicating two adjacent segments	New
New option to make a segment of a polyline perpendicular to one of its neighbours	New
New option to make a segment of a polyline parallel to any other segment	New
New option to extend the end of a line to an indicated line segment	New
Projecting points to polylines with bulges did not take the bulges into account	Imp
New option to extend the end of a CAD line by projecting onto either a line segment or a reference object	New
New options to perpendicularly extend a CAD line by indication, to a segment, to a reference or by a distance	New
New options to create multiple polylines for zig-zagged polylines by reverse or by sequence	New
When creating a CAD model or drawing, not from template or copy, you now have the option to view the new model graphically	New
When mirroring, scaling or rotating CAD objects, pressing the right mouse button returns to the indication of origin rather than quits the option	Imp
When using the options for mirroring, scaling or rotating, holding the Ctrl key down when the left mouse button is clicked causes a copy rather than a move	New
The mirror horizontal or vertical options was not using the correct point	Bug
Creating a gradient between two points required that the points must be on a line feature	Bug
When plotting a feature legend. The symbol features did not follow the layer colour setting	Imp
New option to create a best fit single segment line through a series of indicated points	New
You could create CAD text with nothing in it and edit CAD text to contain nothing	Bug
New options to extend the end point of an arc to either a line segment or reference element	New
New options to multi-extend lines to either a line segment or a reference object using a strike line	New
When entering data into the CAD defaults pane, you could not use the left and right arrows to move along a text field	Imp
When creating symbols with more than one handle, you will be asked if you wish to orientate the symbol to these handles.	New
New option to fillet merge the corners of a polyline or polygon.	New
Commands from the CAD List menu are now remembered on the most recent commands	Imp
When placing CAD text on a DTM using the Tools Menu, you can now also define the size of the text to use	New
When plotting the DTM Group key, you now have the option to plot the group depth, if there is one, underneath the name of the group	New
When printing a drawing, the Print Preview and Print options will now centre the drawing correctly on the sheet	Imp
When creating line chamfers in CAD, the chamfers are still created even if you select the Cancel button from the dialog	Bug
When creating a symbol by either List or Rectangle mode, the undo engine is not turned off after the symbol is created	Bug
When creating an area dimension for a CAD element, the indicated element was duplicated as part of the dimension	Bug
When moving CAD objects in the model view, some shadowing may have been left on the screen, especially when working with text	Imp
When moving CAD objects in the model view, the current lock and axis draw modes are now supported	Imp

When exploding imported symbols, the elements are now created on the layers within the original symbol definition	Imp
A check button in the Display Options dialog allows you to turn off CAD edit previews for rectangle and list modes	Imp
Options to Assert layer colours and line styles to elements added to the CAD Attributes menu	New
When creating dimensions, the layer colour is now implemented correctly	Imp
The Layer combo box and button has been removed from the dimension defaults dialog as it is not used and may be confusing	Imp