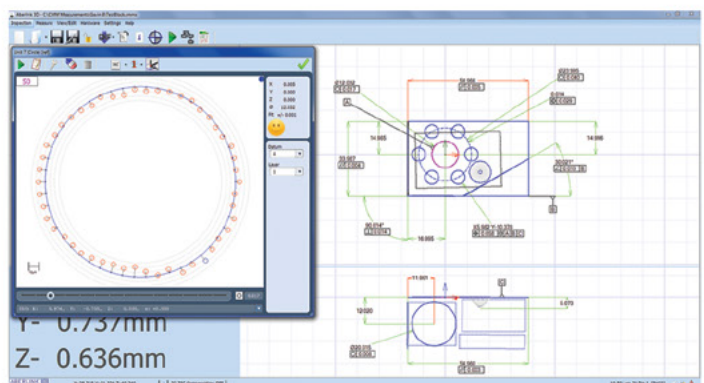


## Making Measurement Easy.

The whole philosophy for Aberlink is to make measurement easy. Aberlink 3D software has been written by engineers for engineers and sets the industry standard for simple-to-use software. Designed around a graphical interface, Aberlink 3D can work in 2D or 3D, on manual or CNC CMMs and is equally at home when used with either touch, scanning or vision systems. It is easy to understand why Aberlink 3D has become the software of choice not only for Aberlink, but for numerous other manufacturers of measuring devices around the world.

Aberlink 3D software is not only way ahead of its competition in being the industry standard for 'easy-to-use' software, but also has the depth of functionality to make it the choice for either occasional users or full-time inspection professionals.



Aberlink 3D software is revolutionary. As a component is measured a representation of it is built up on the screen. The user simply clicks on the measured features to call up dimensions exactly as they would appear on a drawing.

Inspection reports can be in the form of fully dimensioned graphical representations as created on the screen, or tabulated reports in various formats that can show nominals, tolerances, errors, pass/fails, geometric tolerances etc. These reports can also be output to an Excel spreadsheet.

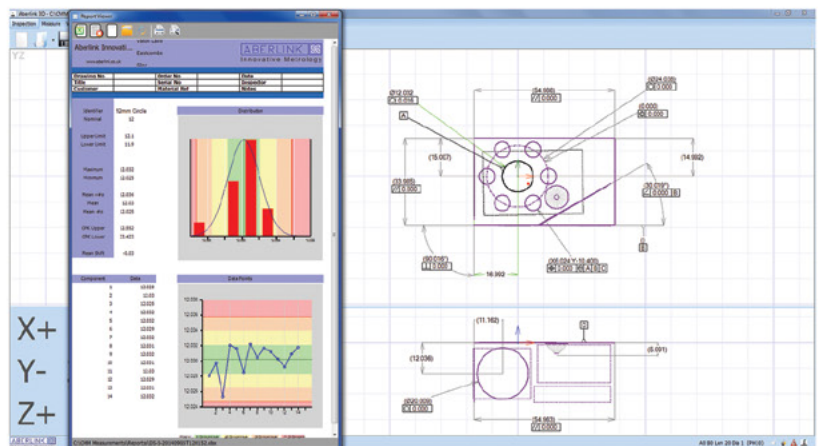
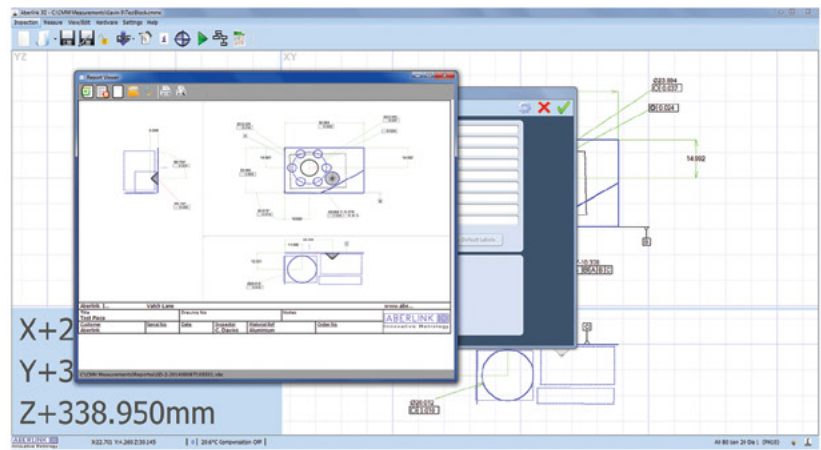
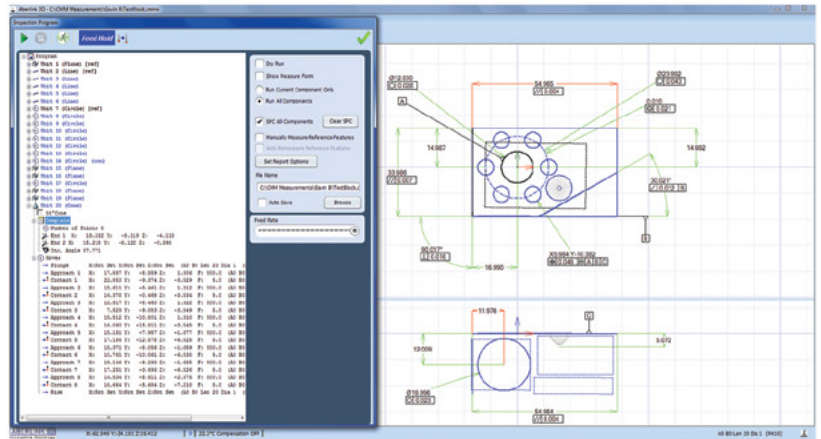
Further reports are available to show the form of features (roundness, straightness etc.), hole or point positions, or complete batch results on one report. The user's company name also appears on all outputs.

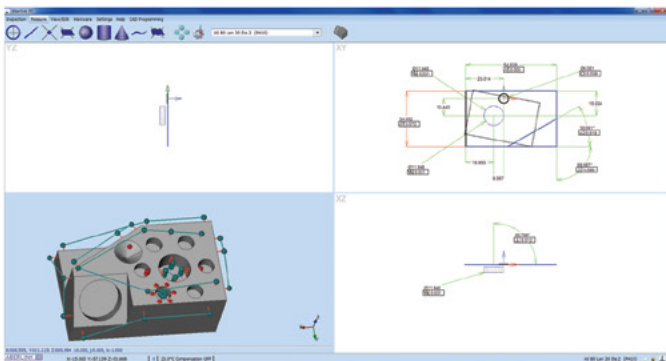
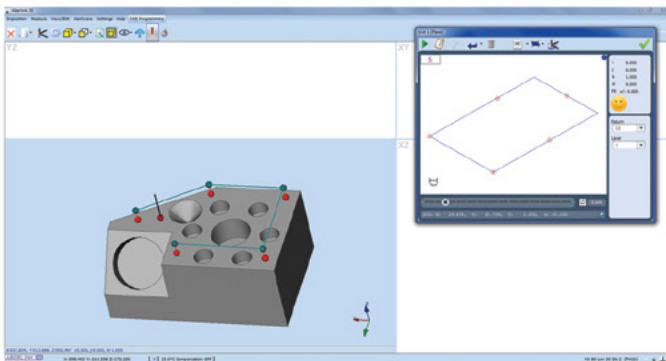
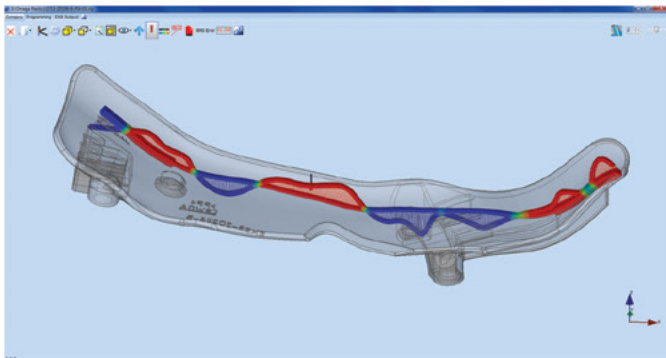
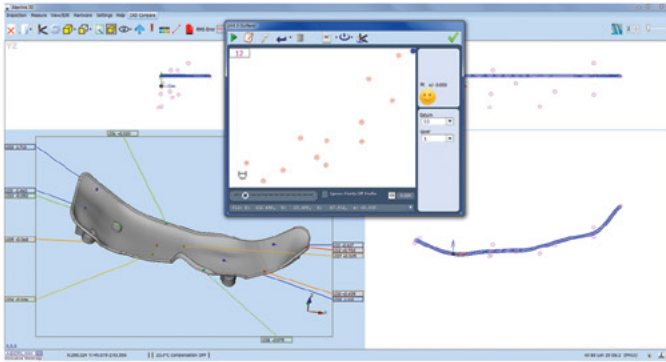
Every time a component is inspected, a programme for measuring subsequent components is automatically created. The software also calculates 'safe' moves between features, even when the probe is indexing – just another thing that the operator doesn't have to worry about!

Popular throughout the world and available in many languages, Aberlink's revolutionary measurement software provides the user with a powerful, yet easy-to-use solution for inspection measurements. This not only increases component throughput but vastly reduces the learning period for new users.

Key Features

- Automatic measurement routines
- Powerful interactive graphics window
- Automatic feature recognition
- 2D and 3D manual and CNC inspection
- Geometric feature inspection
- Free form curve inspection
- DXF data import/export
- STEP and IGES export for reverse engineering
- Feature construction
- Intelligent feature projection
- GD&T dimensions and tolerances





### CAD Comparison Module

The Aberlink CAD Comparison software module enhances Aberlink 3D with the capability to compare measured points to a CAD model. Often this will be the only way to measure complex parts or perhaps sometimes drawings for the component simply don't exist.

Powerful alignment routines allow measurement points to be best-fitted to the model. Colour coded errors can then be displayed on the model to produce both graphical and tabulated reports that are extremely clear and very easy to understand.

Aberlink's CAD comparison module allows the input of either STEP or IGES files as standard and allows reports to be exported as an Excel spreadsheet. It really does make measuring complex parts easy, whether on a manual or CNC CMM.

#### Key Features

- IGES and STEP import and export
- Point cloud best-fit
- Feature best-fit
- Simple measurement of complex parts
- Graphical and tabulated reports
- Export to Excel

### Programming from CAD

For many years Aberlink 3D software has been setting the industry standard for both ease of use and speed of programming. However, until now this has been best done by using the teach-and-repeat method of programming when measuring a component. But what if you want to prepare the measurement programme before you even have the first component? Now, we are pleased to introduce our new CAD programming module, which in true Aberlink fashion, allows the simplest programming possible from either an IGES or STEP CAD model.

If you can use Aberlink 3D software then you will already know how to use the CAD programming module – it couldn't be easier. Rather than taking measurement points on a component, you can now just click on the surface of the model where you would like the points to be taken.

Feature Predict works in the same way as when measuring, for instance, if you click in four places on the same plane on the model, then the software will automatically create a Plane Measure unit with those four points in it. Then click on a different feature and it will automatically close the Plane window and look for another feature. If you click on a circular feature it will take just one click to produce a circle or two for a cylinder. Suddenly programming in Aberlink 3D just got even easier!

Aberlink's CAD programming module can be used either on the CMM or off-line... nothing could be more straightforward.



Aberlink's camera system offers a non-contact facility on any Aberlink CMM. A clever design of magnetic, kinematic joint allows the probe and camera to be swapped in just seconds. This means that components can be inspected using both touch trigger and vision inspection technology on the same machine.

The camera incorporates a telecentric lens that gives a distortion-free image on the monitor. It also contains a fully programmable 16-LED light ring which contains alternate white and UV LEDs. The white LEDs provide surface illumination in the normal manner whilst the UV LEDs provide an ingenious solution to the perennial problem of backlighting on a CMM - the component to be measured is simply placed on a plate containing special reflective paper. Just another example of Aberlink's innovative approach to solving metrology problems.

### Key Features

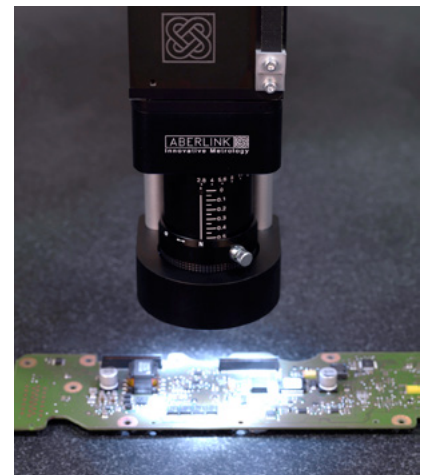
- Swap between touch probe and CMM camera in seconds
- Use touch and vision technology within the same inspection programme
- High precision edge detection for feature inspection
- Thread measurement - min/max/mean pitch, left/right angles, effective diameter
- Fully programmable digital zoom (no need to change lenses)
- Directional overhead lights and back light for profile and surface feature inspection
- Telecentric lens measures accurately even when the feature is out of focus

### Specification

- Sensor: 3 Mega pixel high speed colour camera
- Resolution: 2048 x 1536 (QXGA)
- Stand off: min 125mm | max 1000mm (manually adjusted)
- Field Of View: min 9.5mm | max 125mm
- Pixel Size: min 4.8µm | max 48µm



A collimated back light option is available for when measuring 3D or small turned components - see accessories (inside back cover)



The Aberlink Vision software module allows Aberlink 3D software to be used for non-contact measuring. Fully automatic edge detection tools can be used in both manual and CNC mode ensuring fast and repeatable results without relying on the skill of the operator.

Powerful tools allow both geometric and complex shapes to be measured easily. Dimensions can either be called up by clicking on the measured features in the normal way, or alternatively measurement points can be best-fitted against a DXF file. As well as edge detection the operator may use either full cross hairs or mouse cross hairs with other advanced tools available including "smart measure", centre line detection, an "all edge points" function, a "thread measure" tool and a "screen ruler" for quick measurements between any two points on the image.

### Key Features

- Full colour video image
- CNC and manual machine controls
- Auto focus
- Digital Zoom
- Light intensity and direction
- Align to edge
- Automatic 2D profile scanning
- Scan geometric features
- Scan individual features
- Scan all visible features with a single mouse click
- Digitise 2D profiles - data export via DXF

