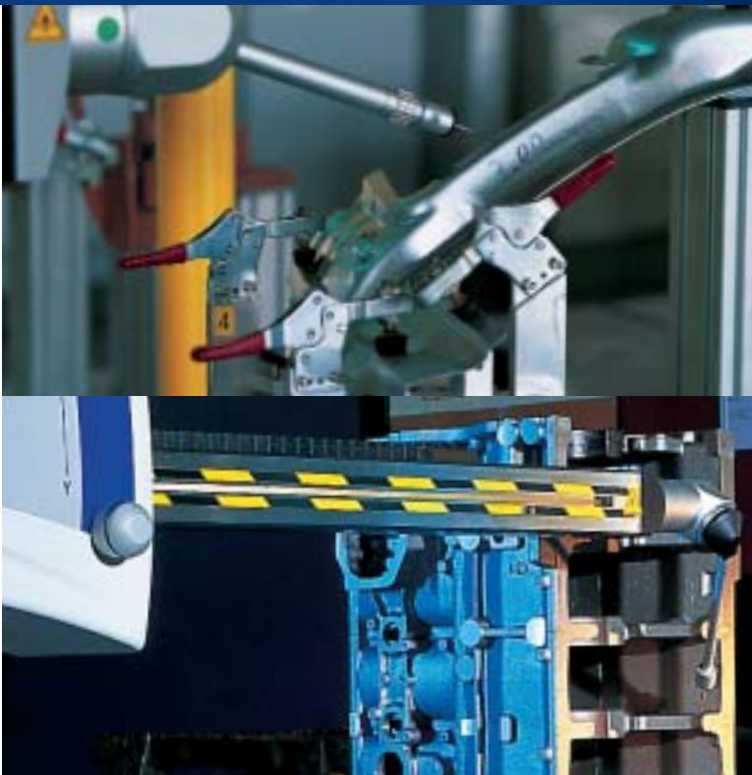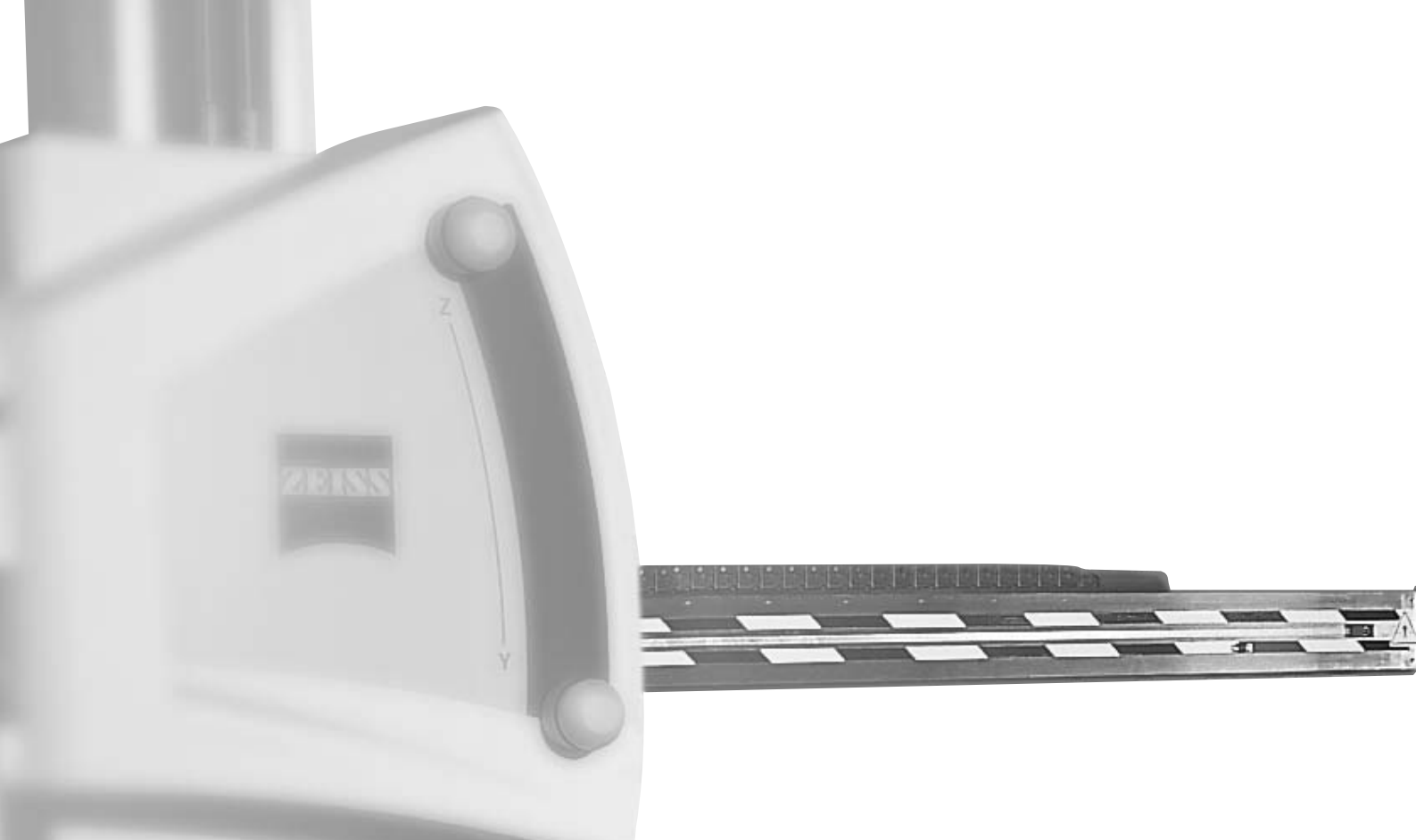# HOLOS-NT:
Customized Applications –
Customized Software.

HOLOS-NT

ZEISS

HOLOS Geo

▸ Standard geometric elements
▸ Automated operator assistence
▸ Easily upgradeable to HOLOS Light

HOLOS Light

▸ Simple free-form surfaces
▸ Manual measurement
▸ Alignment to free-form surfaces
▸ Graphic support of program creation
▸ Simple interpreting of results
▸ Graphic illustration of complete
   measurement

Each measuring task is different.

Specific measuring tasks you need specific software product. For example, your measurement is restricted to standard geometries. Your software, however, is designed not only for this task but includes many other functions. With **HOLOS-NT** we provide exactly the right software for your specific metrology requirements. No more, no less.

HOLOS Extended

‣ Complex free-form surfaces
‣ Fast CNC programming
‣ Maximum automation
‣ Open data interchange
‣ Nom/act comparison in one procedure
‣ Scanning

HOLOS Digitize

‣ Digitizing of points and scanning lines
‣ Automatic conversion into VDA and IGES data
‣ Automatic calculation of scanning lines in defined areas

HOLOS Geo.
Getting down to what's important.

You expect certain capabilities from your measurement software: measuring standard geometries for prototype testing of bulky castings and forgings, measuring boreholes and reference marks, and random sampling instead of batch measurement.
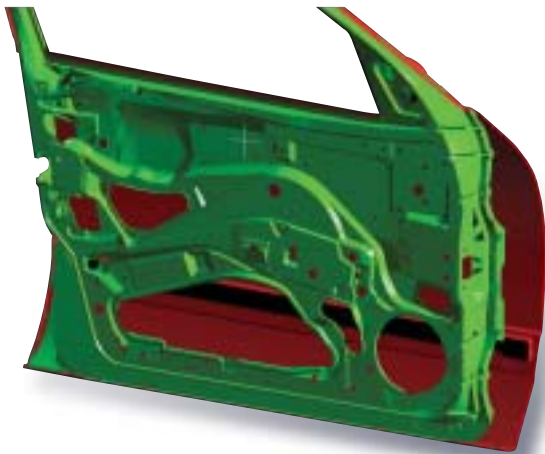
Standard geometries and complex free-form surfaces: a car door represents the utmost precision in metrology. With HOLOS NT you measure the entire car door with just one program.
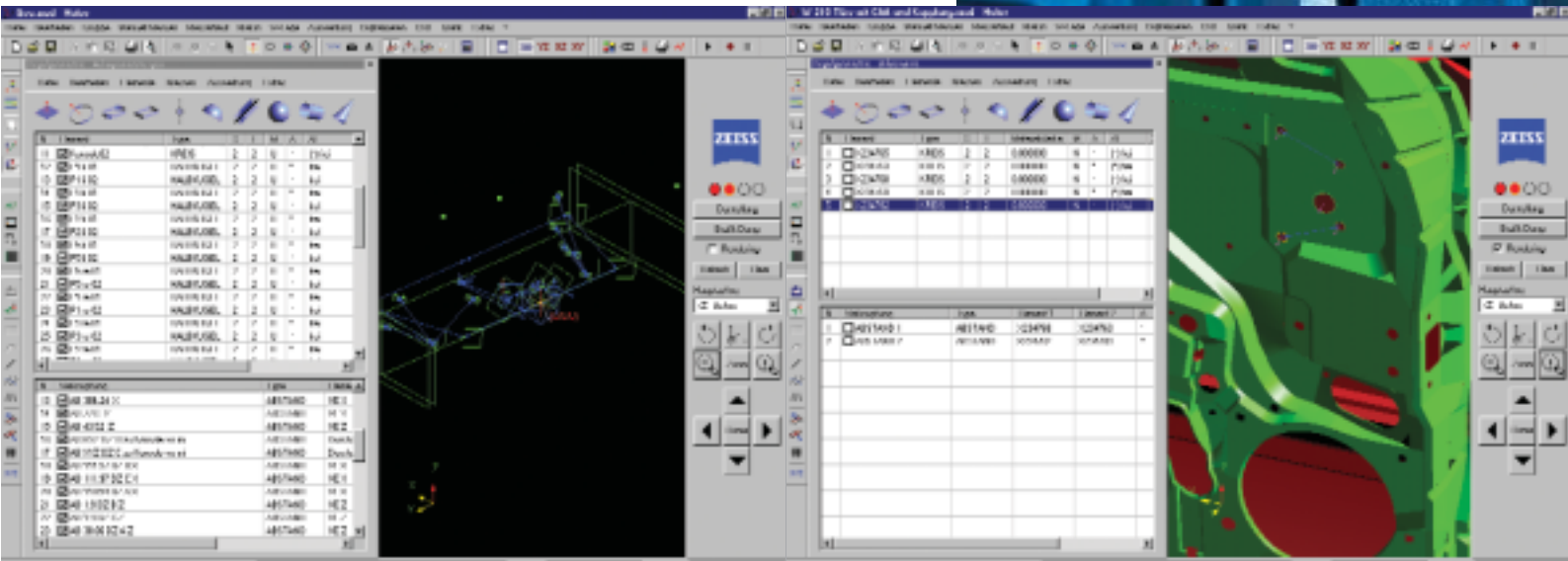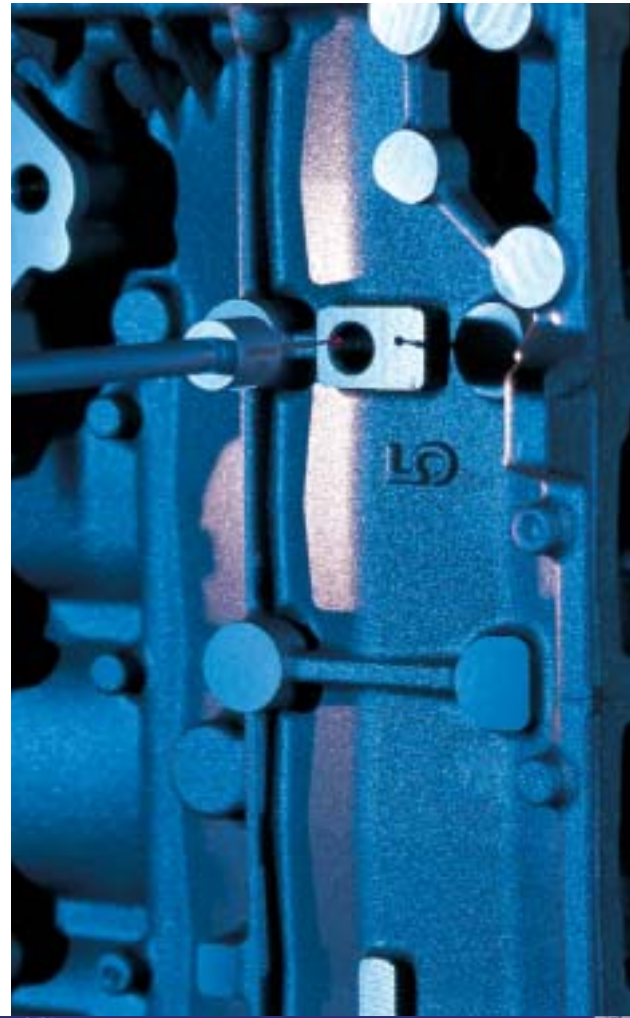
Why buy more than you actually need? We have created a special package for your specific tasks: Carmet with HOLOS Geo. This combination of a measuring machine and a software product is the ideal answer to your requirements. HOLOS Geo provides all standard geometric elements. The Windows based measuring software has a number of practical features to assist you. Mathematical alignment, for example, is achieved interactively. And should your applications change, HOLOS Geo can easily be upgraded to HOLOS Light allowing standard geometries and free-form surfaces to be measured in one operation. The efficiency of HOLOS Geo can also be enhanced with the Form and Location Measurement option.

From the essentials to high sophistication – HOLOS NT gives you a complete measuring program. HOLOS Geo (below left) provides the foundation, HOLOS Light and Extended (below right) ensure perfection.

At a glance:

File
▸ HOLOS models

Geo list
▸ Storing
▸ Opening of geometry programs

Features
▸ Standard geometries (circle, plane, point, oblong hole, rectangle, straight line, sphere/hemisphere, cylinder, cone)
▸ Combinations (distance, straight line, point, angle, circle, plane)

Manual measurement
▸ Manual measurement
▸ Selective measurement

W-Position
▸ Complete functionality

Evaluation
▸ RPS alignment
▸ Definition procedure
▸ List evaluation
▸ 3D alignment
▸ 3-2-1 alignment

Geo extra
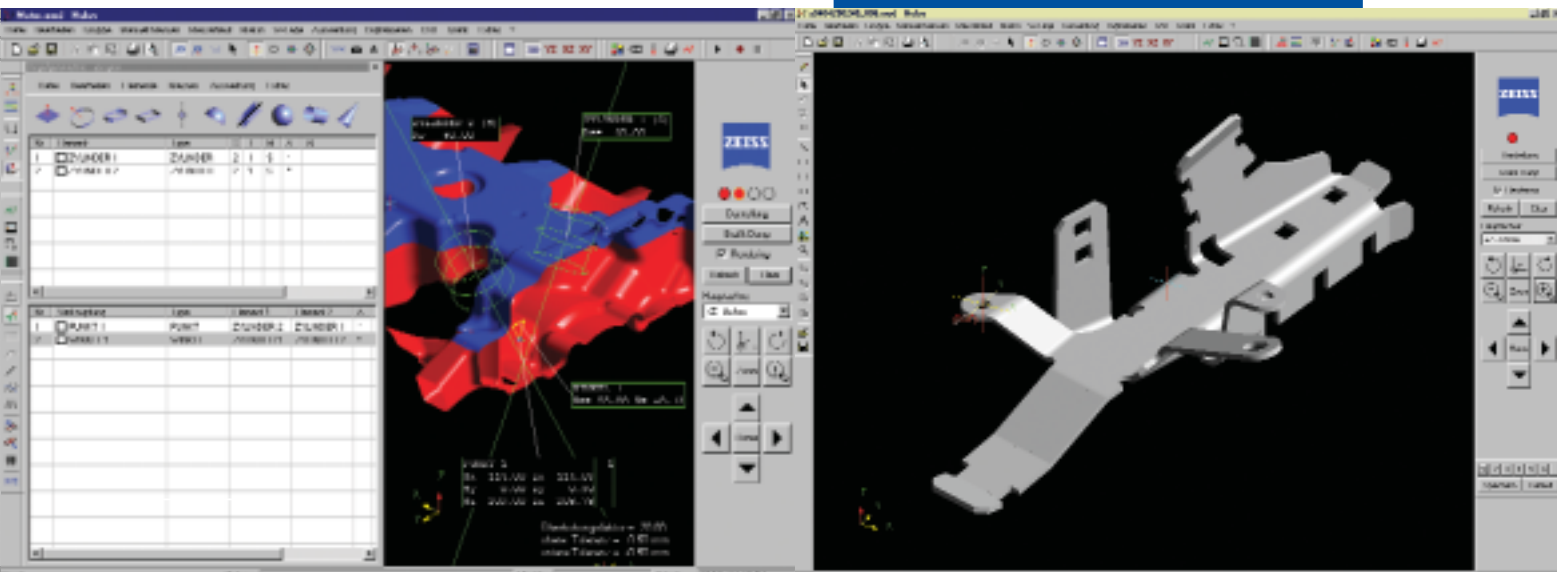▸ Parameter setting

Graphics
▸ Rotation point
▸ Parameter
▸ Views

### Extras
▸ System and output parameters

HOLOS Light:
For free-form surfaces.

You routinly measure curved surfaces – sheet metal, wood or plastic. You compare nominal and actual data, take random samples, or measure individual components. You need software that can do all this, but doesn't waste your time with unnecessary functions? The answer is HOLOS Light.
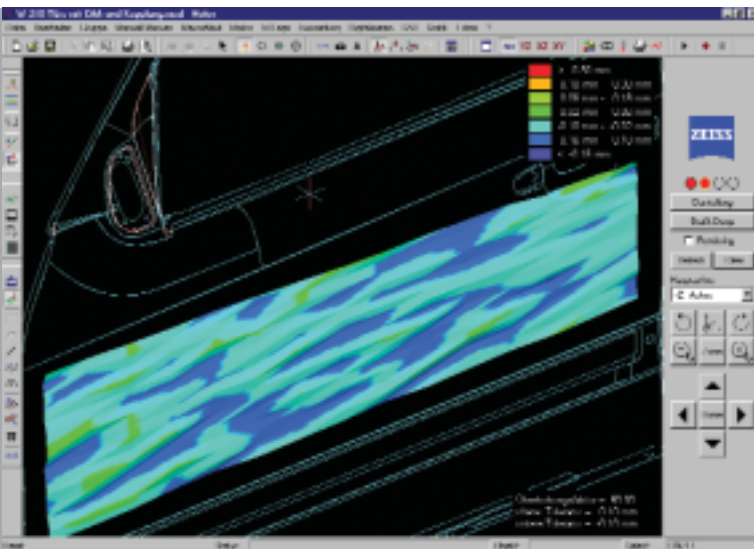
Whether you measure surfaces (top left) or edges (right), the result is obtained either in the form of chromatic data, or as numeric information on the monitor.

In tool-making, more than anywhere else, HOLOS Light is the ideal measuring program.
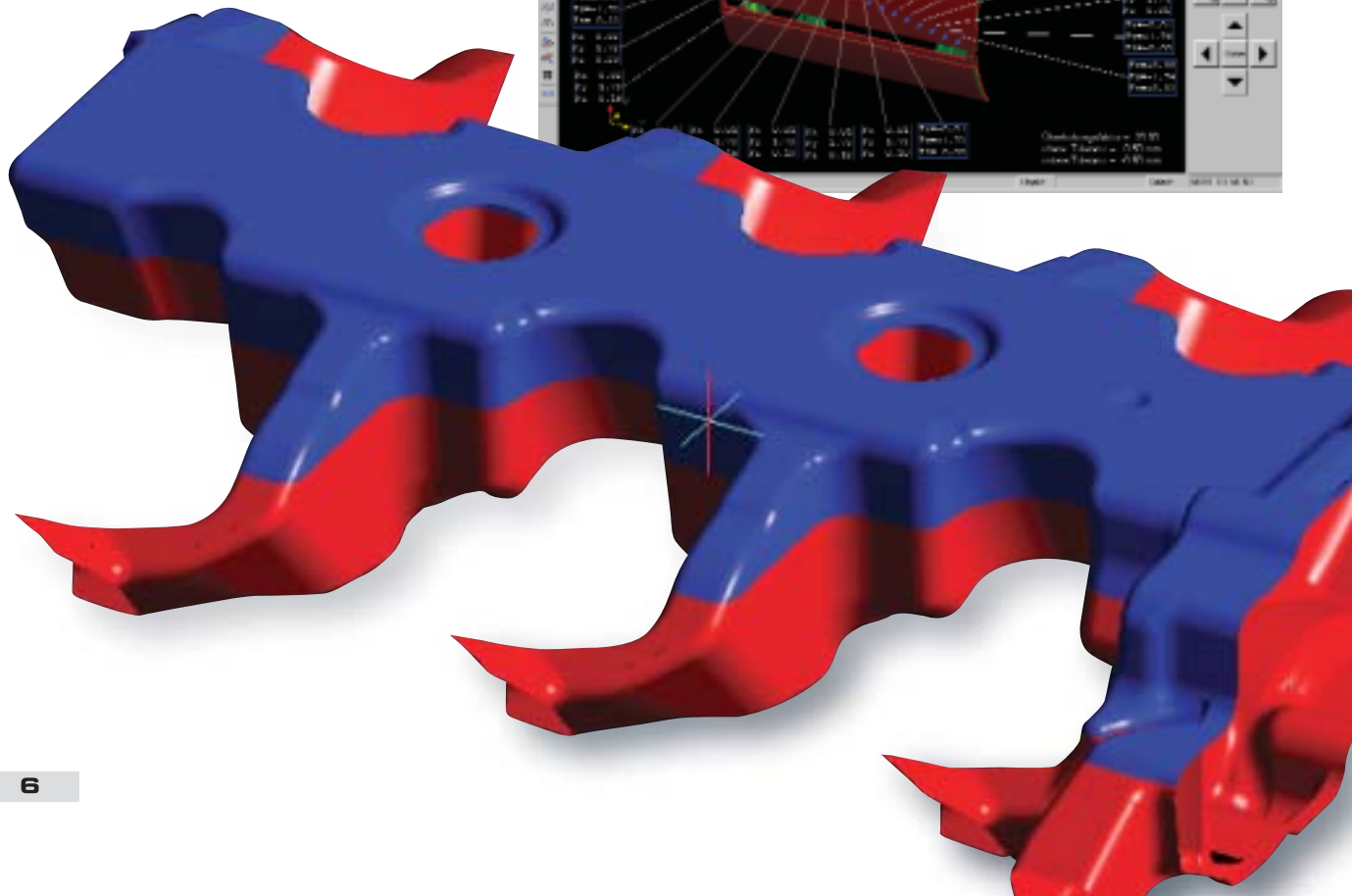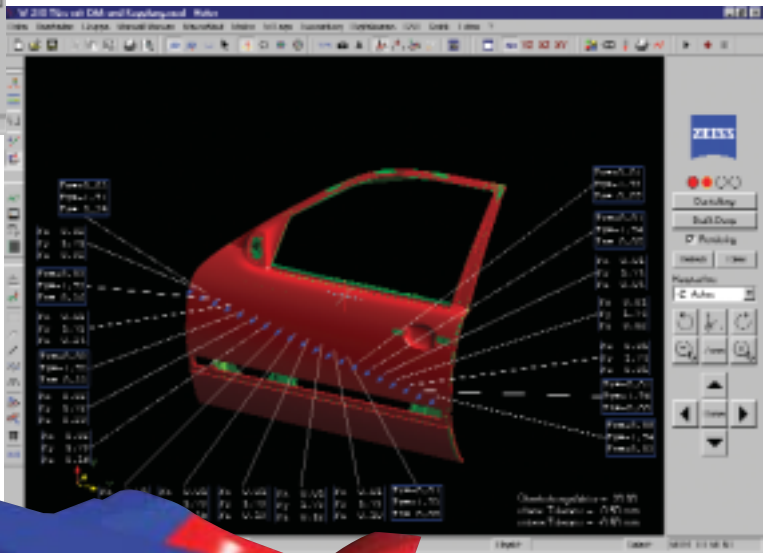
At a glance:

File
- HOLOS models

Geo list
- Import/export (GES processor, VDA processor, ASCII import)

Processing
- Mirror reversion
- Attributes
- Analysis
- Model section

Group
- Defining
- Displaying
- Expanding
- Deselecting

Manual measurement
- Surface measurement
- Alignment
- Measuring edges

Measuring run
- Model section
- Edge points
- Editing
- Display
- Measuring points
- CAD points
- Mirror reversion

W-Position
- Complete functionality

Evaluation
- Section
- Actual data
- 3D best fit

Graphics
- Colors
- Rendering
- Resolution
- Rotation point

Extras
- System and output parameters
- Measurement counter

Instant results

There's no faster way of generating measurement results than with HOLOS Light. A measuring program is compiled at the computer by simply clicking on the measurement and reference points on the displayed component. If the CAD data is available, you will see the workpiece in detail on your screen.

Alignment based on free-form surfaces

Simple free-form surfaces are measured quickly with HOLOS Light. And the key is that you can use HOLOS Light for aligning relative to free-form surfaces. Simply define 6 points on the screen and HOLOS Light will guide you step-by-step to the points that needs to be probed.

Easy interpretation of measuring results

Points along edges placed over the model can be measured easily and quickly with HOLOS Light. Immediately after probing, the program indicates the measurement results and their positions in the workpiece graph. HOLOS Light gives a complete graphical illustration of the measurement. Measured data can be interpreted with absolute reliability, and the software also indicates the direction and amount of any correction that may be required.

HOLOS Extended: The sophisticated solution for free-form surfaces.

Series measurement of complex free-form surfaces with high speed and accuracy is one of the most demanding jobs in metrology. For this, you need a leading-edge software product. HOLOS Extended upgrades the functions of HOLOS Light.
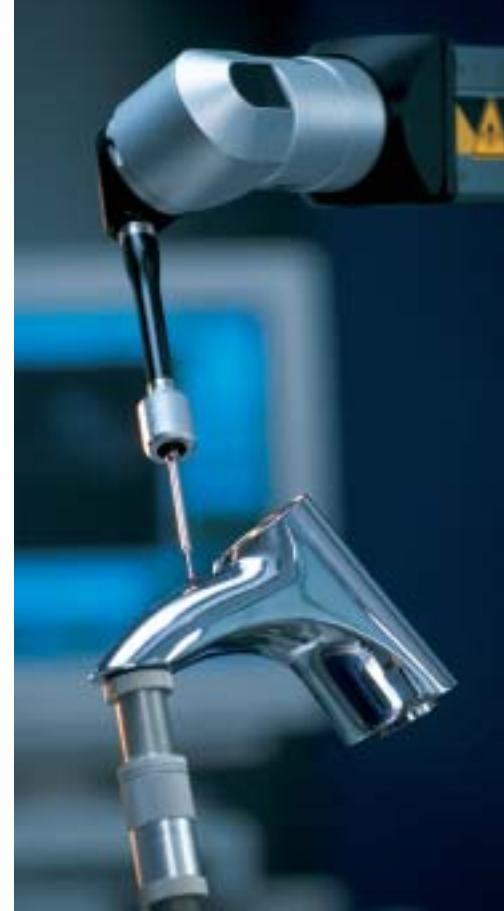
## CNC programming in the shortest possible time

Using HOLOS Extended, CNC programming is easy. You simply click on the points to be measured in the CAD drawing and HOLOS Extended compiles the CNC program for you. You create a complete CNC program in the same time you would otherwise need for manual probing.

## Maximum degree of automation

With HOLOS Extended the measuring run can be automated completely. We have designed the software as an open system, with the VBScript features allowing external programming of HOLOS Extended and, therefore, integration into your automation strategy. Just press one button and the system will perform the complete measurement automatically.

Open system – open data interchange

Another advantage of the open system of HOLOS Extended is that it makes measured data available at any other location where it might be needed in the process (e.g. for SPC evaluation). This is a good example of simple and fast quality assurance without paper.
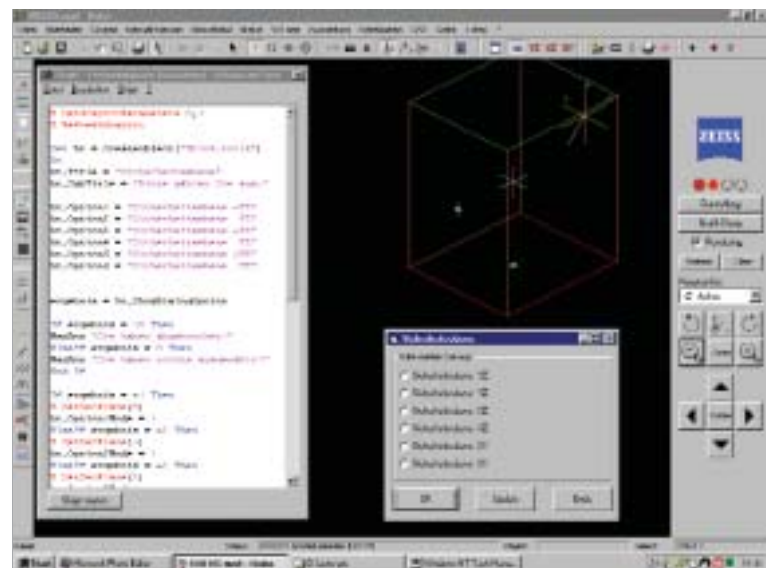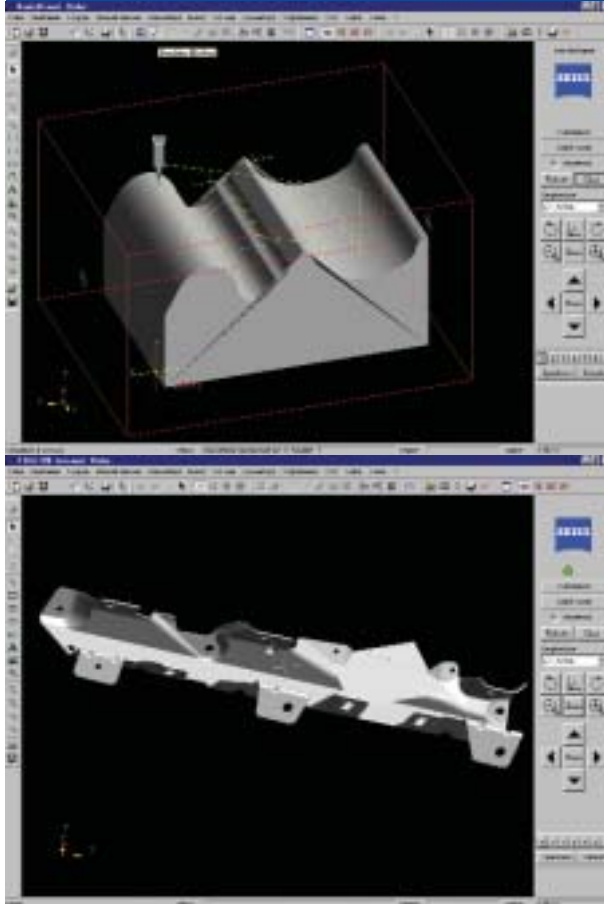
CNC programming is a profitable solution even for just one component – particularly in car-body production. You just click on the edge of the metal sheet, HOLOS Extended takes care of the rest.

Model comparison in one step

In cubing, complete car-bodies need to be measured. Here, HOLOS Extended offers the possibility of performing a model comparison by placing sections over several components. Contour lines, light edges, and gap dimensions can therefore be determined in one process.

Scanning at its best

Scanning offers the most striking advantages when it comes to complex free-form surfaces: superb information quality despite the extreme curvatures and complex contour shapes. Therefore, scanning is a standard function of HOLOS Extended.

At a glance:

File
‣ Model comparison
‣ Scale plot
‣ Adding models

Processing
‣ Copying
‣ Searching
‣ Translating
‣ Rotating
‣ Scaling
‣ Creating offset surface
‣ Selecting points

Group
‣ Storing group
‣ Opening group (layer function)

Manual measurement
‣ Continuing manual run

Measuring run
‣ Grid
‣ Line
‣ Raster
‣ Network point
‣ Network section
‣ Contour line
‣ Scanning area

Macro
‣ Macro functionalities
‣ Visual Basic

Evaluation
‣ Scale plot
‣ 2D section
‣ Chromatic coordinates
‣ Storing actual data as measurement
‣ 3D best fit with selective values
‣ Distance

Graphics
‣ Clipping plane
‣ Model coordinates
‣ Hidden line

Extras
‣ Menu editor

HOLOS Digitize.
Ideas taking shape.

As you go beyond creative work, digitizing of the first model is an important step to volume production. Your customers not only want to touch your ideas, but volume produce them as well.

It is therefore essential to convert the model into data quickly and with high precision, to implement model changes and, if applicable, take random samples. The ideal software for this is HOLOS Digitize.

At a glance:

Digitizing with HOLOS

HOLOS Digitize provides you with functions for the digitizing of curves and surfaces in your familiar HOLOS environment. In many cases, this eliminates the need for a separate digitizing software product. The digitized elements can be included in existing HOLOS models, where they are directly available for quality assurance purposes. Alternatively, they can be exported to different data formats.

Exact model data

HOLOS Digitize converts all surface values captured during digitization automatically into the relevant CAD data. You can check these surface descriptions right away, without having to include design department or additional CAD systems. You can also use the new, generated surface description directly for checking the digitized surface. There really is no simpler way.

Workpiece modifications are captured in no time with HOLOS Digitize. With reverse engineering the new data is available immediately.

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