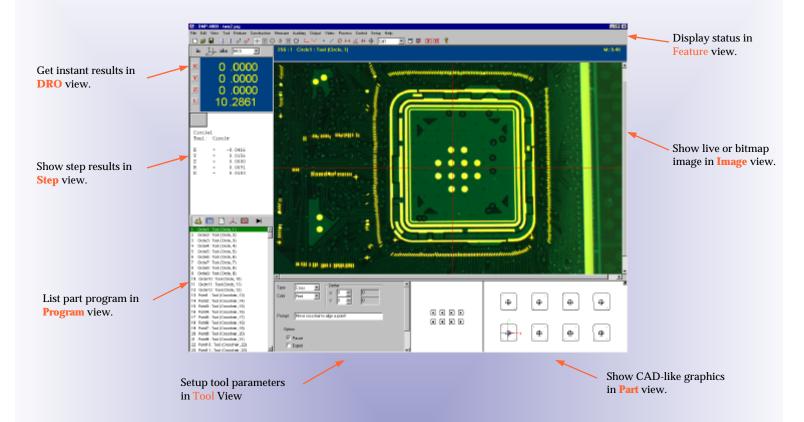
# DIVIP-4000 Dimensional Measurement Software



The DMP-4000 software is a PC-based, dimensional measurement software, for motorized Coordinate Measuring Machines (CMM). The software uses the latest digital image processing technology to capture and analyze video images for dimensional measurement. It then compares the measurement to nominal values and tolerances to identify conditions of non-conformance. The DMP-4000 tolerance functions conform to ASME Y14.5M 1994.

The software works with Windows 98SE/ME, WindowsNT4.0, Windows2000/XP. It takes the advantage of the latest operating systems and provides a familiar, graphical environment to complete your measurements. The software can be easily linked to other Windows applications, such as spreadsheets, SPC and best-fit packages.

The software is designed for image documentation, product inspection and quality control. The software reads the stage locations from linear scales and extends the measurement range to the size of the stage. The software is easy to use and it will deliver reliable and repeatable precision measurement results on the hardware of your choice.

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#### Main DMP-4000 Features

- Support FireWire digital camera or frame grabber for live image display, measurement and annotation.
- Three-axes and optional laser for high precision Z measurement and profiling.
- Support major motion controllers for stepper, servo and linear motors.
- Advanced edge detection for sub-pixel accuracy measurement.
- CAD import and export.
- Programming zoom, lighting and stag map-
- Supports inch, millimeter, mil and micron units, Cartesian and Polar coordinates.
- Datum reference frame for alignment and tolerance.
- User-defined measurement calculations.
- Up to 32000 points per feature.
- Save, open, run and edit part program capability.
- Group editing.
- Real-time linked to other applications, such as spreadsheets, SPC and best-fit.
- Flexible data format for post processing.
- Color or monochrome images acquisition, archiving and retrieval.
- Image annotation and comparison.
- International language support.
- On-line help.

### **Features and Functions**

#### File

- New
- Open
- Save
- Save As
- Header
- Run
- Run Step
- Run Repeat
- Import
- Set Origin
- Export
- Recent Files
- Exit

#### View

- Zoom In
- Zoom Out
- Zoom Window
- Zoom All
- Zoom Viev
- Shift
- Rotate
- 3D Graphics

#### **Tool**

- Find
- Teach
- Copy
- Test Update
- Edit
- Crosshair Tool
- Edge Tool
- Circle Tool
- Arc Tool
- Linewidth Tool
- Slot Tool
- Ellipse Tool
- Area Tool
- Focus Tool
- Cross Target
- Rectangle Target
- Circle Target

#### Output

- **Format**
- DDE Link
- Save Results
- **Print Results**
- Send Results
- **Edge Points**
- Result Buffers

#### Measure

- Edit
- Distance
- Circle
- Linewidth
- Angle
- Area
- Slot
- Ellipse
- Position
- Circularity
- Concentricity Straightness
- Angularity
- Parallelism
- Perpendicularity
- Size
- Statistics
- User Measure
- Create Result Buffer
- Add Result Buffer

#### Help

- Help
- About

#### Video

- Freeze
- Live Image
- Stored Image
- Import Image
- Draw Text
- **Show Edges** Histogram
- Enlarge
- Maximize
- Select Image Overlay
- Subtract
- Switch
- Compare
- Copy Image

#### Setup

- System Setup
- Lock Tool X
- Lock Tool Y
- Calibration Home
- Move Abs
- Move Inc

### **Feature**

Construction

Zero

Frame

Offset

Project

Mirror

Rotate

Parallel

Intersect

Perpendicular

Create Variable

**Bisect** 

Math

- Tool
- Relative Tool
- Point
- Line
- Arc
- Circle
- Define Feature
- User Feature
- Gauge Ball
- Gauge Diameter

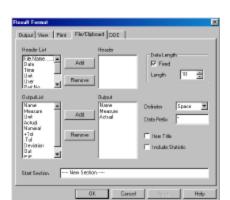
#### **Edit**

- Setup
- Modify
- Insert
- Delete
- Select All Remove Last
- Rename
- Print
- Cancel
- Duplication
- Set Break Point
- Clear Break Point

#### **Auxiliary**

- Comment
- Prompt
- Calibrate X
- Calibrate Y
- Set Calibration
- Camera FormFit C.
- Send User C.
- Get User C. In Port
- Out Port

### Results



Flexible and independent result formats for various outputs.



Seamless and real-time link to third party software.

## **Image Tools**



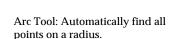
Crosshair Too: Manual define a single point.

Edge Tool: Automatically find all

points on an edge.



Circle Tool: Automatically find all points on a circle.





Linewidth Tool: Automatically find all points on two parallel edges.

Area Tool: Automatically find the



area and centroid of an area. Slot Tool: Automatically find all

points on four sides.

cross pattern.

circle pattern.



points on an ellipse. Cross Target: Automatically find a

Circle Target: Automatically find a

Ellipse Tool: Automatically find all



Rectangle Target: Automatically find a rectangle pattern.







