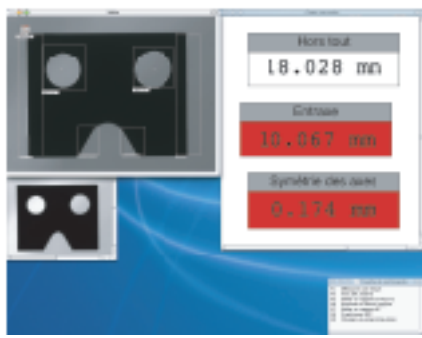


## KitNum

### General Presentation

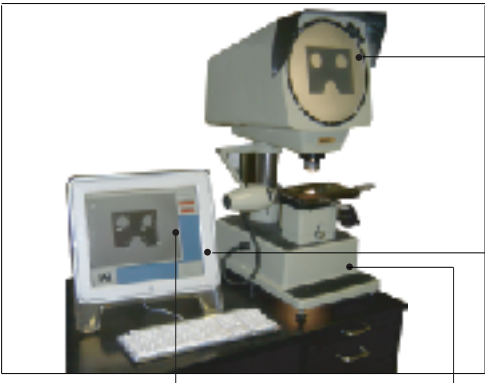
The high accuracy 2D dimensional toolkit.  
Designed for use by non-experts.



Dimensional measurements on any part: less than 5 seconds for all readings.

**KitNum** is a toolkit for 2D dimensional measurement by digital vision, intended for accurate dimensional controls.

**KitNum** fits in various dimensional measuring machines, depending on their architecture. **KitNum** equips the ORAMA profile projector line and **PPM, Satimage**'s video profile projector.



**FireWire video camera**  
The FireWire (IEEE 1394) protocol supplies a digital, crisp image at high rates. The camera is installed inside the profile projector.

**Computer**  
The computer comes equipped with the KitNum toolkit - ready to operate.

**The video picture of the part**  
Once the part on the glass plate, the system displays the part's shape, together with all its dimensions.

**Profile projector**  
Profile projector equipped with KitNum

**KitNum** is made of one CCD FireWire digital camera, and one computer unit equipped with SMI, Satimage's vision software engine, and with SMI's 2D dimensional measurement module. Our technical team installs and calibrates **KitNum** in your shop.

**KitNum**'s vision system is 5 to 10 times more accurate than the vision systems used in traditional dimensional measuring machines. Thus, **KitNum** provides the same accuracy as a traditional video measuring machine, yet on areas 25 to 100 times larger. This allows **KitNum** to work on the image of the whole part. Viewed is Measured!

- Bavurex
- Brillo
- Diffuso
- KitNum**
- PPM
- Profilo
- Recta
- Slots
- Surflab 3D
- Tarodo
- WeldInspector



### Satimage's Product Line

- Satimage's Machine Vision systems include two kinds of solutions.
- ▶ **Generic Measuring Machines.** They provide, in real time and with a high accuracy, some defined physical measurements. Numerous applications.
  - ▶ **Dedicated Systems.** Designed up to the finest details with the help and for the purposes of their users. Devoted to some specific manufacturing process.

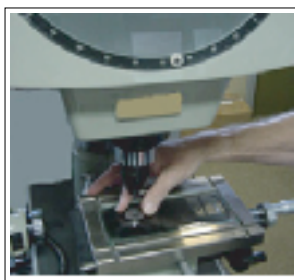
**KitNum** is a generic means for automatic reading of dimensions, intended for workshops.

### Features

- Dimensional checkings
- Control report
- Remote archive browsing

- ▶ **Real time video** image of the part.
- ▶ **Automatic reading** of all the dimensions.
- ▶ Displays **all the dimensions** in one screen.
- ▶ **Reports include** the picture of the part.
- ▶ Builds and prints a **customizable control report**.
- ▶ **Stores and manages** the archives of the readings.
- ▶ **Graphical display** of the evolutions of the readings.
- ▶ A new control program is **rapidly programmed**.
- ▶ **Remote browsing of the archives** from any web browser.

## Operation of KitNum



### Reading the dimensions: fast and easy.

The reading operation consists in following the steps below.

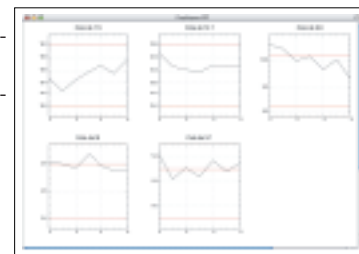
- The operator presses the F9 key and selects the measurement program for the current part model. The system displays a picture of the part's position on the plate.
- The operator puts the part on the plate, with no special positioning precaution.
- The operator presses the F1 key to trigger the measurements readings.
- Less than 5 seconds later the system displays the readings. Defects cannot go undetected: "borderline" values are orange, out of tolerances values are red.
- The operator confirms the recording of the readings with 'Enter', or he cancels with 'esc'.

### Production quality tracking

After each reading he makes, the operator can view the evolution curves of the readings for the same product.

The operator presses the F8 key. For each dimension included in the measurement program, the system displays the recent evolution on a graph with the tolerance intervals.

The operator can monitor the production and detect early any drift.

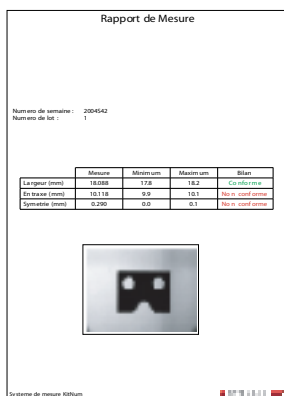


### Reports

Following each control of a part, the operator can produce two kinds of reports.

The operator presses the F5 key to build the control report for the last set of readings. The report displays the measurements and the corresponding tolerance intervals, together with a shot of the part when it was measured.

The operator presses the F7 key to build the capability report. That report displays the statistics for all readings for the particular model, with Cp and Cpk values, the evolution curves and control plots, and the table of all the values.



### Common Data

- ▶ Time
- ▶ Sensor
- ▶ Accuracy
- ▶ Capacity

< 5 seconds for one set of readings for one part

High definition CCD

± 5 µm for a 2 x 1.4 inch (50 x 36 mm) field

No limit on the number of measurement programs

## Performances

## Programming

### A new program requires only minutes.

KitNum's programming environment is just the right mix of a graphical interface with an intuitive programming language.



### Extensive help system

The tutorial and the online help allow any operator without a specific training to build, step by step, a new measurement program.

### Technical support: responsive and effective

Directly from KitNum, contact the online technical support. Enter your message, just click, and Satimage's engineers will be able to process your request and to check your measurement program.

## Browsing the archives

Connect KitNum to your network (Intranet or Internet) and view the archives from any computer connected to the network, in your web browser.

- download part or whole of the archives
- download control reports
- view, build and download new control reports on the spot.