# Guidance Vision for Robots and Automated Visual Inspection

## CIMR, University Politehnica of Bucharest

# Tracking Scene in Motion

**Motion Control using dinamic visual reaction**

- ❑ Visual servoing
- ❑ Dynamic Look & Move
- ❑ Robot- scene and robot-object modelling
- ❑ Synchronize with motion material flow
- ❑ Projection of control conveyor applications

# Intelligent Feeding

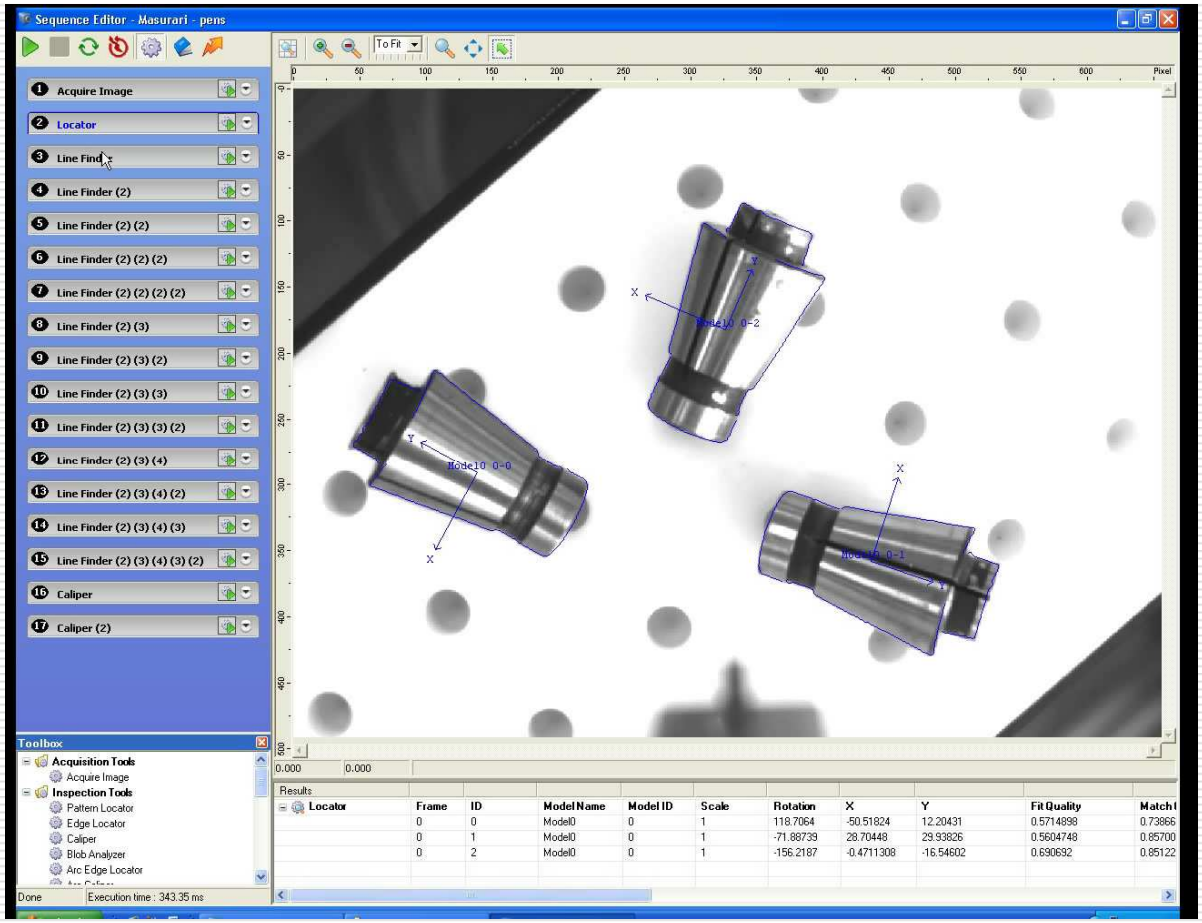
**Intelligent Systems for feeding**

- ❑ Configuration modes of material presentation
- ❑ Dual, flexible systems
- ❑ Automated feeding
- ❑ Artificial Vision for component qualification
- ❑ Guidance for robots using artificial vision

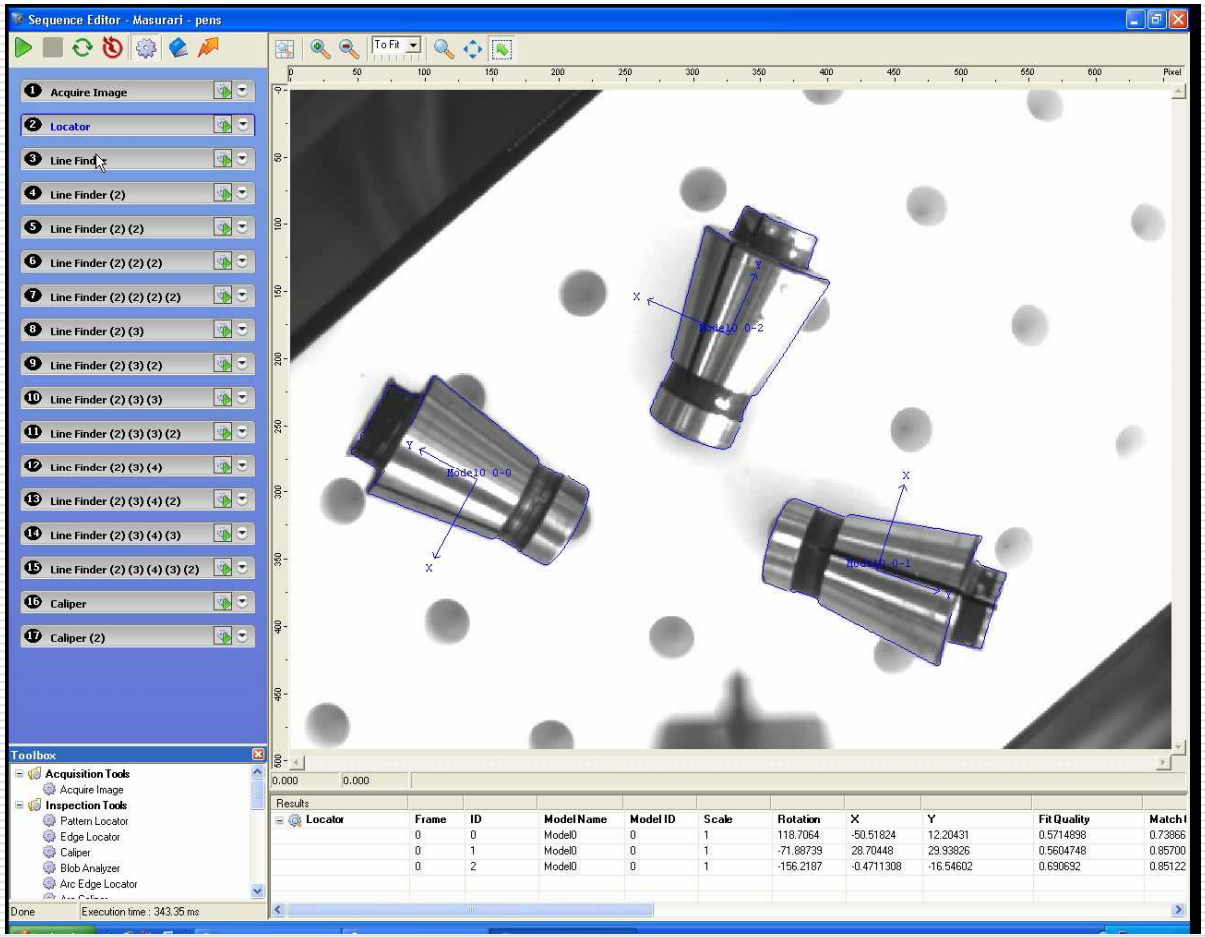
# Automated Inspection using AV

## Automated Visual Inspection (1)

- Robust recognition
- Lighting systems
- Virtual cameras creation
- Software measurement instruments:
  - Detectors
  - Rulers
  - AOI
  - Caliper
- Quality control



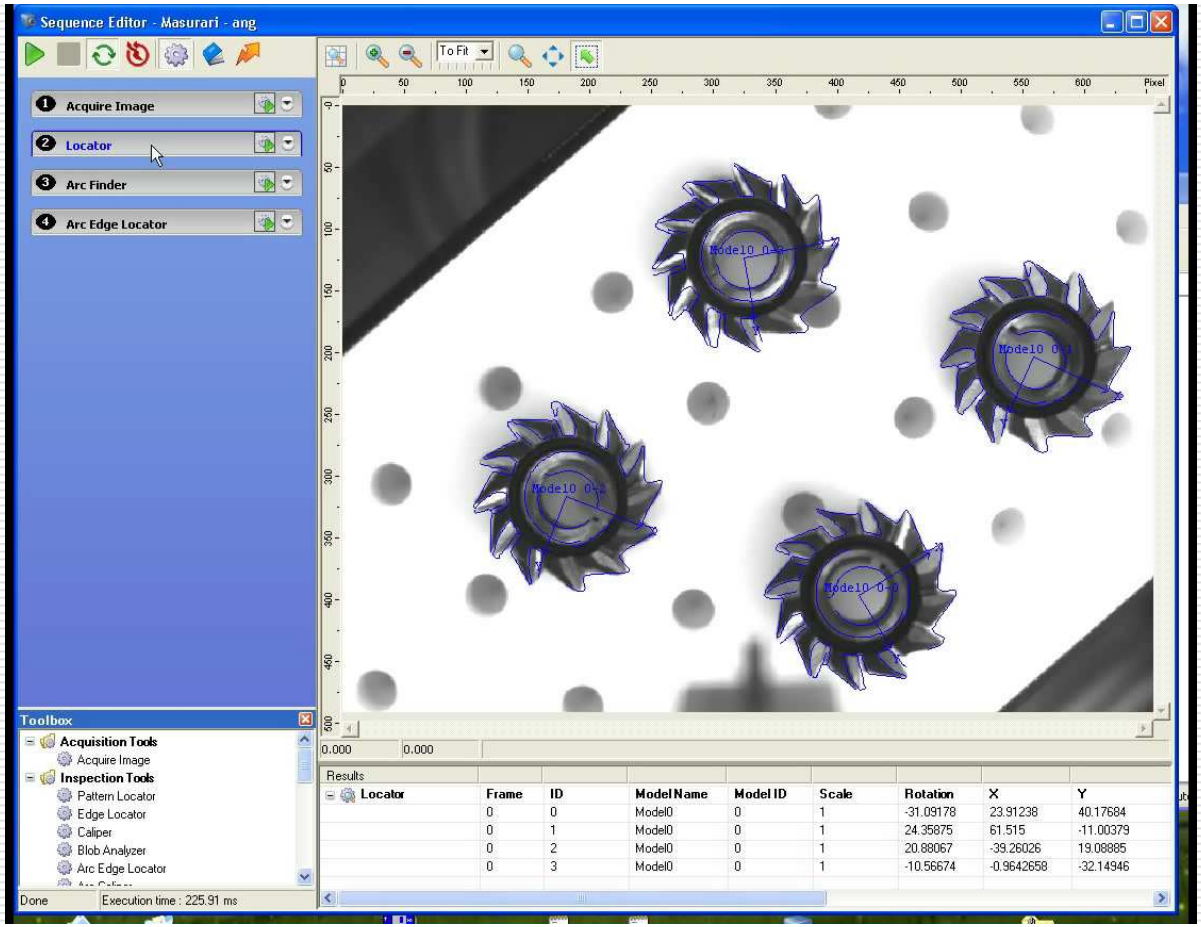
# Measurement demo (1)



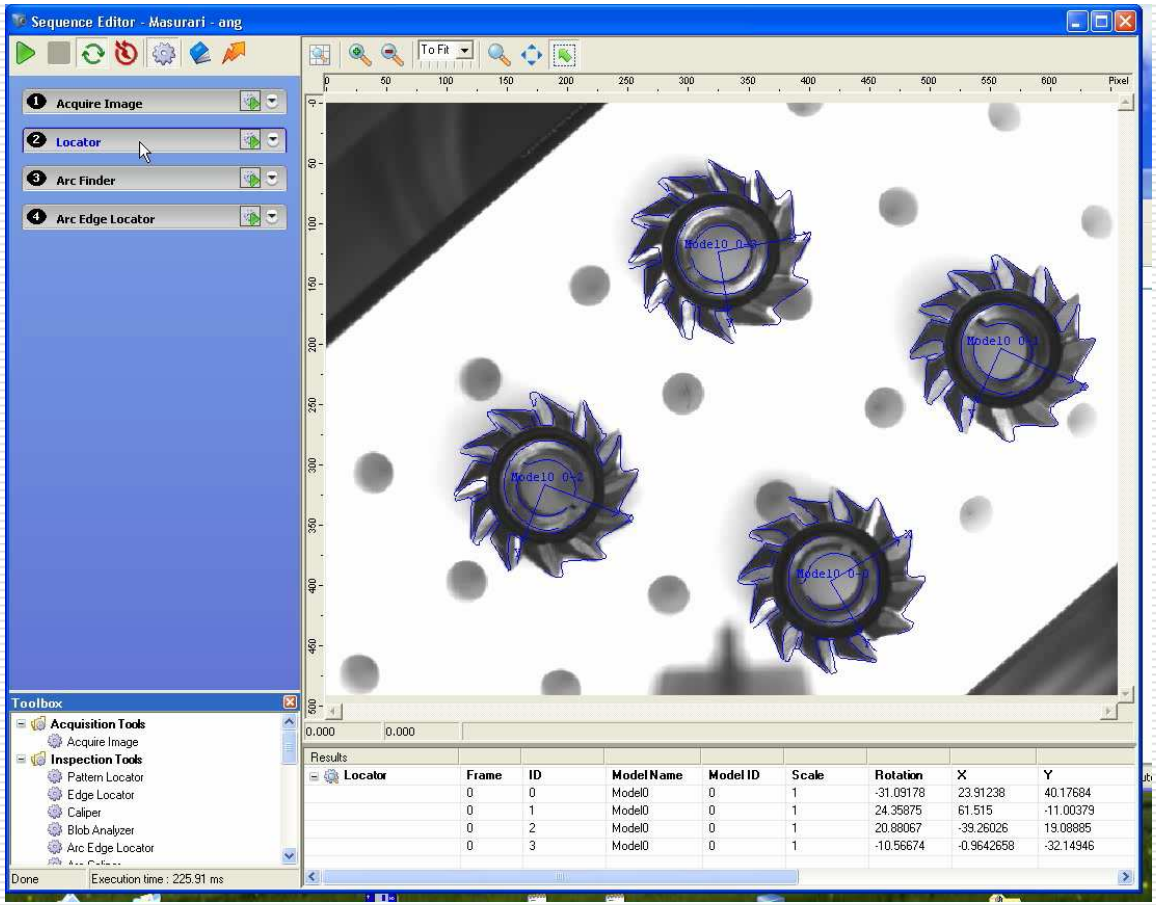
# Automatic Inspection Using AV

## Automated Visual Inspection (2)

- Visual measurements
- Shape descriptors
- Measurements based on anchor feature
- Signature analyse
- Flow sorting of components
- Structured control of scenes



# AVI Using arc finder tools



# Real-time part locating for correcting robot grasp