

CADeM

DISCOVER HIDDEN PROFITS



CNC software

For Industry



Software for improving CNC productivity

- Cycle time reduction, Programming
- Machine monitoring

Target market

- CNC shops with turning, milling
- MSMEs
- Corporates

For Education



Software for teaching CNC machining

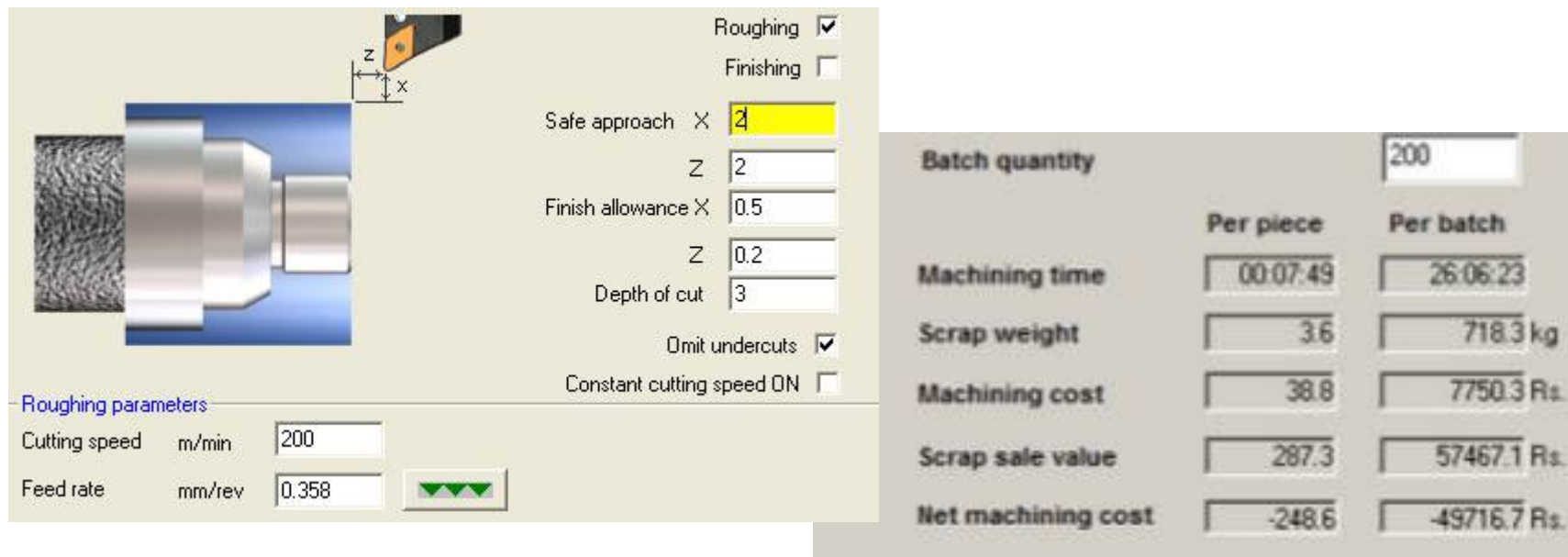
- CNC technology
- Programming
- Machine operation

Target market

- Training centres in industries
- ITIs
- Diploma colleges
- BE colleges

Products for industry - 1

Cycle time reduction and programming software



The screenshot displays the CADEM effiCNC software interface. On the left, a 3D model of a machined part is shown with a tool path overlay. The main panel contains various machining parameters and checkboxes. On the right, a table summarizes the results for a batch of 200 pieces.

Machining Parameters:

- Roughing: ☒ Finishing: ☐
- Safe approach X: 2
- Z: 2
- Finish allowance X: 0.5
- Z: 0.2
- Depth of cut: 3
- Omit undercuts: ☒
- Constant cutting speed ON: ☐

Roughing parameters:

- Cutting speed: m/min 200
- Feed rate: mm/rev 0.358

Results Table:

	Per piece	Per batch
Batch quantity	200	
Machining time	00:07:49	26:06:23
Scrap weight	3.6	718.3 kg
Machining cost	38.8	7750.3 Rs.
Scrap sale value	287.3	57467.1 Rs.
Net machining cost	-248.6	-49716.7 Rs.

- Spindle power, torque, max depth of cut display
- Maximize use of spindle power
- Reduce cycle time
- Get machining cost, chip weight, chip sale cost
- NC programs - run with zero editing
- Do machining cost calculation
- Training time 4 hours
- Can be used by operators
- No dependence on skilled programmers
- Shop docs - cycle time, tools list, graphical process

Products for industry - 2

Production and OEE tracking system

LEANworks schematic




- Track production quantity.
- Track and improve OEE.
- Track and reduce part rejections.
- Reduce machine breakdowns.
- Identify and remove causes of idle times.
- Get reports data on email or desktop.
- Get alerts on SMS.
- Track MTBF, MTTR.

Products for Education - 1

Multimedia teachware

The threads on ball screws are ground, to improve their accuracy. The nuts have a special arrangement for recirculating the balls continuously. ball screws are far more expensive than lead screws.

The screw is attached to the bed between the guideways, and rotates in bearings at either end. The nut is attached to the carriage.

Ball screw motion 



Ball screws of various sizes



cut section



Lever clamping



Top + lever clamping



Screw clamping



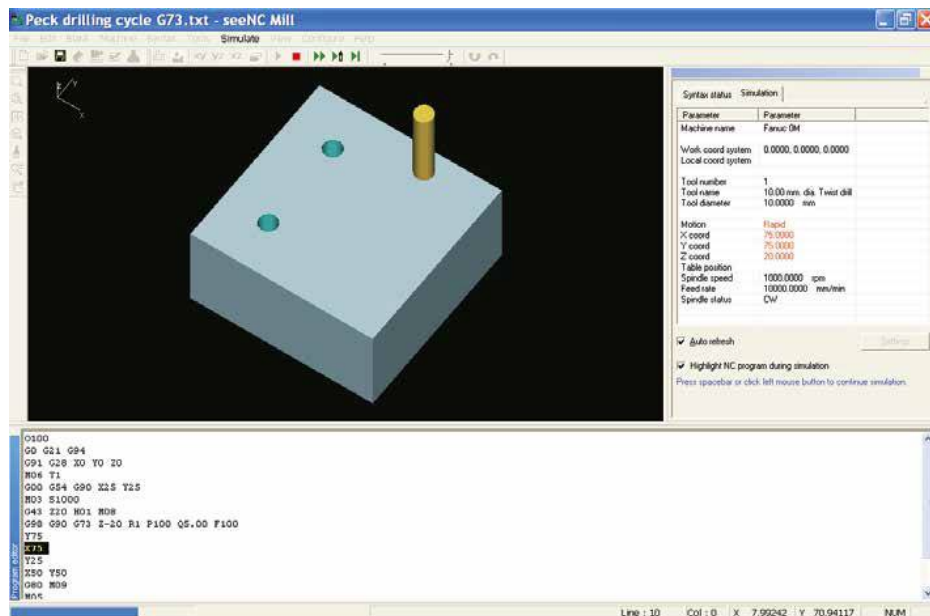
Top clamping

Teaches CNC milling, turning in a highly effective manner through videos, animations, diagrams and explanations. Covers

- Machine construction
- Machining operations
- Cutting tools
- Cutting parameters
- Work holding
- CNC programming

Products for Education - 2

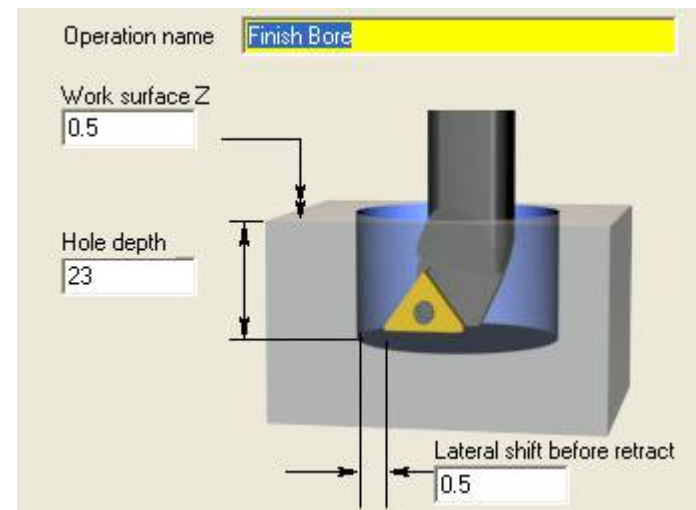
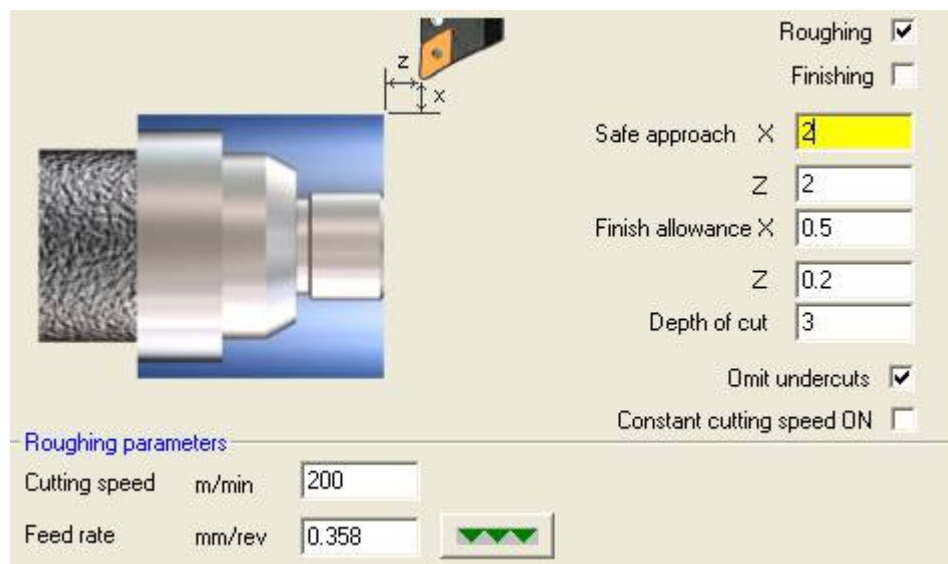
CNC program simulator – for learning manual programming



- Speeds up learning programming
- Compresses more learning in the same time
- Enables faculty to handle more students in lab
- Student enters program, software checks for and points out errors
- Student selects tools from live industry-database of 20,000 tools
- Software simulates tool path graphically

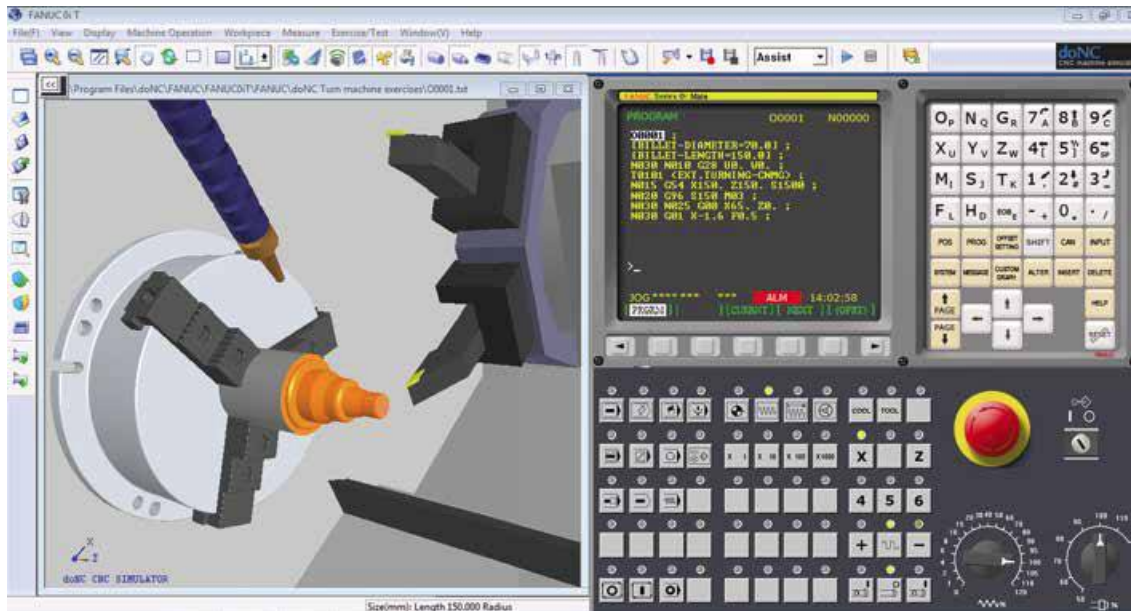
Products for Education - 3

CAM software - for learning computer aided programming



- Student learns using same software used in industry
- Learns process planning, tool selection, shop documentation
- Learns machine power utilization, costing, cycle time reduction
- Learning time is 2 hours, so spends less time learning, more time using

CNC machine simulation software – for learning machine operation



- Same concept as a flight simulator
- Enables learning machine operation without an actual machine
- Learning is safe – no injuries, no machine damage
- Costs 2 % of the cost of a machine.

About CADEM

25 year old company.

Leader in productivity software for CNC machining.

3 times winner of CMTI-PMT trust award for product innovation



NASSCOM names CADEM as India's TOP 100 INNOVATIVE software product developer

Used by top companies



Sold as OE by premier CNC manufacturers



