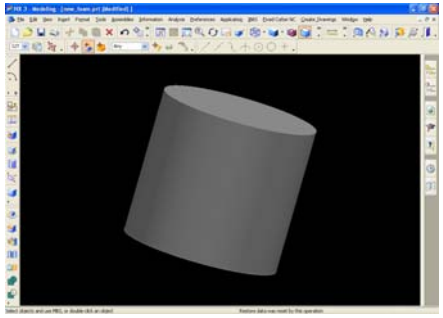
CAD and CAM Automation for Productivity

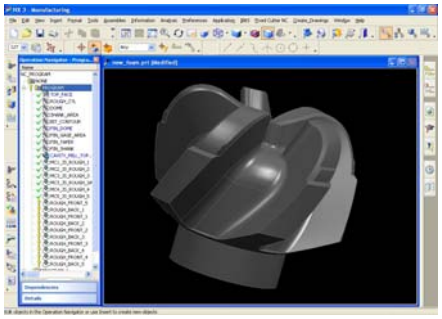
Raj Handa
Halliburton Security DBS
rajesh.handa@halliburton.com
936-442-4809

Premium Partners:

Purpose Of This Presentation

- This presentation is intended to show how Design and Manufacturing Automation can tremendously reduce turn-around time.
- How we, at Halliburton Security DBS have been able to reduce our cycle time by 80%
- All part files used in this presentation, have been created through Design Automation.



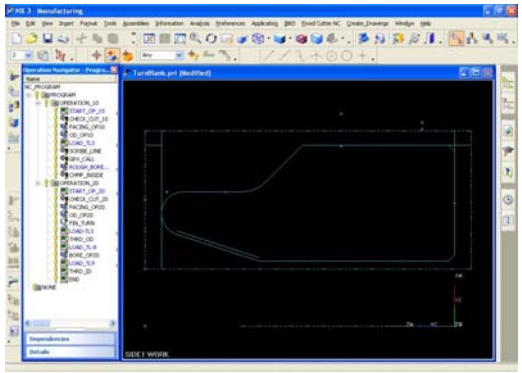


Process Flow

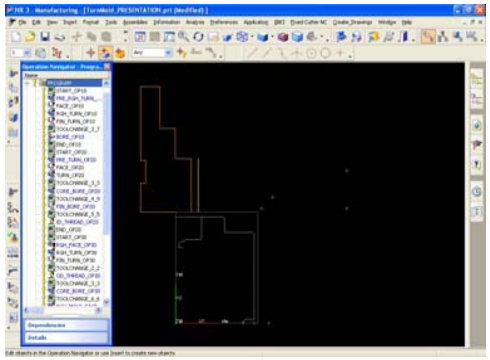
- Design parameters are established by Field Engineers.
- Parameters are processed through Design Automation (UG/Open C).
- Design is checked for validity and released to NC programming.
- NC programming runs Manufacturing automation (UG/Open C and GRIP).
- G-code file is generated and checked for errors.

Examples

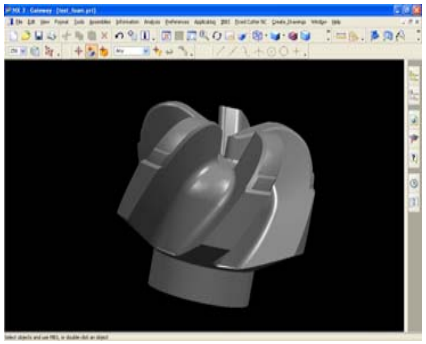
- Examples



Example-1



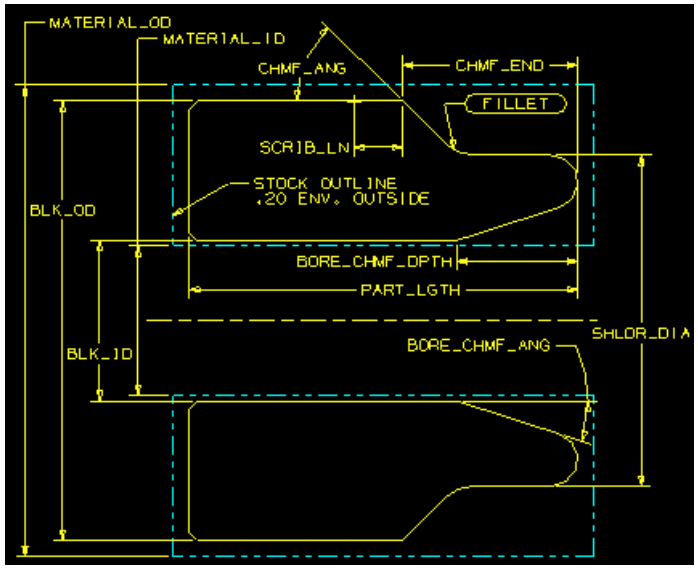
Example-2



Example-3

BLANK AUTOMATION

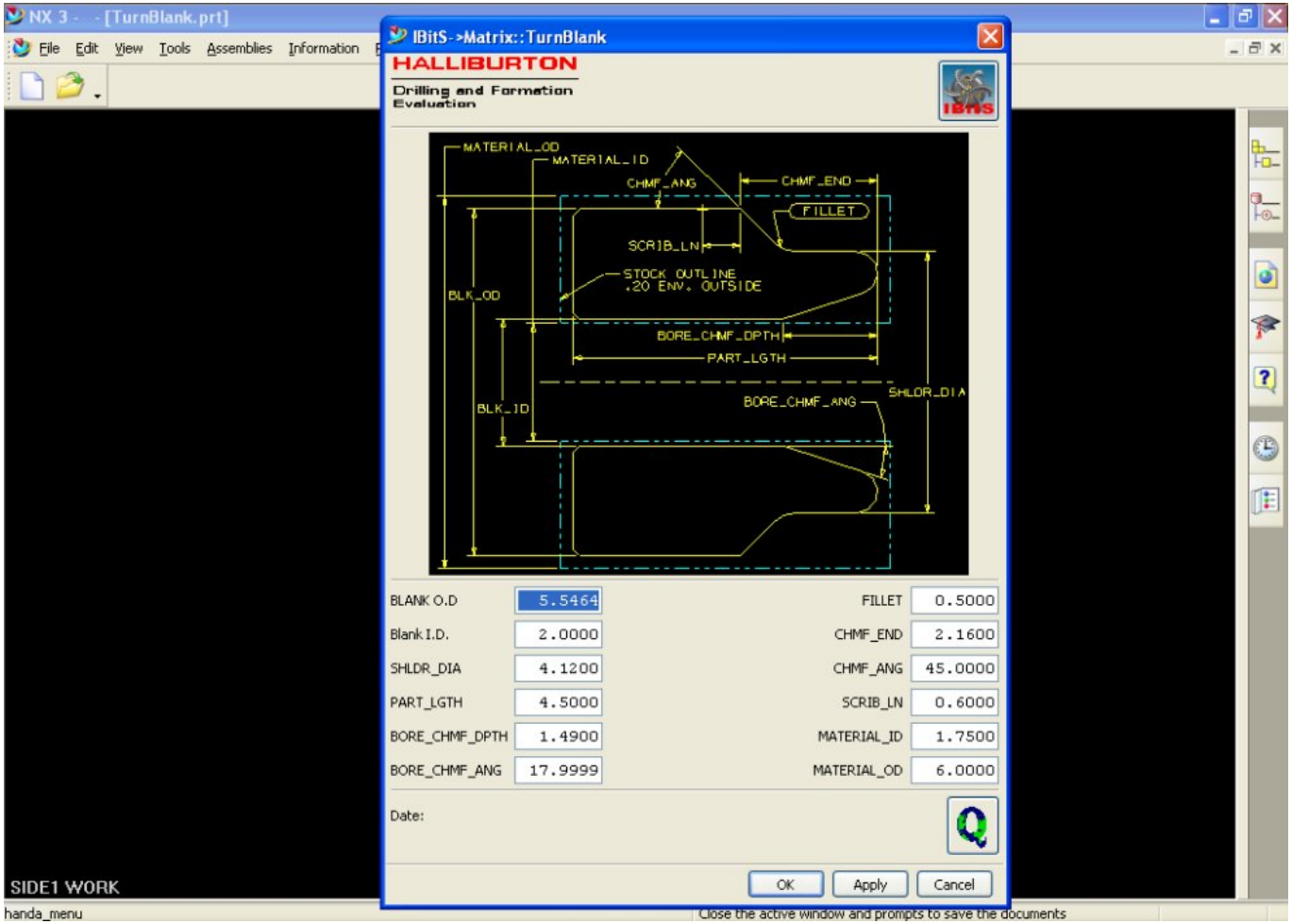
- Run Manufacturing Automations For Lathe.
- This Automation has been created by using UG/Open C, Sketcher and TCL.
- Run “BLANK AUTOMATION”



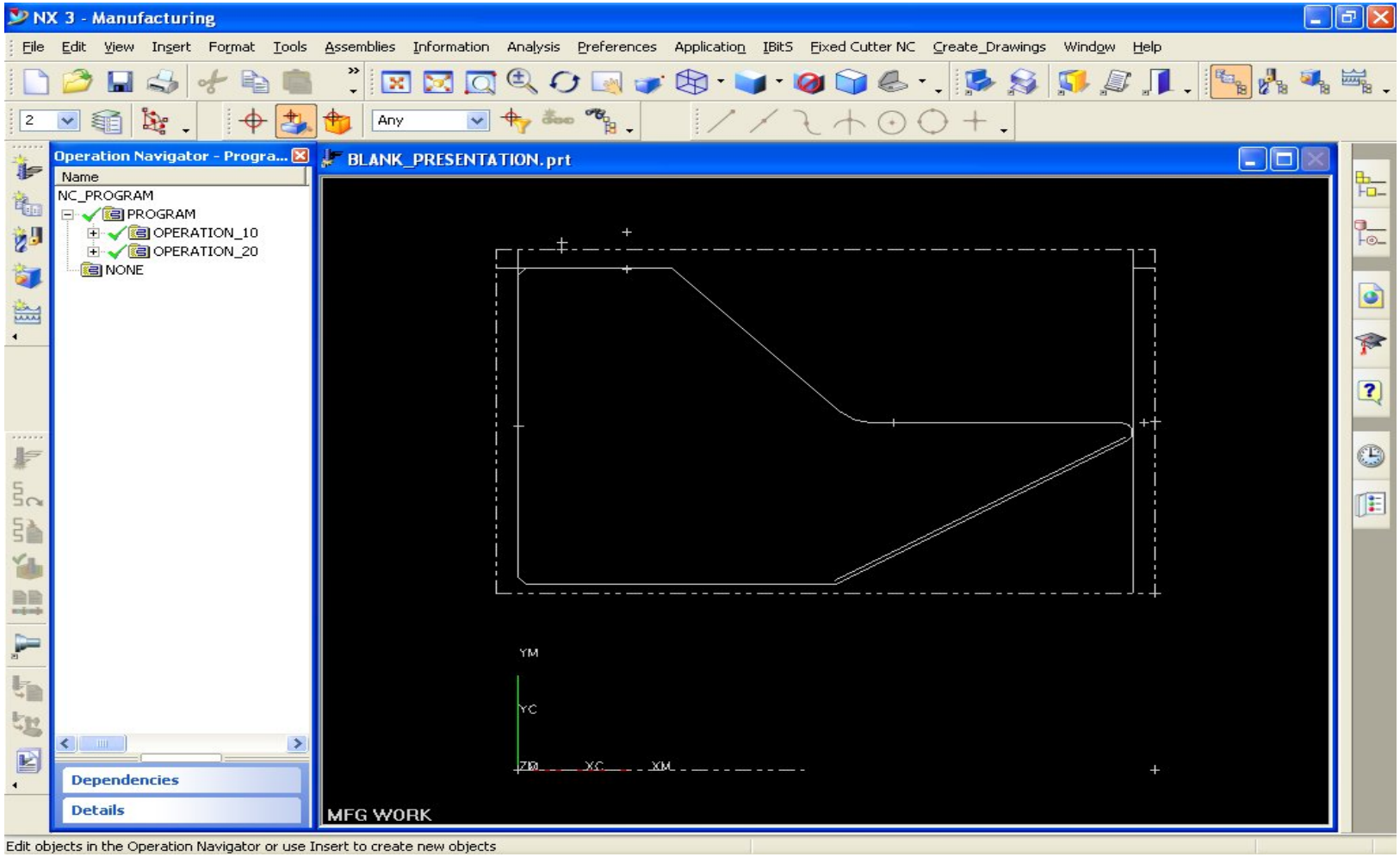
Blank Automation

- FIXED CUTTER NC
- FM 3000
- Turn Blank

Blank Automation Form

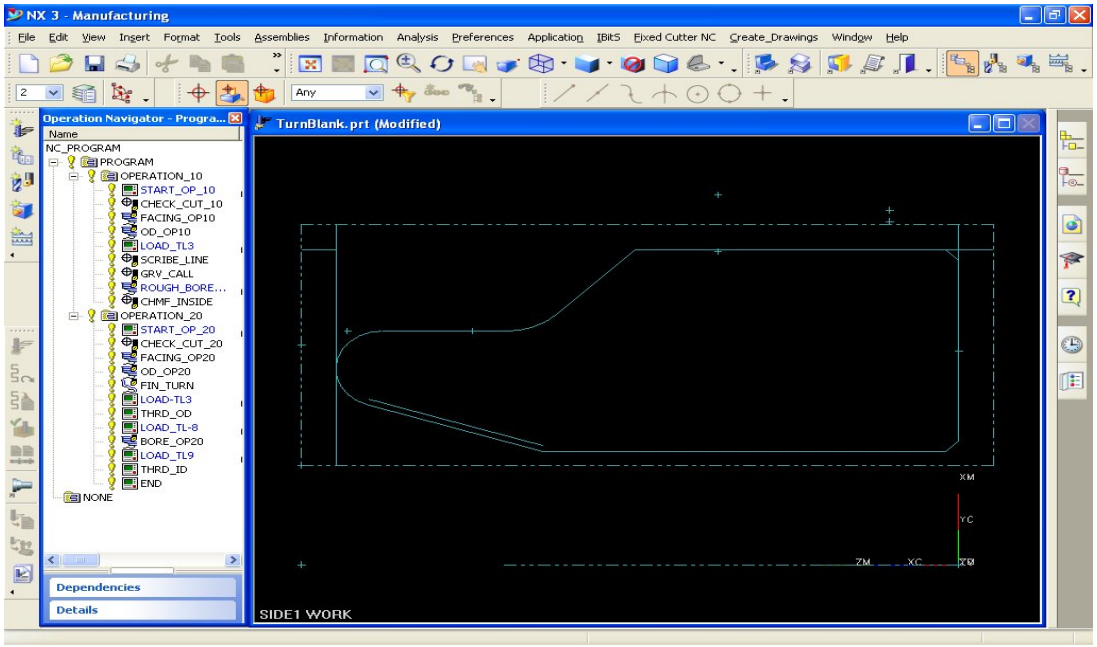


File Created By Automation



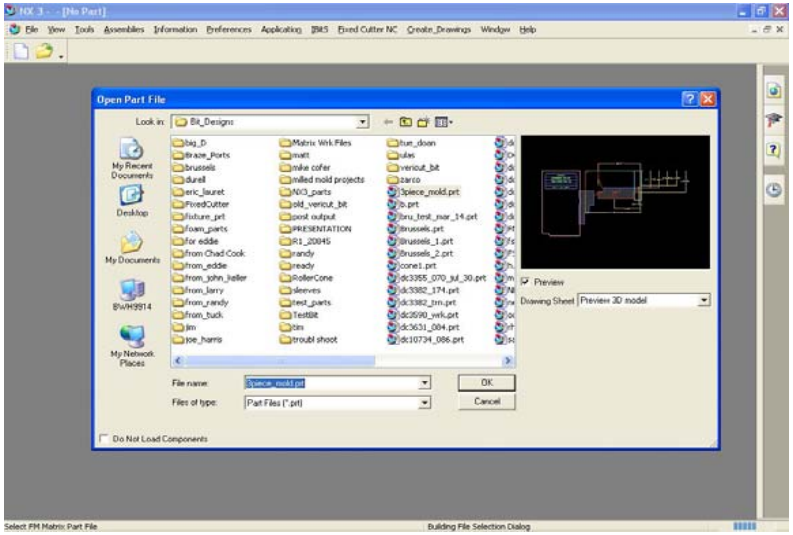
Postprocess

- Select Operations for postprocessor
- Postprocess



Mold Turning Automation

- Run Manufacturing Automations For Lathe.
- This Automation has been created by using UG Open API (User Function).
- Run “MOLD TURNING AUTOMATION”

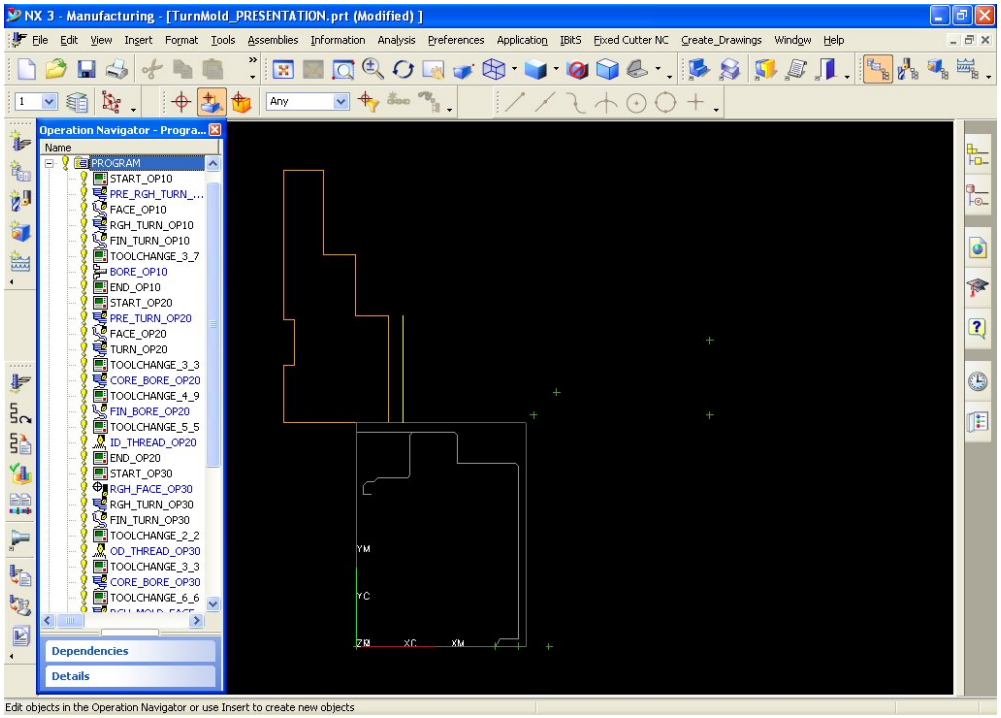


Lathe Automation

- FIXED CUTTER NC
- FM 3000
- Turn Mold
- SL80 Turn Mold

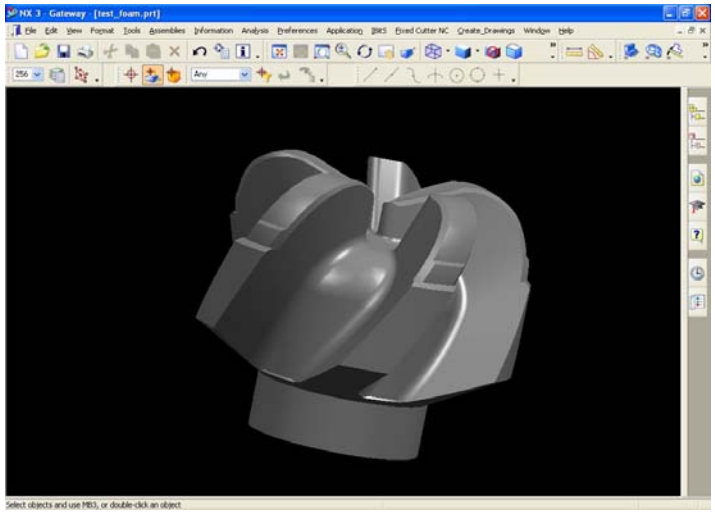
Postprocess

- Select Operations for postprocessor
- Postprocess



Drill Bit Milling Automation

- Run Manufacturing Automations For Milling.
- This Automation has been created by using UG/Open C Programming and GRIP.
- Run “DRILL BIT MILLING AUTOMATION”

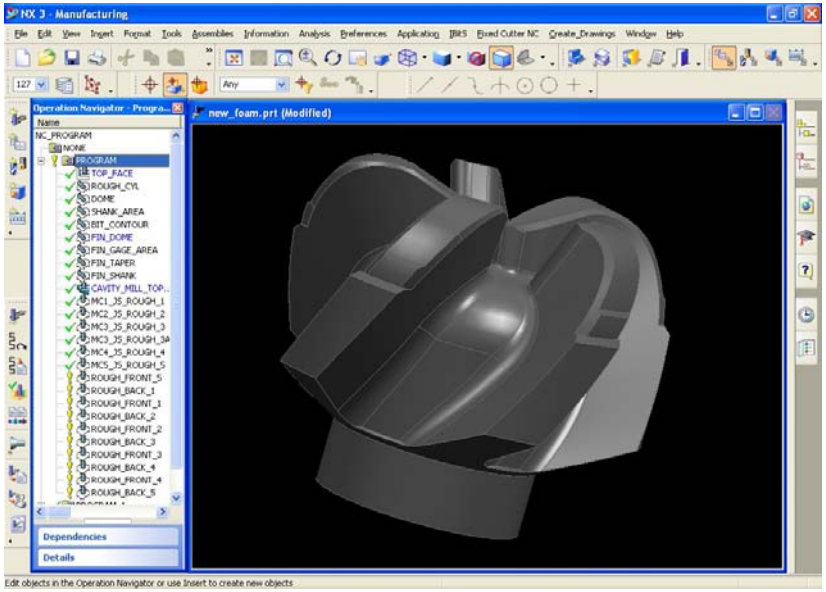


Foam Automation

- FIXED CUTTER NC
- FS 3000
- Mill Foam

Verify

- Verify tool paths
- Create new operations if required
- Postprocess



Questions?