NX CAM Turning add-on

Siemens Digital Industries Software provides capabilities to program turning centers

Benefits
- Supply any required turning motion
- Cut efficiently with stock sensitive operations

Features
- Turning
- Facing
- Boring
- Grooving
- Threading
- Teach mode

Summary
NX™ CAM Turning add-on software provides capabilities to program turning centers and vertical turret lathes. NX Turning cuts efficiently with turning operations that always track cut and uncut material. You can see what material remains at all times with a persistent display of part and stock for each operation to facilitate a running completion check.

Associative turning profile
The software tracks allowable turning volumes precisely, even for millturn parts. You can maintain correct turning profiles through part updates. Spun solid profiles and merged multiple cross-sections provide the correct turning profiles for any part and automatically update when geometry changes.

Comprehensive set of automatic operations
You can easily program a full range of lathe operations, including:

- On-center hole making: spot, drill, peck, chip, ream and tap

- Roughing: face, turn, back turn, bore, back bore and undercut – all with multiple patterns and depth of cut control and angle control

- Rough/finish grooving – with auto left/right tracking point control

- Outside diameter/inside diameter (OD/ID) threading

- OD/ID face

- Cutoff operation and bar feed operation types

Feature automation
The NX CAM Turning add-on automates grooving with feature-based machining processes. You can produce threads according to standards with parameter-driven thread cutting processes. You can also break corners with arcs or chamfers that account for the finish status of the adjacent geometry.

User control
You can customize and fine-tune turning boundaries to account for various finish requirements or in-process characteristics, such as grind stock. NX suppresses features as needed. Transitions to/from boundary edits ensure that the desired end result is easily achieved. Additionally, you can compensate for cutter diameter variance or use zero diameter tool programming (part dimension programming).

Advanced options
NX provides special cutting patterns, such as finish all, down-only cutting and toward/away from corner patterns. You can protect valuable work pieces by interrupting long cuts for insert changes. Safe exit and re-entry to the cut are handled automatically.
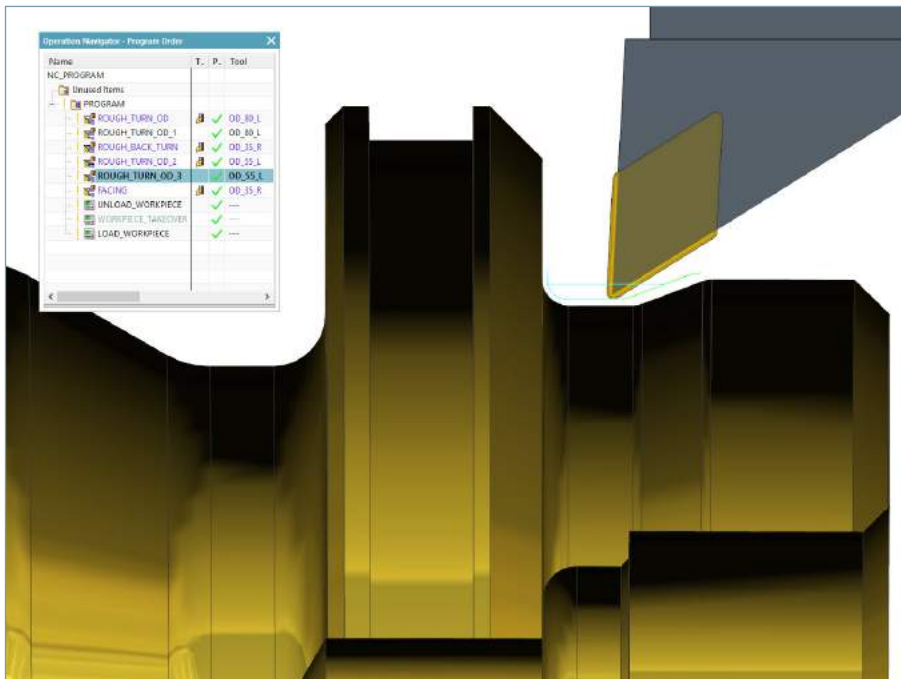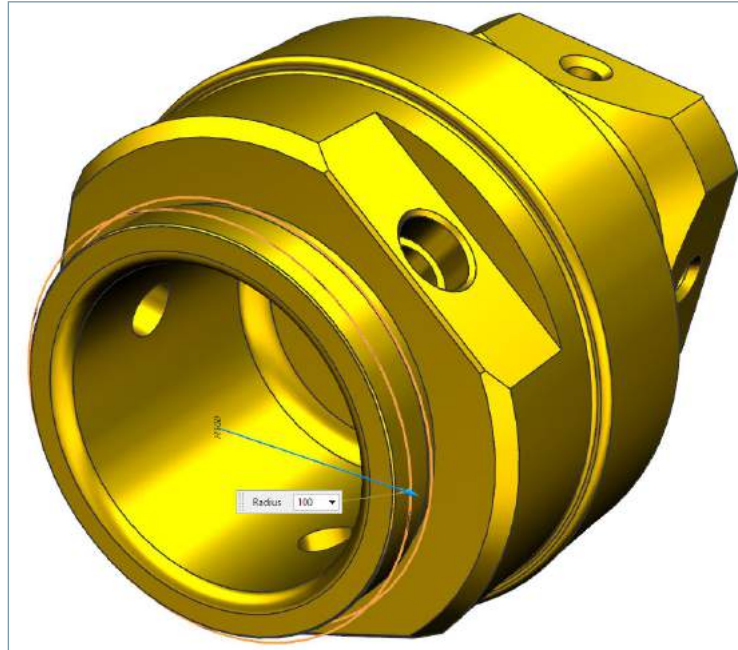
NX CAM Turning add-on

Teach mode

The NX CAM Turning add-on provides step-by-step motion instructions with a few mouse clicks. It supports all of your turning center's capabilities (including bar feeds or tail stocks) and visualizes their motion.

Tools

You can specify the adapter, holder and insert as part of a tool assembly as well as multitools, which allows the combination of multiple inserts in a single tool. NX enables you to configure left- or right-handed tools for inside or outside diameters. You can cut either side of the centerline using either upper or lower turret configurations. Multiple drive points per tool facilitate flexible usage of tools versus various geometry. Probing tools are available for on-machine probing cycles.