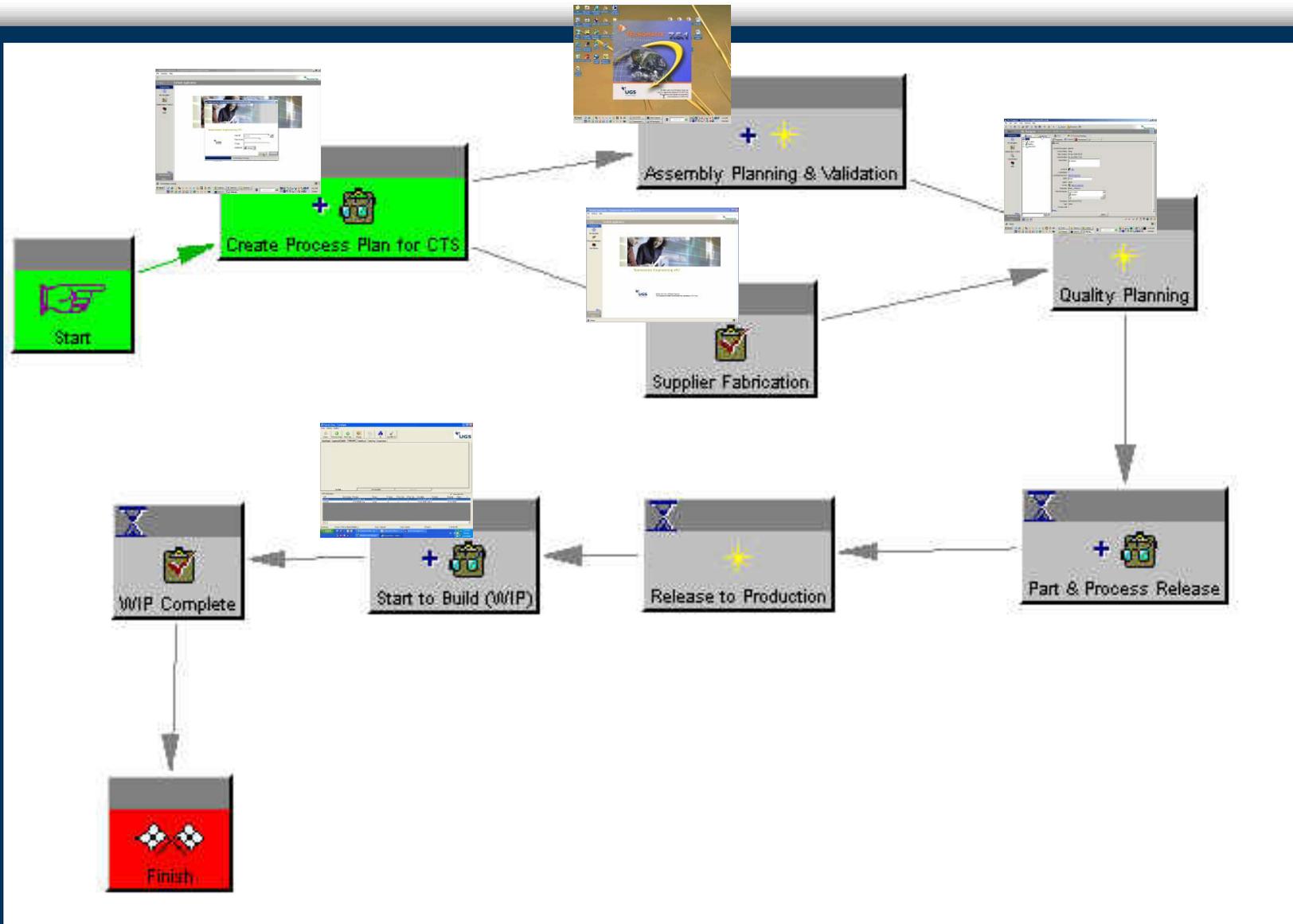


Aerospace 'Day in The Life' Demonstration



Workflow





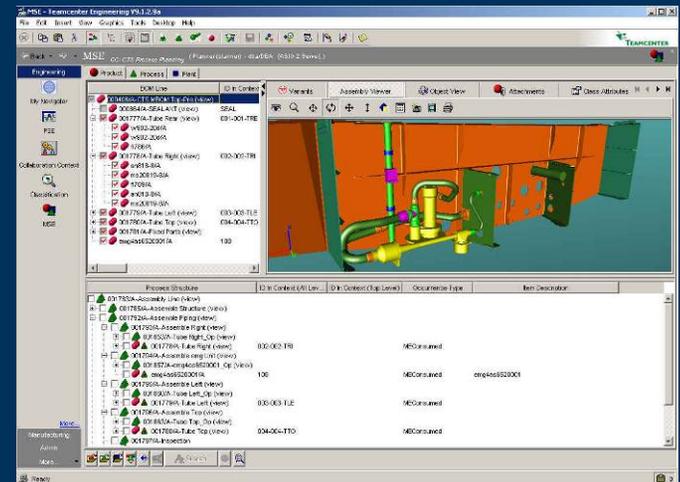
Demo Steps

A. Process Planning



- ▶ Objectives:
 - ▶ Create Manufacturing BOM for a sub-system from the Engineering BOM
 - ▶ Create a process plan for the new CTS sub-system based on knowledge from a similar program
 - ▶ Define the assembly area for the CTS assembly based on an existing line
 - ▶ Send process for validation
- ▶ Tools to be used:
 - ▶ Teamcenter manufacturing
- ▶ Role:
 - ▶ Planner

- Process planning (TC):**
 - o EBOM – MBOM
 - o Process definition
 - o Work area definition
- Supplier integration for Fabrication (TC / NX CAM):**
 - o Fabrication Process Planning
 - o NC code generation and Documentation
 - o Machine tool Simulation and verification
- Detailed planning and process validation (Simulate):**
 - o Process detailing (define assembly path)
 - o Process validation
 - o Human
 - o Documentation
 - o Engineering change analysis
- Release build package:**
 - o Attach data collection forms
 - o Release package
- Build (Xfactory):**
 - o Produce work order





Demo Steps

B. Supplier integration for Fabrication

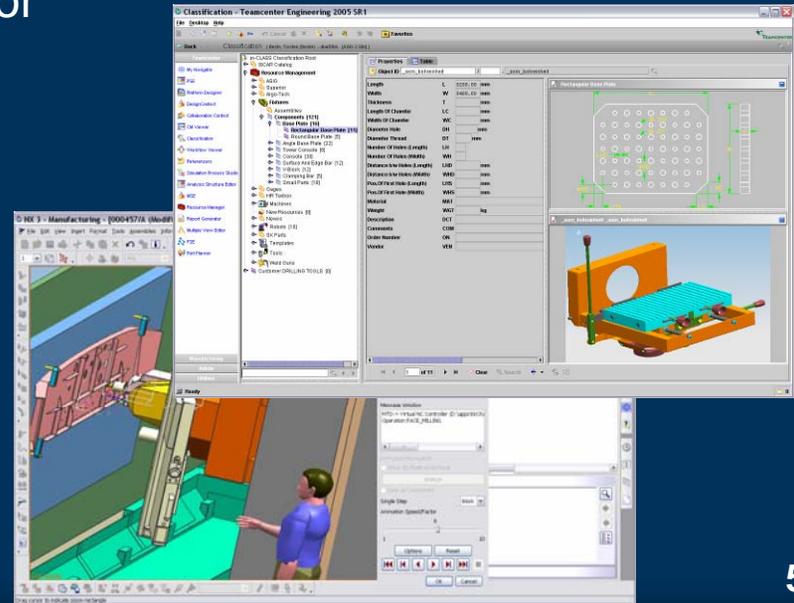


- ▶ Objectives:
 - ▶ Define & verify detailed Fabrication process:
 - ▶ Assign Machining Operation
 - ▶ Assign Resources
 - ▶ NC Program generation
 - ▶ Machine tool Simulation and verification
 - ▶ Documentation of Fabrication Process for Shop floor People
 - ▶ Generate cost reports

- Process planning (TC):**
 - o EBOM – MBOM
 - o Process definition
 - o Work area definition
- Supplier integration for Fabrication (TC / NX CAM):**
 - o Fabrication Process Planning
 - o NC code generation and Documentation
 - o Machine tool Simulation and verification
- Detailed planning and process validation (Simulate):**
 - o Process detailing (define assembly path)
 - o Process validation
 - o Human
 - o Documentation
 - o Engineering change analysis
- Release build package:**
 - o Attach data collection forms
 - o Release package
- Build (Xfactory):**
 - o Produce work order

- ▶ Main tools to be used:
 - ▶ TC Manufacturing
 - ▶ NX CAM

- ▶ Role:
 - ▶ Planner





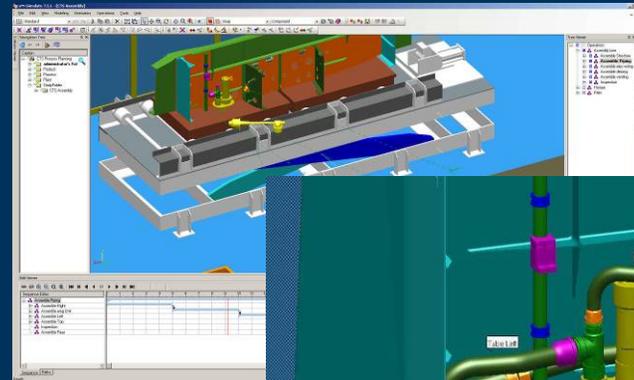
Demo Steps

C. Detailed Planning and Process Validation



- ▶ Objectives:
 - ▶ Define & verify detailed assembly process:
 - ▶ Path
 - ▶ Sequence
 - ▶ Collision
 - ▶ Document the process
 - ▶ Verify human visibility and ergonomics
 - ▶ Analyze the impact of an engineering change
- ▶ Main tools to be used:
 - ▶ Process Simulate
- ▶ Role:
 - ▶ **Simulation Expert**

- Process planning (TC):**
 - EBOM – MBOM
 - Process definition
 - Work area definition
- Supplier integration for Fabrication (TC / NX CAM):**
 - Fabrication Process Planning
 - NC code generation and Documentation
 - Machine tool Simulation and verification
- Detailed planning and process validation (Simulate):**
 - Process detailing (define assembly path)
 - Process validation
 - Human
 - Documentation
 - Engineering change analysis
- Release build package:**
 - Attach data collection forms
 - Release package
- Build (Xfactory):**
 - Produce work order





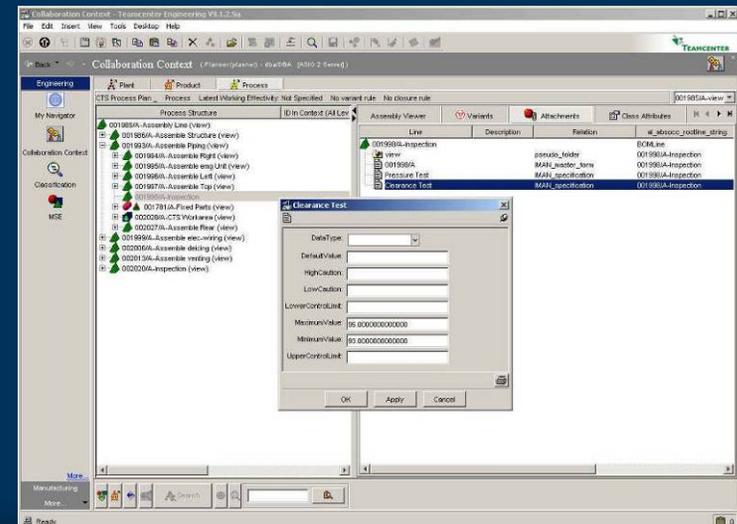
Demo Steps

D. Release build package



- ▶ Objectives:
 - ▶ Define data collection forms on the process
 - ▶ Release build package
- ▶ Main tools to be used:
 - ▶ Teamcenter Manufacturing
- ▶ Role:
 - ▶ Mfg manager

- Process planning (TC):**
 - o EBOM – MBOM
 - o Process definition
 - o Work area definition
- Supplier integration for Fabrication (TC / NX CAM):**
 - o Fabrication Process Planning
 - o NC code generation and Documentation
 - o Machine tool Simulation and verification
- Detailed planning and process validation (Simulate):**
 - o Process detailing (define assembly path)
 - o Process validation
 - o Human
 - o Documentation
 - o Engineering change analysis
- Release build package:**
 - o Attach data collection forms
 - o Release package
- Build (Xfactory):**
 - o Produce work order





Demo Steps

E. Build



- ▶ Objectives:
 - ▶ Controlled execution
 - ▶ Data collection by the shop-floor operator
 - ▶ Non-conformance
- ▶ Main tools to be used:
 - ▶ Tecnomatix Execution
- ▶ Role:
 - ▶ Shop floor Mechanic

- Process planning (TC):**
 - o EBOM – MBOM
 - o Process definition
 - o Work area definition
- Supplier integration for Fabrication (TC / NX CAM):**
 - o Fabrication Process Planning
 - o NC code generation and Documentation
 - o Machine tool Simulation and verification
- Detailed planning and process validation (Simulate):**
 - o Process detailing (define assembly path)
 - o Process validation
 - o Human
 - o Documentation
 - o Engineering change analysis
- Release build package:**
 - o Attach data collection forms
 - o Release package
- Build (Xfactory):**
 - o Produce work order



The screenshot shows the UGS Tecnomatix software interface. At the top, there's a menu bar with 'Tools', 'Options', and 'Addins'. Below it is a toolbar with icons for 'Home', 'Previous Step', 'Next Step', 'Change', 'File', '3D', 'Signout W/O', 'Transfer W/O', and 'Hold W/O'. The main window is titled 'Process Step: TubeRight' and contains a 3D model of a curved tube. To the right of the model is a 'Consumable' table with columns for 'Lot Number', 'Serial Number', and 'Quantity'. Below the model and table are sections for 'To Do', 'Consumables', and 'Equipment'. At the bottom, there's a 'WIP Information' table with columns for 'WIP', 'Lot Number', 'Product', 'Status', 'Priority', 'Rec. Qty', 'Rem. Qty', 'Available', 'Started', 'Created', and 'Oper'.

WIP	Lot Number	Product	Status	Priority	Rec. Qty	Rem. Qty	Available	Started	Created	Oper
W0113		CTS MBOM Top	InProc	0	1	1	11/16/2005 12:07:24	11/21/2005 11:45:05	11/16/2005	
W0120		CTS MBOM Top	Aval	0	1	1	11/16/2005 12:08:11		11/16/2005	
W0121		CTS MBOM Top	Aval	0	1	1	11/21/2005 13:01:11		11/21/2005	
W0122		CTS MBOM Top	Aval	0	1	1	11/21/2005 1:41:08		11/21/2005	



Thank You