

# Virtual Manufacturing

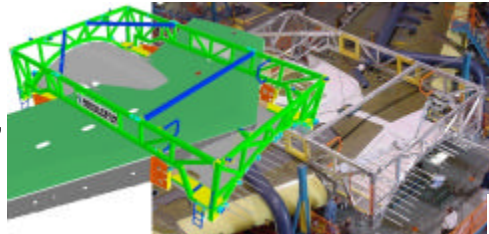
Nova-Tech Engineering, has made the investment in the best in class Virtual Manufacturing software from Delmia to augment our over 30-years of mechanical engineering experience.

## Assembly

**Spatial integration:** Visualization of entire systems

**Assembly sequencing:** Optimize build sequence for lean product development, find and fix interference's prior to fabrication

**Virtual prototyping:** Build your product virtually, see it move, demonstrate maintenance operations



## Kinematics

**Machine development:** Geometric modeling, kinematics setup and verification, path and motion planning

**Off-line programming:** Path generation, optimization, download, upload, editing

**Reach & collision analysis:** Verify the machine can complete all it's tasks, assure it will perform without colliding

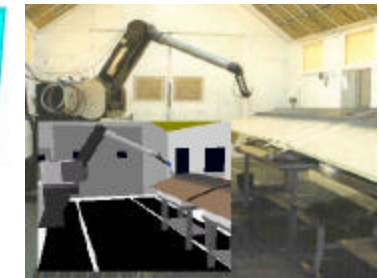
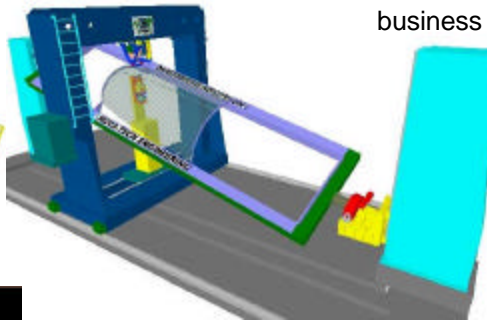


## Customization

**Task automation:** Macros to automate repetitive commands, improve efficiency

**Input/Output:** Import path and process data, export paths, G/M codes, robot programs with associated data

**Custom interfaces:** Interface Delmia software to other engineering, manufacturing or business system software

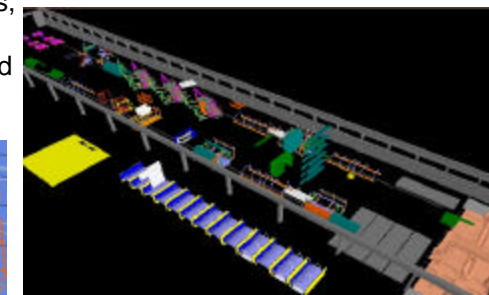
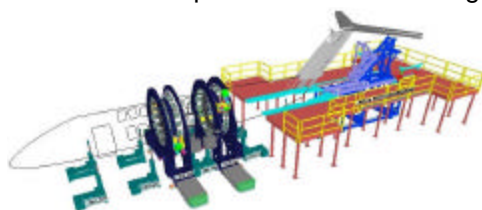


## Factory

**Workcell and factory layouts:** Optimize workcells for efficiency, analyze product flow between workcells, look at product flow between factories

**Factory flows:** Evaluation of factory layouts, production analysis and rate analysis

**Material handling systems:** Geometric and discrete event analysis for comparing MHS alternatives



## Supporting Resources

**CAD:** CATIA V4.2.x, CATIA V5, Unigraphics 15, AutoCAD

**Structural Analysis:** ALGOR, ANSYS, NASTRAN

**PLC Programming:** Allen-Bradley Rockwell, General Electric, Koyo, Mitsubishi Electric, Siemens, Square D

**Motion Control:** Fanuc, Galil, Siemens, SmartMotor, Yaskawa

**Programming:** C/C++, Visual Basic, CATIA IUA

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