

# Web-Based CAM-Turn Automation Project Proposal

Presented

By

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# Abstract

This web-based CAM-Turn Automation project is to build a generic platform, which can be customized for many customers. Customer can just login the website and configure part parameters, and in minutes, NC files and documents will be sent to customer by email.

This system is good for those customers who need to reprogram on many parts with similar profile but different dimensions, such as part families. For example, tool making companies, they have thousands of orders for different size of tools, which has very similar shape and turning process.

This system can also be implemented on customer's local network if they already have the required hardware and software available.

# Web-Based CAM-Turn Automation Overview



**End User** → login the website via PC or Mobile device, configure part parameters and submit the job. → Part Configuration file will be sent to the CAD/CAM Server.



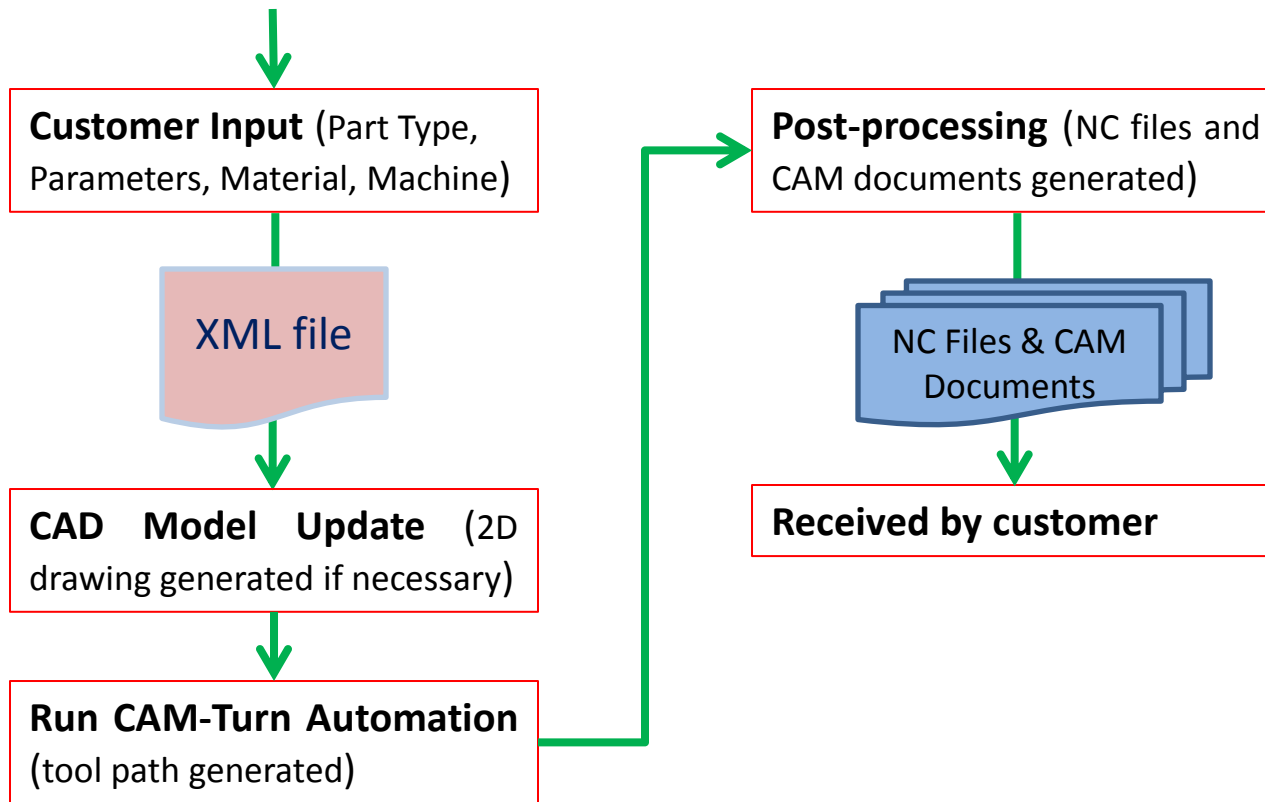
**Internet or Intranet**



## **Web Server & CAD/CAM Server**

After receiving the part configuration file → update the CAD 3D model → generate tool path → Post-processing → Send NC file and documents to end user by email.

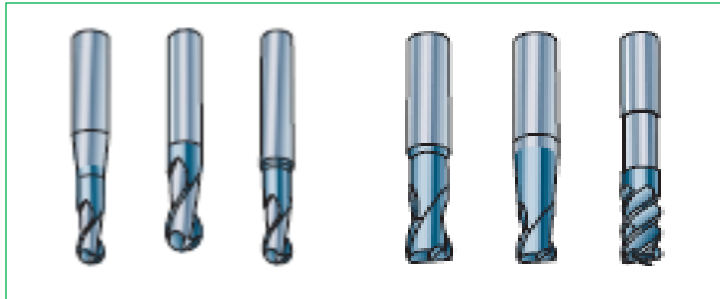
# Web-Based CAM-Turn Automation **Flowchart**



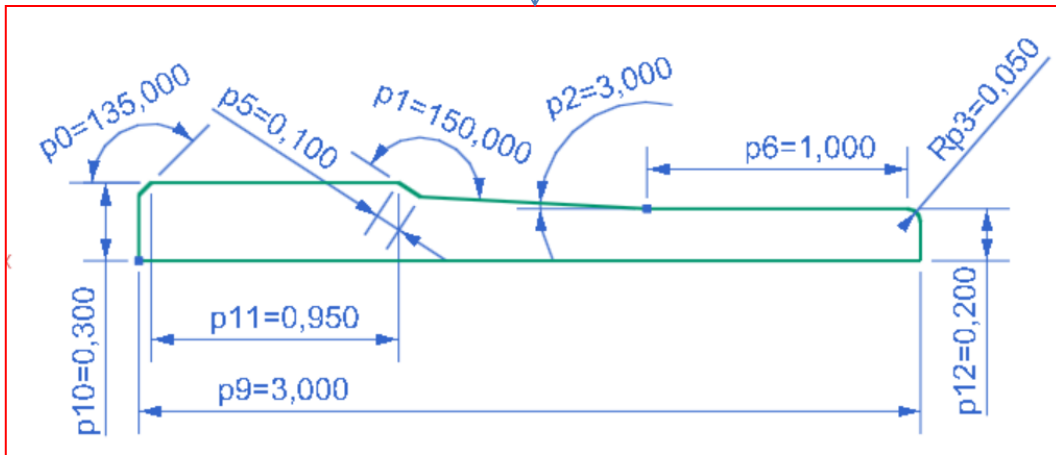
**\* Customization information required:** Part types, machining process for each part type, machine & tooling information (For postprocessor development), engineering rules, etc.).

# Web-Based CAM-Turn Automation

## Application Example – Tool Making

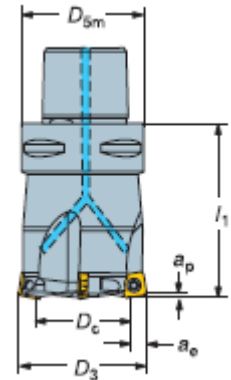
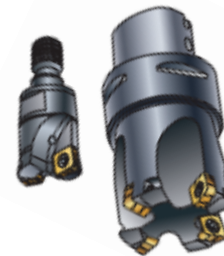


Parameterized Design



**Mill tool Products:** Similar shape with different configuration (Diameters, corner radius, flute number, flute length, shank diameter, shank length, chamfer size, etc.)

**Good for CAD/CAM Automation:** Easy to update 3D model with parameter changes, Similar Turning or Milling process, good for CAD/CAM automation with integrated engineering rules.



# Web-Based CAM-Turn Automation

## Hardware, Software, Cost

### Hardware:

1. Web Server
2. CAD/CAM Server

### Software & License:

1. Windows 7 x64
2. Siemens NX 8.0 or above

### **Project Cost Estimation: \***

1. Hardware & Software cost: 40,000 USD
2. Internet, Maintenance, upgrade: 8,000USD/year
3. Development Cost: 50,000 ~ 200,000 USD

### **Customer Cost: 10,000 USD ~ 30,000 USD \*\***

\* This project is to build a generic framework and provide web service for many customers, the cost does not include the customization cost for each customer. The development cost varies, depending on the functional requirements.

\*\* Customer cost is based on the number of parts to be customized for CAM automation. We can build the local system on customer site if they already have the hardware and software available.