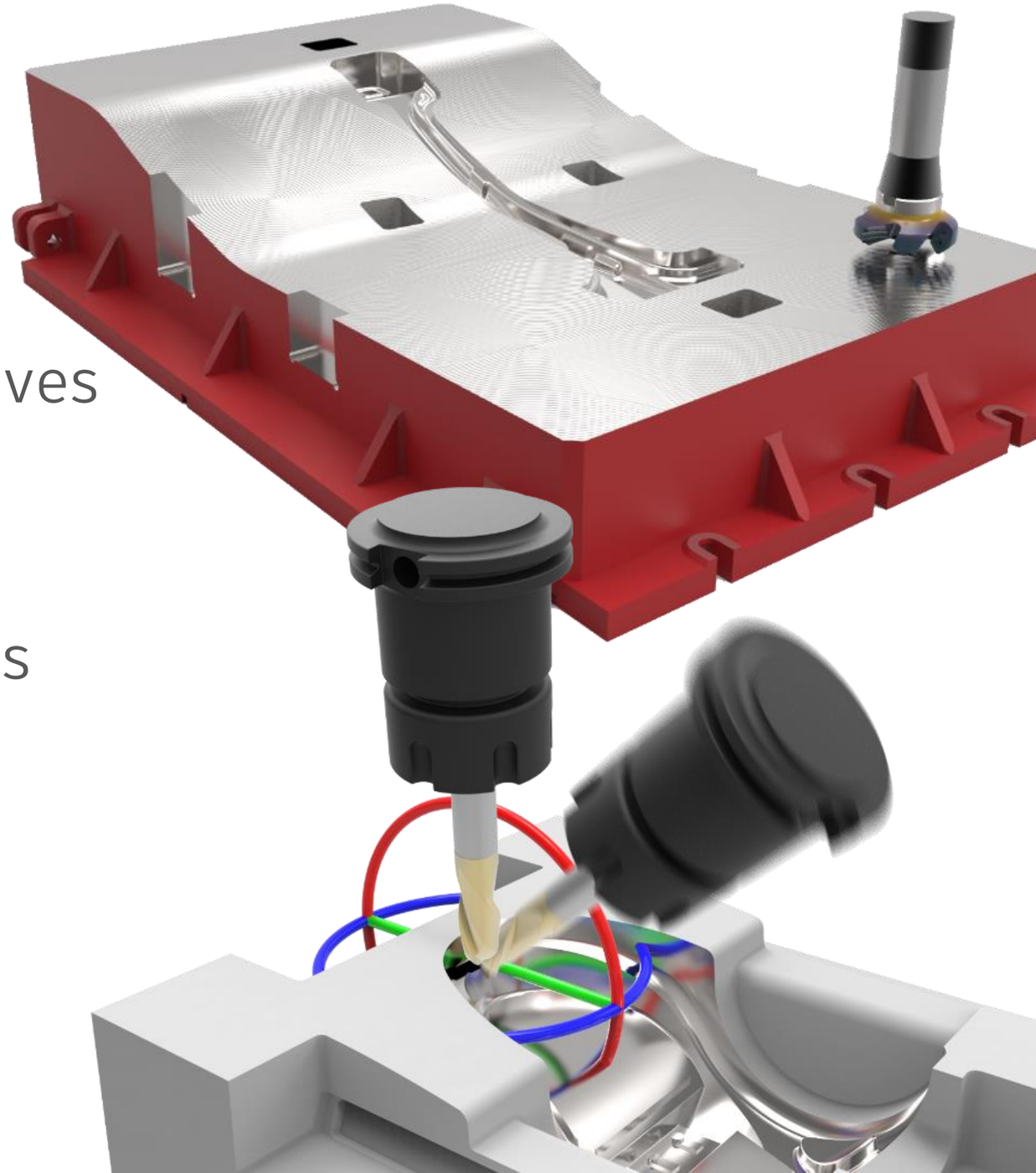
AU 2017 London
Choosing The Right CAM Package

Robert Walker

Autodesk Technical Marketing Manager – BSM D&M

Agenda

- Introduction
  - Class Summary, Learning Objectives & About Me
- Where to Start?
- Autodesk Subtractive CAM Products
- Autodesk HSM & Demonstration
- FeatureCAM & Demonstration
- PowerMill & Demonstration
- Summary



Class Summary

This class will introduce you to the range of Autodesk CAM products. Starting with the HSM products this class will look at product capabilities, and which CAM product to move to next, when your focus changes.

So whether it’s the high level of automation and multi-tasking machining centre capability of FeatureCAM, or maybe the high-degree of toolpath and machine control of PowerMill you require, this class will help you make the right decision for your next CAM package.

Key Learning Objectives

- At the end of the class, you will:
  - Learn about the range of subtractive CAM products Autodesk offers
  - Learn where each CAM product overlaps, and more importantly specializes, in order to make the right choice
  - Learn more about the types of parts and machines each package caters for
  - Learn more specifically about the automation within FeatureCAM and the level of toolpath control within PowerMill

About Me

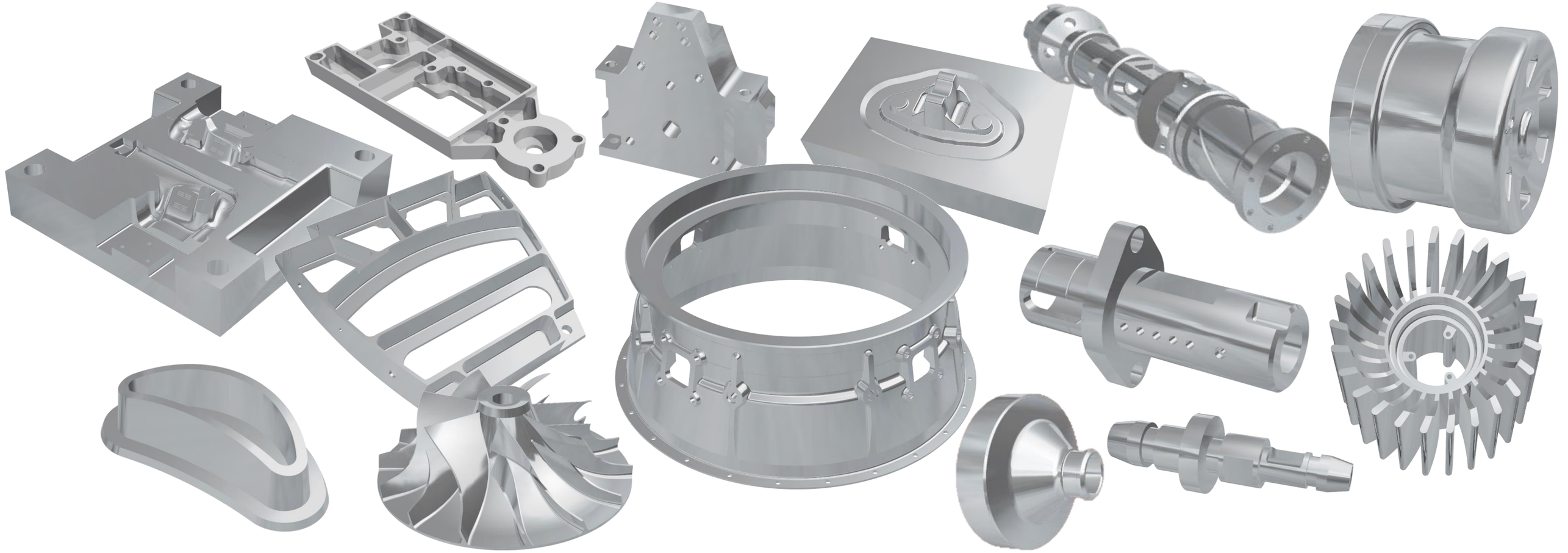
About Me

- Came to Autodesk through the Delcam acquisition
- Started with Delcam in 2004
  - Initially in the UK department as an Applications Engineer
    - Training & supporting UK customers
  - Moved to International Support
    - Assisted the global Delcam reseller network in both pre & post-sales activities
- Autodesk Technical Marketing Manager
  - Business, Strategy & Marketing (Design & Manufacturing)

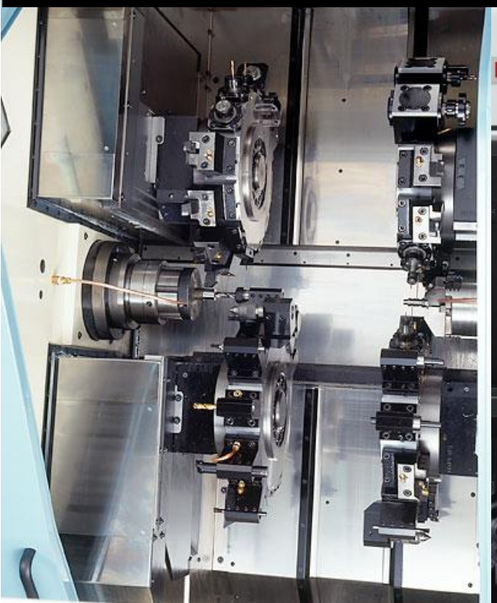
Choosing The Right CAM Package – Where to Start?

Type and Quantity of Parts To Be Produced?

- Part type and the level of difficulty will have a strong influence on the choice of CAM package



Machine Types Owned or to be Purchased?



Autodesk Subtractive CAM Products

Autodesk Manufacturing Products

- Autodesk offers a broad range of products for manufacturing covering Composites, Inspection, Design for Manufacture, Additive & Subtractive processing

- This session focusses on Subtractive
  - In this case we'll focus on Autodesk HSM, FeatureCAM and PowerMill

Product Overlaps – Milling Capability

2D/2.5D Milling	3-Axis Milling	3+2-Axis Milling	Simple Multi-Axis Milling
			

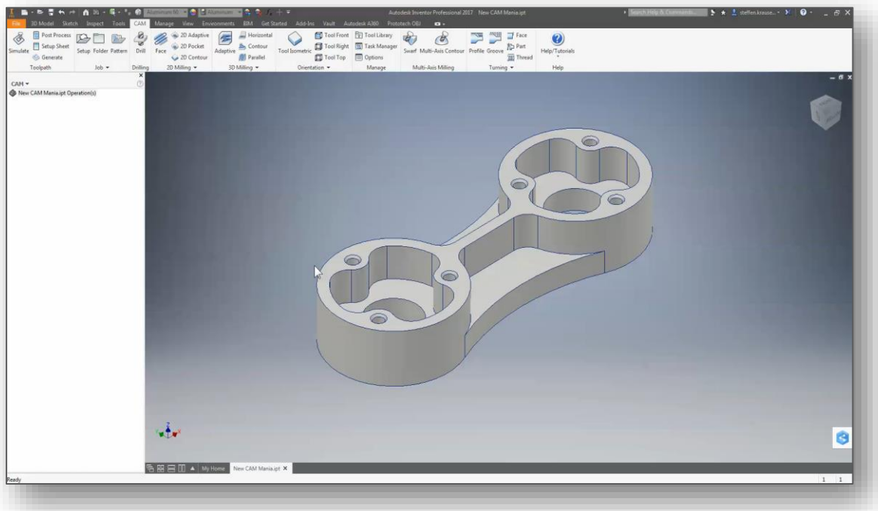
Product Overlaps – Multi-Tasking Capabilities

Basic 2-Axis Turning	Mill-Turn & Turn-Mill
	

Autodesk Subtractive CAM Products – In Depth

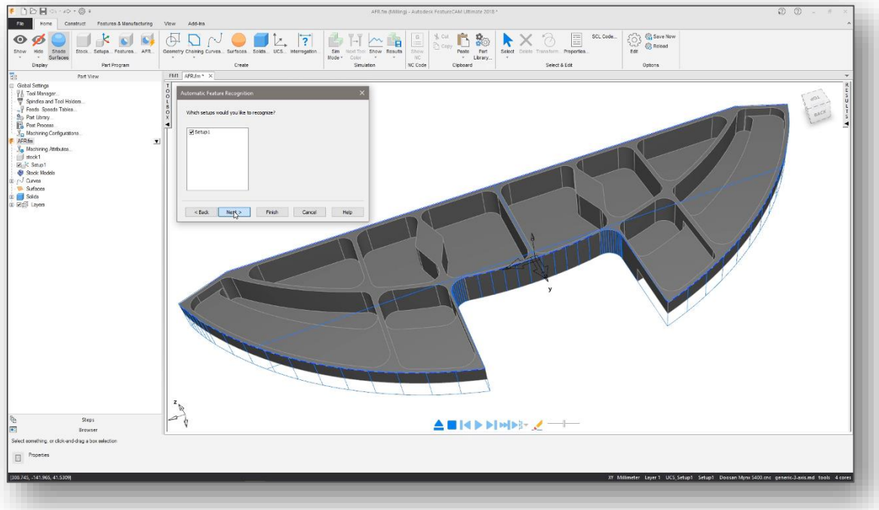
Autodesk HSM

- An ***Integrated*** 2.5- to 5-axis CAD/CAM programming solution for Inventor, SOLIDWORKS and Fusion 360
- High-***Performance***, yet entry-level system
- Because you work within your existing, familiar CAD environment, its ***Easy to Use***
- Ideal for:
  - New to CAM
  - Face many design revisions



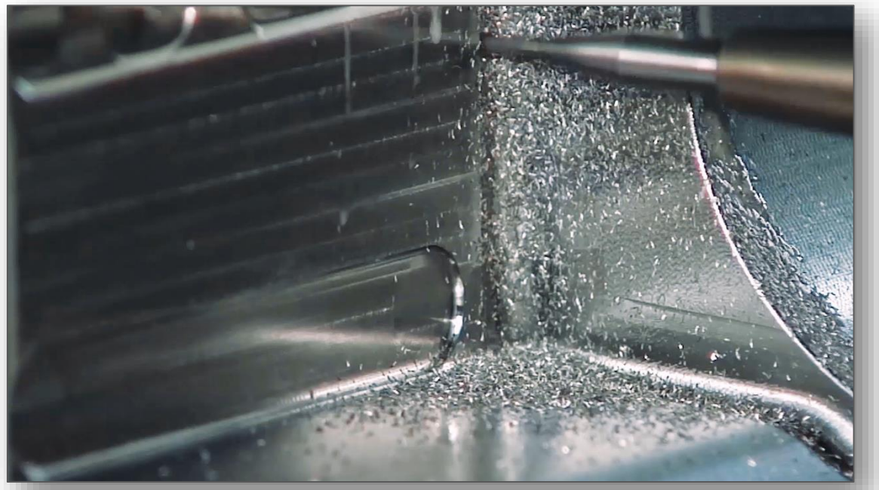
Autodesk FeatureCAM

- CAM software that automates the workflow from design to NC code, to reduce programming time and produce consistent results for a range of CNC machines
- Ease of use comes from automation, allowing parts to be programmed ***Faster***, helping to meet delivery schedules and reduce time to market and cost
- Built-in ***Intelligence*** maintains part quality
  - Standardize practices
  - Promotes repeatability, minimizing risk
- Most ***Comprehensive*** Machining Solution



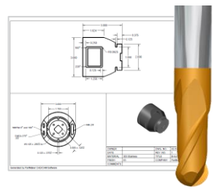
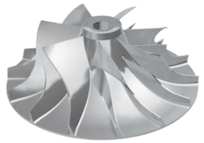
Autodesk PowerMill

- ***Expert*** CAM software for manufacturers of moulds, dies and highly complex components wanting to achieve the maximum quality, control and efficiency from their 3- and 5-axis CNC machines
- ***Dedicated*** to producing exceptional precision & quality
  - Remove the need for manual polishing
  - More higher value business can be won
- High degree of control & flexibility
- ***Trusted*** to deliver
  - Confidence to run machines unattended

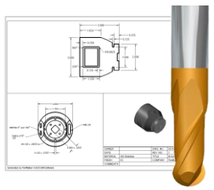


Product Specializations

Product Specializations
Milling Capabilities

Integrated Advanced CAD	2D/2.5D Milling	3-Axis Milling	3+2-Axis Milling	Simple Multi-Axis Milling	Complex Multi-Axis Milling	Tool Axis Editing	Toolpath Editing	Specialist Strategies & Robotics
								

Product Specializations
Multi-Tasking Capabilities

Integrated Advanced CAD	Probing	Basic 2-Axis Turning	Mill-Turn & Turn-Mill	Multi-Spindle Turning	Multi-Turret Turning	Swiss Machining	Sim. Multi-Axis Turning	Wire EDM
								

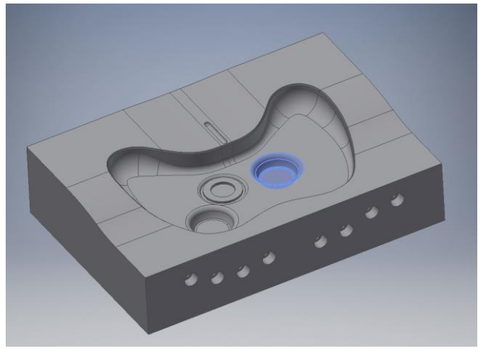
Autodesk HSM

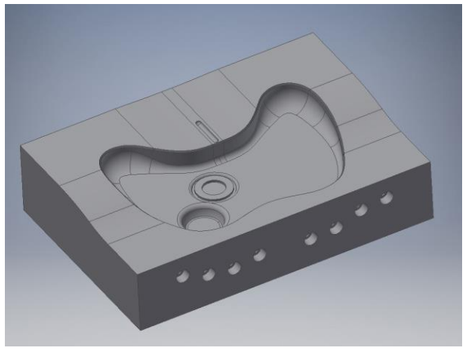
Why choose an Integrated CAM Solution?

Standalone CAM Workflow

Create CAD Data → Export CAD Data → Import CAD Data into CAM → Define Job Setup → Define Operations → Generate Toolpath → Verify Toolpath → Post Code

Update CAD Data → Export CAD Data → Import CAD Data into CAM → Re-define Job Setup → Re-Define Operations → Generate Toolpath → Verify Toolpath → Post Code





Integrated CAM Workflow

Create CAD Data → Define Job Setup → Define Operations → Verify Toolpath → Post Code → Time Saving

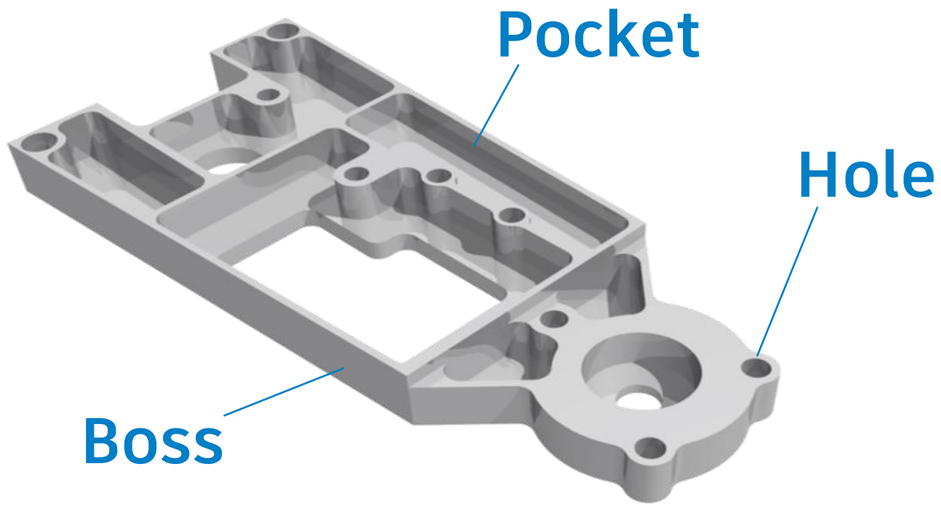
Update CAD Data → Re-Generate Toolpath → Verify Toolpath → Post Code → Time Saving

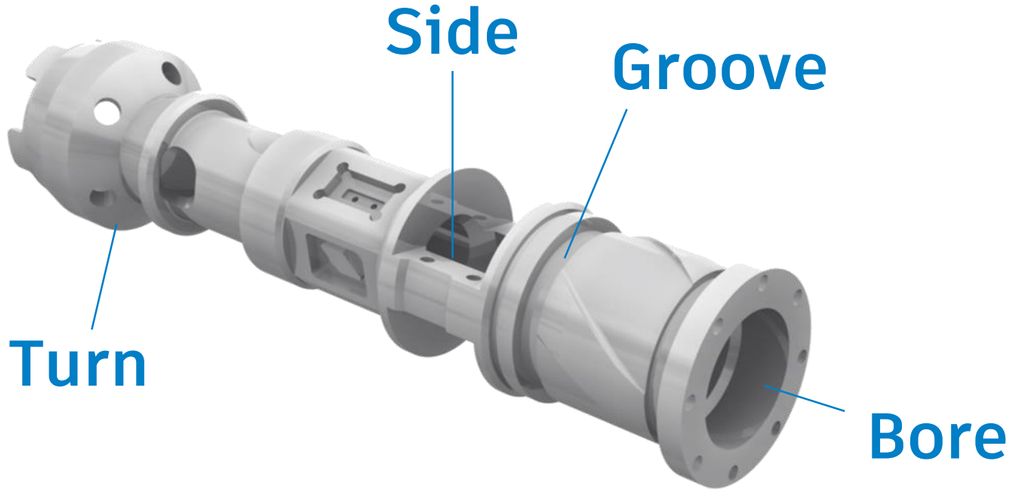
Technical Demonstration

Autodesk FeatureCAM

What is a Feature?

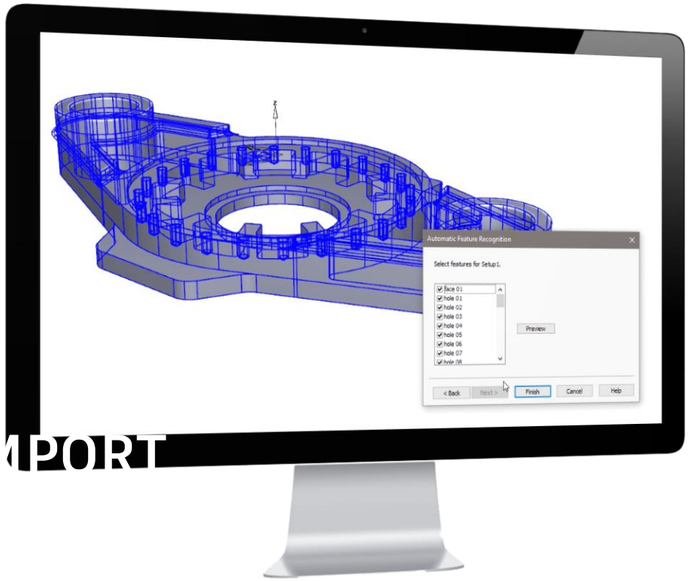
- Instead of programming parts one operation at a time, FeatureCAM defines parts with ***features***

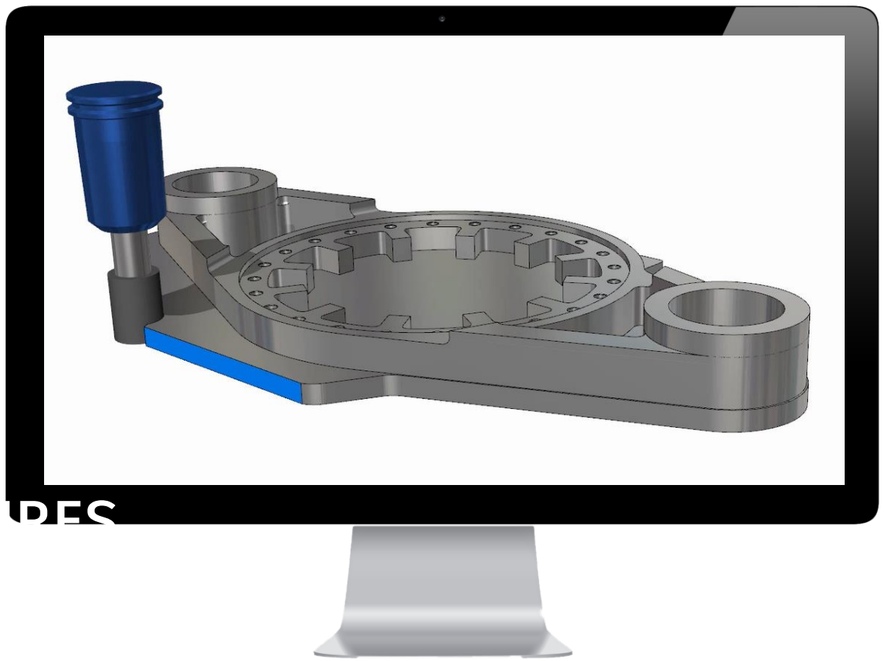


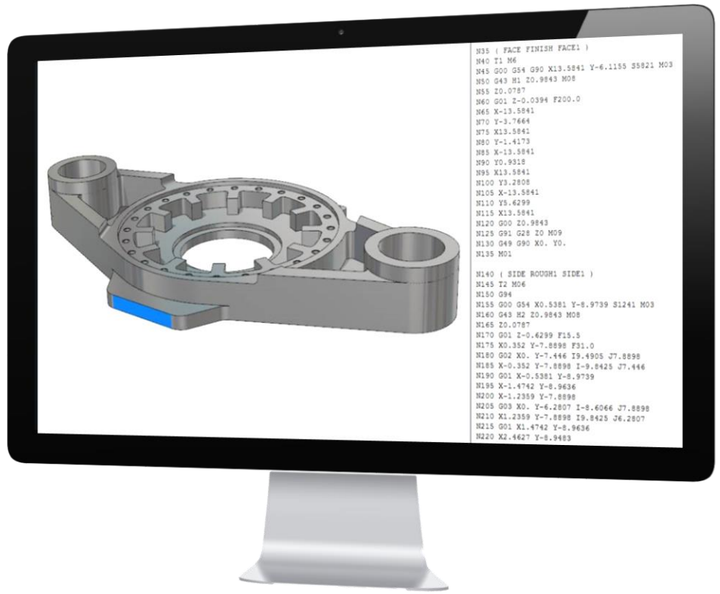


- A feature is made up of ***one or more associative operations***

Program Parts Faster



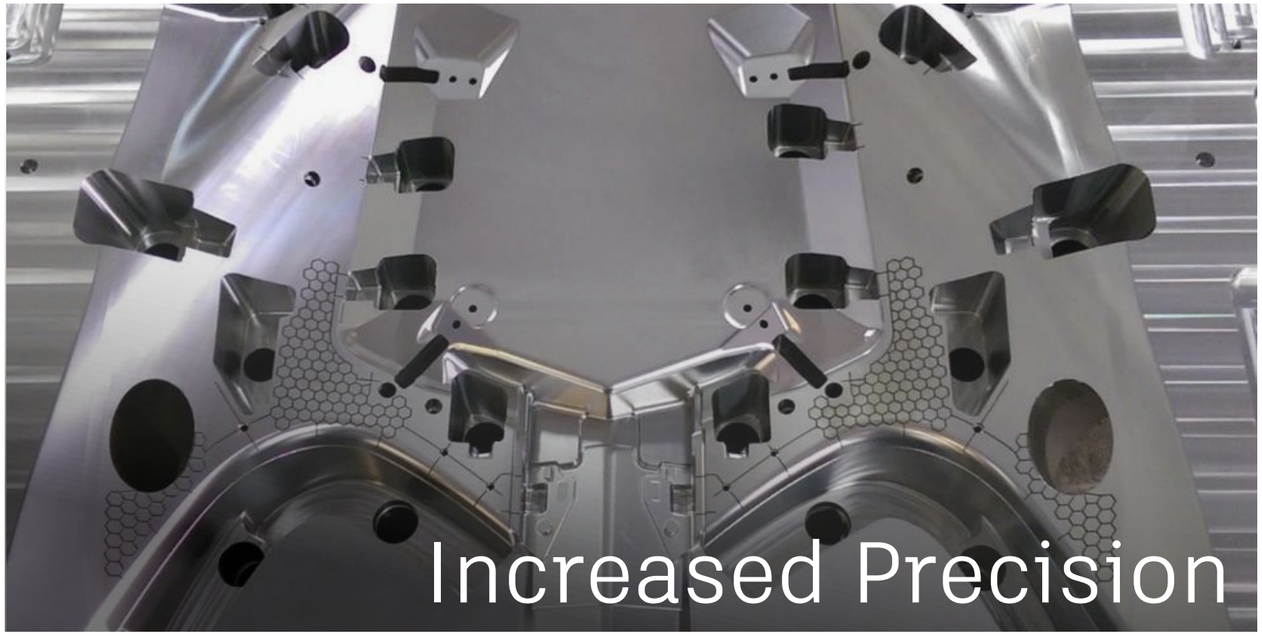




Technical Demonstration

Autodesk PowerMill

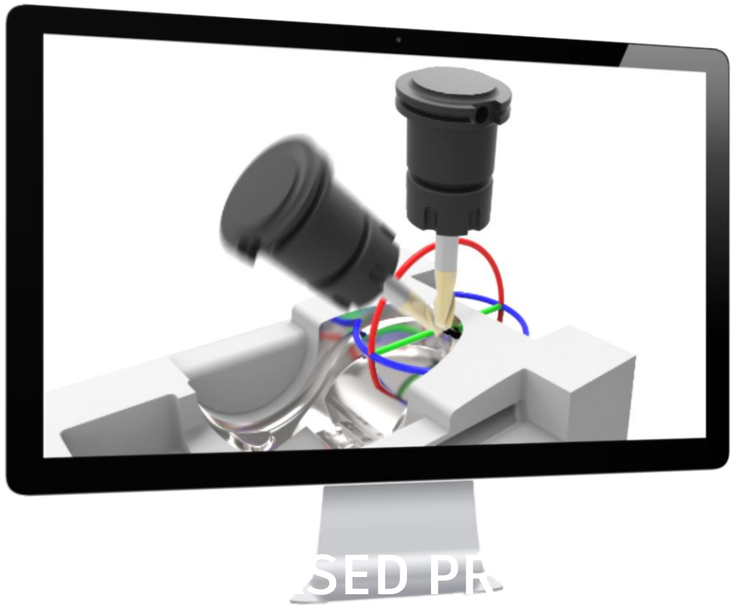

Greater Complexity

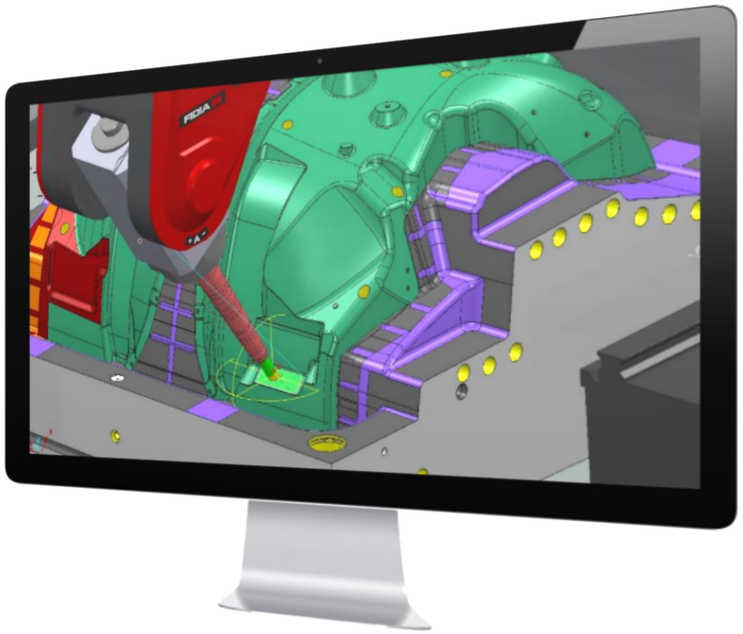

Increased Precision


Control and Flexibility


Confidence

Expert levels of control and optimization





Technical Demonstration

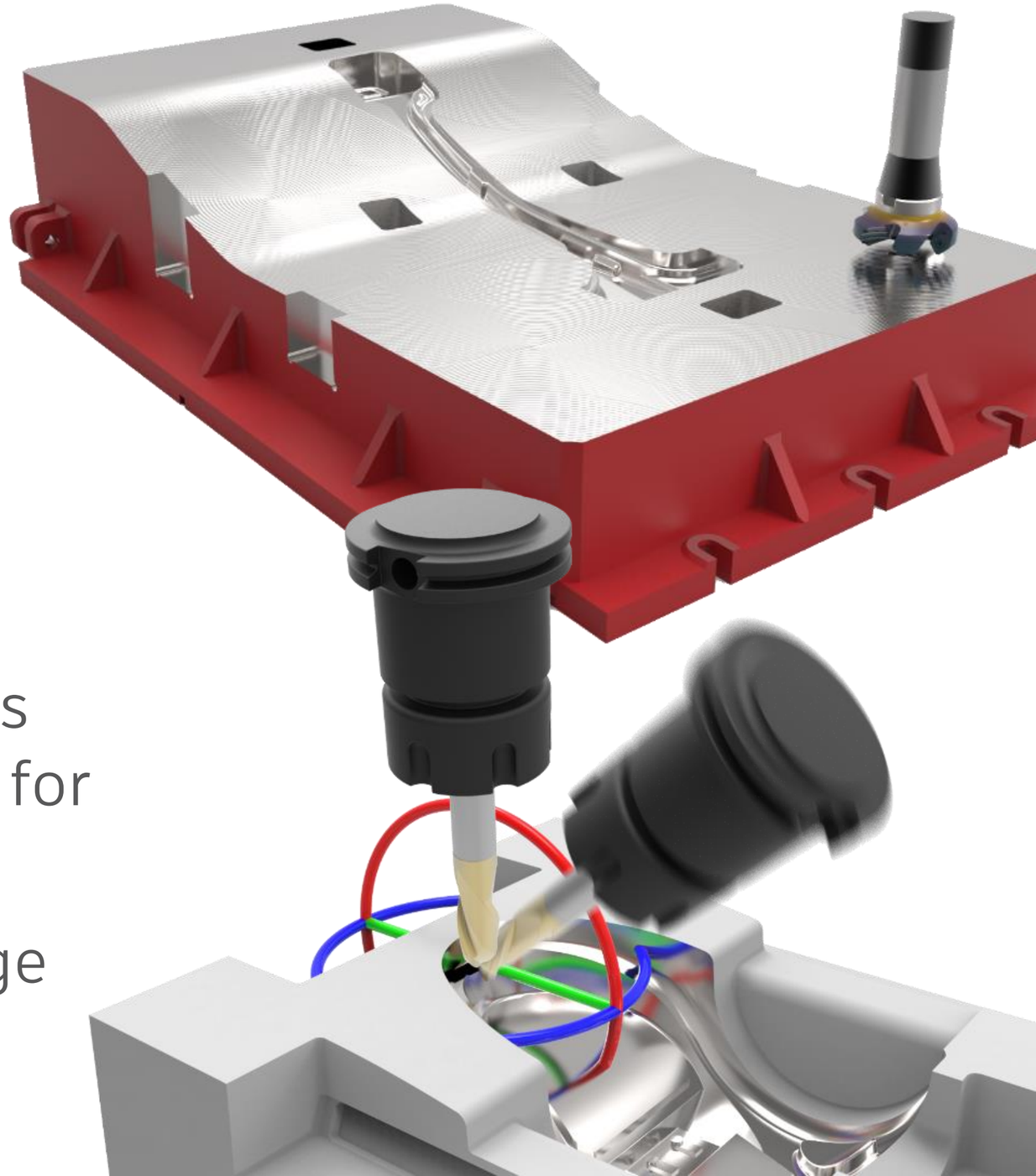
Summary

Summary

- Choosing the right CAM package will ultimately come down to…

Summary

- Know more about Autodesk Subtractive CAM Products
- Know where each CAM product overlaps and more importantly specializes
- Know more about the types of parts and machines each package caters for
- Know that whatever your choice Autodesk has the right CAM package for you



Questions?

Thank You

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Make anything.