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PTC Creo Mold/Cast Design Roadmap

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Agenda

PTC Creo Mold/Cast Design

- Product Portfolio
- Key Investment Areas
- The Latest Enhancement Overview
- Product Roadmap
- Future Enhancements



PTC Creo Tool Design Product Portfolio





Partner Solution



Key Investment Areas & The Latest Enhancement Overview



Key Investment Areas



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User Experience

- Ribbon
 - Role based
 - Process driven



Dashboard Menu Manager removal



DFM Validation – Model Analysis

- Draft Analysis
 - Support for 3-color plot
 - Realistic result display



- 3D Thickness Check
 - Check thick and thin walls
 - Refine result display with post-processing





DFM Validation – Mold Filling Simulation

• Injection Molding Simulation



Advice to Eliminate Molding Issues



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imum Cooling Time 🔡 Gate Contribution city Vector 💥 Material Orientat metric Shrinkage	n Pf Sprue Pressure on ff Clamping Force	View Control	Generate Report	Close
	X-Y Plot	View	Report	Close
Results /	Advisor			X
	Suggested Solutions Change the gate locatio Increase the filling time Reduce the injection sp	on. beed.		

Parting Design

- Shut off Surface
 - Cap holes on model



	Feature No.
General Surface	16
Shut Off Surface	2

- Extend Curve Surface
 - Advanced parting surface



Fe Skirt Surface Extend Curve Surface

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Feature No.



1

Moldbase Design

Build-in Design Rules



(No Support Plate)

- A Plate thickness >= (Cut depth FH)*1.5
- B Plate thickness >= (Cut depth MH)*2

(With Support Plate)

B Plate thickness >= (Cut depth MH)*1.5

Rule for screw length (18 series) : Screw Length = Thickness of EJ Plate + 1mm

> Rule for screw length (27 series) : Screw Length = Thickness of EJ Plate

Rule for bolt length (Bolt diameter < 20mm) : Bolt Length = Summation of all the plates go through by the bolt + 5mm

Bolt diameter = 14mm & Thickness of A Plate = 25mm : Bolt Length = Thickness of Top Clamp Plate + 2mm

Bolt diameter = 14mm & Thickness of B Plate = 25mm : Bolt Length = Thickness of Bottom Clamp Plate + Spacer Block + Support Plate + 2mm

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Moldbase Design

- 3D Cooling Channel Design
 - Free hand sketching



D	raw Wate	erlines	3		×	
	Design	Asse	embly		_	
	Drawin	g Pos	ition			
	Z Value	30				
	Waterli	ne Dia	ameter			
	Diameter		8.0	-		
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	E2074/8/1	0			10003	8
	E2074/8/1	0			10004	8



Product Roadmap & Looking Forward



Tool Design Product Roadmap



This presentation contains forward looking information subject to change without notice

Moving Forward - Flexible Design Workflow

New Core/Cavity Design Workflow

- Mold Split (Present)
 - Splitting workpiece or volume

- Shape Volume (New)
 - Create volume with surfaces



This presentation contains forward looking information subject to change without notice

Moving Forward - Efficient Geometry Collection

Surface Collection

Collect surfaces based on pull direction



	Mouse Clicks
Individual Surfaces	66
Seed & Boundary Surfaces	42
Parting Split Surfaces	1

Collect surface based on shape •



Individual Surfaces Seed & Boundary Surfaces Shape Surfaces (bosses)

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Mouse Clicks
76
39
4

Moving Forward - Intuitive Manipulation

Direct Modeling

• Make explicit modifications to selected geometry directly





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