## Specialized Tools for Complex Mold and Die Design

#### **Data Import**

Native SolidWorks models Imported:

- solid models
- surface models

## **Part Properties**

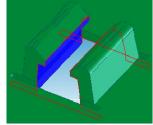
- Global dimensions
- Volume, mass, surface area

## **Draft Angle Analysis**

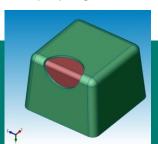
- User-defined pull direction
- User-defined draft angle
- Detection of undercuts and vertical areas
- Automatic undercut elimination

#### **Dynamic Animation**

- One direction mold opening
- Multidirectional mold opening
- Unassigned faces
- Slide bar control



Telescopic openings



Complex openings

#### **Parting Line**

- Automatic parting line generation
- Grouping of inside and outside parting lines
- Parting line editing
- Manual parting line generation

## **Parting Surface**

- Automatic surface generation
  2.5D extrusion with direction control
  2.5D extrusion in two directions
  3D radiate
- Manual stepwise surface generation
  2.5D extrusion with direction control
  2.5D extrusion in two directions
  3D radiate
  Sweep
- Control of sharp angle shut-offs
- Compare different parting surfaces

#### **Shutt-offs**

- Telescopic openings
- Complex openings
- 2D planar surface
- 3D complex surface

## Core/Cavity

- Automatic skin generation
- Skin validity checkelection of forming plate dimension and form
  - rectangular cvlindrical
- Automatic creation of associative relation between model core and cavity
- Updating the core and solid cavity model changes
- Exploded view of mold assembly

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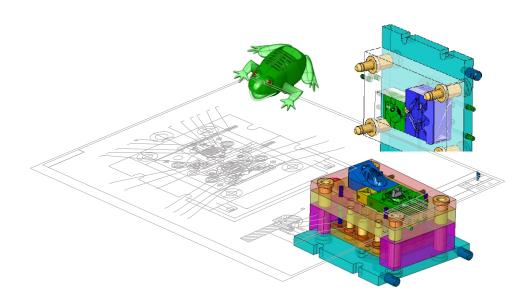
For Mold and Die Design

2006



FaceWorks provides powerful design tools that automate and simplify the most complex mould design in SolidWorks. It was specifically developed and tested with continuous input from mould designers and manufacturers. Users benefit from standard SolidWorks functions complemented with specialized, easy-to-use tools that simplify the tool-making process dramatically and minimize costs and manufacturing times.

FaceWorks combines solid and surface modeling techniques and provides optimal tools for mould designers. The advanced modeling tools include: creation of cavities, cores, sliders, lifters, and subinserts using 3D-solid modeling techniques and associative operations. FaceWorks performs the parting process on solids or skins (set of surfaces that do not form a solid).



# **FaceWorks Workflow**

