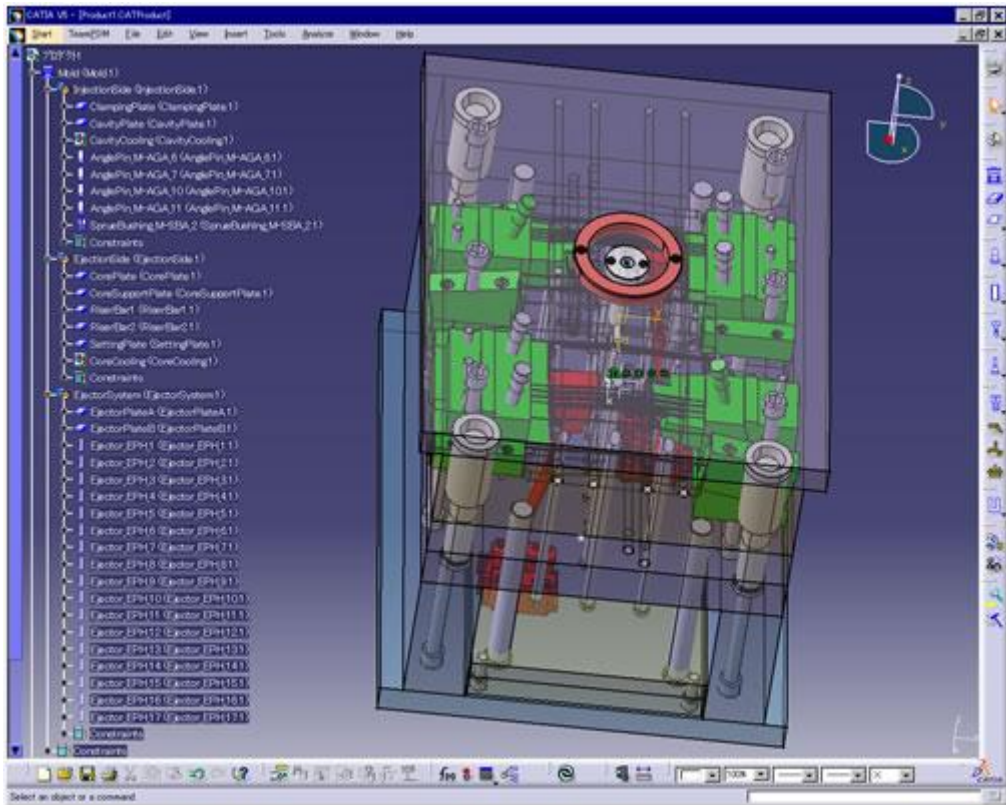


Space-E CAA V5 Based

NDES has developed a next generation Space-E solution based on CATIA V5, and a total support of die and mold design, and CAM processes. It is a "Space-E V5 and CATIA V5" solution with world-wide consulting technology.



Space-E CAA V5 Based

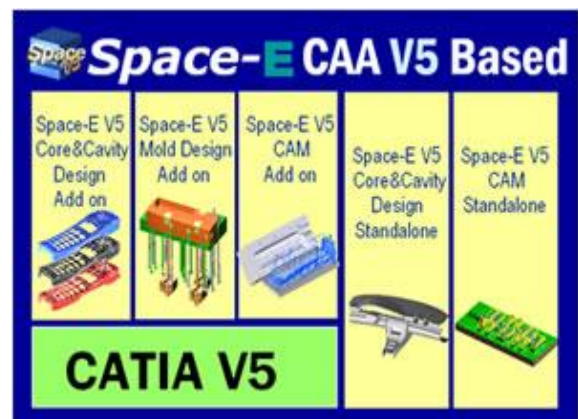
Space-E CAA V5 Based consists of five products classified into two categories as stated below.

Add-on packages to CATIA V5:

- Core & Cavity Design (CCD) product
- 3D Mold Design product.
- 2-axis & 3-axis CAM product

"Standalone" products that contain kernel of CATIA V5 in their packages:

- Core & Cavity Design (CCD) product
- 2-axis & 3-axis CAM product

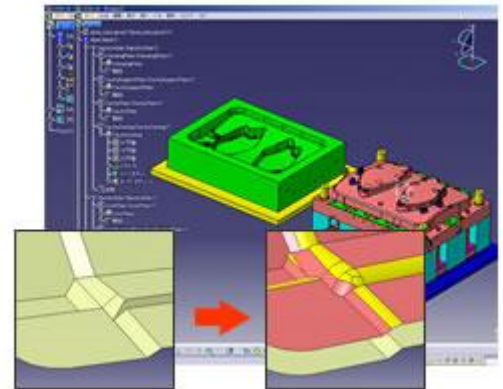


Space-E CAA V5 Based

Core & Cavity Design

This system applies the excellent framework of CATIA V5 to the Core & Cavity design.

- "taper check" and "under-cut check" functions help to determine optimised pulling direction, and support to divide product shapes into core part, cavity part, and slide core part.
- Accurate modeling is achieved despite of allowing flexibility for detailed shapes with keeping workability and formability.
- Offsetting compound surfaces by inserting fillet and blend surfaces at convexity.
- Trimming surface is stably processed whether trimming curves are not precisely lie on surfaces or curves are not aligned geometrically.

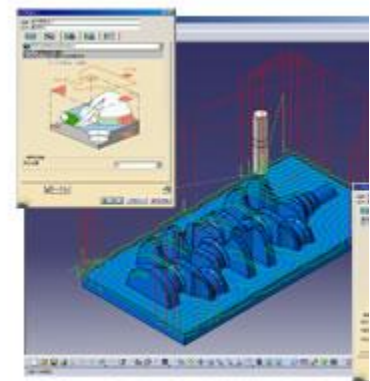


Compound offset

CAM

Based on 3-axis CAM functions of CATIA V5, NDES extended and added essential functions those are required for Japanese manufacturers of mold and die.

- High flexible cutting path is now generated by adding new functions e.g. add path patterns of Contour Roughing of CATIA V5, enable "free-shape path" which is constructed by CAD elements that intended rib cutting.
- Rich functions for path editing e.g. divide tool path by cutting time or by cutting length, reverse path direction to reflect cutting characteristic. (for example: keep down cutting)
- Enhanced standard post processor of CATIA V5 CAM e.g. register post-operation feature to history tree, post process every path divided by path editor. Easy re-calculating postprocessor by the tool path, NC filename, and formatter's name. You can also easily customize postprocessor.
- Various formats of documents can be outputted that includes customized formats and figures.

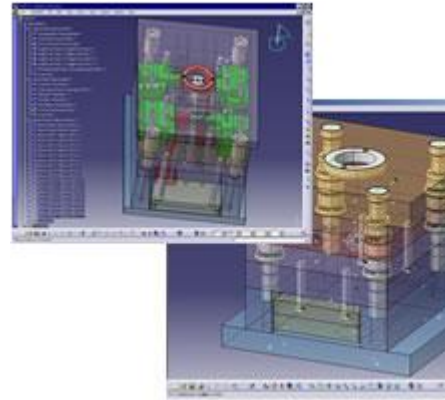


Tool-path creation by Space-E CAA V5 Based CAM

Mold Design

NDES extended CATIA V5 Mold Tooling Design (MTD) with our powerful 3D mold design functions.

- Customer can perform their proper design methods as standard by taking their own know-how (Knowledge) into CATIA system
- Most of FUTABA mold bases are included precedently to perform mold design efficiently.
- "Catalog Window" can perform searching web based parts, and adjust them to suitable 3D parts for their mold design.



Space-E CAA V5 Based Mold Design