# Next Generation Die Design and Manufacturing System Dynavista<sup>TM</sup>

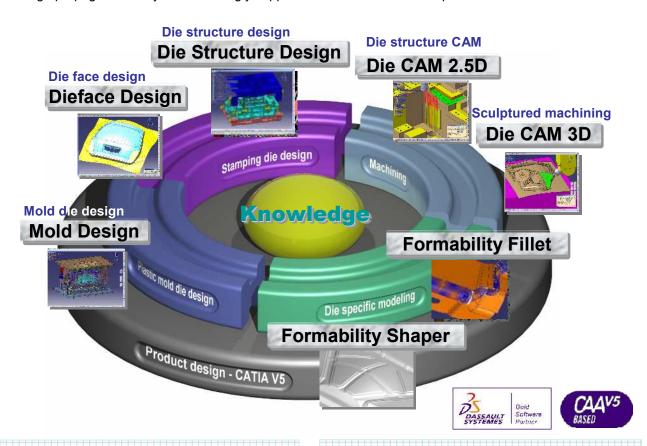


CAA V5 based

#### Innovation of mold/die development!

Realization of extreme optimization, automation and synchronization of stamping/mold die development processes by incorporating leading edge Japanese technology on top of CATIA V5/CAA V5, world de facto CAD platform.

In order to minimize die development time guaranteeing expected product quality, key issues are how to ultimately shorten each constituent process with sufficient quality evaluation and how to associate processes for enabling simultaneous work and for preventing rework. Die design knowledge based application functions, various evaluation in design phase such as machinability, formability, and semi-automatic design change propagation of Dynavista strongly support innovation of die development.



### Implementation of leading edge Japanese technology on top of CATIA V5

-Nihon Unisys's CAD/CAM technology and profound experiences cultivated by proprietary CAD/CAM system development and customer services to Japanese leading automotive OEMs and tool makers are summarized on top of CATIA V5 architecture

-It provides technology of use which meets QCD cycles available throughout the world

## CAD/CAM system for innovative die development which meets globalization requirement

-Developed on top of CATIA V5, de facto standard CAD system platform

-World wide distribution and support network

#### Alliance with Dassault Systemès

-Nihon Unisys is one of the largest Gold Software Partner of Dassault Systemès

#### Overview of Dynavista modules

#### Die Layout Design package

#### Creation of Complex fillet

#### Dynavista Formability Fillet

High performance and robust fillet creation for complex support shape

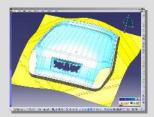


- -High robustness guaranteed by specifically developed own geometric engine
- -Variety of functions such as variable radius, chord length specification, variable radius/independent end -High flexibility realized by separated or combined running of fillet creation and merger

#### Efficient die face design

#### Dynavista Dieface Design

Die face specific shape creation with simplified formability check



- -Simplified forming severity evaluation functions realizes trial and error in design process.
- -Easy to estimate flange expansion and spring back
- -Die face specific shape creation such as extrapolated surface, addendum shape and bead

#### Sculptured machining

#### Dynavista Die CAM 3D

High performance 3axis NC machining from roughing to finishing

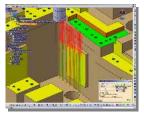


- -High quality NC cutter path creation with tolerance: 0.001-0.0001mm
- -Automatic collision free cutter path generation
- -Client server cutter path calculation management
- -Plunge machining and residual stock machining

#### Die structure CAM

#### Dynavista Die CAM 2.5D

High quality 2.5-axis NC with effective use of machining know how



- -Feature based automatic machining process planning and cutter path calculation
- -Automatic collision free cutter path generation
- -Customer's machining know-how can be built-in.
- -Tool path optimization and editing

#### Panel deformation estimation

#### Dynavista Formability Shaper

Estimation of large deformation of panel after forming

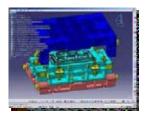


- -Sophisticated die shape deformation functions which drastically decrease die design time
- -Simple input for gaining deformed shape
- -Strong surface deformation functions which preserve characteristics of original surfaces

#### Stamping die structure design

#### Dynavista Die Structure Design

Fast die structure creation with strong CAD/CAM integration

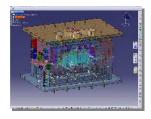


- -Easy to use domain specific shape creation
- -Automatic BOM creation
- -Automatic transformation of design attributes to machining attributes which realizes strong association with CAM process (Dynavista Die CAM modules)

#### Mold die design

#### Dynavista Mold Design

Fast mold die design applicable from small & medium to large scale



- -Ease of use realized by maximum introduction of 2D like operation and functions
- -Flexible size/position change is available
- -Automatic transformation of design attributes to machining attributes which realizes strong association with CAM process (Dynavista Die CAM modules)

#### HW and SW requirement

OS: Windows XP professional

Windows XP professional x64 edition Memory: 2GB or more (recommended)

Graphic board: Open GL compliant
Prerequisite SW: CATIA V5R16, V5R17

Hybrid Design2 (HD2) or Mechanical Design2 (MD2) Microsoft Excel.

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