

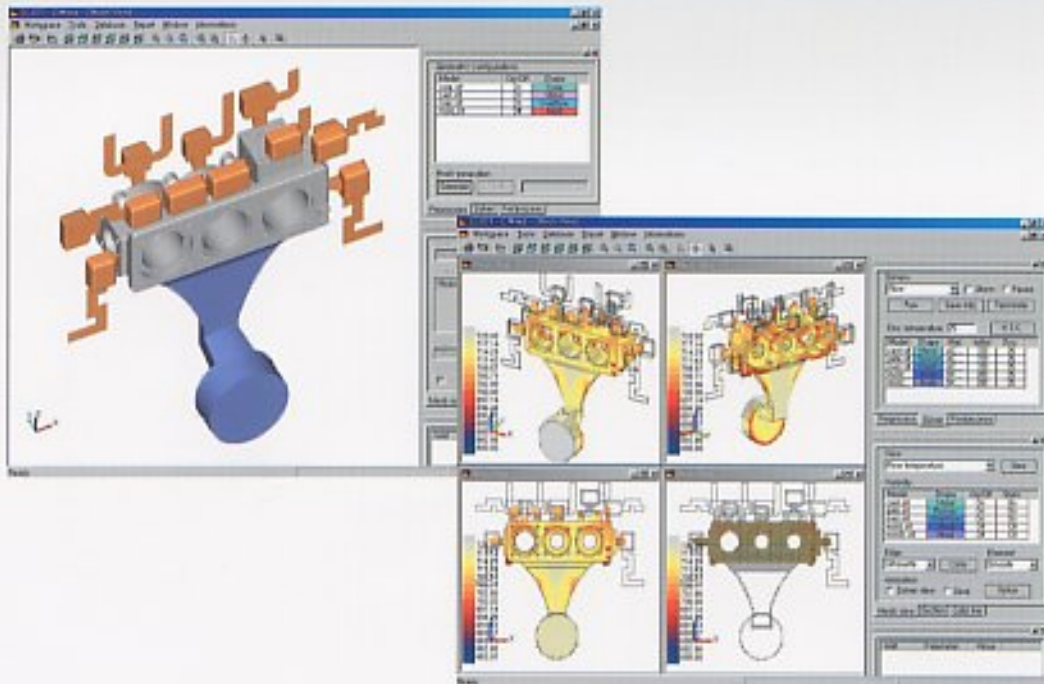


Z-CAST

Z-CAST

Casting Process Simulation System

**Simulation Program Used in Foundry Engineering for
More than 10 Years**



Z-CAST is used for...

Sand Mould Casting
Ceramic Mould Casting
Investment Casting
Shell Mould Casting

Gravity Die Casting(Tilt Pour)
High Pressure Die Casting
Low Pressure Die Casting
Squeeze Casting



Cubictek co.,ltd.

Z-CAST

- Windows based Casting CAE System
- Used in the Casting Industries for more than 10 years
- Defects Prediction on Computer
- Integration of Casting Process Analysis
- For Comprehensive Engineering

GUI for user's convenience

Project Management

3D CAD Interface

File Type : STL, IGES

CATIA, Pro Engineer, MDT, IDEAS, UniGraphics

Automatic Mesh Generation out of STL model

Data Base Management

Preprocess

Modeling & 3D CAD Interface

Auto Mech Generation / Modify

Simulation Condition

Solver

Flow & Solidification Solver

Cycle Solver

Micro Structure Solver

Heat Treatment Solver

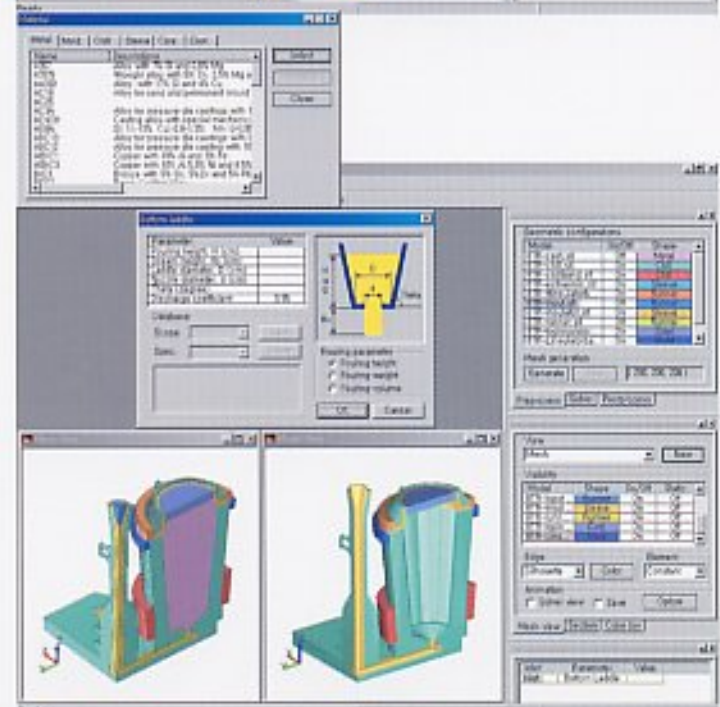
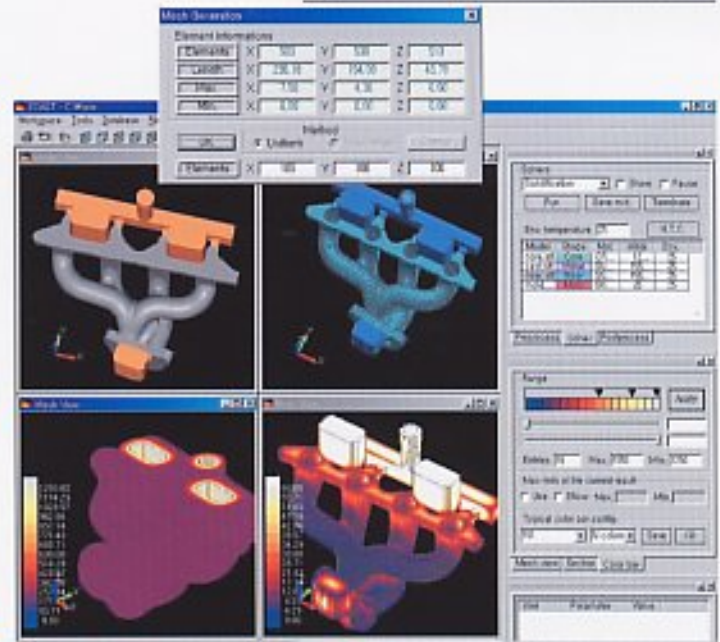
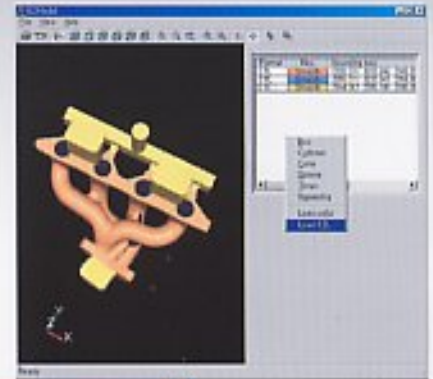
Postprocess

Result Inspection even during Analysis

AVI Output

Various Criterion

Reporting Function



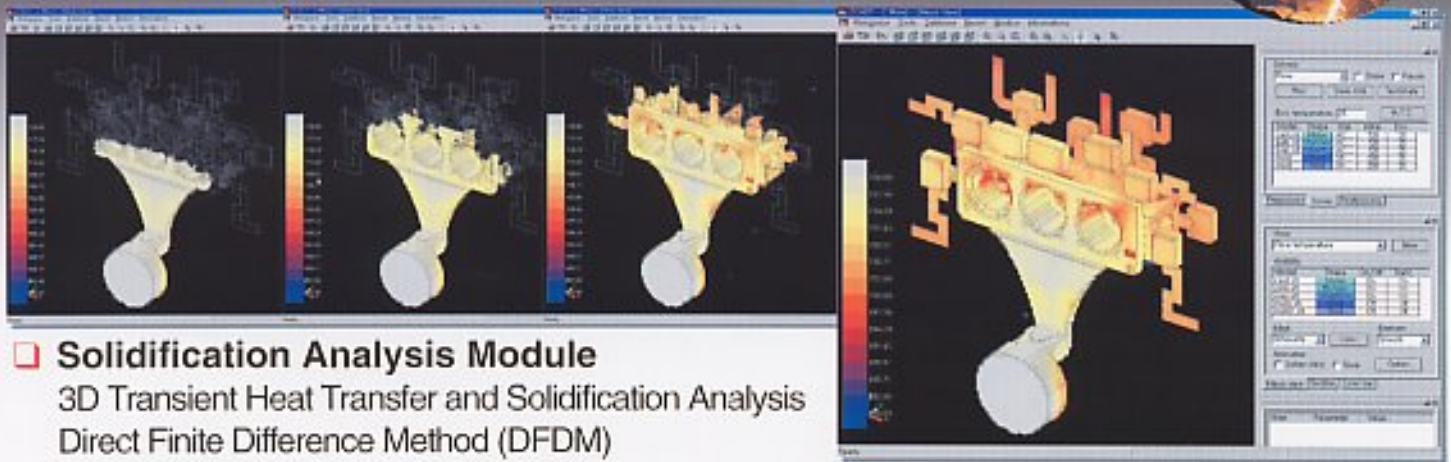
Fluid Flow Analysis Module

Uncompressible Viscous Fluid

Transient Analysis considering Inertia

Continuity Equation, Kinematic Equation, Energy Equation

SOLA-VOF Method



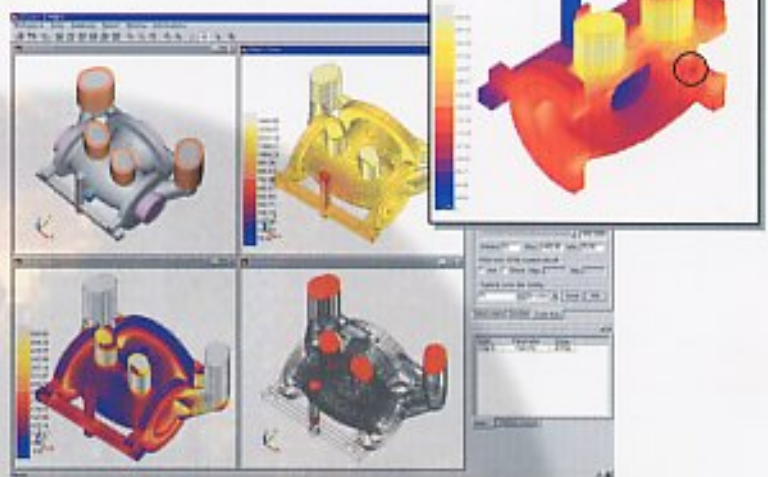
Solidification Analysis Module

3D Transient Heat Transfer and Solidification Analysis

Direct Finite Difference Method (DFDM)

Temperature Recovery Method (Latent Heat)

General Sand Casting and Investment Casting

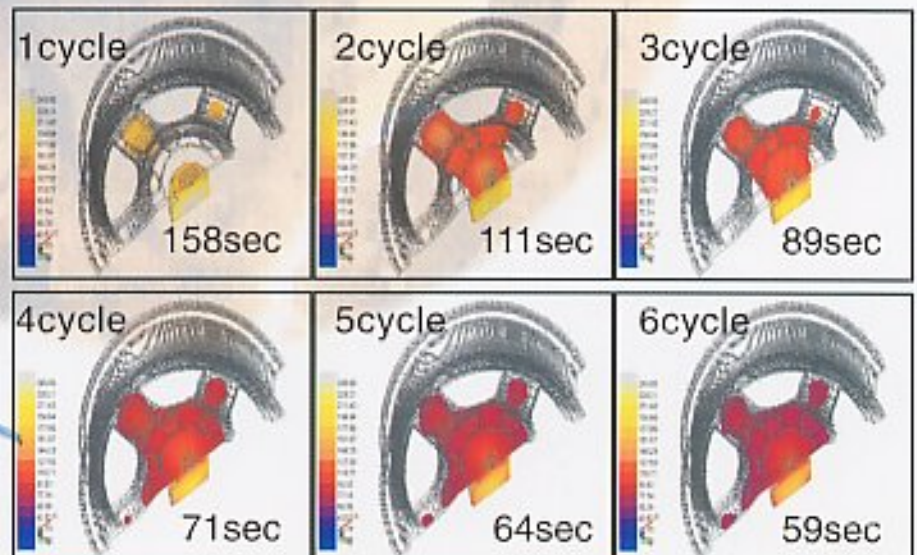
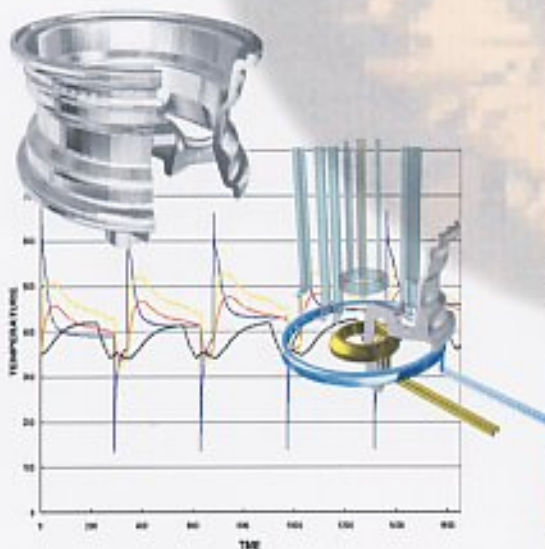


Cycle Analysis Module

Cooling line Design of Casting Mold (Gravity Casting, Low Pressure Casting, High Pressure Die Casting, and Squeeze Casting)

Decision of Cycle Time

Forecast and Control of Mold Temperature



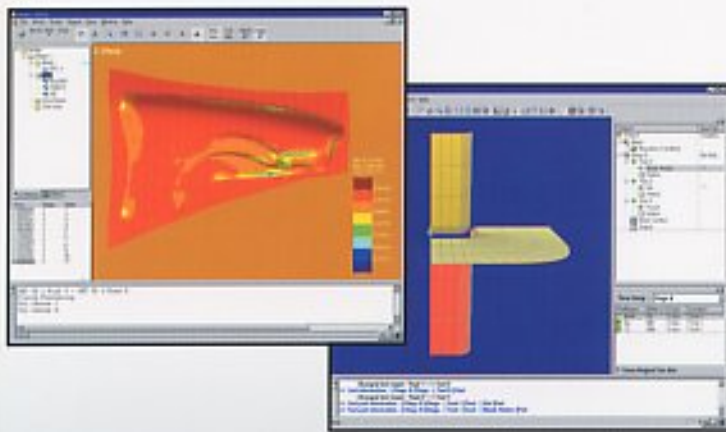
Effects

- Casting defect forecast and protection
- Cost and time reducing of prototype making
- Casting design Technology Improvement
- Scientific Cooling line design
- Die overheating protection and prolonging life
- Reducing cycle time when Cyclic casting



Z-Cast is easy to learn and use.

Z-Series



System Requirement

	Basic Spec.	Recommended
CPU	Pentium2 500Mhz	Pentium3 800Mhz
OS	Microsoft Windows NT/2000/98	
Memory	128 MB	512 MB
Display	1024 X 768 16 Million Color 32MB	1024 X 768 16 Million Color 32MB or more
HDD	500 MB	More than 500 MB

Z-Stamp

(Sheet Metal Forming Simulation)

- Forming Simulation Engine
- Pre-Processor
- Post-Processor



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