GURUCAD – COMPANY PRESENTATION

Hamburg, Germany, 2010

GURUCAD
ENGINEERING & IT DIVISION

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GURUCAD
BREAKING THE KNOWLEDGE LIMITS
• Short Presentation
o Founded in April 2008 with focus: bringing innovation in Aerospace Industry by combining Engineering with IT

o GURUCAD has 2 divisions: Engineering & IT

o Engineering - Second Tier Supplier for EADS/Airbus (Structure/Systems, Cabin/Cargo and Jigs & Tools)

o IT - Consulting with Dassault Systemes Solutions (CATIA V6, CATIA V5, CATIA V4, DELMIA, ENOVIA VPM, SmartTeam, 3DVIA Composer), large scale projects concerning improving productivity, standardize company processes, developing software and web applications, in center CATIA V5 (implementation, methods creation/best practices, process standardization/improvement, programming)

o Since 2009 GURUCAD has created:
  – CATIA V5 based products
  – Aerospace tools / PDM system
  – Trainings on several CAD/CAE software
  – Trainings on AIRBUS Tools
  – Trainings for Aerospace Industry
• ENGINEERING
Focus on Aerospace Industry – EADS-Airbus / Lufthansa / Boeing

More than 7 years of experience in Airbus environment for different programs SA, LR, XWB-A350, DD-A380 and A400M
- Structure (Primary & Secondary)
- Systems (Cabin Air Distribution, Water Waste, Hydraulic, Electrical...)
- Cabin/Cargo (Galley/Stowage, Seats, Side-Wall Panels, Ceilings, Floor-Covering)
- Jigs & Tools (Transport /Installation Tool, Drilling/Riveting End-Effectors...)

Engineering Division delivers:
- 3D/2D Product Design (CAD)
- Product Documentation
- Integration/Data Migration
- NC Programming (CAM)
- Stress Analysis (CAE)

Engineering together with IT Division, delivers:
- Design Automation (Programming, Methods Creation, Best Practices)
- Process Standardisation/Improvement (Customised Applications)
Consulting with Dassault Systemes Solutions (CATIA V6, CATIA V5, CATIA V4, DELMIA, ENOVIA VPM, SmartTeam, 3DVIA Composer) – Distributor of Firma CAD/CAM Service EDV-Ing. mbH

Innovative ways of working for Aerospace Industry (applicable also to other industries)

Solve/automate complex engineering tasks with IT solutions

Better methods of working & collaboration with CATIA V5 (methods/best practices)

Developing windows/unix/web applications for solving engineering issues

Process Standardisation/Improvement (Customised Applications)

GURUCAD Products based on CATIA V5

Training services:
  – several CAD/CAE software
  – AIRBUS/Aerospace Industry Tools

Complete CATIA V5 Implementation
  – Hardware and Software selection & procurement
  – Implementation (installation, configuration, customisation)
  – Standard & Customised Trainings
  – On going support (day-by-day issues solving)
  – Productivity Tools (CATIA V5 based applications, methods, best practices)
GURUCAD IT DIVISION

BUSINESS UNITS

- IT Engineering Tools
- IT Products/Trainings
- CATIA V5 Implementation
• GURUCAD Products
GURUCAD has developed the following product as AEROSPACE CATIA V5 Tool:

- GURUCAD CABIN LAYOUT GENERATION product generate in only few minutes a complete layout in CATIA V5 2D and 3D. Automatically position the cabin components (Galleys, Lavatories, Seats, Hatracks...) in the aircraft, in CATIA V5 - 2D and 3D. All FAR, JAR requirements concerning cabin components can be integrated in this application. Rendering capabilities can be implemented for components families.

Nominated for CRYSTAL CABIN AWARD 2010
(http://www.crystal-cabin-award.com/uploads/media/Shortlist_2010_kurzxpfd_01.pdf)
GURUCAD has developed the following products as CATIA V5 Tools:

- GURUCAD V5 STARTER (optimisation and management of starting process for multiple CATIA V5 releases)
- GURUCAD V5 PART MIRROR CREATION (automatically creation of mirror parts)
- GURUCAD V5 PRODUCT TO PART (automatically creation of a part out of a product/assembly)
- GURUCAD V5 MIDDLE SURFACE GENERATOR (automatically generate middle surfaces from solid walls for use in FEM)
- GURUCAD V5 WEIGHT ANALYSER (measure weight and COG coordinates for parts, products also from drawing context)

All this products improve and automate a well defined task, are fully customizable and can be extended at customer request.

In development:

- GURUCAD V5 TITLE BLOCK MANAGER
- GURUCAD V5 UNFOLDED GENERATOR
- GURUCAD V5 CLASH SERVER
GURUCAD has developed the following products as CATIA V5 Tools:

- **GURUCAD CATIA V5 MACROS** (speeding up/simplifying the realisation of tasks in CATIA V5)
- **GURUCAD CATIA V5 Power Copy (PC)** - fast/smart reuse of geometry, from simple CATIA V5 features up to entire fully parametric components (junctions parts, profiles, pipes/ducts, clamps...)
- **GURUCAD CATIA V5 User Defined Feature (UDF)** - fast/smart reuse of features that encapsulate corporate rules/checks/standards in a way that is hidden from user

- **GURUCAD CATIA V5 Document Templates** are CATParts and CATProducts template documents that are reusable in different contexts
- **GURUCAD CATIA V5 Knowledge Based Engineering Tools** are CATIA V5 expert or simple rules/checks, reactions, optimisations, scripts, loops that bring significant gains in productivity, standardisation and design quality
- **GURUCAD Methods Portals** are "Out of box" portals for PLM-CAx methods and also for engineering guidelines and standards. Inside this method portal can be incorporated methods for any CAx software and any PLM system
- **GURUCAD PDM Tools** are focused on improving interaction between CATIA V5 and standard PDM Tools available on the market. GURUCAD has also created a small PDM System for small and medium companies in helping them achieve faster/better design and collaboration
• Project Management
## PROJECT MANAGEMENT

### Project tracking and quality assurance

- Checklists for enforcing customer specifications (Catia V5 Checks)
- Project Plan and Resource allocation in MS Project 2007
- Project tracking with MS Office - Excel
- Project Documentation

### Tools covered

- MS Office (Excel, Word)
- MS Project 2003-2007

#### CATIA CATDrawing Document Checklist

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**Checklist**

- Drawing Name conforms to naming/numbering procedure
- Airbus Drawing Standard - “Airbus ISO” Standard forsheets
- First
- Title
- Only
- All
- All D
- No S
- No R
- No
- All
- CR/D
- CR/AR
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#### CATIA CATProduct Document Checklist

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**Checklist**

- Product Name conforms to naming/numbering procedure
• Engineering & IT Tools
## CAX TOOLS USED

### CAX SOFTWARE
- Catia V5
- Catia V4
- SolidWorks/SolidEdge
- Pro-Engineer/Unigraphics
- AUTOCAD
- CCD – Catia CADAM Drafting

### CATIA V5 WORKBENCHES
- Part Design
- Generative Shape Design
- Aerospace Sheet Metal Design
- Composites Design
- Drafting
- Catalog Editor
- Tubing Diagrams
- Tubing Design
- Electrical Harness Installation
- DMU Space Analysis
- DMU Navigator
- DMU Kinematics
- DMU Optimiser
- Knowledge Advisor
- Knowledge Expert
- Knowledge Optimiser
- Product Knowledge Template

### VISUALISATION SOFTWARE
- TreND
- Dvise
- 4DNavigator

### PDM SYSTEMS
- Enovia VPM
- Windchill Primes
- Taksy
- SAP

### FEM SOFTWARE
- Nastran-Patran
- Ansys
- CATIA GPS
- Cosmos
IT TOOLS USED

WINDOWS PROGRAMMING
- CATIA V5 Macros
- Solid Works Macros
- Solid Edge Macros
- MS Office Macros & Templates
  (Access, Word, Excel, PowerPoint, Outlook)
- Visual Basic 6/.Net 2008
- Visual Basic Application - VBA
  - VB Script
  - Visual C#.Net
  - Java
  - Python

UNIX PROGRAMMING
- Java
- Python
- Pearl

WEB
- PHP
- ASP.Net 3.5
- VB Script
- Java Script
- XML/HTML

DATA-BASE TECHNOLOGIES
- MySQL
- SQL Server
- Access
- ORACLE
• GURUCAD Focal Point
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