CollabCAD

A Collaborative CAD/CAM Software
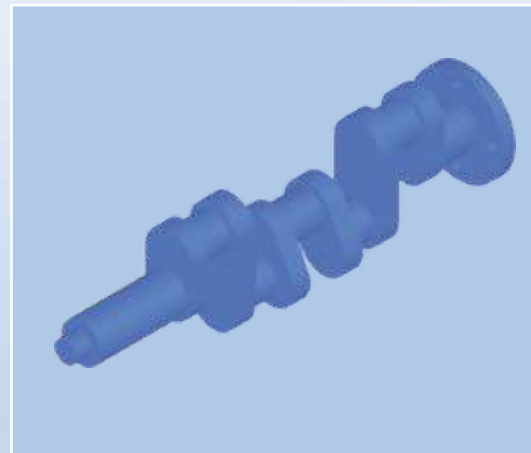### Registered at U.S. Patent & Trade Mark Office

CollabCAD is a Java based distributed 3D CAD/CAM Software System, which provides a total solution from Product Design, Numerical Control, Visualization, Simulation, Analysis to Content Management, Workflow and Office Automation. Plot Configurator, the 2D drafting module of CollabCAD, has the state-of-the-art facilities for generation of fabrication drawings.

CollabCAD runs on Linux and Windows and is available in both Stand Alone & Client-Server mode. The collaborative nature of CollabCAD enables multiple designers to work across a network and concurrently access the same design for viewing and modification.

Advantages

☞ Economical CAD Solutions

☞ Collaborative & Comprehensive

☞ Parametric & Feature Based Modeling

☞ Flexible & Easy to Use Database Connectivity

☞ Programmable Scripting Interface

☞ Powerful Reverse Engineering

☞ Slicing/Cross Sectioning

☞ Reflection Line Analysis

☞ Customizable User Interface

☞ Standard Data Exchange Formats

☞ BAR Code for ERP Solution

☞ Plot Configurator and BOM

☞ Visualization Module for VRML 3D worlds

☞ XML based Geometry Data Storage

☞ Content Management System & Work Flow

☞ Customizable ERP/ MRP/ SCM Module

☞ Interface to Finite Element Analysis

Collaborative Design

- Facilitates Rapid Product Visualization
- Drastically cuts down the time for
  — Requirement Specification
  — Modeling
  — Review and Analysis
- Dynamic Sharing of Designs across the Network
- Interactive Design environment enables multiple designers to work across a Network
- Concurrently access the same Design for Viewing and Modification
- Audio and Video Conferencing enables On-Line communication between participating Designers

Design & Drafting

- Build and Edit entities in Virtual 3D Space
- 2D Profile and free hand Sketching
- Plot Configurator
  - Generation of 2D Drawings
  - Dimensioning and Detailing

Surface Modeling

- Creation and Modification of Surface Entities
- Trimming and Lofting of Surfaces
- Surface Diagnostics
- Reflection Line Analysis for visual inspection using Zebra Stripes Mapping
- Reverse Engineering: Generate complex Surfaces and Curves from a set of Points obtained from Raw/Scanned Data

Solid Modeling

- Primitive Solids
- Slab, Revolution Solid, Sweep Solid
- Boolean operations, Mass and Section property calculations, Sectioning, Slicing
- Feature Based Part Modeling

Assembly

- Constraint based Parametric Profile Editing
- 3D Constraint Solver

3D Tolerance Analysis for Assembly and Manufacture Module

- Measured Points
- Linear & Angular Tolerance Dimensions
- Tolerance Analysis on created Loops
- Tolerance Synthesis

Visualization

- 3D Stereoscopic Viewing
- Browsing of 3D Worlds and Objects

Data Exchange

- CAD Data Exchange using International Standards
- Import - IGES/STEP/STL
- Export - IGES/STEP/VRML/STL

Database Link

- Creation of Standard Tables and Databases
- Attach Properties from DB tables to Geometric Entities
- Bar Code to Link the Designs to Non CAD utilities
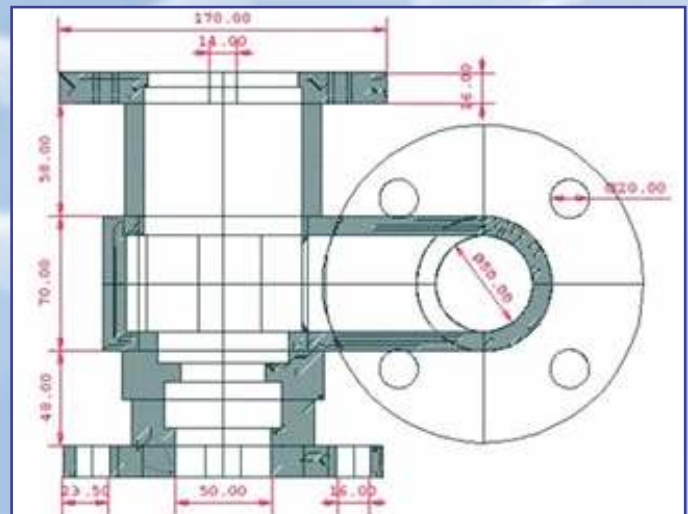
Standard Parts Library

- Component Library Framework
- Create and Store Standard Parts/ Components
- Sharing of Library

Basic NC Operations

- Lathe - Roughing, Contouring, Drilling, Threading
- 3-Axis Surface Milling
- Point -to -Point Milling
- Supports ISO Standard Tool library

Customization

- Facilitates 3D CAD Modeling using Scripting
- XML based Tool Palette for User Customization

Product Lifecycle Management (PLM)

- Reduces the Efforts and Time required for obtaining the Data
- Minimizes Confusions and Repetition of Work
- Data related to a Component/Product maintained at a single accessible location
- Integrated Content Repository
- Archive/Retrieve the Designs and Engineering Documents
- Incorporates Security, Locking and Versioning of the Engineering Drawings and Documents
- Interface to a Workflow System
- Specify, Execute, Monitor Workflow
- Coordinate the Organizations flow of Work

FEA Module

- Supports Interoperability between CAD Modeling and Computation Software
- Interfaced with Salome (Pre & Post Processor)
- Meshing, Modifying and Analyzing Geometrical Structures
- Interfaced with Code-Aster (Finite Element Solver)
- Full range of Multiphysics Analysis and Modeling methods well beyond Thermo-Mechanical Calculations
- Applicable for Linear as well as Non-Linear Structures

Enterprise Resource Planning (ERP)

- No Additional Cost for Generic ERP
- Customizable as per Organization Requirements
- Reduces Operational Costs
- Improves Operational Efficiency
- Enhances Productivity
- More Flexibility
- Better Control of Processes
- Improves Communication
- Aids Collaboration
- Interface to MRP/CRM/SCM/e-Commerce Applications

System Requirement

RAM	1 GB (Minimum)
Free Disk Space	1 GB (Basic) 2 GB (Advanced)
Virtual Memory	800 MB to 1 GB
Graphics Card	Open GL Supported Hardware Accelerated Graphics Adapter
System	Intel and AMD Based Systems
Operating System	Windows and Linux

Distributors (Marketing, Support, Training)

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