

Collaborative Engineering



Knowledge and IPR Management



- ◆ Knowledge Management
- ◆ Intellectual Property Rights
- ◆ Patents, Design Registrations
- ◆ Copyrights, Trademarks

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Knowledge in Action

A little knowledge that acts is worth infinitely more than much knowledge that is idle.

KAHLIL GIBRAN (1883-1931)

Knowledge – Definition and Types

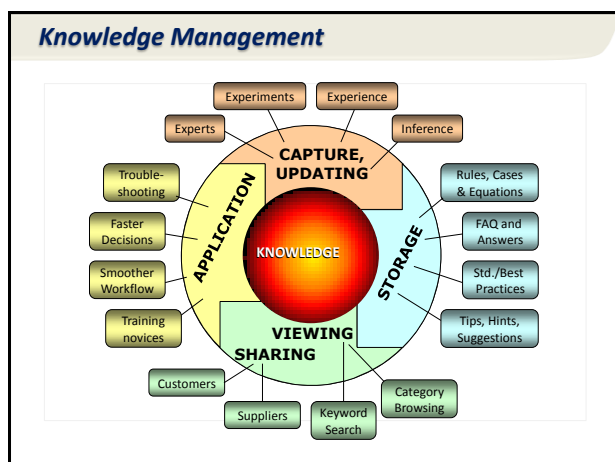
- **Knowledge:** Organized accumulation of information, obtained through experience, communication or inference
- **Types of Knowledge:**
 - Explicit (If-then rule, empirical equation)
 - Implicit (Document, anecdote, case)
 - Declarative (facts and observations)
 - Procedural (how to act)
 - Esoteric (highly specialized)
 - Exoteric (common sense)
 - Deep (requires specialisation and experience)
 - Shallow (accumulation of easily available facts)

Knowledge Sources and Forms

- **Sources of knowledge:**
 - Persons with knowledge and experience,
 - Projects carried out in an organisation,
 - Paper based media (books, journals),
 - Electronic media (world wide web)
- **Forms of knowledge:**
 - ‘Lessons learnt’ and ‘best practices’
- Recognized as intellectual capital and valuable
- Lost when experienced employees retire or leave
- **Needed:** preserving in-house knowledge, deriving tangible benefits

Knowledge Management

- **Systematic approach** to capture, store, share and use knowledge assets of an organisation for value generation.
- **Knowledge management involves:**
 - Identification and analysis of available and required knowledge assets and related processes,
 - Planning and control of actions to develop the assets and the processes to fulfill organizational objectives,
 - Sourcing, capturing, refining, synthesizing, sharing, using/reusing, and creation of new knowledge,
 - Generating value for business customers and stakeholders.



Intellectual Property Rights

- Patents
- Design Registrations
- Copyrights
- Trademarks

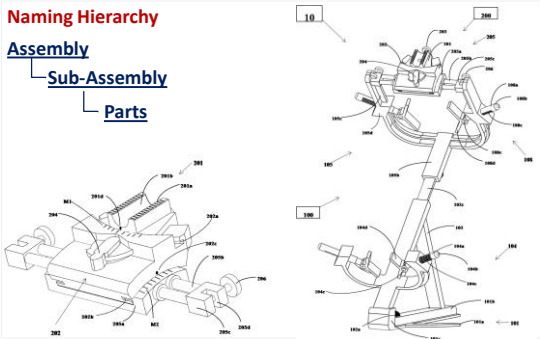
Patent Contents

- Title of invention
- Field of Invention
- Background and Limitations of Prior Art
- Object of Invention
- Summary of Invention
- Brief Description of Drawings
- List of Labels Used In Diagrams
- Detailed Description

Part Identity – Naming Hierarchy

Naming Hierarchy

Assembly
 └ Sub-Assembly
 └ Parts



SUMMARY

- Knowledge is becoming a valuable asset
- Knowledge management: capture, store and reuse
- Protect intellectual capital.