**Background**

**What is FACETs?**

FACETs is focused on how knowledge should propagate between subsystems of the same product, across technology fields sharing common issues across product lines, and managing institutional knowledge from one generation of a product release to the next.

**Six-stage problem solving process:**

- **F** – Formulate
- **A** – Assume
- **C** – Chart
- **E** – Execute
- **T** – Test
- **s** – the plural

**Underlying Technologies:**

- smarty
- Apache
- php
- MySQL

**Process**

Aspects taken from Agile, Rapid Application Development, and Joint Application Design to create a custom methodology fitting for our team and project.

**Key Aspects:**

- Test-driven (acceptance) Design
- Incremental and Flexible Releases
- Dynamic Requirements

**Challenges**

- Working with a large, pre-existing system
- Continuing a previous team’s work
- Convoluted file structure
- Rapid release cycle

**Features**

**Needs Assessment Facet**

- **Objective Tree**
  - hierarchical flowchart of objectives.
- **Customer Attributes “theWhats”**
- **Correlation**
- **Function Tree**
  - diagram showing dependencies between functions of a system.
- **Correlation Matrix**
  - matrix correlating the objective tree (as rows) and the function tree (as columns).

**Future**

**Next Steps in the FACETs System**

- Additional rooms in House 1 (the house of quality)
- Additional houses in QFD (House 2, 3, 4 etc)
- HoQ Functions automatically tie into brainstorming sessions
- Output of brainstorming sessions flow into morphological chart
- Integration with Google Groups and Google Docs
- Integrated open source project management package
- Integrated Mantis bug tracker for each project / SD team

**Complete House of Quality Diagram**

- **Trade-offs**
- **Engineering Characteristics “theHow”**
- **Correlation**
- **Customer Attributes “theWhats”**
- **Correlation Matrix**
- **Customer Perception**
- **Objectives & Targets**