C Development Tools (CDT) Update

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CDT 4.0 New Features - General

- New project model and revamped project wizard flow
  - Create projects from templates
  - Toolchain editor
- Indexer improvements
  - Robustness
  - Scalability (speed, memory)
  - C++ template support
- Index-based analysis views
  - Call Hierarchy
  - Type Hierarchy
  - Include Browser
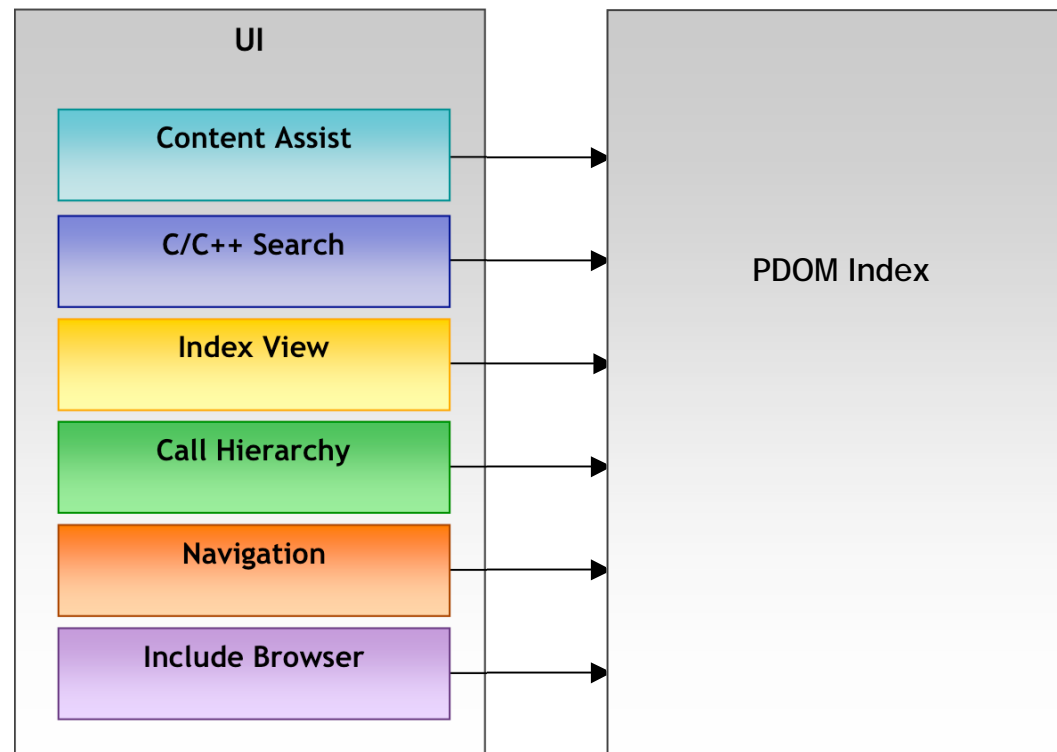- Semantic Highlighting

CDT Major Work Items For PERCS

- Remote indexing
  - Enables features such as search, navigation, call hierarchy, type hierarchy, etc.
- Unified Parallel C parsing
  - Syntax highlighting
  - Outline view
  - Content assist
  - Index based features (see above)
- Language management
  - Framework for supporting multiple language dialects in CDT
    - E.g. UPC vs. ANSI vs. GNU
- xl C/C++ compiler support
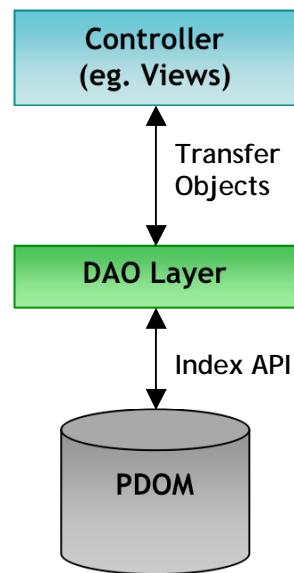 - Full UI integration into CDT's Managed Build System.

Remote Indexing – Current CDT Behaviour

Remote Indexing – Proposed Design Overview

CDT Local Scenario

Controller (eg. Views)

Transfer Objects

DAO Layer

Index API

PDOM

CDT Remote Scenario

Controller (eg. Views)

Transfer Objects

DAO Proxy Layer

Remote System

Serialized Transfer Objects

Remote Agent

Index API

PDOM