



CBRN Data Import/Export Tool (CDIET)

Presented by:
Darius Munshi



Presentation Outline

- **Introduction to CDIET**
- **Benefits provided to user**
- **Scope Statement**
- **Timeline for development and deliverables**
- **Core functionality provided to user**
- **Look and Feel**
- **Possible technologies that will be used**
- **What CDIET is NOT**
- **Risks and Risk mitigation**
- **Questions**



Introduction to CDIET

- **A two phase, a two year effort**
- **First release, CDIET Suite Version 2.0 to be delivered October 9, 2007**
- **Key Features**
 - **Platform independent solution**
 - **Multiple DB Access**
 - **Microsoft Access**
 - **SQL Server**
 - **Oracle**
 - **MySQL**
 - **Interface with JPM IS CBRN Data Model Schema**
 - **“Library” Design Allows Customizable Solution to Access the CBRN Data Model**
 - **Map Database with CBRN Data Model**
 - **Drag and Drop visual interface**
 - **Programmatically through a Java API**



Benefits provided to user

- **Allow CBRN Applications to be quickly and efficiently adapted for Net-centric, XML data sharing effort**
 - Data shared is their own legacy data, in CBRN Data Model Compliant Format
 - Automates the formatting of legacy data
- **Targeted Data Processing**
 - Allows members of CBRN community to focus on specific areas of the CBRN Data Model that relates to their current project or needs
 - Provides Dynamic Structured Query language (SQL) statement creation with user specified criteria
 - Share relevant data
 - Provide for creation of XML Data Documents free of unnecessary data
 - Increased efficiency and speed of data sharing
- **Easy to Use**
 - Easy, drag-and-drop interface
 - Abstracted, encapsulated API methods and functions

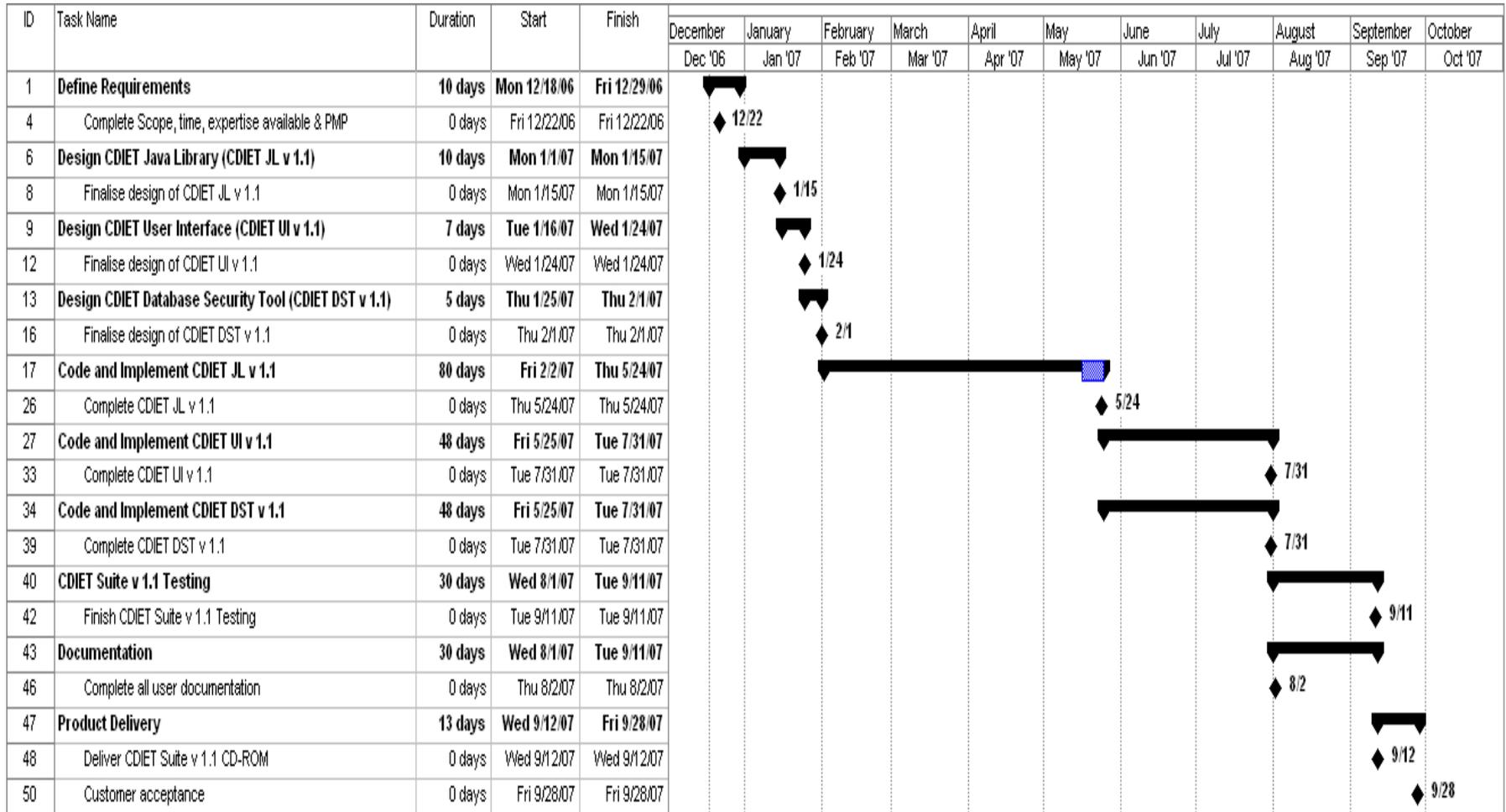


Scope Statement

- **CDIET will allow the Software Engineer to**
 - Facilitate integration of an existing application with the CBRN toolset
 - Map legacy databases with the CBRN Data Model Schema
 - Import and export legacy data in CBRN Data Model compliant formats
- **CDIET will provide**
 - A visual, interactive stand alone Java application for the analyst community
 - A Java library for software engineers to use in their own applications to interface and work with the CBRN Data Model and their legacy database applications



Timeline for development and deliverables





Timeline for development and deliverables (cont)

- **Schedule Synopsis**

- Complete Design and Architecture of all components February 1, '07
- Complete CDIET Java Library (CDIET JL v 2.0) May 24, '07
- Complete CDIET User Interface (CDIET UI v 2.0) July 31, '07
- Complete CDIET Database Security Tool (CDIET DST v 2.0) July 31, '07
- Deliver to Customer for Customer Acceptance Testing September 12, '07
- Final Delivery, Project Closure October 9, '07

- **Follow-on, Second phase 2008**

- Customer needs and requirements gathering October '07 – January '08
- Complete CDIET Suite 3.0 Scope, Design, and Architecture March '08
- CDIET Suite 3.0 Development March '08- August '08
- Deliver to Customer for Customer Acceptance Testing September '08
- Final Delivery, Project Closure October '08



Core functionality provided to user

- **CDIET Component Suite v 2.0**
 - **Gather information about user's database automatically**
 - **Field names**
 - **Table names**
 - **Constraints and data types**
 - **Gather information about the CBRN Data Model automatically**
 - **Element names and values**
 - **Embedded documentation**
 - **Support the following relational database systems**
 - **SQL Server**
 - **Microsoft Access**
 - **MySQL**
 - **Oracle**



Core functionality provided to user

- **CDIET Component Suite v 2.0**
 - Provides functionality to
 - Map user's database with CBRN Data Model with a user friendly GUI
 - Produce XML data documents in CBRN Data Model compliant formats
 - Provides database search capability of
 - Element names and embedded documentation in the CBRN XML schema
 - Field names and table names in the legacy databases
 - Provides all functionality through API and GUI
 - Programmatically for the software engineer
 - Graphical user interface for other users



Look and Feel

CDIET UI

File Edit View Build Data Tools Help

Open Save Cancel Search Clear Help

Database Field Mapping

Table A

- Field A — AerosolTypeAutoIgnitionTemperature
- Field B — TypeAtmosphericPressure
- Field C

Table B

- Field A
- Field B
- Field C

Table C

- Field A

CBRN Data Model

ChemicalMaterialPressureDependentAerosolTypeTable

[ChemicalMaterialPressureDependent]

AerosolTypeAutoIgnitionTemperature..... [* mapped]

AerosolTypeBoilingPointTemperature

AerosolTypeFlashPointTemperature

TypeAtmosphericPressure..... [* mapped]

Documentation

A set of properties of chemical material that are dependent upon pressure and pertain to material in the aerosol state.

CDIET UI Component, Prototype Version



Possible technologies that will be used

- **Native-protocol all-Java driver**
 - Pure Java database interface built on Java Database Connectivity (JDBC) driver
 - Near universal access with legacy databases
 - Does not rely on platform dependant implementation, such as ODBC
 - High speed, high performance database access



Possible technologies that will be used

- **Xerces2 Java Parser**
 - **Component of the Apache XML Project**
 - **High speed, high performance XML parser**
 - **All Java, platform independent tool that can be used to parse XML data documents**
 - **CBRN Data Model's XML Schema**



What CDIET is NOT

- **CDIET is NOT**
 - **A Sea Diet consisting of Seafood**
 - **A tool that provides transmission of data across a network**



Risks and Risk mitigation

- **Minimize Scope Creep**

- **Formal Project Management Document that includes all and only the functionality CDIET will provide**
- **Support for only a subset of legacy database formats for the first release**
 - **MS-Access**
 - **SQL Server**
 - **Oracle**
 - **MySQL**



Questions