

Component Proposal: Database Table Manipulation

I. Summary

The following is a proposal for a new component within the SQL Development Tools (SQL Dev) project of the Eclipse Data Tools Platform (DTP) project. This new component will consist of plug-ins providing functionality for manipulation relational database tables. In essence, this new component will supply a graphical mechanism to build and execute a specific set of SQL Data Definition Language (DDL) statements. This component is proposed for inclusion in the DTP 1.0 release.

II. Use Cases

1. Create a database table

The user creates a new table within a specific database schema. Column names, data types (domains), and constraints are specified as necessary.

2. Modify a database table

The user modifies a specific table in a given database schema, performing actions such as adding/removing columns, changing column data types (domains), and changing constraints.

3. Remove a database table

The user removes (drops) a specific table from a given database schema.

III. DTP Components Leveraged

As part of SQL Dev, the Database Table Manipulation component will make full use of other DTP frameworks and tools such as:

- SQL and Database definition models
- Connection profiles
- SQL editor and results frameworks for executing and displaying results
- (Future) SQL DDL model and parser capabilities

IV. Extensibility Issues

We recognize that, while the SQL standard specifies DDL, there is a great deal of variation in vendors' dialects. Following Eclipse goals, we intend to offer an exemplary tool that covers the basic (common) cases, and extensibility mechanisms (Java API and Eclipse extension points as appropriate) so adopters can leverage these components in their solutions. While the details of this extensibility will be investigated in the design document (see below, §V), the essential idea is to provide base manipulation capabilities, with hooks for adding vendor specific functional both at the UI and generated DDL level.

V. Delivery Plan

1. Functional proposal (this document)
2. Design document (mid October)
3. Initial code contributions (mid November)

VI. Contributors

Following generally accepted Eclipse processes, NEC Soft will have four individuals working on these components as contributors to start, with committer status being granted at a time deemed appropriate by the DTP PMC. These NEC Soft contributors are:

- Kazumi OHGATA (oogata@mxg.nes.nec.co.jp)
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John Graham will act as the DTP committer proxy for this team and guide them through the process of integrating with the “eclipse way.”