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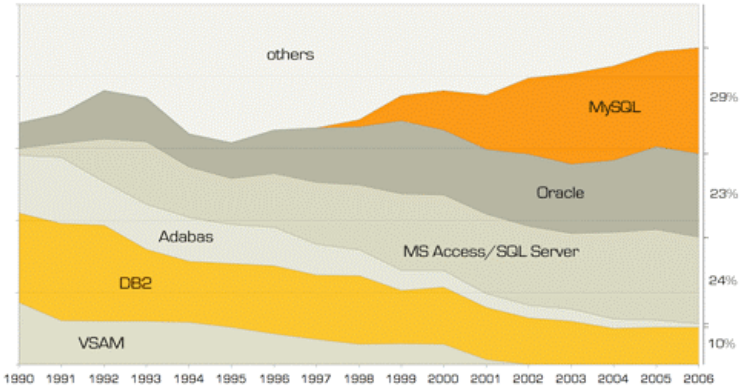
Good Tools: MySQL Workbench: A visual database design tool

-James Conners (CCE/PAL)

Relational databases make ideal data storage backends for many applications. MySQL in particular, being free and being supported by many programming languages, is especially popular. And being so popular



Source: JoinVision E-Services GmbH, July 2006

there has been much interest in developing applications that support working with MySQL databases. In addition to the command line interface built in to the software, there are many available programs both free and commercial for creating, updating and managing MySQL databases. And so as a result it is often times the case that within a team of developers each one has his or her preferred interface. Certain tools seem to be better suited for different tasks. A consequence, however, is that many times updates made throughout a particular database's life cycle are done using different software, sometimes introducing inconsistencies. For smaller applications that require rapid development and deployment, this may not be a problem. When the scale of the project increases along with the number of

developers maintaining the database(s), it often becomes more important to establish best practices along with some way of reviewing changes and the state of the project.

One application I've recently found useful for creating and maintaining larger-scaled database projects is MySQL Workbench, a visual design tool and successor to DBDesigner4. Specifically, we've recently updated one of our largest databases containing almost forty tables using this software. With the free version the capability is available to reverse engineer an existing MySQL database using the CREATE script that you can export using almost any database management application. Using this script the software will build a model, including an entity-relationship (ER) diagram, for the database. Existing tables can be edited and new tables added through the visual interface. The database can then be updated by exporting an ALTER script. The commercial version has the capability to connect directly to an existing database so that changes to its structure can be made directly through the visual interface.

Editing a database's schema through the ER diagram interface allows a perspective that working through other interfaces doesn't. Also, schema components can be grouped visually and organized in a way that provides for more comprehension by viewers and facilitates design discussions among developers. Note, exporting schemas can be done as images or PDFs, adding a valuable component to a project's documentation.

Another one of this software's more appealing features is the ability to write scripts and plugins for task automation and extending its capabilities as an application. It currently supports scripts written in Lua (http://www.lua.org/), but support is being worked on for other languages such as Python. Being able to augment the software by writing custom scripts improves its ability to support changes in development standards and practices over time.

We've yet to explore the majority of the features of this application or incorporate

its use into our common development practices, but there does seem to be a lot of potential there. If nothing else, it's a great tool for quickly creating ER diagrams for existing MySQL databases, for sharing with collaborators or to for documentation.