

Online Database Management for Director

By Integration New Media Inc. <http://IntegrationNewMedia.com>

A number of alternatives can be used for the management of databases from Shockwave movies and Director Projectors over TCP/IP. The solutions range from simple and limited Text file downloading techniques to advanced database managers with full-text search ability. The following is a comparison of the most popular solutions:

1. Integration New Media's V12 Database Engine Online Edition.
2. Integration New Media's GoldenGate Database Connector.
3. Using NetLingo to query an ODBC-compliant database through an HTTP server and CGIs.
4. Using Macromedia's Multiuser Xtra with a custom-made Director server movie to manage a server-side database.
5. Datagrip Net.

Solution #3 is based on an evaluation of Microsoft's Internet Information Server, Active Server Page, ADO drivers and MS Access, but a large number of variations are possible on this theme. Other solutions such as Text file downloading through an HTTP server, or using Director 7's [and 8's] Multiuser Server are not listed as they do not implement most of the basic functionality of a database, such as searching, sorting, record transfer (as opposed to file transfer), etc.

| FEATURE | V12-DBE Online Edition 3.0 (1) | GoldenGate (2) | NetLingo, HTTP Server, Gatewayed Database (3) | Custom-made server with Multiuser Xtra (4) | Datagrip Net (5) |
|---------------------------------------|---|---|--|---|---|
| Lingo Scripting skills | Intermediate | Intermediate | Advanced | Expert | Advanced |
| Knowledge of network programming | Beginner | Beginner | Advanced | Advanced | Advanced |
| Server OS | Mac OS/Windows | Windows NT/2K | Windows 9x/NT/2K | Mac OS/Windows | Windows 98/NT |
| Client OS | Mac OS/Windows | Mac OS/Windows | Mac OS/Windows | Mac OS/Windows | Windows only |
| Server Installation and configuration | Very easy | Easy | Difficult and time-consuming | Easy to difficult (depends on implementation) | Easy |
| Client Installation and configuration | Automatic | Automatic | Automatic | Automatic | Easy to Difficult (unpredictable) |
| Dependance on alternate technologies | None | ODBC-compliant database | HTTP server CGI Database driver NetLingo Xtra | Depends on implementation | Microsoft DAO drivers |
| Query language | Similar to V12 Database Engine's methods (simple) | Similar to V12-DBE (simple) or SQL (powerful but complex) | Usually SQL (powerful but complex) | Depends on server-side database engine | ACCESS stored queries or SQL (powerful but complex) |
| Server-side scripts | Optional for advanced features (Intermediate Lingo) | No | Mandatory (PERL, TCL, JScript, VBScript, etc.) | Mandatory (Advanced Lingo) | No |

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|--|---|--|--|---|---|
| Full-text Searching | Yes | Depends on database engine | Depends on database engine | Depends on database engine | Yes |
| Customizable full-text indexes | Yes | No (depends on database engine) | No (depends on database engine) | No (depends on database engine) | No |
| Media management | Yes | Yes | No | No (depends on implementation) | No |
| Query encoding | Built-in | Built-in | Must be custom designed and implemented | Must be custom designed and implemented | Must be custom designed and implemented |
| Mac/Windows character set translation | Built-in | Built-in | Must be custom designed and implemented | Must be custom designed and implemented | N/A |
| Results parsing | Built-in | Built-in | Must be custom designed and implemented | Must be custom designed and implemented | Built-in |
| Use of high ASCII characters | All | All | Limited | All | All |
| User access/authorizations (Ids and passwords) | Built-in | Built-in | Must be adapted to Director | Must be custom implemented | No |
| Performance (speed) | Fast | Fast | Moderate* | Depends on implementation | Fast |
| Load on server CPU | Moderate | Moderate | High | Moderate to High | Moderate |
| Max. number of clients per server | 50 | Depends on license Max: 1,000 | Depends on server hardware (about 50 for average equipment) | 16 (Multiuser Xtra) | Depends on license (max 50) |
| Max size of data sent from server to client | Limited by available RAM | Limited by available RAM | Theoretically limited by hard drive space. Practically, a few hundred Ks | Limited by available RAM | Limited by available RAM |
| Max size of data sent from client to server | Limited by available RAM | Limited by available RAM | Usually 2K (depends on HTTP server) | Limited by available RAM | Limited by available RAM |
| Project maintainability (ability to debug, upgrade and modify) | Easy | Easy | Difficult | Difficult | Moderate |
| Database Administration tools | V12-DBE Tool, custom tools | Wide range of third party tools (depends on database engine) | Wide range of third party tools (depends on database engine) | Depends on server-side database engine | Microsoft ACCESS |
| Client-side overhead | 27K for Castlib 115K for V12-DBE Online Xtra | Approx. 200K for client Xtra | 32K for NetLingo | 105K for multiuser Xtra | 350K for Datagrip Net Xtra |
| Number of databases per server | One DB per server (multiple tables) | Limited by available RAM | Limited by available RAM | Depends on implementation | Limited by available RAM |

*: network protocol on average three times slower than V12-DBE Online Edition and GoldenGate.