Manual Outline

1. Fundamentals of Data Synchronization
   1. Master and Slave Installations
   2. Export Sequence Numbers
      1. Gaps
   3. Site Masters
   4. Data Export/Import
   5. Synch Resolution Control Flow
   6. Types and Attributes
2. Basic CRUD operations
   1. Intro
      1. What is a data model
      2. Data integrity
         1. Differences between view and database
         2. Why a change can work in the resolver but break in the web
      3. Common problems on import
         1. Uniqueness violation
         2. Missing reference
   2. View
      1. Why?
      2. How
      3. Example
   3. Edit
      1. Why?
      2. How
         1. See attributes section
      3. Example
   4. Create
      1. Why? (Include warning)
      2. How
      3. Example
   5. Delete
      1. Why?
         1. Warning
         2. Constraints / cascade effect
      2. How
      3. Example
3. Relationships
   1. What are they?
      1. Concept
      2. Parents and children
      3. Attributes
      4. Common problems in import
         1. Parent/child missing
   2. View
      1. Why?
      2. How
         1. Search for parent/child type
         2. Explain tree structure
      3. Example
   3. Edit
      1. Why?
         1. Cannot change parent/child
         2. Few relationships have attributes
      2. How
      3. Example
   4. Create
      1. Why? (Include Warning)
      2. How
      3. Example
   5. Delete
      1. Why? (Include Warning)
      2. How
      3. Example
4. Attributes
   1. Intro
      1. Name-value pair
      2. Stored in db
      3. Benefits of having typed attributes
      4. The “No Value” concept
   2. Boolean
      1. What
      2. Widget
         1. Display Labels
   3. Char/Text
      1. What
      2. Widget
   4. Date/Time
      1. What
         1. Time Zones
      2. Widget
         1. Localization
   5. Numbers
      1. What
         1. Ints vs floats
         2. Legal input
      2. Widget
   6. Enums
      1. What
      2. Widget
   7. References
      1. What
         1. Conceptually
         2. Geo and term references
         3. Relationship participants
      2. Widget
         1. Edit
            1. Search process
         2. Clear value
   8. Structs
      1. What
         1. Display Labels
      2. Widget
5. Transactions
   1. What is a transaction?
      1. Transaction Items
      2. Transaction records
      3. Commits and rollbacks
      4. Relation to synchronization
   2. Viewing Transaction Records
      1. Why?
      2. How
      3. Example
   3. Export Transactions
      1. Why?
      2. How
         1. All
         2. Range
         3. Not Exported
      3. Example
   4. Import Transaction
      1. Why?
      2. How
         1. Conflicts can happen
      3. Example
6. Conflicts
   1. What is a conflict?
   2. Generic resolution methods
   3. Common conflict scenarios
      1. Uniqueness constraint
      2. Missing data
   4. Specific examples
7. Logging
   1. What is it?
   2. Why do we do it?
   3. Where?
      1. Change the log levels
      2. Log file locations
   4. How to use it
      1. Chainsaw
      2. Debugging

DDMS features a logging system that records data about application usage and saves the data to files on the computer called logs. The log files include data ranging from normal usage to serious errors and are recorded as one log file per day. Technical support can then use the log files to troubleshoot problems that have occurred within DDMS.

There are six different log levels, each one representing a different level of verbosity and seriousness. At the lowest level is Trace, which records virtually all usage but has the tendency to make the system slow and consume large amounts of disk space. At the highest level is Fatal, which records only the most serious errors but provides the least amount of contextual information. The levels between Trace and Fatal, in order of least to most serious, are Debug, Info, Warn, and Error. The right level can be chosen to provide the most meaningful compromise between verbosity and seriousness for a given problem.

When a problem occurs in DDMS that requires technical support, a user may want to recreate the problem but under a more verbose log level to provide extra contextual information.

The logs are located in the directory C:/MDSS/logs/ with the current log file as log.xml and older log files named relative to their date. A user may select the current log file, representing today's DDMS usage, or any other number of log files and send them to technical support\* for analysis.

\* This process has not been completely defined.