Tech-File Import Version 2.2 Specification
(Interfaces #911XX22)
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The MIMOSA *Tech*-FILE Import V2.2 specification is an effort to provide a XML-based import of tables as defined in the MIMOSA Common Relational Information Schema (CRIS). This provides a basic mechanism needed to move data from one database or data source to another.

This specification requires each supplier to provide a MIMOSA Import Utility related to one or more application technologies, i.e., Trend-, Dyn-, etc. which will then import technology-specific tables in a CRIS V2.2 format. A list of the supported tables for each technology are documented in MIMOSA's technology cross-reference matrix (Tech-File CRIS V2.2 Cross-Reference Matrix.doc) file. Import utilities will only utilize the data applicable to the application – it is not required to support every table relevant to a particular technology. The import utility will read from a selected single XML file which conforms to to MIMOSA's published CRIS V2.2 XML Schema Definition (CRIS Complete V2-2.xsd) from a selected directory or URL location. The associated reference data ("type" tables), including MIMOSA reference database entries, may or may not be included in the file. The import routine should access the MIMOSA Site0 Reference database entries wherever feasible to resolve these entries.

This specification also provides the requirements of the import utility which reads the XML file from a target directory location. Only the basic MIMOSA zero database reference entries in the reference type tables which are applicable to a system need to be supported. Other entries can be ignored.

Application Conformance Specification
Required User Interface Options

The software which supports the import process must be provided certain parameters to begin the import. The user interface must contain the following options in some form:

IMPORT FROM *XML_File_Path*

Use: Specifies the file directory or URL path where the XML file will be imported

IMPORT METHOD [OVERWRITE || INSERT_ONLY]

Use: Specifies whether existing rows in the database which have the same primary key as the data from the XML file should be replaced with the XML file data (OVERWRITE), or if only new rows should be inserted in the database which do not currently exist (INSERT_ONLY).

ON ERROR [CONTINUE || ABORT]

Use: If a non-fatal error occurs, should the program continue or abort imXMLiately.

Non-fatal errors include:

-- Invalid small integer value on data record #<x>, column <column_name>
-- Invalid integer value on data record #<x>, column <column_name>
-- Invalid single float value on data record #<x>, column <column_name>
-- Invalid double float value on data record #<x>, column <column_name>
-- Invalid gmt value on data record #<x>, column <column_name>
-- Invalid binary header on data record #<x>, column <column_name>
-- Variable-length character string value truncated on data record #<x>, column <column_name>
-- Invalid fixed-length character string value on data record #<x>, column <column_name>
-- Too many columns on data record #<x>
-- Too few columns on data record #<x>, trailing columns set to null
-- Non-null value required on data record #<x>, column <column_name>
-- Primary key has a null value on data record #<x>, column <column_name>
-- Foreign key does not exist in table <table_name>

Fatal errors include:

-- XML file <export file specification> not found
-- XML file protected from read access
-- XML file version <n.n> not supported
-- Cannot open listing file <listing file specification>
-- Database cannot extend, check diskspace

LOG FILE *File_Specification*

Use: Specifies the file name or URL of a log file which will contain informational and error messages.

Optional User Interface Options

The supplier may also provide additional options which are not required nor supported by other suppliers, but may prove to be useful for imports and exports for a supplier's systems.

#1: IMPORT METHOD [OVERWRITE || INSERT_ONLY || OVERWRITE_OLD]

Use: This expanded functionality for the "Import Method" option adds the "OVERWRITE_OLD" function.. This specifies that existing rows in the database which have the same primary key as the data from the XML file AND have a gmt_last_updated timestamp which is less than or equal to the timestamp from the XML file will be overwritten with the data from the XML file. XML entries which do not exist in the database will also be inserted.

#2: INCREMENTAL FROM *Start_GMT_timestamp* {UNTIL *End_GMT_timestamp*}

Use: Specifies to filter all rows imported based on the gmt_last_updated column value being greater than or equal to the *Start_GMT_timestamp* specified and (optionally) less than the *End_GMT_timestamp*. To ease the burden for an end-user calculating the correct Greenwich Mean Time, the system may want to allow the user to enter either GMT or their local time which the system will internally convert to GMT.

#3: RESTRICTED TO {MIMOSA Category List} {Filters}

Use: Specifies which categories of data should be imported and the filters to be applied. Categories which could be supported are:

SITE
DATABASE
AGENT
SEGMENT
ASSET
MEASUREMENT LOCATION

The filters which could be supported are:

SITE limited to a selected group
DATABASE limited to a selected group
SEGMENT limited to a selected group
SEGMENT TYPE limited to a selected group
ASSET limited to a selected group
ASSET TYPE limited to a selected group
MEASUREMENT LOCATION limited to a selected group
MEASUREMENT LOCATION TYPE limited to a selected group
GMT MEASUREMENT EVENT [before *GMT_timestamp* | between *GMT_timestamp1* and *GMT_timestamp2* | since *GMT_timestamp*]

Logical "AND" Combinations of these filters must be allowed.

#4: EXPAND FROM [*Zip_File_Specification* || FIRST_ZIP_FOUND *File_Directory_Path*]

Use: This option specifies the file name or URL of a ZIP file which should contains the XML file to import. The "FIRST_ZIP_FOUND" parameter will scan the directory path specified, opening the first ZIP file in name order in the directory.

#5: DELETE IF SUCCESSFUL

Use: This option will delete the XML file or the ZIP file if the "EXPAND FROM" option is used after successfully importing the data.

#6: IMPORT FROM *XML_File_Directory_Path* {FIRST_FOUND}

Use: This expanded "IMPORT FROM" function includes the "FIRST_FOUND" capability which will scan the directory path or URL specified, opening the first XML file in name order in the directory.

#7: CONFIGURATION NAME *Config_Name* SAVE AS *File_Specification*

Use: This option provides a name to this set of parameters and specifies the location where the configuration file will be saved This configuration file will contain the options for performing the import.

#8: Command Line Execution with Configuration File Specified

Use: This option gives the user the ability to invoke the import from a command line interface, providing the configuration file as a parameter.