

Project Name:	Synopse mORMot Framework	Revision #:	1.17
Document Name:	Software Implementation Risk Assessment	Project Manager:	Arnaud Bouchez



## PROJECT DOCUMENTATION

Project Name:	<b>Synopse mORMot Framework</b>
Document Name:	<b>Software Implementation Risk Assessment</b>
Document Revision:	<b>1.17</b>
Date:	<b>September 9, 2012</b>
Project Manager:	<b>Arnaud Bouchez</b>

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*Synopse SQLite3/mORMot Framework Documentation.*

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Prepared by:	Title:	Signature:	Date
Arnaud Bouchez	Project Manager		

## Document Purpose

The *Software Implementation Risk Assessment* document purpose is to perform a risk assessment of the SWRS implementation for the *Synopse mORMot Framework* project.

The current revision of this document is 1.17.

## Related Documents

Name	Description	Rev.	Date
SWRS	Software Requirements Specifications	1.17	September 9, 2012

## Risk Assessment Scale

**Severity:** identify the severity of incorrect implementation

3 - High	Potentially affects a result or safety
2 - Med	Potentially effects one or multiple features for intended operation
1 - Low	Cosmetic or no effect to intended operation

**Probability:** identify the probability of incorrect or incomplete implementation

3 - High	No documentation and not familiar with the code area
2 - Med	Documentation but not familiar/familiar but no documentation
1 - Low	Documentation and familiar with the code

**Occurrence:** identify the reproducibility of the defect before correction

3 - High	Reproducible: failure inevitable or repeated (>25% failure rate)
2 - Med	Intermittent or recurring: occasional failures (5-25% failure rate)
1 - Low	One time: relatively few or remote likelihood of failure (<5% failure rate)

Project Name: Synopsis mORMot Framework  
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SWRS #	Design Input Description	Request	Sev.	Pro.	Occ.	Risk Assessment
DI-2.1.1	The framework shall be Client-Server oriented	Initial release	1	1	3	Initial release
DI-2.1.1.1	A RESTful mechanism shall be implemented	Initial release	1	1	3	Initial release
DI-2.1.1.2	Communication should be available directly in the same process memory, or remotely using Named Pipes, Windows messages or HTTP/1.1 protocols	Initial release	1	1	3	Initial release
DI-2.1.1.2.1	Client-Server Direct communication shall be available inside the same process	Initial release	1	1	3	Initial release
DI-2.1.1.2.2	Client-Server Named Pipe communication shall be made available by some dedicated classes	Initial release	1	1	3	Initial release
DI-2.1.1.2.3	Client-Server Windows GDI Messages communication shall be made available by some dedicated classes	Initial release	1	1	3	Initial release
DI-2.1.1.2.4	Client-Server HTTP/1.1 over TCP/IP protocol communication shall be made available by some dedicated classes, and ready to be accessed from outside any Delphi Client (e.g. the implement should be AJAX ready)	Initial release	1	1	3	Initial release
DI-2.1.2	UTF-8 JSON format shall be used to communicate	Initial release	1	1	3	Initial release
DI-2.1.3	The framework shall use an innovative ORM (Object-relational mapping) approach, based on classes RTTI (Runtime Type Information)	Initial release	1	1	3	Initial release

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SWRS #	Design Input Description	Request	Sev.	Pro.	Occ.	Risk Assessment
DI-2.2.1	The <i>SQLite3</i> engine shall be embedded to the framework	Initial release	1	1	3	Initial release
DI-2.2.2	The framework libraries, including all its <i>SQLite3</i> related features, shall be tested using Unitary testing	Initial release	1	1	3	Initial release
DI-2.2.3	The framework shall be able to access any external database, via OleDb, ODBC or direct access for Oracle (OCI) or <i>SQLite3</i> (for external database files)	Initial release	1	1	3	Initial release
DI-2.3	User Interface and Report generation should be integrated	Initial release	1	1	3	Initial release
DI-2.3.1	An User Interface, with buttons and toolbars shall be easily being created from the code, with no RAD needed, using RTTI and data auto-description	Initial release	1	1	3	Initial release
DI-2.3.1.1	A Database Grid shall be made available to provide data browsing in the Client Application - it shall handle easy browsing, by column resizing and sorting, on the fly customization of the cell content	Initial release	1	1	3	Initial release
DI-2.3.1.2	Toolbars shall be able to be created from code, using RTTI and enumerations types for defining the action	Initial release	1	1	3	Initial release
DI-2.3.1.3	Internationalization (i18n) of the whole User Interface shall be made available by defined some external text files: Delphi resourcestring shall be translatable on the fly, custom window dialogs automatically translated before their display, and User Interface generated from RTTI should be included in this i18n mechanism	Initial release	1	1	3	Initial release

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SWRS #	Design Input Description	Request	Sev.	Pro.	Occ.	Risk Assessment
DI-2.3.2	A reporting feature, with full preview and export as PDF or TXT files, shall be integrated	Initial release	1	1	3	Initial release