Omnis Studio as a Prototyping Tool

White Paper

© Omnis Software 2019

No part of this publication may be reproduced, transmitted, stored in a retrieval system or translated into any language in any form by any means without the written permission of Omnis Software.

© Omnis Software, and its licensors 2019. All rights reserved.
Portions © Copyright Microsoft Corporation.
Regular expressions Copyright (c) 1986,1993,1995 University of Toronto.

© 1999-2019 The Apache Software Foundation. All rights reserved.
The Omnis product includes software developed by the Apache Software Foundation (http://www.apache.org/).

OMNIS® and Omnis Studio® are registered trademarks of Omnis Software Ltd.

Microsoft, MS, MS-DOS, Visual Basic, Windows, Windows 95, Win32, Win32s are registered trademarks, and Windows NT, Visual C++ are trademarks of Microsoft Corporation in the US and other countries.

SAP, R/3, mySAP, mySAP.com, xApps, xApp, and other SAP products and services mentioned herein as well as their respective logos are trademarks or registered trademarks of SAP AG in Germany and in several other countries all over the world.

IBM, DB2, and INFORMIX are registered trademarks of International Business Machines Corporation.

ICU is Copyright © 1995-2003 International Business Machines Corporation and others.

UNIX is a registered trademark in the US and other countries exclusively licensed by X/Open Company Ltd.

Sun, Sun Microsystems, the Sun Logo, Solaris, Java, and Catalyst are trademarks or registered trademarks of Sun Microsystems Inc.

J2SE is Copyright (c) 2003 Sun Microsystems Inc under a licence agreement to be found at:
http://java.sun.com/j2se/1.4.2/docs/relnotes/license.html

MySQL is a registered trademark of MySQL AB in the United States, the European Union and other countries (www.mysql.com).

ORACLE is a registered trademark and SQL*NET is a trademark of Oracle Corporation.

SYBASE, Net-Library, Open client, DB-Library and CT-Library are registered trademarks of Sybase Inc.

Acrobat, Flash, Flex are trademarks or registered trademarks of Adobe Systems, Inc.

Apple, the Apple logo, AppleTalk, and Macintosh are registered trademarks and MacOS, Power Macintosh and PowerPC are trademarks of Apple Computer, Inc.

HP-UX is a trademark of Hewlett Packard.

OSF/Motif is a trademark of the Open Software Foundation.

CodeWarrior is a trademark of Metrowerks, Inc.

Omnis is based in part on ChartDirector, copyright Advanced Software Engineering (www.advsofteng.com).

Omnis is based in part on the work of the Independent JPEG Group.

Omnis is based in part of the work of the FreeType Team.

Other products mentioned are trademarks or registered trademarks of their corporations.

Executive Summary

- Prototyping is a process of design and development used to help model the specifications and requirements for a new application.
- Once a prototype has been developed it can be moved quickly to alpha or even beta without dedicating significant resources and time.
- The nature of 4GL RAD tools is that they are designed for rapid development of the Data Access & UI layers by minimizing the need to write code, using instead objects, components, and wizards as shortcuts.
- Using Omnis Studio as a prototyping tool allows the developer to quickly assemble an elegant prototype. Omnis Studio incorporates the use of industry standard SQL, drag and drop web & mobile development, plus genuine cross platform support without the need for OS specific code compilation – you can code and run your app live as you develop!

Proof-of-Concept Development Challenge

Commercial realities dictate that there are several key elements to consider when developing a software solution. These are even more pertinent at the prototyping stage of a project. Some of these elements may not be considered as essential at this stage, but they facilitate the acceptance of the application to your client.

- **Fit for Purpose**
  The prototype application should effectively demonstrate the client's requirements. How does one procure the satisfaction of expectations without exhaustive research into the underlying issues? This is possible by using a software prototyping tool, which allows a concept to be modeled, rapidly aiding in the evaluation of a design.
- **Time restrictions**
  In an ideal world one would choose to slow the process down and run it through a deliberate design and development cycle. However available resources invariably dictate this process. Your choice of prototyping tool should allow you to make maximum use of the time at your disposal.
- **Financial constraints**
  Optimally, this type of software should provide the capability to envision and test such a model using local data and resources without a major investment in database server(s), network hardware and software.

- **Moving Target**
  Many clients are not entirely sure of the exact nature of the product they require. They may also redefine their requirements based on outside factors and additional functionality that you can offer. A prototyping tool should have the functionality to address such fundamental alterations readily and easily.
- **Scalability**
  You should be able to demonstrate the scalable qualities of your proposed application with the prototype. Your client may not have made a final decision on the level of deployment at this stage. They may wish to retain the flexibility to investigate alternatives before committing to a final strategy.
- **Real time alterations**
  Your development tool should allow the flexibility to make changes while prototyping with the client and be possible without the downtime incurred for recompilation. Omnis Studio allows you to very quickly map out your solution, within hours/days, and continually add and adapt code and the UI in an iterative process of development.
- **Appearance**
  The application should be presentable and have the look and feel of a finished product. While you are at the prototyping stage, you may be still selling the concept to your client. The appearance of your prototype can become very significant, with minor visual anomalies drawing attention away from the salient issues.
- **Maintaining the Prototype**
  Your choice of prototyping tool should allow you to keep track of version histories and alterations you make to the application. Ideally you should be able to document the changes you make together with client requests. You may also require the facility to control multiple developers working on the same project.

What Makes Omnis Studio Ideal for Prototyping

Regardless of the application you are modeling, Omnis Studio provides the tools that allow you to effectively create your prototype, in the shortest possible timeframe of days not weeks. Whether you need to create web or mobile applications, with or without a SQL backend, Omnis Studio is a great starting point for prototyping your client's solution. Omnis Studio even provides you with its own native database that supports SQL, or you can use SQLite. Applications prototyped in Omnis Studio cover

just about every market segment, from Healthcare, CRM, Retail, and Project Management, and to Manufacturing and Accounting.

Developing prototypes using Omnis Studio significantly reduces the time you spend creating your application. This is due to the features and tool sets that are made available to you within the product. Omnis Studio embraces the main principles of practical object orientation and UI design. These features include inheritance, messaging, code and object reuse. The Omnis Studio IDE allows for dragging and dropping of classes and objects, this makes it extremely quick to produce the UI. There is also an extensive set of wizards that cover just about everything from simple form creation to the integration of Web Services.

Having one comprehensive tool that can be used for a multitude of needs eliminates the cost of having to purchase multiple applications for prototyping. The initial investment for Omnis Studio is extremely competitive. This makes tight financial constraints inconsequential as the product and pricing is as good as and, if not better, than any prototyping tool currently available.

If your client is unsure of the final system configuration, then prototyping in Omnis Studio insures you against sudden changes in deployment strategies. Omnis Studio applications can be developed on any of the supported platforms including all flavors of Windows (7/8/10), macOS 10.x and above, and the major Linux distributions, as well as all types of mobile devices (phones & tablets). Omnis Studio applications can be deployed on any or all of these platforms simultaneously *with only minimal or no code changes*.

For more information about Omnis Studio, or to download a free trial to start creating your prototype in Omnis Studio, please go to our website: www.omnis.net