

## EXIGEN® SERVICES: CASE STUDY

DEVELOPMENT OF A USB/  
FIREWIRE DRIVER



### ABOUT THE CUSTOMER

Contex is a leading manufacturer of large format scanners and scanner software for both color and monochrome scanning solutions. Contex, established in 1923 in Denmark, provides scanning solutions for a wide range of purposes, including reprographics, Computer Aided Design (CAD), Geographic Information Systems (GIS), document archives, sign and billboard production, as well as architect and engineering offices. Contex also markets the world's fastest high-definition 3D printers — machines that produce 3D physical prototypes of real-world objects at high speeds.

### BUSINESS CHALLENGE

Some time ago, Apple Inc. ceased production of Mac computers with integrated SCSI controllers, and started manufacturing a new line of computers with USB and FireWire built-in interfaces, which are much more flexible and convenient. Contex, whose scanners operate on both Windows and Mac operating systems, came to a decision to add USB/FireWire bus support to existing Mac software.

### SOLUTION DELIVERED

Exigen Services (formerly StarSoft Development Labs) was tasked with developing drivers and scanning plugins for Photoshop on the Mac operating system. The task was to refactor and modify code to enable scanner operation not only via SCSI, but also using the new USB/FireWire standard. A second subproject was motivated by Apple's move from Mac OS 9 to a UNIX-based Mac OS X, which made it impossible to use Mac OS 9 source code. Exigen Services was asked to create a library to support use of Contex scanners and the scanning plugin.

A third small subproject within Contex focused on creating a scanner calibration program for Mac OS X.

During the course of these projects, Exigen Services overcame several technical challenges:

- ▶ Resolving communication protocol issues to support effective interaction between the scanner and computer.
- ▶ Resolving issues concerning the lack of information on the MacOS9 bus communication procedure; Exigen Services worked with Apple Inc. directly to resolve this problem.

### PROJECT METHODOLOGY AND PROCESS

The Contex team delivered Exigen Services experts a general requirements description in the form of a text file source code of the existing solution and application programming interface. The Exigen Services team was responsible for a wide range of project tasks, including business logic development, coding, and functional testing.



## IMPACT ON BUSINESS

Macintosh is used widely in the publishing industry. As Macintosh was gradually moving to FireWire/USB interfaces and Mac OS X, it was vitally important for Contex to support this new technology. Thanks to Exigen Services, Contex was able to maintain its market share and continue in its role as a major provider of large format scanning solutions.

## TECHNOLOGY

C/C++; Macintosh Programmer's Workshop, Version 3.5; Metrowerks CodeWarrior® Professional for Mac OS, Version 4.0; Metrowerks CodeWarrior® for Mac OS, Version 7.0; Apple Mac OS 9; Mac OS X; Apple FireWire SDK, Version 2.8.1; Photoshop SDK, Version 5.5; IOKit.framework; SCSITask Library; STL

## ABOUT EXIGEN® SERVICES

Exigen Services is the leading application outsourcing services provider, and combines world class skills, recognized expertise in development methodologies, and industry experience to reduce risks, lower costs and deliver results. Exigen Services has pioneered a new approach to global application outsourcing, Outsourcing 2.0 that includes commercial terms that optimize financial alignment between client and vendor. As a result, Exigen Services makes IT outsourcing a much easier and more beneficial undertaking for global enterprises.

Since 2000, Exigen Services has been the global leader in the use of distributed Agile methods for rapid and precise systems development throughout the banking/ insurance/ brokerage, healthcare, telecommunications, government and media industries. Exigen Services has achieved high honors in a variety of independent lists and rankings, including *Brown & Wilson Black Book of Outsourcing* in 2008, *Global Services 100* in 2009, *Inc Magazine's 2008 Inc5000* and is a top 10 provider of both outsourced product development and human capital development.

Clients range from mid-sized growth companies to Fortune 500 organizations including Sun Microsystems, CSC, Universal Music Group, Standard & Poor's, T-Mobile, Westpac Bank and many others.

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