

# Sunburst Software Solutions

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## The Construction Application for Payment Solution Development Process

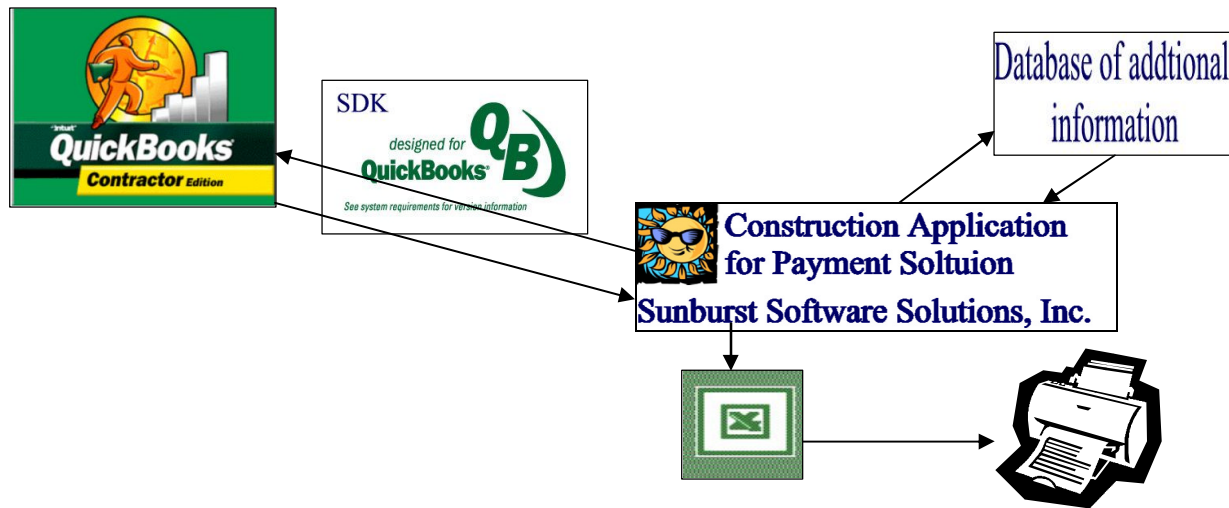
The thought process behind the design

- Ø AIA Billings can be required to be submitted by General Contractors, Developers, Homebuilders or subcontractors who performs work on many types of Commercial or Residential construction projects
- Ø Industry standard Contract Documents may also be required to be submitted
- Ø It takes hours each month to complete these forms
- Ø QuickBooks contains 90% of the information required to complete these forms
- Ø The original problem was how to access this information
- Ø QuickBooks holds 90% of the required information
- Ø The SDK provides the means to query that information
- Ø Construction Application for Payment Solution will have it's own database containing a link back to QuickBooks to hold information that QuickBooks provides no means of tracking
- Ø A means of generating user specific Contract Documents should be provided which will allow the retrieval of information contained in both QuickBooks® and CAPS
- Ø Excel and Word have great formatting capabilities to produce the final reports and documents

## Program Design and Utilization of the SDK

Construction Application for Payment Solution utilizes the SDK to send a query or read-only access request to the QuickBooks file for information already entered by the user from

- Ø Estimates (amounts on Estimate become Scheduled Value on Continuation Sheet)
- Ø Progress Invoices (amounts on Progress Invoice become Work Completed this Period on Continuation Sheet)
- Ø Bill to/Ship to information in the Job record
- Ø The requested information is then sent to Construction Application for Payment Solution and a linked record is created tying it back to the records in QuickBooks
- Ø Missing information required by AIA billing mandates that QuickBooks has no means of holding is entered into a Linked record in Construction Application for Payment Solution's own database
- Ø Construction Application for Payment Solution then merges the information and sends the billing information to Excel where it is formatted to the correct layout and printed
- Ø Create a Contract Document Manager to provide the ability to create Industry Standard Contract Documents that can be customized by the end user
- Ø All of this is accomplished without adding, modifying, deleting or voiding any existing information in QuickBooks



## How Construction Application for Payment Solution Utilizes the Intuit QuickBooks Software Development Kit (SDK)

### Introduction:

This overview will describe how Sunburst Software Solutions, Inc. has utilized the Intuit QuickBooks SDK in the development of Construction Application for Payment Solution. It is written for ProAdvisors, Consultants, other Professionals, and end-users that are interested in the development process of Construction Application for Payment Solution, which integrates with QuickBooks.

The purpose of this document is to provide you with a better understanding of the high-level concepts relating to the components of the QuickBooks SDK and how they are utilized in Construction Application for Payment Solution.

### Why an SDK for QuickBooks?

The Intuit Software Development Kit (SDK) was created for technical professionals interested in developing applications that share data with QuickBooks® to help business owners during times when QuickBooks® data must be managed in ways that are unique to a specific industry and cannot be accomplished within QuickBooks itself.

Through development of 3<sup>rd</sup> party applications using the SDK such as Construction Application for Payment Solution, the small-business owner no longer needs to enter the same billing information twice, once in QuickBooks and once in a stand-alone program or a complicated Excel spreadsheet. Because Construction Application for Payment Solution was created with the SDK, it can directly share this QuickBooks data, giving the small-business owner the best of both worlds – the power, ease, and comprehensiveness of QuickBooks combined with the benefits of an application tailored to the billing requirements put forth by the American Institute of Architects.

The SDK provides a common method for integrating an application with QuickBooks: once a developer creates an application for one QuickBooks product, modifying that application to support any (or all) of the other QuickBooks products is a straightforward task. This shared SDK approach is based on qbXML, which is a version of XML (eXtensible Markup Language) that has been designed specifically for QuickBooks.

The QuickBooks SDK was designed with the following principles in mind:

- Keep the small-business owner in control. The business owner or the administrator for the business must authorize the connection between the 3<sup>rd</sup> party application and QuickBooks. They also set up permissions for authorized users and access rights for each 3<sup>rd</sup> party

application. The SDK supports the user privilege structure established within QuickBooks, wherein, for example: certain users can access only certain types of information.

If Construction Application for Payment Solution has not been authorized to access the QuickBooks file the user will receive the following error message:

**Error Code: 0x8004041A Error Message: This application does not have permission to access this QuickBooks company data file.** The QuickBooks administrator can grant access permissions through Edità Preferencesà Integrated Applicationsà Company Preferences.

- Provide robust mechanisms to protect QuickBooks data. The SDK provides strong error recovery, data logging, and synchronization facilities to ensure that data is not lost or destroyed and that 3<sup>rd</sup> party application data remains synchronized with QuickBooks data. Additionally the Inuit SDK enforces all the QuickBooks business rules no matter what the 3rd party application does.

Through the use of the qbXML Validator utility we verify that a given qbXML document conforms to the qbXML specifications before it is sent to QuickBooks. All Construction Application for Payment Solutions requests for jobs, estimate and progress invoicing transactions have been validated.

The SDKTest utility is used to test the request/response cycle; which accepts a qbXML request, sends it to QuickBooks, and returns the response to Construction Application for Payment Solution.

The qbXML specifications are built into QuickBooks and the SDK provides methods for querying which version of the qbXML specification is supported by the version of QuickBooks that is currently running on the user's system – having written “smart” code that checks the version and responds accordingly, Construction Application for Payment Solution can run with multiple versions of QuickBooks

- Use existing programming standards. The QuickBooks SDK uses standard interfaces and XML formats, and as a result is compatible with most software programming languages such as Visual Basic, C, C++, and Java. Sunburst Software Solutions, Inc. utilizes Microsoft Visual Basic for the development of Construction Application for Payment Solution.
- Adhere to a single specification for the entire SDK. The QuickBooks products, except for the On-line version, all use the same qbXML specification, therefore, the content and behavior of the request and response messages between QuickBooks Pro, Premier, Premier Accountant, Enterprise Solutions, etc. and Construction Application for Payment Solution is consistent across all products.

Construction Application for Payment Solution utilizes the SDK to:

- Query or read information contained in the QuickBooks file from:
  - Estimates
  - Bill To/Ship to information contained in the job record
  - Progress Invoices