SS&C | Blue Prism® Professional Developer Certification Handbook
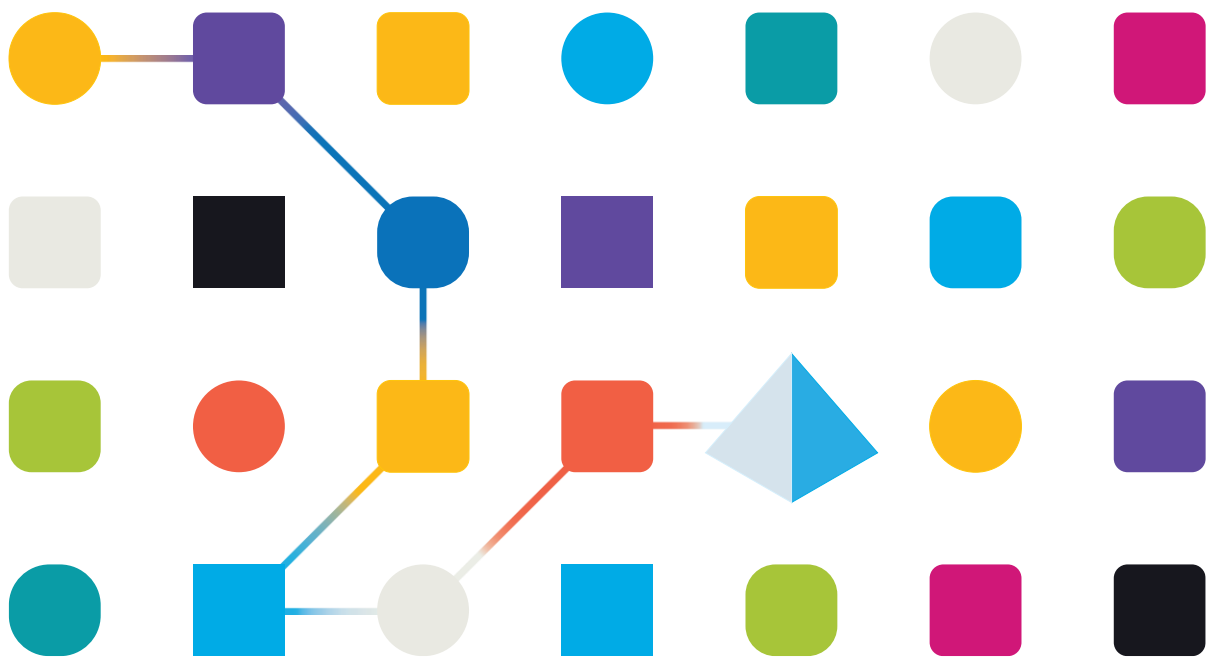
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Contents

Introduction

The SS&C | Blue Prism® Professional Developer Certification represents the highest level of certification for a SS&C | Blue Prism® Developer. The exam is aimed at already certified developers with a broad range of SS&C Blue Prism knowledge, experience, and skills.

It is an internationally recognized certification that identifies the individual as possessing the skills of a SS&C | Blue Prism® Professional Developer. Getting certified empowers the individual to distinguish themselves from the competition and increases marketability.

Target Candidates

The target candidates are developers who already passed the SS&C | Blue Prism® Developer exam and have at least six months hands on experience. Candidates should have experience in building and configuring process automation and objects by using standard SS&C Blue Prism design principles and best practices. Candidates need to be able to problem-solve the running of SS&C Blue Prism processes and create and document test procedures and scenarios to support the operational team during the User Acceptance Testing and roll-out phases.

The target candidates could hold a role in a robotic automation environment, including but not limited to, junior developer, developer, lead developer, technical support, ROM architect, and process analyst.

A qualified candidate could be an individual who:

- Passed the SS&C | Blue Prism® Developer exam for at lesat six months (Prerequiste)

- AND -

- Has completed the SS&C | Blue Prism® Professional Developer Learning Plan either by self-study at the SS&C | Blue Prism® University and/or attended an instructor-led workshop from SS&C Blue Prism or one of its authorized training partners
- Six months hands-on experience is strongly recommended

Badging

SS&C Blue Prism is in a partnership with Credly and awards digital badges to individuals who successfully pass the SS&C | Blue Prism® Professional Developer exam. If you successfully pass your exam, you will receive an email notification from Credly with instructions for claiming your badge and setting up your account. Digital Credly badges help earners promote their achievements. Visit the Frequently Asked Questions site for further information about digital badging.

Registration and Scheduling

To schedule the SS&C | Blue Prism® Professional Developer exam, please visit Pearson Vue website or visit the Frequently Asked Questions site for further information about registering and scheduling an exam online* or at a test centre.

* *When you book the online exam, select the exam ending in _OP for the online version of the exam.*

Professional Developer Certification Learning Plan

Training Courses

To prepare for the SS&C | Blue Prism® Professional Developer Certification exam you should complete the SS&C | Blue Prism® Professional Developer Certification Learning Plan, consisting of:

- Advanced Exception Handling
- Advanced Work Queues
- Business Object Design: Best Practices
- Surface Automation
- Modern Browser Automation
- Java Automation Guide
- Mainframe Automation Guide

Prerequisite

Candidates need to pass the SS&C | Blue Prism® Developer exam and wait for 6 months to be qualified to apply for the SS&C | Blue Prism® Professional Developer exam. Gaining hands on experience during this time is strongly recommended.

Certification

Once SS&C | Blue Prism® Developer Certification is obtained for six months and all the training courses are complete, a candidate is prepared for the SS&C | Blue Prism® Professional Developer exam. The exam is delivered either in a Pearson VUE test Center or online and consists of 50 questions covering all development aspects within the SS&C | Blue Prism® Enterprise.

A score of 70% is required by the candidate to pass.

Training Options

- **Portal Registration** & enroll in the **SS&C | Blue Prism® Professional Developer Certification Learning Plan** at SS&C | Blue Prism® University. Professional Developer Certification Learning Plan is comprehensive online training for you to prepare for the Professional Developer exam at no cost to the individual.

- You can also download **SS&C | Blue Prism® Learning Edition** at no cost for practice.

- OR -

- SS&C Blue Prism courses at a **SS&C | Blue Prism® Accredited Training Partner**

- OR –

- Other training or self-learning sources that cover the Objective listed in the Exam Content Outline.

Exam Content Outline

Objective 1: Best Practice for Building Objects and Processes (12%)

SS&C | Blue Prism® Developers need to know the best approach for building Objects and Processes. Knowing the best approach helps to ensure that processes are granular, robust, and easy to control; while business objects are efficient, scalable, and re-usable.

- Task 1.1 Understand Objects building - Application Modeller Read stages, Write stages, Wait stages, and Navigate stages.
- Task 1.2 Understand Processes building – Input and Output data
- Task 1.3 Identify naming elements in Application Modeller

Objective 2: Browser Automation (10%)

The automation of web applications and pages requires integration with the SS&C | Blue Prism® Enterprise. To enable this integration, SS&C Blue Prism offers browser extensions to interact with the most used Modern Browsers like Edge, Chrome, and Firefox.

- Task 2.1 Understand how to launch or attach to an existing browser session of a supported browser from SS&C Blue Prism Object Studio
- Task 2.2 Be familiar with the SS&C Blue Prism Browser spy mode and how to use it when automating either Google Chrome, Mozilla Firefox, or Microsoft Edge
- Task 2.3 Understand when to use the Browser spy mode and when to use a combination of spy modes
- Task 2.4 Interface with pop-ups, and tables by utilizing SS&C Blue Prism Best Practice

Objective 3: Credential Manager (4%)

The SS&C | Blue Prism® Credential Manager provides a secure repository for login details used to access target applications. By encrypting and storing credentials securely, developers can log into applications in a secure runtime environment whilst preventing the credentials being re-used outside the production environment.

- Task 3.1 Comprehend Encryption Scheme and how it is set up
- Task 3.2 Understand how to use Credential Manager to secure credentials

Objective 4: Exception Handling (6%)

Exceptions occur during the running of a process for various reasons. Usually, when an exception occurs, the process stops, and its status in Control Room shows as Terminated. Sometimes, it is not desirable for the process to stop when an exception is encountered. In certain contexts, we can handle the exception and continue with processing.

- Task 4.1 Explain the concept of the Bubble Up Exception
- Task 4.2 Understand the concept of Blocks and how to use them
- Task 4.3 Understand how to implement retry logic
- Task 4.4 Understand the difference between Business Exceptions and System Exceptions

Objective 5: Java Automation (12%)

Java automation provides a series of specialised techniques for interfacing with applications written in the Java programming Language.

- Task 5.1 Explain what the prerequisites are to use Java spy mode
- Task 5.2 Explain what the best practice guidelines are when interfacing with Java Applications

Objective 6: Login Agent (4%)

When executing an automated process on a SS&C Blue Prism runtime resource, it is necessary for the runtime resource to be running on a device which is logged in and not locked. Login Agent allows the SS&C Blue Prism process to operate under the context of that user and provides access to all the local applications and network resources it may need.

- Task 6.1 Explain the uses of each Action within the Login Agent VBO
- Task 6.2 Troubleshoot common issues when trying to work with Login Agent

Objective 7: Mainframe Integration (2%)

Mainframe integration allows interaction with various terminal-based applications. These are typically legacy "green screen" applications which used to be accessed via a "dumb terminal". The applications run on a mainframe. On modern systems dumb terminals have been replaced by terminal emulators, which provide robotic automation capabilities.

- Task 7.1 Understand how to interface with a mainframe emulator

Objective 8: Object Design (4%)

SS&C | Blue Prism® Developers need to know the best approach for business object design. Knowing the best approach helps to ensure that business objects are efficient, scalable, and re-usable.

- Task 8.1 Understand the Best Practice for Object Design
- Task 8.2 Understand the difference between the 3 run modes – Foreground, Background, and Exclusive
- Task 8.3 Identify the advantages and disadvantages of a single-object design approach versus a multi-object design approach

Objective 9: PDF Extraction (4%)

SS&C | Blue Prism® Developer should only extract data from PDFs if the structure of the documents is standard and predictable with no, or very limited number of variations. It is not a replacement for a dedicated OCR solution designed to extract data from large volumes of different format documents.

- Task 9.1 Explain the three methods for extracting text from a PDF Document; using the Windows Clipboard, using "Read Text with OCR Read Stage and using Adobe Acrobat API

Objective 10: Surface Automation (14%)

When the SS&C | Blue Prism® Application Modeller cannot be used directly to identify application elements (because, for example, the applications that need to be automated are not running on the same machine as SS&C | Blue Prism® Enterprise), a technique called surface automation can be used to create an image of the application screen. Such applications can be modelled by using screen regions, image matching, and character recognition.

- Task 10.1 Explain when and how Surface Automation can be used
- Task 10.2 Understand how to interface with regions
- Task 10.3 Know the difference between Global Send Keys and Global Send Key Events
- Task 10.4 Explain what the prerequisites to using Surface Automation are

Objective 11: Web Services (6%)

SS&C | Blue Prism® Enterprise provides support for web services in two contexts: web services may be called as part of a process in the same way that other business objects are called, and SS&C | Blue Prism® Enterprise can expose processes as web services. Web services exposed by SS&C | Blue Prism® Enterprise can be called remotely.

- Task 11.1 Understand how to expose a Business Object as a web service
- Task 11.2 Understand how to expose a SS&C | Blue Prism® Enterprise as a web service

Objective 12: Work Queues (10%)

Work queues provide a mechanism for modelling the queueing, locking, and reporting of work items within a SS&C | Blue Prism® Enterprise environment.

- Task 12.1 Describe working with Work Queue Item Tags, Status and Priority
- Task 12.2 Explain how to encrypt data in Work Queues
- Task 12.3 Identify Best Practice for using Work Queues
- Task 12.4 Describe working with more complex Work Queue designs including deferring items, multiple queues, and parent/child relationships

Objective13: General Items (12%)

- Task 13.1 Understand the relation between running sessions and SS&C Blue Prism robot licenses
- Task 13.2 Understand the features and constraints of Control Room
- Task 13.3 Know the rational when deciding between using Sub-processes or Objects

Preparation Materials

Learning Courses from the SS&C | Blue Prism® University

- Advanced Exception Handling
- Advanced Work Queues
- Business Object Design: Best Practices
- Surface Automation

- Modern Browser Automation
- Java Automation Guide
- Mainframe Automation Guide

Portal Guides

The following Guides (and many others) can be located through a Portal Documentation Search on the SS&C | Blue Prism® Portal: Documents | SS&C | Blue Prism® Portal.

- Data Sheet – Secure Windows Authentication
- User Guide – Web Services
- Data Sheet – Credential Manager

- User Guide – Login Agent
- Surface Automation of Terminal Emulators

VBOs (Distributed with SS&C | Blue Prism® Release)

- Active Directory
- Calendars
- Collection Manipulation
- Date & Time Manipulation
- Encryption
- Environment
- File Management
- Foreground Locker
- General
- Google Sheets
- HTTP
- Image Manipulation
- JSON

- Locking
- MS Excel
- MS Outlook
- MS Word
- Network
- Numeric Operations
- OLEDB
- POP3 & SMTP
- SQL Server
- Strings
- Web Services Oath 2.0
- Web Services REST
- Windows Compressed File

VBOs

These non-core VBOs can download (as well as the standard/core VBOs) from the Digital Exchange.

- Centralised Email Manager
- Cyberark Simple VBO
- VBO Example Interface
- Login Agent VBO
- Queue Reporting

- Utility - Date & Time Manipulation (Updated)
- Utility - Image Search
- Utility - XML

Further Product Training

- Developer Jumpstart - Templates
- SS&C | Blue Prism® Best Practices

Exam Details

Document Title	Description
Certification Name	SS&C	Blue Prism® Certified Professional Developer
Pre-requisites	Certified SS&C	Blue Prism® Developer with six months hands on experience
Number of Questions	50
Language	English, Japanese, Simplified Chinese ** Non-English exam is only available at test centre*
Exam Duration	60 Minutes ** Candidates from countries where English is not an official language may be awarded an extra 30 minutes.*
Passing Score	70%
Exam Fee	USD$150 except for the following countries: Gibraltar, Guernsey, Isle of Man, Jersey, United Kingdom: GBP£120 Andorra, Austria, Belgium, Cyprus, Estonia, Finland, France, Germany, Greece, Ireland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Monaco, Netherlands, Portugal, San Marino, Slovakia, Slovenia, Spain, Vatican City State: EUR€135 Japan: JPY¥16,000