**BlackPearl Certification Program Questionnaire**

1. **Introduction**

This document is the testing and certification questionnaire. Developers must complete and submit this document to Spectra 5 business days prior to beginning testing the Spectra Logic lab. Questions should be answered within this same document and submitted to your Certification and Testing Manager for review.

1. **Questions**
2. Describe your overall system architecture and how BlackPearl is used in the data workflow. Please provide a system architecture diagram for review.

Answer:

1. Please describe how transfers to and from BlackPearl are initiated in your application. For example, is the data transfer a user initiated process? Is there a cron that kicks data transfers off? Is the BlackPearl continuously used? Please provide as many usage scenarios as you envision.

Answer:

1. Does your application communicate with BlackPearl via one of Spectra Logic’s Software Development Kits (SDKs) or are you communicating using the API directly?

Answer:

1. If you are using a SDK, which SDK are you using? Which version of the SDK are you using?

Answer:

1. If you are using the .NET or Java SDKs, are you using the [Helper](http://spectralogic.github.io/ds3_net_sdk/api/namespace_ds3_1_1_helpers.html) classes to move files?

Answer:

1. If you are not using the SDK helper functions, or don’t have them available in the SDK you chose, are you chunking files properly? Here is a [Python Bulk Put Example with Chunking](https://github.com/SpectraLogic/ds3_python_sdk/blob/master/samples/bulk_with_prefix.py).

Answer:

1. Are you using “Get Job Chunks Ready for Processing” command to decide when you can PUT or GET files? For additional information, see the “Not Using Helper Classes? Make Sure to Use “Get Job Chunks Ready for Processing”” section on the BlackPearl tips web page: <https://developer.spectralogic.com/tips/>

Answer:

1. Are you planning to stage data in a temporary disk location before sending it to BlackPearl? If so, how will you ensure that you have sufficient storage to stage it?

Answer:

1. Users will need to provide your application with credentials in order to communicate with the BlackPearl. These credentials would include the BlackPearl server name or IP address, the user Access ID, the user Secret Key, and possibly a bucket name. Do you test these credentials against the BlackPearl before allowing them to be saved? Do you provide the user with a “Test” button to test the credentials? Do you provide the user with a user-friendly message if the credentials are invalid?  
     
   Answer:
2. Have you designed and tested your application to handle the following conditions and verify your products responds acceptably to:
   1. Attempt to access a bucket that does not exist or that the user does not have access to (Y/N)?
   2. Try to GET an object from BlackPearl that doesn’t exist (Y/N)?
   3. BlackPearl is unresponsive (Y/N)?
   4. BlackPearl cache is full when attempting to move file(s) to BlackPearl (Y/N)?
   5. Object is not in BlackPearl cache (but is available on tape) when attempting to retrieve object from BlackPearl (Y/N)?
   6. Object already exists when attempting to move file to BlackPearl (Y/N)?
   7. Object is only available on tape outside of library when attempting to retrieve object from BlackPearl (Y/N)?
   8. How does the system recover when power is lost during a bulk job?
   9. How does the system recover when network communications are disrupted?

Answer:

1. Have you tested all features of your system with the BlackPearl Simulator (Y/N)?

Answer:

1. Does your application support BlackPearl's optional object overwrite feature (also referred to as "atomic rewrite" or "keep latest version") (Y/N)?

Answer:

1. Does your application support ejecting tapes from the library (Y/N)?

Answer:

1. Does your application support the ability to access multiple buckets (Y/N)?

Answer:

1. Does your application support the option to manually change job priorities (Y/N)?

Answer:

1. Does your application show if a job is fully persisted to tape or disk archive location (Y/N)?

Answer:

1. Can your application list all objects in a bucket (Y/N)?

Answer:

1. Does your application calculate and use checksums (Y/N)? If so, how do you pass the checksums to BlackPearl and back?

Answer:

1. Does your application pass metadata to BlackPearl (Y/N)? If so, how do you pass the metadata to BlackPearl and back?

Answer:

1. Have you optimized your system for data throughput (Y/N)? If so, explain how.

Answer:

1. File requirements for testing:
   1. Does your application require specific file types (i.e. .mov) or will it work with generic text files?

Answer:

* 1. Does your system have any file size limitations for small files? For large files?

Answer:

1. Does your application support partial file recovery from BlackPearl?

Answer:

1. Does your application tolerate network interruptions (job recovery)? \_\_\_\_\_\_ Have you tested your application against network interruptions?

Answer:

1. Does your application have a maximum job limit? \_\_\_\_\_\_\_ If so, what is the limit?

Answer:

1. Please describe the target markets for your product:

Answer:

1. What are the key features of your product?

Answer:

1. What are your products’ primary differentiators from your competitors?

Answer:

1. Please supply support contact information for your company – email, web address, and phone number, along with primary support contact name.

Answer:

Thank you for providing this information. Please return this completed form to your Spectra Logic contact or email it to: [developer@spectralogic.com](mailto:developer@spectralogic.com)

1. **Revision History**

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| --- | --- | --- | --- |
| **Version** | **Date** | **Author** | **Changes** |
| 0.1 | 11/11/15 | GSJ | Initial format and content. Designed for BlackPearl Software V1.2 |
| 0.2 | 12/2/15 | GSJ | Added questions to determine which optional tests are required for a client |
| 0.3 | 2/9/2016 | GSJ | Added request for information about what types of files are needed by the application so we can create/copy them to appropriate location for testing |
| 0.4 | 2/16/2016 | JLB | Added question about testing BP credentials |
| 0.5 | 3/24/2016 | GSJ | Modified program name, added additional questions 21-28 |
| 1.0 | 8/10/2016 | JLB | Added question about retrieving data from ejected tapes |
| 1.1 | 11/7/2016 | JLB | Updated partial file recovery question to make it clear it is in reference to BlackPearl |
| 1.2 | 11/28/2016 | PP | Added support information section. |
| 1.3 | 4/20/2018 | JLB | Removed duplicate questions |