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# **Guidelines and Best Practices for Creating Jiras**

1. Before creating a new issue, always check whether a similar issue has already been reported (search for existing Jiras by test case name and failure signature). This helps in reduction of duplicate issues.  
   In FAR, AutoFA rules should be created and used to avoid filing duplicate issues. Reporters should add AutoFA rules based on the failures seen once we have conclusion for these issues.
2. Verify that all required logs including drive E6 logs are updated correctly in the Jira before creating the same.
3. Attach all possible logs that would assist in debugging of the issue when the issue is created.
4. Do not move Jiras from one project to another project. If the project of a Jira must be changed, close the current Jira and create a new Jira with the new required project.
5. E6 log requirement – Important note:

For FW bugs, ensure that a link to shackbuilder for E6 log collected after the failure is provided in the Jira before creation.

If extraction of E6 logs is not feasible or fails, the Jira can be created mentioning the same, while we look for other options to obtain E6.

# **DVV Jira Template – FW Issues**

Create a Jira for reporting a FW bug with the following guidelines.

Click on the “Create” button at the top panel of [CEJira](https://cejira.sandisk.com/).

Graphical user interface, text, application

Description automatically generated

Figure 1: Create issue page for eSSD-Mission Bay MSFT project

## **Project**

Set this field to **eSSD-Sandy Bay (SBAY).**

## **Issue Type**

Set this field to .

## **Summary**

Set the summary of the issue in the following format

<Product> <Customer> [<Execution Type>] [<FW Revision>\_<Customer Code>]: <Issue>

|  |  |
| --- | --- |
| Summary Component | Explanation |
| Product | Product name of the SSD where the issue was observed. Ex: Aspen+, Malibu, BBZ, etc.  Set this field to SB for Sandy Bay. |
| Customer | Customer FW variant on which issue was observed. |
| Execution Type | Type of execution run where this issue was observed. Set this to QA/Nightly/Weekly.   * QA: Issue found during QA execution/test development * Nightly: Issue found during Nightly execution * WRT: Issue found during WRT execution |
| FW Revision | FW revision of the FW build under test where the issue was observed. |
| Customer Code | Customer code for the FW build under test where the issue was observed. |
| Issue | Summarize the issue observed |

Examples:

1. SB AWS [QA] [LA10300C\_AD]: Invalid SC and SCT found in write zeroes
2. MB AWS [QA] [LA10300C\_AZ]: Piranha 2012: HIP Assert: 000080dc FE\_ABT\_TIMEOUT
3. BBZ NetApp [WRT] [L6Z04009\_NZ]: I/O Hung noticed on both CNS and ZNS during I/O Stress test

## **IDB Program**

Set this field to **eSSD-Sandy Bay**.

## **Affect Version/s**

Set this field to SandyBay\_QS1 or SandyBay\_QS2 as applicable.

## **Program Severity**

Set this field to the value that is applicable to the issue, as per the below guidelines.

|  |  |
| --- | --- |
| Program Severity Value | Explanation |
| S0 - Blocker | S0/Blocker Jira’s are defects that render the product un-shippable either in form, fit, function, or usability. These are the most severe type of defects and have the potential to risk program milestones and schedules. S0 Jira’s must be fixed for Beta, QS, and LVM.  Examples:  – A defect that leaves the drive in an inoperable state (format corrupt, unresponsive, bricked drive, damaged drive)  – User data loss  – Data integrity (miscompare)  – Assert/Stop during normal IO  – High rate of un-recoverable data errors / grown defects  – Un-recoverable DDR bit flips  – Reliability issue / degradation of life (does not meet product spec)  – Endurance degradation (write amp not meeting spec)  – A defect that blocks execution of many tests  – HW defects requiring long lead time changes (PCB, ASIC, other components)  – Safety issue |
| S1 - Major | Major Jira’s are defects in the product that customers will not accept, and the product does not meet some portion of the WD or Customer specification. Less severe than S0 but still need to be fixed. Major Jira’s must be fixed for QS and LVM.  Examples:  – Hard error (unexpected or abnormal error code returned by the drive)  – Unrecoverable ECC errors not caused by NAND wear (NAND wear beyond EOL specs)  – A defect that causes a BSOD/Black screen  – A defect that causes the host to drop the drive  – Failure to enumerate  – Power on / Reset failure  – Repeatable command time out  – Drive hang recoverable with POR/Reset  – Significant performance issue  – Specification deviation that is not waivable (industry spec / customer spec / internal spec)  – SMART warning  – Missing feature  – A defect that prevents the testing of a feature |
| S2 - Minor | Minor Jira’s are defects in the product that have a minor impact on performance or present a minor nuisance but do not impact the functionality of the product. Whether or not Minor Jira’s need to be addressed for QS and LVM depends on the targeted customers and their use cases and requirements.  Examples:  – Issues uncovered with synthetic tests using workloads that cannot happen in the field  – Internal errors that are recoverable that have no noticeable impact to performance and no impact to long term reliability or life expectancy  – Minor performance deviations for specific obscure workloads  – Obscure spec violations not impacting form, fit, function, or usability |
| S3 - No Impact | No Impact Jira’s are defects that are not visible to the customer and have no impact on form, fit, function, or usability. A fix is not required.  Examples:  – “Nice to have” fixes  – Noncustomer visible issues (internal logging problems, issues with test FW, etc.)  – Notable comments or observations regarding FW behavior |

## **Issue Found By**

Set this field to **VAL-DVT**.

## **Components**

Set this field to the appropriate value for this issue and product.

Examples:

* **P-FW-FE** for front-end FW issues
* **P-FW-Security** for security FW issues
* **P-FW-MI** for NVMe-MI FW issues

## **Found in**

Set this field to **SandyBay\_QS1**/**SandyBay\_QS2** as applicable.

## **FW Build Type**

Set this field to **None**.

## **TTF Hours**

Set this field to the time taken for the failure to occur once test execution is started in hours.

## **TTF Minutes**

Set this field to the time taken for the failure to occur once test execution is started in minutes.

## **ASIC**

Set this field to the default value **ThunderbirdPlus**.

## **Assignee**

Set this field to **Roshan Saraf**.

## **Platform Tested On**

Set this field to the relevant value.

* **Host Platform** for CVF, Marlin, Power Glitch, MITT and SpecConfig
* **HW-FPGA** for FPGA.
* **None** if required platform is not listed

## **Technology**

Set this field to the available option **BiCS6**. If the issue is being reported for Sandy Bay BiCS5 drive, specify the same in the description under the “Drive Information” section.

## **Memory Type**

Set this field to **X3**.

## **Chip Capacity**

Set this field to **1Tb** for Sandy Bay QS1 and **512Gb** for Sandy Bay QS2.

## **Reproducible**

Select **Yes** or **No** for this field as applicable.

## **Reviewed**

Select **No** for this field.

## **Description**

Populate the below information in the description.

Test Information

Test Suite Name

Test Case Name

Test Setup Information:

Tool name

Tool version

FSP version (if applicable)

Hostname

Drive Information:

Serial Number

Model Number

LBAF

Logs:

<Ensure that all required logs are provided in this section - test log, driver/tool log and E6 log links are provided. Provide FTP/FAR log links or attach the logs and provide links to the attachment.

* For CVF-based test: Test script .txt logs, HTML logs, E6 logs, driver trace (if applicable), UART log (if applicable), MITT UART log (if applicable)
* For OakGate-based test: Test logs, analyzer trace, lun logs, port logs, driver trace, app logs, controller logs>
* For other test platforms: Test logs and other such logs/traces generated for debug

STAR test run link (if applicable)

Test log link/FAR test link (if applicable)

E6 Shackbuilder link

Test log snippet/Failure Signature

Event log/STM log snippet/Trace snapshot (as applicable)

Test steps/Failing sequence

Test Objective

Test Steps/Failing Sequence, including expected result and actual result

Analysis

<Clearly explain triage done for this issue and first level analysis with justification for the issue type, i.e., firmware/tools/test issue>

Test History:

DataLens/FAR Test History: <DataLens/FAR test history link>

<Image snippet of test history from DataLens/FAR>

If the test is run for the first time, mention the same.

## **Labels**

Add label **SB\_AWS\_DVV\_FW\_FD**. Note that labels are case-sensitive.

## **Fix Version/s**

Set this field to **SandyBay\_QS1**/**SandyBay\_QS2** as applicable.

## **FW Name**

Set this field to the FW revision of the FW build under test on which this issue was observed.

## **Reporting Site**

Set this field to **Western Digital SDIN**.

## **List the provided debug information**

## Select the values for this field as per debug information provided for the issue.

# **DVV Jira Template – Test Issues**

Create a Jira for reporting a test bug with the following guidelines.

Click on the “Create” button at the top panel of [CEJira](https://cejira.sandisk.com/).

Graphical user interface, text, application

Description automatically generated

Figure 2: Create issue page for SSD Device Verification & Validation project

## **Project**

Set this field **SSD Device Verification & Validation (SSDDVV)**.

## **Issue Type**

Set this field to .

## **Summary**

Set the summary of the issue in the following format

<Product> <Customer> [<Execution Type>] [<FW Revision>\_<Customer Code>]: <Issue>

|  |  |
| --- | --- |
| Summary Component | Explanation |
| Product | Product name of the SSD where the issue was observed. Ex: Aspen+, Malibu, BBZ, etc.  Set this field to SB for Sandy Bay. |
| Customer | Customer FW variant on which issue was observed. |
| Execution Type | Type of execution run where this issue was observed. Set this to QA/Nightly/Weekly.   * QA: Issue found during QA execution/test development * Nightly: Issue found during Nightly execution * WRT: Issue found during WRT execution |
| FW Revision | FW revision of the FW build under test where the issue was observed. |
| Customer Code | Customer code for the FW build under test where the issue was observed. |
| Issue | Summarize the issue observed |

Examples:

1. SB AWS [QA] [LA10300C\_AD]: Invalid SC and SCT found in write zeroes
2. MB AWS [QA] [LA10300C\_AZ]: Piranha 2012: HIP Assert: 000080dc FE\_ABT\_TIMEOUT
3. BBZ NetApp [WRT] [L6Z04009\_NZ]: I/O Hung noticed on both CNS and ZNS during I/O Stress test

## **Fix Version/s**

Set this field to **SandyBay\_QS1**/**SandyBay\_QS2** as applicable.

## **Components**

Set this field to

* **WDIN\_eSSD\_TD\_DVT** if the Jira is for the test development team.
* **WDIN\_eSSD\_TE\_DVT** if the Jira is for the test execution team.

## **Priority**

Set this field to the value that is applicable to the issue, as per the below guidelines ([reference](https://cejira.sandisk.com/secure/ShowConstantsHelp.jspa?decorator=popup#PriorityLevels)).

|  |  |
| --- | --- |
| Priority Value | Explanation |
| P0 - Critical | Blocks development and/or testing work, production could not run, loss of data (in case of tool/FW issue or in case of test issue where the issue is observed in 5 or more tests), drive assert (in case of FW issue). |
| P1 - High | Crashes, severe memory leak, loss of data (in case of test issue, observed in less than 5 tests). |
| P2 - Medium | Major loss of function. |
| P3 - Low | Minor loss of function, or other problem where easy workaround is present. |
| P4 – Trivial | Cosmetic problem like misspelt words or misaligned text. |

## **IDB Program**

Set this field to **eSSD-Sandy Bay**.

## **Environment**

Populate the below information in this text field.

Test Setup Information:

Tool name

Tool version

FSP version (if applicable)

Hostname

Drive Information:

Serial Number

Model Number

LBAF

## **Description**

Populate the below information in the description.

Test Information

Test Suite Name

Test Case Name

Logs:

<Ensure that all required logs are provided in this section - test log, driver/tool log and E6 log links are provided. Provide FTP/FAR log links or attach the logs and provide links to the attachment.

* For CVF-based test: Test script .txt logs, HTML logs, E6 logs, driver trace (if applicable), UART log (if applicable), MITT UART log (if applicable)
* For OakGate-based test: Test logs, analyzer trace, lun logs, port logs, driver trace, app logs, controller logs>
* For other test platforms: Test logs and other such logs/traces generated for debug

STAR test run link (if applicable)

Test log link/FAR test link (if applicable)

Shackbuilder link

Test log snippet/Failure Signature

Event log/STM log snippet/Trace snapshot (as applicable)

Test steps/Failing sequence

Test Objective

Test Steps/Failing Sequence, including expected result and actual result

Analysis

<Clearly explain triage done for this issue and first level analysis with justification for the issue type, i.e., firmware/tools/test issue>

Test History:

DataLens/FAR Test History: <DataLens/FAR test history link>

<Image snippet of test history from DataLens/FAR>

If the test is run for the first time, mention the same.

## **Assignee**

## Set this field to

## **svc-DVV-Stat** if the Jira is to be assigned to the US test development team

## **gtd-blr** if the Jira is to be assigned to the BLR test development team.

## **Labels**

Add label **SB\_AWS\_DVV\_TD\_FD**. Note that labels are case-sensitive.

## **Failure Pareto**

## Set the relevant value for this field from the available options.

## **Test Name**

Set this field to the name of the test case which reported the issue.

## **Test Failure Signature**

Enter the failure signature reported in the test log or the failure condition that was hit.

## **Device Configuration**

Set the field in the following format

<Product> <Form Factor> <Capacity>

Examples:

1. Sandy Bay U.3 8TB
2. Malibu U.2 7680GB
3. Marina Bay U.3 16TB

## **Test Package Installation Link**

Set this field to the location where the test package can be obtained, for example, the FTP link for the FSP.

## **Steps to Reproduce**

Mention steps performed to reproduce the issue. Test steps do not have to be listed here since it will be covered in the description.

Example:

1. Format the device.
2. Run test MI-MCTPGetEndpointUUID.

## **FW Version Tested**

Set this field to the FW revision of the FW build under test on which this issue was observed.

## **Last Passing Information**

## Set this field in the following format

## FW Revision: <FW revision>, FSP: <FSP version>

Note: If FSP is not applicable, mention the relevant test version information.

Examples:

1. FW Revision: LA10300C, FSP: 20211229-01
2. FW Revision: L9100006, LeCroy version: 11.74, Build 11
3. FW Revision: L6Z04008, Test framework version: SVN revision 32081

## **Test History**

Briefly explain the history of this test with respect to the result of the test.

Examples:

1. New test, run for the first time.
2. Passed on LA10001
3. Failed previously due to VSS-20399
4. Passed consistently in previous runs

## **Test Reference Result**

Update the link to latest passing test log here. Set this field to NA if this is not available.

## **Time to Failure (TTF)**

Set this field to the time taken for the failure to occur once test execution is started, along with units.

Examples:

1. 3 minutes
2. 12 hours
3. 4 days 17 hours

## **Test Failure Log**

Attaching or providing a reference to a test log is mandatory. Select “Attached” or “Link Added” as applicable.

## **Drive Logs**

Set this field to “Attached” or “Link included” as applicable.

# **DVV Jira Template – Tool Issues**

Create a Jira for reporting a test bug with the following guidelines.

Click on the “Create” button at the top panel of [CEJira](https://cejira.sandisk.com/).

## **Project**

Set this field to the required project.

* **CVF (CVF)** for CVF issues
* **STAR Automation (STAR)** for STAR issues
* **Data Analytics (DAT)** for DataLens issues
* **FAR (FAR)** for FAR issues

## **Issue Type**

Set this field to .

## **Summary**

Set the summary of the issue in the following format

<Product> <Customer> (<Execution Type>) [<FW Revision>\_<Customer Code>]: <Issue>

|  |  |
| --- | --- |
| Summary Component | Explanation |
| Product | Product name of the SSD where the issue was observed. Ex: Aspen+, Malibu, BBZ, etc.  Set this field to MiB for Mission Bay. |
| Customer | Customer FW variant on which issue was observed. |
| Execution Type | Type of execution run where this issue was observed. Set this to QA/Nightly/Weekly.   * QA: Issue found during QA execution/test development * Nightly: Issue found during Nightly execution * WRT: Issue found during WRT execution |
| FW Revision | FW revision of the FW build under test where the issue was observed. |
| Customer Code | Customer code for the FW build under test where the issue was observed. |
| Issue | Summarize the issue observed |

Examples:

1. SB AWS [QA] [LA10300C\_AD]: Invalid SC and SCT found in write zeroes
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3. BBZ NetApp [WRT] [L6Z04009\_NZ]: I/O Hung noticed on both CNS and ZNS during I/O Stress test

## **Issue Origin**

Set this field to **End User**.

## **Severity**

Set this field to the value that is applicable to the issue, as per the below guidelines.

|  |  |
| --- | --- |
| Severity Value | Explanation |
| S0 - Blocker | The defect that results in the **termination of the complete system** or one or more component of the system and causes **extensive corruption of the data**, nothing can process further. *Qual cycle / Program milestone blocked.* |
| S1 - Critical | **Severe defect** in the feature that impacts the system and results in incorrect data. However, certain parts of the **system remain functional**. *System is impacted, but a workaround exists.* |
| S2 - Major | Causes some **undesirable behavior** of certain features, but the system is still functional. |
| S3 - Minor | Usability of the feature is not damaged but results **in minor inconvenience.** |

## **Business Unit**

Set this field to **eSSD**.

## **Requesting Team**

Dropdown menu for this field is enabled after Business Unit field is set. Set this field to **DV&V - DVT**.

## **IDB Program**

Set this field to **eSSD-Sandy Bay**.

## **Targeted Primary Program**

Set this field to **eSSD-Sandy Bay**.

## **Component/s**

Set this field to the appropriate value for the issue.

## **Description**

Populate the below information in the description.

Test Information

Test Suite Name

Test Case Name

Test Setup Information:

Tool name

Tool version

FSP version (if applicable)

Hostname

Drive Information:

Serial Number

Model Number

LBAF

Logs:

<Ensure that all required logs are provided in this section - test log, driver/tool log and E6 log links are provided. Provide FTP/FAR log links or attach the logs and provide links to the attachment.

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Test log snippet/Failure Signature

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Test steps/Failing sequence

Test Objective

Test Steps/Failing Sequence, including expected result and actual result

Analysis

<Clearly explain triage done for this issue and first level analysis with justification for the issue type, i.e., firmware/tools/test issue>

Test History:

DataLens/FAR Test History: <DataLens/FAR test history link>

<Image snippet of test history from DataLens/FAR>

## **Labels**

After the Jira is created, edit the Jira and set this field to **SB\_AWS\_DVV\_SWT\_FD**. Note that labels are case-sensitive.