

Appendix B: BEAM Engineering Analysis Utility

* Note: Confidential information is redacted.

The screenshot shows the 'Beam Production' section of the SPARX interface. On the left, a sidebar lists navigation options: Login, Customer Service, Device Data, Ring Change, Sales Team, Production Data, and Beam Production. The main area displays a file directory tree for 'Zaber 111716' under 'BeamCalibrationData'. The tree includes nodes for stages 1 through 16, each containing XML files like 2023, 2024, 2025, 1, 2, 3, 4, 5, 6, 10, 11, 12, 13, 14, 15, 16, 25051243928, 25051243930, 25051243932, 25051243934, 25051243936, and 25051243938.

Spax Beam Data Analysis

Analyze and compare calibration data for one or more Spax beams. Choose an xml file from the directory to begin.

Selected Date Range:
6/15/2025 12:00:00 AM to 6/21/2025 12:00:00 AM

File: 25051243956
Date: 6/18/2025 7:53:46 AM

Complete

Engineering Controls
 Refresh every: 2 seconds
 Pause if error found
 Max Std Err
 Render charts
 Min Distance
 Check min distance with Pixel Value

Integration Time	Wait Time	XDirection	YDirection	Readout Pixels	Voltage Range	Gain	Pixels COG	Total Output	Bin	G2	G1
[Redacted]											

Peak Height Test	Peak Band Test	Peak Shape Test	Standard Error	Slope	Intercept	Min Distance
Pass	Pass	Disabled	[Redacted]	[Redacted]	[Redacted]	[Redacted]

Calibration Data

Verification Data

The screenshot shows the 'Failed' section of the SPARX interface. It lists a large number of failed calibration entries, each with a timestamp and file name. Some entries are highlighted in blue, such as '25051243936', '25051243944', '25051243950', and '25051243956'. The list includes entries for stages 1 through 20, with some stages having multiple failed entries.

Pixel Sensor Location vs Pixel Value

Failed Calibrations

File Name	Error Flag(s)
25051243936	Standard Error, Min Distance Between Points
25051243944	Min Distance Between Points
25051243950	Standard Error
25051243956	Min Distance Between Points

Report

Total calibrations analyzed
Total calibrations failed
Failed: Zaber Stage breakdown
Failed: Type breakdown