

Nexus JobManager

The screenshot displays the Nexus JobManager interface with the following components:

- Job Queue Table:**

ID	Original data	Location	Progress	Priority	Submit time	Start tm
5671	44245AMM-QBR.zip	QED Check Todo's	Review	3	2024-11-19 19:45:49.0	2024
5667	od60917120.tgz	Edit in CAM	UnexpectedFailure	3	2024-11-19 18:08:18.0	2024
5666	XS_V02_Z.zip	QED With Image Data	Finished	3	2024-11-19 09:34:15.0	2024
5665	BRD-10030-00.xml	QED Check Todo's	Review	3	2024-11-19 09:34:15.0	2024
5664	layer8.zip	QED Check Todo's	Review	3	2024-11-19 09:34:15.0	2024
5663	360-208112-000-3..._CHEST_TRI...	QED Check Todo's	Review	3	2024-11-19 09:34:15.0	2024
5662	layer8.zip	QED Check Todo's	Review	3	2024-11-18 21:25:48.0	2024
5661	BRD-10030-00.xml	QED With Image Data	Finished	3	2024-11-18 21:18:28.0	2024
5660	XS_V02_Z.zip	QED With Image Data	Finished	3	2024-11-18 18:04:46.0	2024
- Layer Stack Table:**

Renamed	Function	Initial	Format	Position	Polarity	Size	Full path	
Top_Silk	legend	01B-SILK.T.pho	ger274x	top		389980	C:\User\lucam\data\@_out\	
Top_Mask	soldermask	01C-SOLDER_MASK.T.pho	ger274x	top	positive	266958	C:\User\lucam\data\@_out\	
Lay4-1	1	outer	01A-ART01.pho	ger274x	1	positive	347083	C:\User\lucam\data\@_out\
Lay4-2	2	plane	02-ART02.pho	ger274x	2	positive	324411	C:\User\lucam\data\@_out\
Lay4-3	3	inner	03-ART03.pho	ger274x	3	positive	354542	C:\User\lucam\data\@_out\
Lay4-4	4	outer	04A-ART04.pho	ger274x	4	positive	351920	C:\User\lucam\data\@_out\
Bot_Mask	soldermask	04B-SOLDER_MASK.B.pho	ger274x	bottom	positive	285319	C:\User\lucam\data\@_out\	
Bot_Silk	legend	04C-SILK.B.pho	ger274x	bottom		323711	C:\User\lucam\data\@_out\	
drl	mixed	24-NC_DRILL.drl	excelon2	1-4		6182	C:\User\lucam\data\@_out\	
	document	01A-ART01.rep	text			1188	C:\User\lucam\data\@_out\	
	document	01B-SILK.T.rep	text			559	C:\User\lucam\data\@_out\	
	document	01C-SOLDER_MASK.T.rep	text			1068	C:\User\lucam\data\@_out\	
	document	02-ART02.rep	text			514	C:\User\lucam\data\@_out\	
	document	03-ART03.rep	text			514	C:\User\lucam\data\@_out\	
	document	04A-ART04.rep	text			830	C:\User\lucam\data\@_out\	
- PCB Layout View:** Shows a top-down view of a PCB with a green solder mask and white silk. The board is labeled "WE SWITCH Ver1.0 Date : 2024.04.24". A detailed component list is visible at the bottom right of the layout view.

Nexus JobManager is a client application designed for online, browser-based viewing of all job data generated during an Integr8tor Nexus run. This extensive information encompasses everything from the contents of the incoming archive to stackup and individual layer details, as well as fully detailed analysis results, including their locations on the board and automatically generated assembly or fabrication panel suggestions. Nexus JobManager presents this wealth of information through user-friendly and highly intuitive review tools.

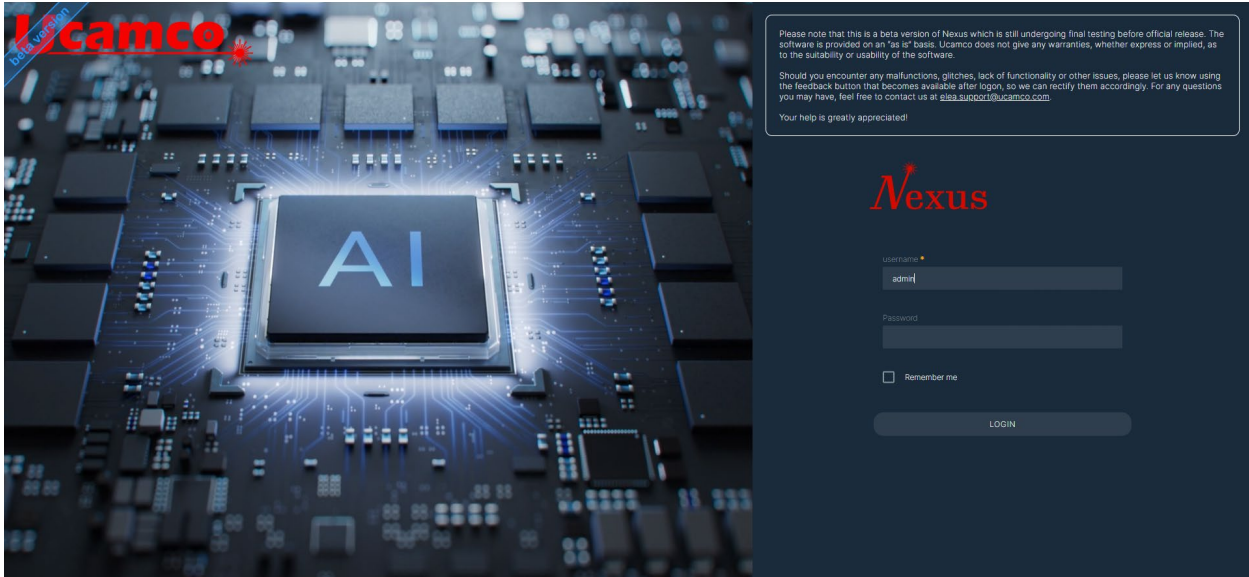
Standard functionalities include a range of job queue actions, such as submitting a job to the server, modifying or restarting a job, relocating a job, and aborting, unlocking, or removing a job from the queue when it is no longer relevant.

The reviewing capabilities of Nexus JobManager are not limited by client-oriented licenses; once a job has been successfully processed, the full job data can be accessed without restrictions. The software license configuration for the Integr8tor Nexus server determines the analysis results produced, and once generated, Nexus JobManager allows you to review this comprehensive data on its homepage or through dedicated Nexus JobManager viewers with just a click.

Nexus JobManager is a non-floatable license tied to a specific user, and system administrators control which user accounts have access to this app.

Nexus JobManager's full features and capabilities include:

- User authentication
 - Logging into the Nexus JobManager application and validating user credentials with the Integr8tor Nexus server

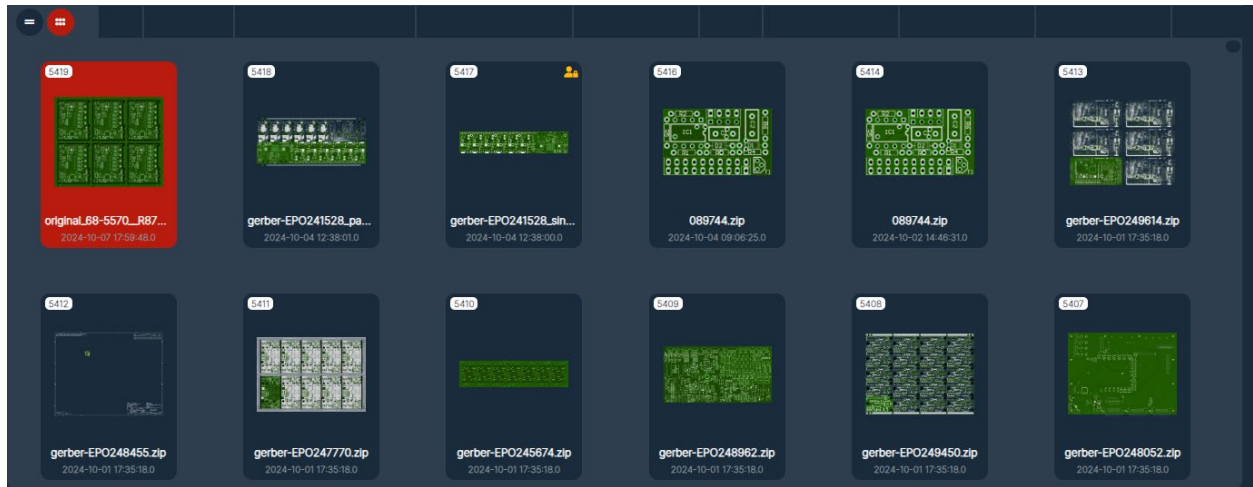


- Job Queue Viewing
 - Seeing the list of jobs currently available on the Integr8tor Nexus server, either in table or in tile view
 - Discovering which of these jobs are in progress, queuing up to be processed, require attention, have completed,...
 - Applying filters to reduce the full job queue to a subset of entries for easy retrieval of customer-specific archives, references, processing times, duplicate archives,...

Table view

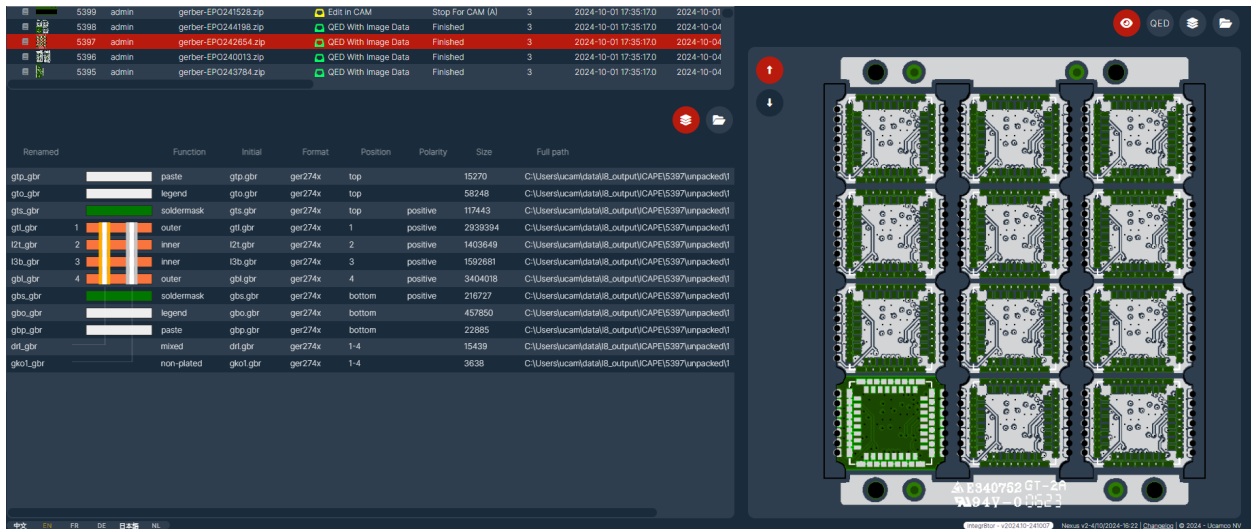
	id	Owner	Original data	Location	Progress	Priority	Submit time	Start time	Finish time	Last duration
🔒	5419	admin	original_L68-5570_R87227.elea.zip	QED With Image Data	Finished	3	2024-10-07 17:59:48.0	2024-10-08 11:45:46.0	2024-10-08 11:59:49.0	14:03
🔒	5418	admin	gerber-EPO241528_panel.zip	QED With Image Data	Output Generated	3	2024-10-04 12:38:01.0	2024-10-07 14:47:16.0	2024-10-07 14:47:31.0	00:15
🔒	5417	dirk	gerber-EPO241528_single.zip	QED With Image Data	Synced	3	2024-10-04 12:38:00.0	2024-10-10 17:39:47.0	2024-10-10 17:40:02.0	00:15
🔒	5416	admin	089744.zip	QED With Image Data	Finished	3	2024-10-04 09:06:25.0	2024-10-04 09:06:30.0	2024-10-04 09:07:30.0	01:00
🔒	5414	admin	089744.zip	QED With Image Data	Output Generated	3	2024-10-02 14:46:31.0	2024-10-04 09:01:35.0	2024-10-04 09:01:36.0	00:01
🔒	5413	admin	gerber-EPO249614.zip	QED With Image Data	Output Generated	3	2024-10-01 17:35:18.0	2024-10-04 08:58:23.0	2024-10-04 08:58:28.0	00:05
🔒	5412	admin	gerber-EPO248455.zip	QED With Image Data	Finished	3	2024-10-01 17:35:18.0	2024-10-03 12:10:06.0	2024-10-03 12:11:20.0	01:14
🔒	5411	admin	gerber-EPO247770.zip	QED With Image Data	Finished	3	2024-10-01 17:35:18.0	2024-10-03 15:31:43.0	2024-10-03 15:33:56.0	02:13
🔒	5410	admin	gerber-EPO245674.zip	QED With Image Data	Finished	3	2024-10-01 17:35:18.0	2024-10-07 14:03:34.0	2024-10-07 14:11:38.0	08:04
🔒	5409	dirk	gerber-EPO248962.zip	QED Check Todo's	Review	3	2024-10-01 17:35:18.0	2024-10-07 16:45:01.0	2024-10-07 16:47:58.0	02:57
🔒	5408	admin	gerber-EPO249450.zip	QED Check Todo's	Review	3	2024-10-01 17:35:18.0	2024-10-04 11:52:07.0	2024-10-04 11:54:26.0	02:19
🔒	5407	admin	gerber-EPO248052.zip	QED With Image Data	Finished	3	2024-10-01 17:35:18.0	2024-10-01 17:57:03.0	2024-10-01 18:03:15.0	06:12
🔒	5406	admin	gerber-EPO248312.zip	QED Check Todo's	Review	3	2024-10-01 17:35:18.0	2024-10-01 17:35:27.0	2024-10-01 17:39:34.0	04:07
🔒	5405	admin	gerber-EPO247919.zip	QED With Image Data	Finished	3	2024-10-01 17:35:18.0	2024-10-01 18:16:22.0	2024-10-01 18:18:31.0	02:09
🔒	5404	admin	gerber-EPO244517.zip	QED With Image Data	Finished	3	2024-10-01 17:35:18.0	2024-10-04 11:32:04.0	2024-10-04 11:36:15.0	04:11
🔒	5403	admin	gerber-EPO243845.zip	QED With Image Data	Finished	3	2024-10-01 17:35:18.0	2024-10-04 11:50:16.0	2024-10-04 11:53:27.0	03:11
🔒	5402	admin	gerber-EPO244530.zip	QED With Image Data	Finished	3	2024-10-01 17:35:18.0	2024-10-04 11:51:27.0	2024-10-04 11:54:20.0	02:53
🔒	5401	admin	gerber-EPO246659.zip	QED With Image Data	Finished	3	2024-10-01 17:35:18.0	2024-10-04 12:17:05.0	2024-10-04 12:19:48.0	02:43
🔒	5400	admin	gerber-EPO240768.zip	QED With Image Data	Finished	3	2024-10-01 17:35:18.0	2024-10-04 12:13:53.0	2024-10-04 12:17:13.0	03:20

Tile view



- Job Querying

- Clicking a single queue entry to gain access to the product's top-level details:
 - Full contents of the incoming archive
 - Layer stackup image and functions, referenced to original and renamed PCB layer names
 - PCB top/bottom view, based on settings for solder mask, legend, and surface finish
 - Per-layer view of all PCB layers
 - Contents viewing of any text/PDF/Word/Excel/... document in the incoming archive
 - Info/warning/error messages encountered while processing
 - Access to the Quotation and Engineering Data (QED) PDF report

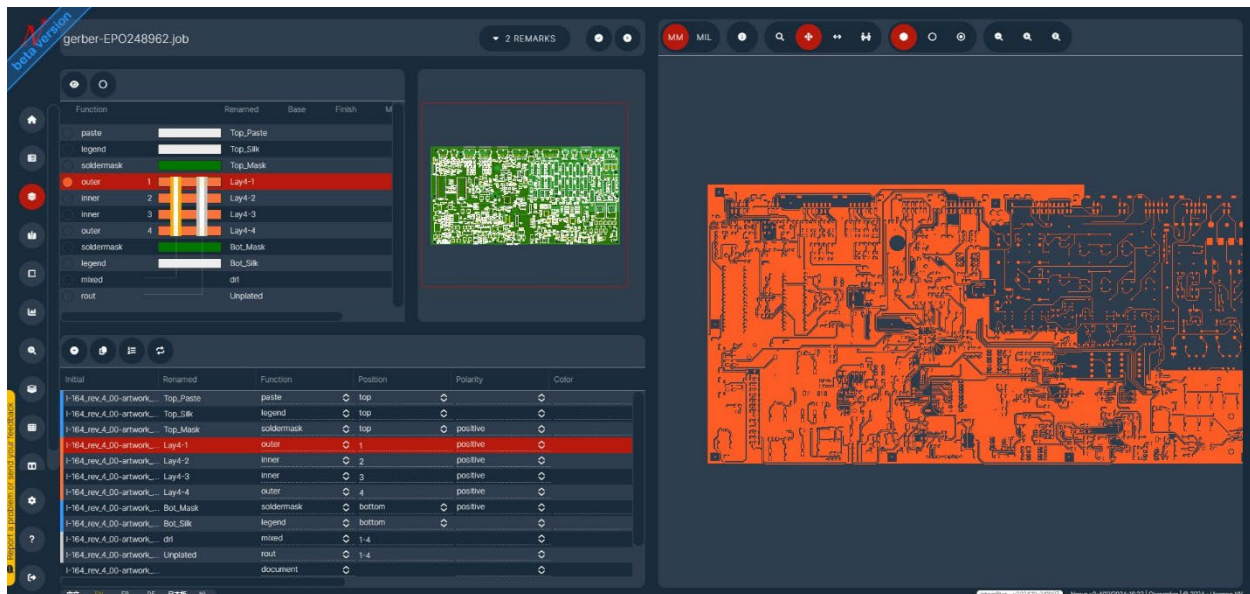


- Add Job
 - Creating a new entry in the job queue by submitting an archive to the Integr8tor Nexus server, automatically triggering a data input and analysis
 - Entering any of the product's technical specifications already known at the time of submit
- Modify Job
 - Completing or changing the product's technical specifications from the Modify Job dialogue
 - Automated partial job reprocessing to bring images and QED PDF in line with updated info
- Restart Job
 - Restarting data input and analysis of a previously processed job, while keeping or changing technical specifications as needed
- Move Job
 - Making a job reprocess only a selected part of the entire data input and analysis process
- Continue Job
 - Allowing a job that was stopped along the way to continue its route

- Abort Job
 - Interrupting a running job
- Remove Job
 - Deleting an entry and its associated data from the job queue



- Layer Stackup Review
 - Checking for full and correct layer stackup in a dedicated app
 - Extended layer attributes table with original layer names, renamed layer names, layer functions, layer positions, polarity, colors, base and finished copper thickness and etch compensation values
 - Fully dynamic, high resolution, multiple-layer PCB graphics with built-in zooming and measuring capabilities



- Tec-spec Review
 - Dedicated application for checking correctness and completeness of technical specifications

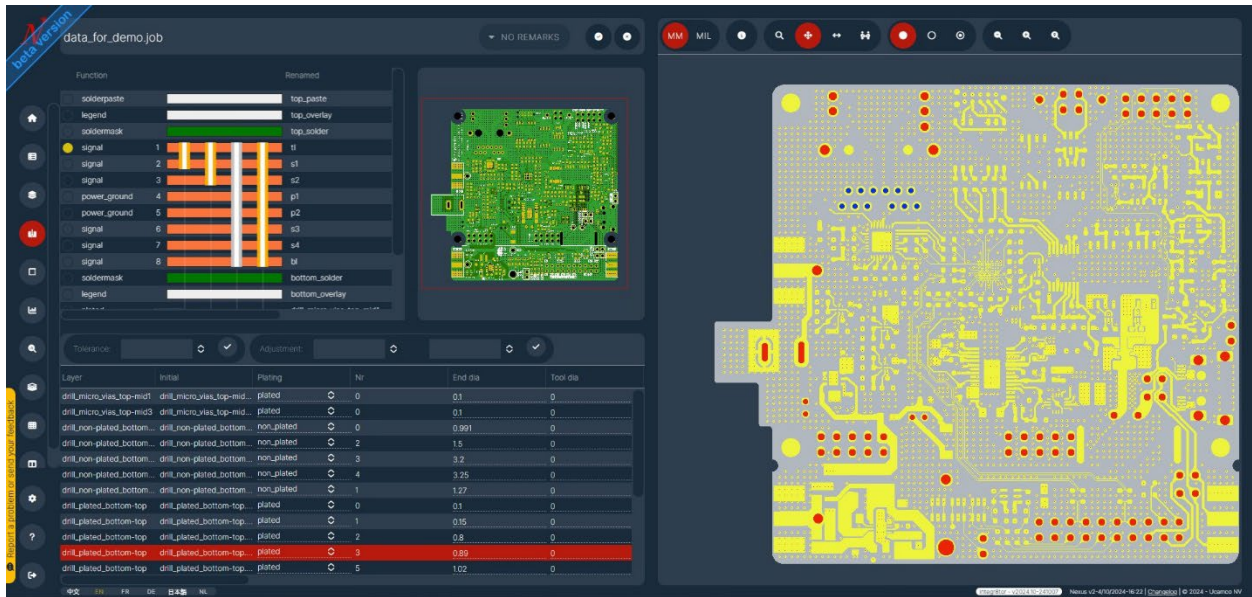
- Side-by-side display of tec-spec input form and archive documentation files contents
- Tracing AI-recognized technical specifications to their origin (under development)

The screenshot displays a software interface for managing technical specifications. On the left, a file list shows various documents related to a PCB job, with 'A0080C9643rev4_TTM.pdf' highlighted. Below the list are sections for 'Technology' (PCB Finish, CU Base Thickness Outer, Edge Plating, Logo, Impedance) and 'Customer and Job Identification' (Material Type, Bergalud TCP 1000 (aluminum)). On the right, a table titled 'Technical Requirements' lists 26 items with columns for Item No., Applicability, Requirement, and Special Characteristic. The table includes references to IPC and ZFN standards and specific material and process requirements.

Item No.	Applicability	Requirement	Special Characteristic
1	Applicable	PCB application: Automotive Steering	
2	Applicable	General PCB requirements shall be according to ZFN 1127	
3	Applicable	PCB shall be fabricated according to IPC 6013 Class 2	
4	Applicable	Characteristics shall be according to ZFN 1127 sections 6.1.1, 6.2.2, 7.1, 7.2, 7.3	
5	Applicable	Electrical testing shall be according to ZFN 1127 section 6.2	
6	Applicable	PCBs or panel shall be marked with a clearly visible electrical test pass mark	
7	Applicable	All materials shall be U.S. qualified according to ZFN 1127 section 4.14	
8	Applicable	Prohibited substances shall be controlled according to ZFN 9003	
9	Applicable	Laminate material shall be according to IPC-4101/99 1p.150 Dwg. MIN.	
10	Applicable	Laminate material shall be through: Anisotropic	
11	Applicable	Surface finish shall be Immersion Tin according to ZFN 1127 section 6.5	S 1
12	Applicable	Solder mask shall be according to ZFN 1127 section 6.11	
13	Applicable	Solder mask qualification and performance shall be according to ZFN 1127 section 6.11	
14	Applicable	Solder mask material shall be Type P08-400A/M0715	
15	Applicable	Solder mask thickness shall be according to ZFN 1127 section 6.11	
16	Applicable	All visible solder mask nonconformities shall be according to ZFN 1127 Section 6.9	
17	Not Applicable	Silk screen (legend ink) material shall be - State Silk Screen Material?	
18	Applicable	Allowable hole position variation shall be according to ZFN 1127 sections 6.9	P 2
19	Applicable	Copper plating thickness of conductive pin holes identified as the drill sink of the PCB drawing shall be according to ZFN 1127 section 6.11	S 2
20	Applicable	Minimum copper plating thickness on all mechanically drilled plated through and buried plated holes shall be according to ZFN 1127 section 6.13	
21	Not Applicable	Minimum copper plating thickness on all mechanically drilled plated holes shall be 20 µm	
22	Not Applicable	Minimum copper plating thickness on all laser drilled plated holes shall be according to ZFN 1127 section 6.13	
23	Not Applicable	- State all applicable layers - Micro micro-vias shall be filled with copper	
24	Applicable	Panel outline, corner radius and several shapes shall be rounded	

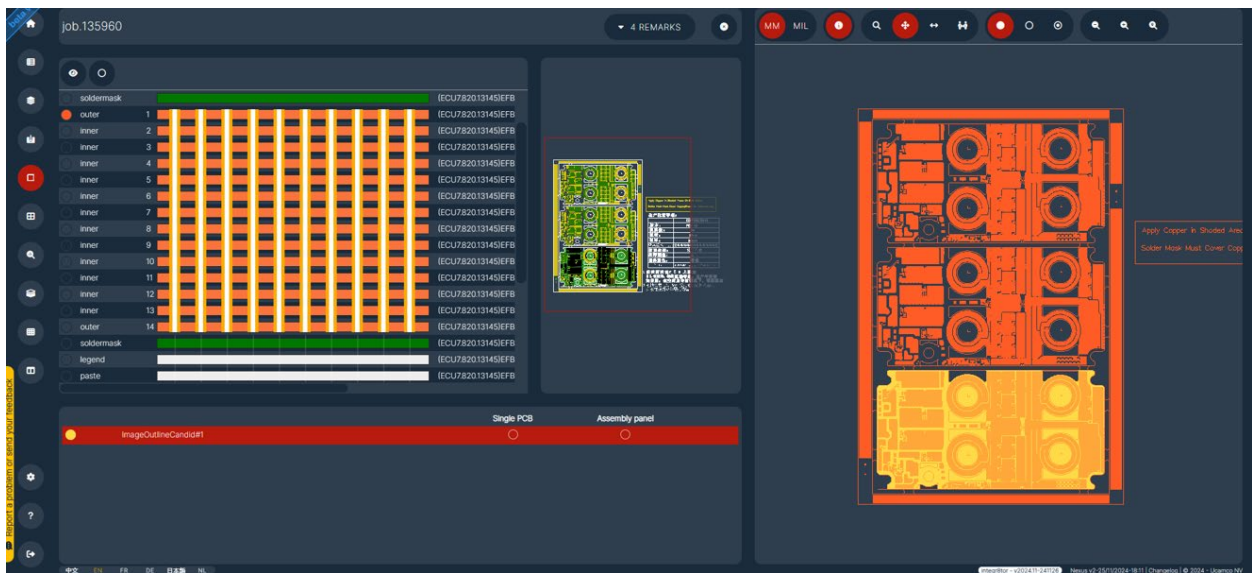
- Drill Data Review

- Reviewing correct drill tool attribute assignments:
 - End diameter and tool diameter
 - Plated/non-plated recognition
 - Laser drilling recognition
 - Tool function (via, component,...)
 - Hole and slot counts



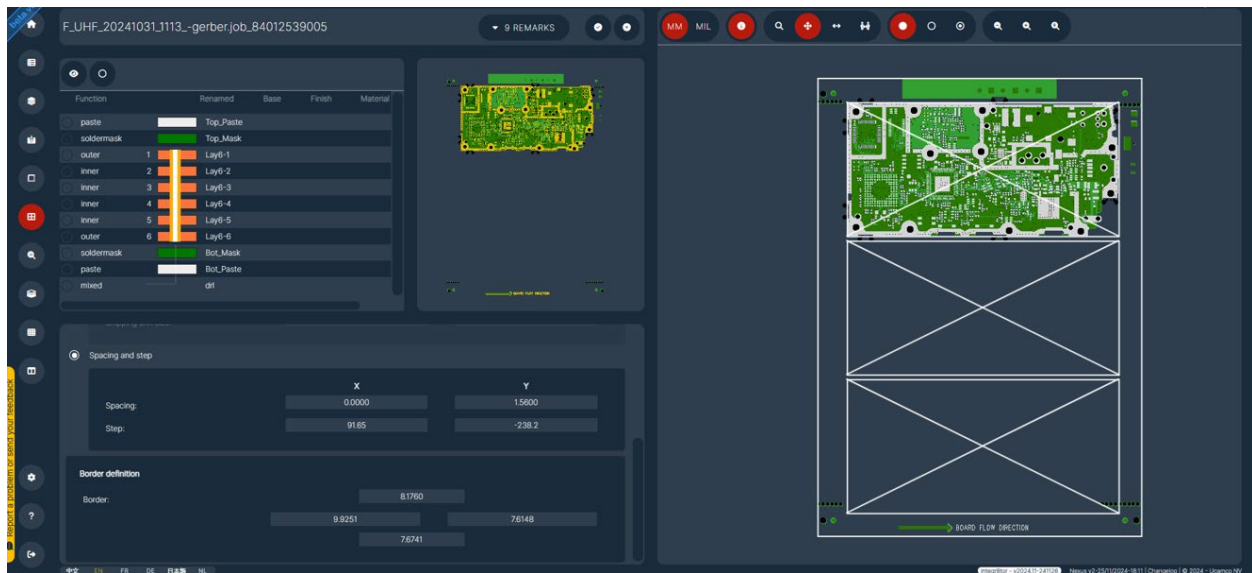
- Outline Review

- Reviewing one or several potential outline candidates the system has discovered while searching for the best possible PCB or assembly panel outline



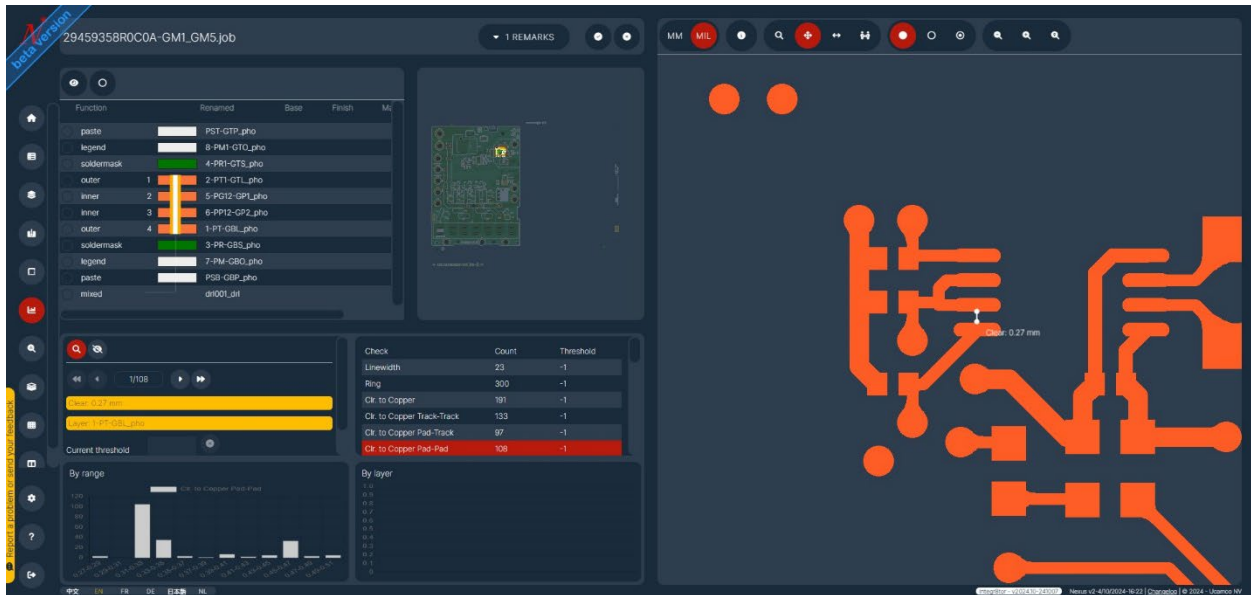
- Sizes Review

- Reviewing an assembly panel layout, either manually defined or resulting from the assembly panel auto-recognition server module (licensed – under development)
- Checking the correctness of the number of repeats in X and Y, the step/clearance values, and the size and location of the rail areas
- Acknowledging the correct single image definition in case of incoming flat panel data

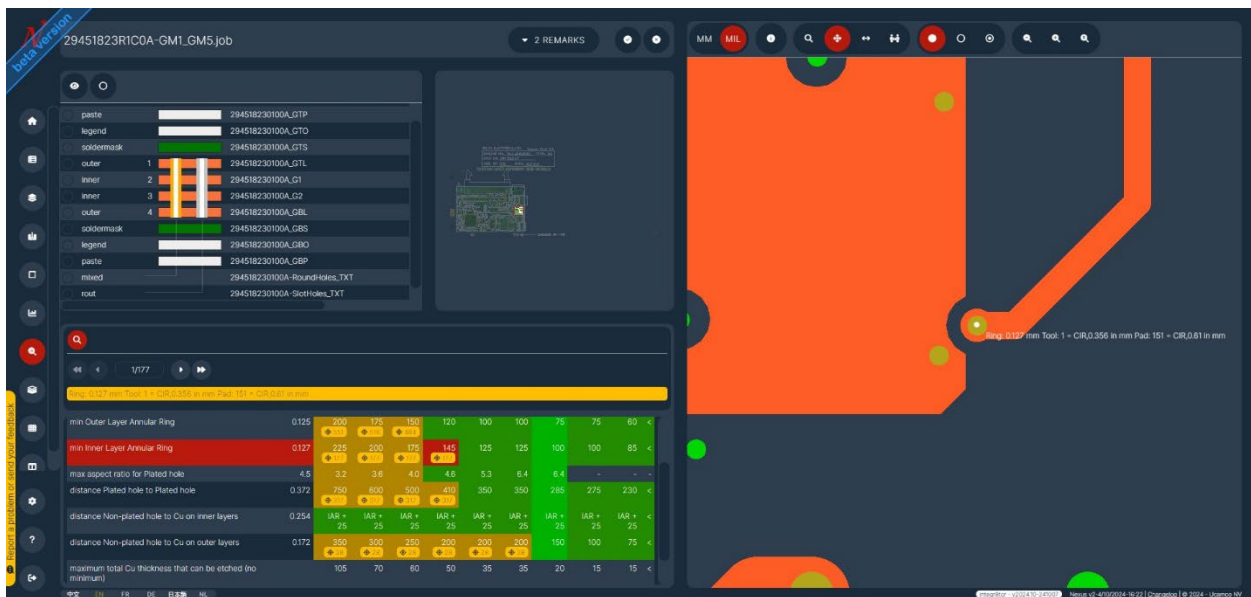


- Hotspot Review (Integr8tor Nexus Hotspot server license required for generating analysis data)

- Reviewing smallest values from the analysis results and locating them on the board
- Supporting fully dynamic, high-resolution PCB graphics with on-screen feedback
- Including feature measurements and query functionality to validate analysis results
- Filtering on hotspot type, PCB layer or value range



- Capabilities Review (Integr8tor Nexus DFM Classes server license required for generating analysis data)
 - Consulting the results of a board's manufacturability analysis
 - Locating the features on the board responsible for pushing it into a higher manufacturability class
 - Supporting fully dynamic high-resolution PCB graphics with on-screen manufacturing class violation feedback
 - Including feature measurement and query capabilities



- Stackup library consultation (Integr8tor Nexus Stackup Template Library server license required)
 - Checking existing stackups in the library on the server to match customer requirements in terms of
 - Finished stackup thickness
 - Layer count
 - Base material requirements
 - PCB type
 - Copper weights
 - Tg value
 - Identifying “closest fit” if no 100% match turns out available

The screenshot displays the Integr8tor Nexus software interface for job 2195. The main window is divided into several sections:

- Stackup Table:** A table listing 15 layers with columns for Name, Layer count, Stackup type, Copper thickness, Copper weight outer, Copper weight inner, Overall thickness, Finished thickness, Base material, and Tg. Row 9 is highlighted in red.
- Cross-section Diagram:** A vertical bar chart showing the thickness of each layer in the stackup, with labels for materials like Liquid Photoimageable Mask, Copper Foil 18um, PrePreg 2125 TG150, FR4 Core TG150 250/35/35, and PrePreg 2125 TG150.
- 3D Model:** A green 3D model of a PCB panel with a grid pattern and several circular holes.
- Code View:** A panel on the right showing XML data for the stackup, including version information and material properties.

- Panel Setup and Layouts Review (Integr8tor Nexus Dynamic Panel Optimizer server license required for generating analysis data)
 - Reviewing different assembly and fabrication panel layout solutions, optionally with the corresponding material sheet cutting proposals
 - Identifying the solutions that provide best yield or material utilization
 - Dimensioned drawings and real product PDF panel images with textual feedback

gerber-EPO241528_single.job 1 REMARKS

Single PCB (SP)

Single PCB size: 254.000 x 50.800

Rectangular mode: Allow L-shape nesting

Free shaping mode: PCB clearance: 2.0, PCB rotation: 0

Shipping unit (SU)

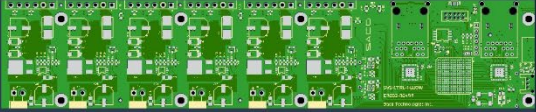
Single PCB: Shipping unit (SU):

Minimum size: x=277, y=190; Maximum size: x=317, y=230; Clearance: 2

Border ranges: Predefined borders:

	top	bot	Left	Right
0.0	0.0	10.0	10.0	-
10.0	10.0	0.0	0.0	-
10.0	10.0	10.0	10.0	-

Fabrication panel (FP)



JDP7588_0.job 21 REMARKS

Accepted	Optimized	Width	Height	Plated holes	Plated holes	Plated holes
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	610	500	28476	252	93363
<input type="checkbox"/>	<input type="checkbox"/>	610	500	28476	252	93363
<input type="checkbox"/>	<input type="checkbox"/>	610	500	25312	224	82990
<input type="checkbox"/>	<input type="checkbox"/>	610	500	25312	224	82990
<input type="checkbox"/>	<input type="checkbox"/>	305	500	12656	112	82990
<input type="checkbox"/>	<input type="checkbox"/>	610	500	25312	224	82990
<input type="checkbox"/>	<input type="checkbox"/>	500	500	19656	112	82990

Shipping unit (SU)

Size: 199.25 x 232.25; Usage PCB/SU: 199.25%; PCB count: 6; Clearance: 2 x 2; Rotation: true; Border: top=0, Left=10, Right=10, bot=0

Fabrication panel (FP)

Size: 610 x 500; Usage SU/FP: 86.47%; Usage PCB/FP: 74.65%; PCB count: 36; Clearance: 5 x 5; Mixed rotation: false; Border: top=15

J0431.006 REV. C JDP7588-0-51xY1AY-1.1

