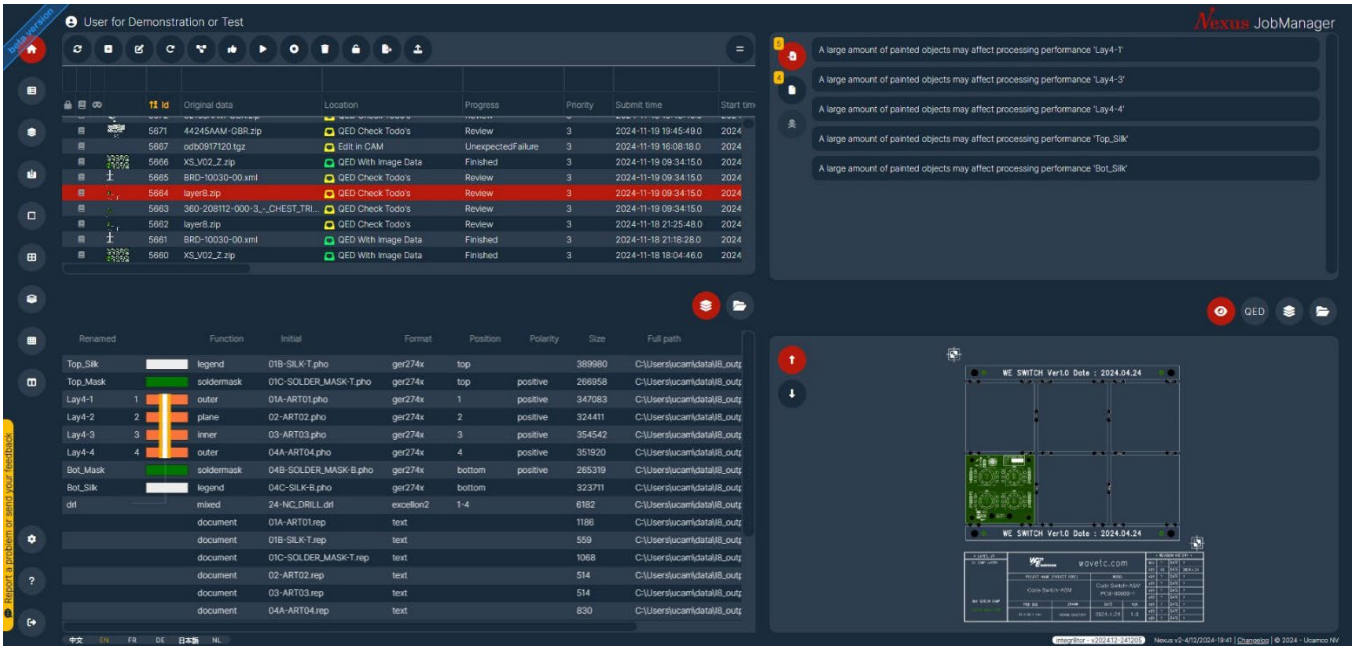
Nexus JobManager



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.

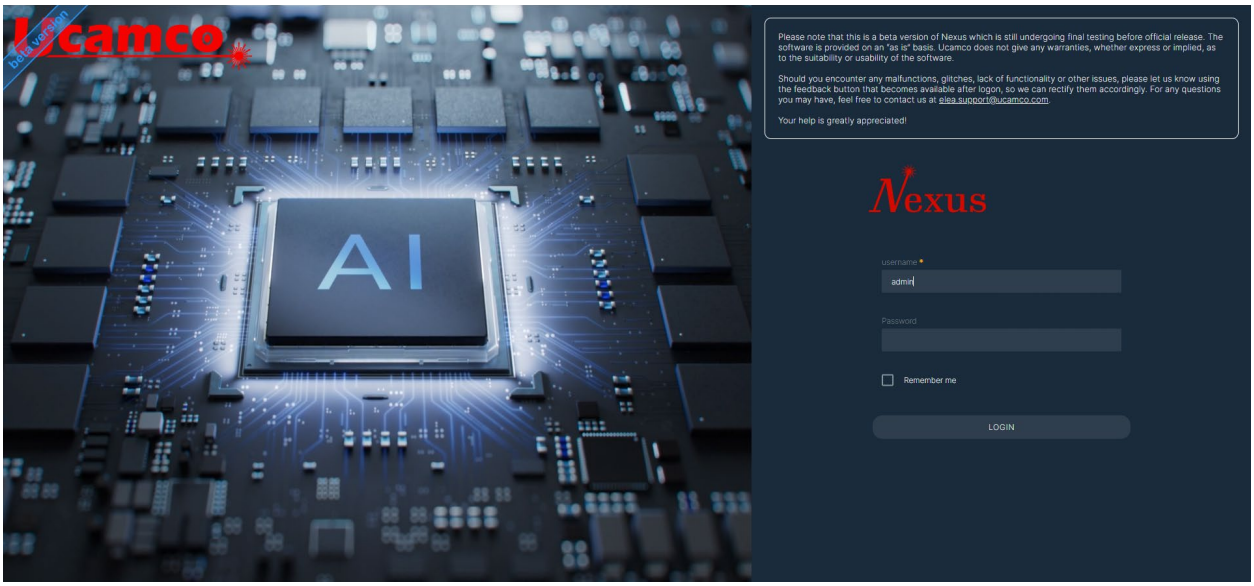
Standard functionalities include a range of job queue actions, such as submitting a job to the server, modifying or restarting a job, relocating a job, and aborting, unlocking, or removing a job from the queue when it is no longer relevant.

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.

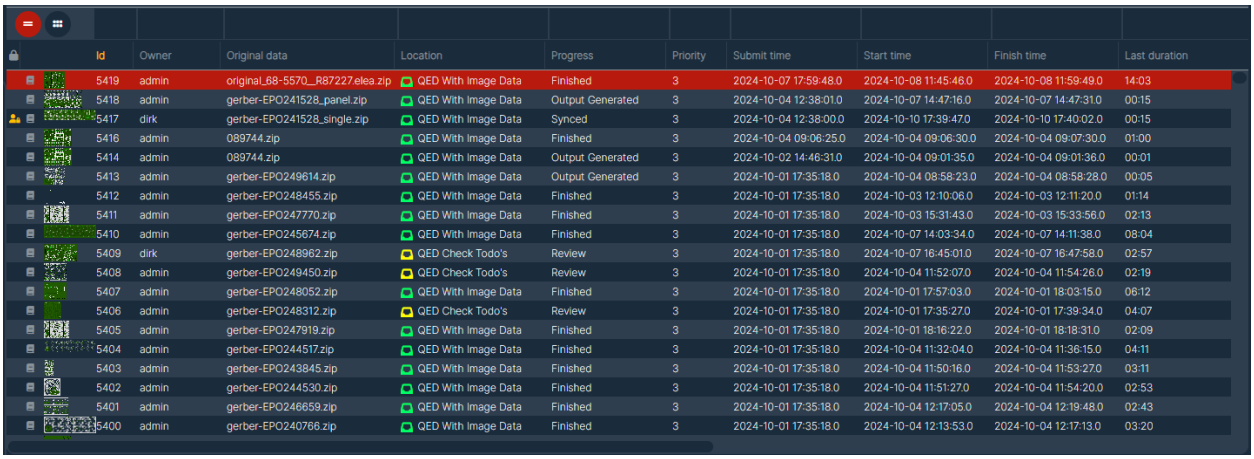
Nexus JobManager's full features and capabilities include:

- 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, queueing 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,…

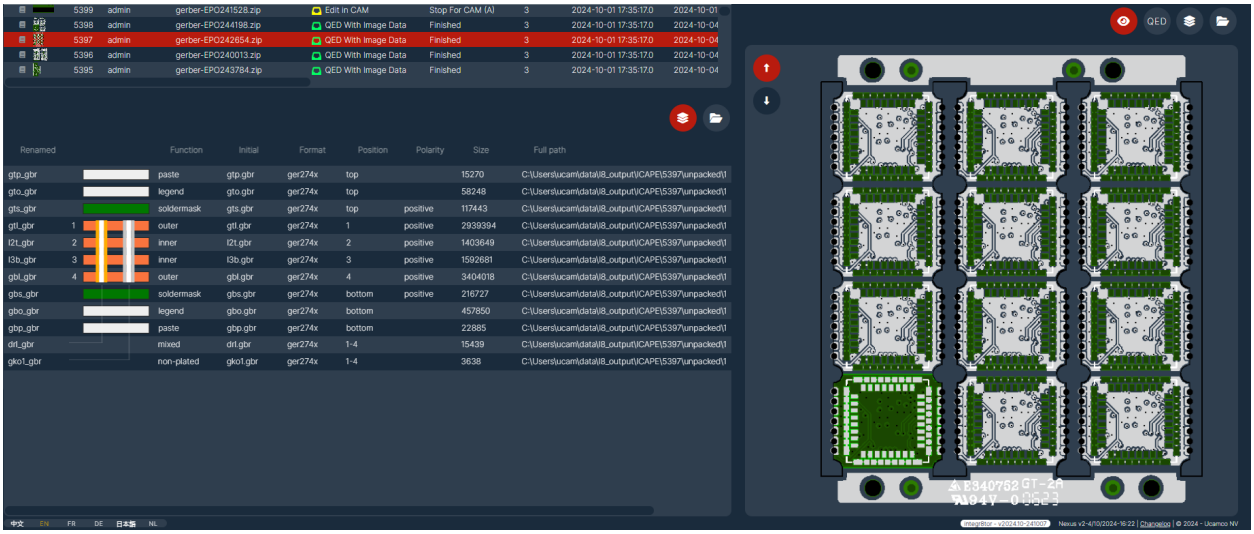
Table view



Id	Owner	Original data	Location	Progress	Priority	Submit time	Start time	Finish time	Last duration
5419	admin	original_68-5570__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-EPO240766.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

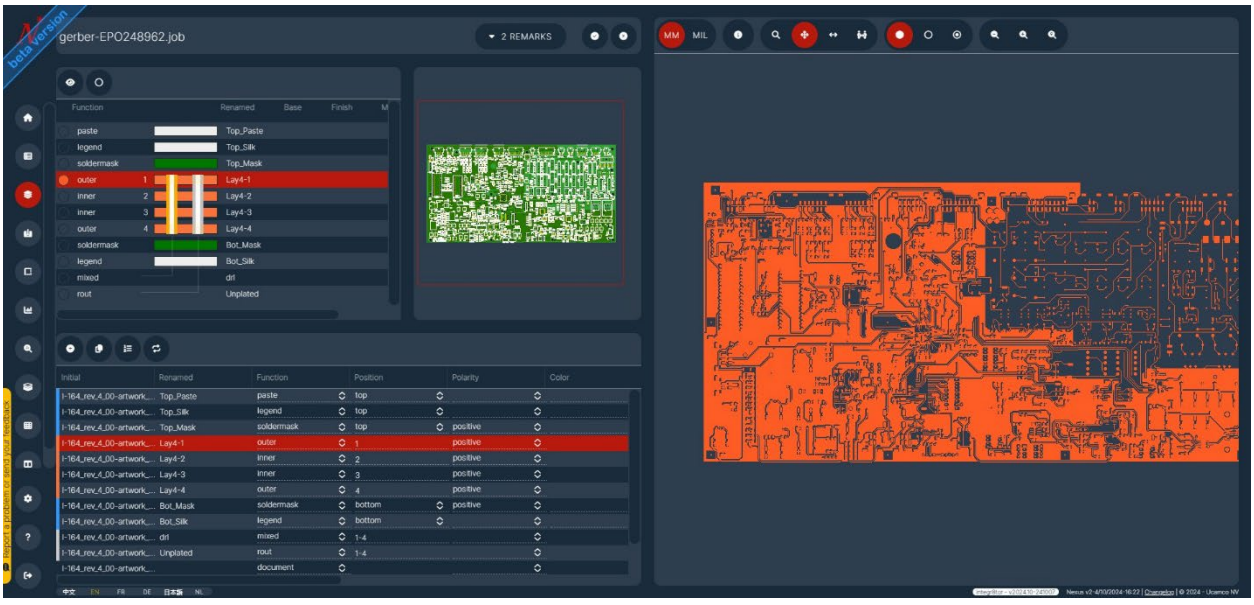
- Move Job
  - Making a job reprocess only a selected part of the entire data input and analysis process

- Continue Job
  - Allowing a job that was stopped along the way to continue its route

- Abort Job
  - Interrupting a running job

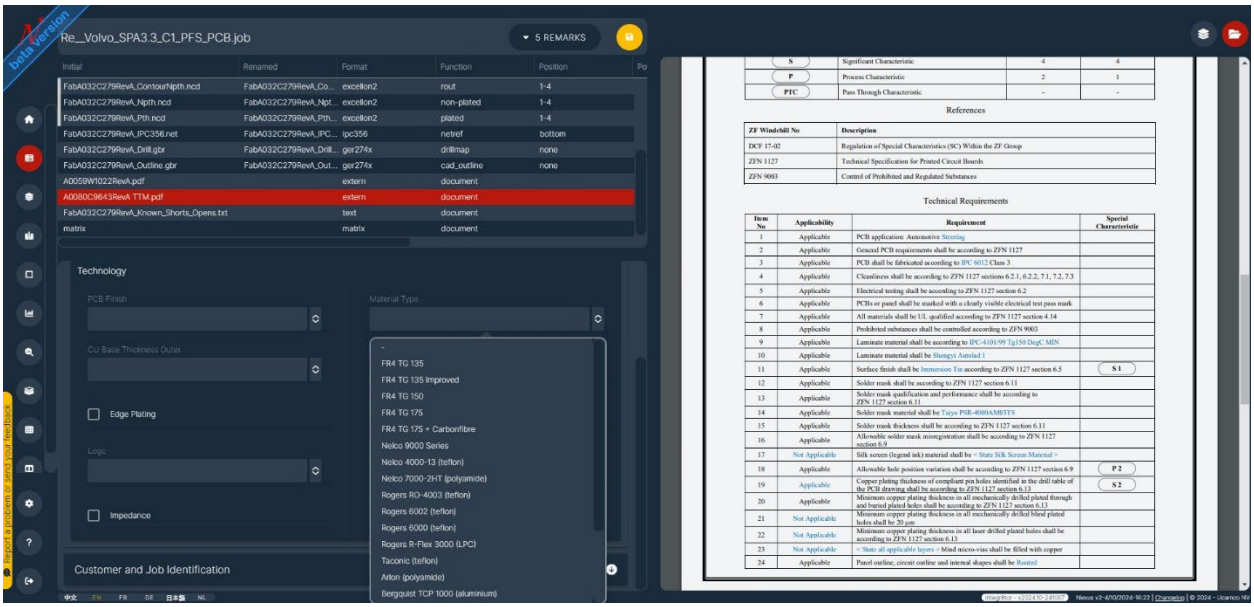
- Remove Job
  - Deleting an entry and its associated data from the job queue

- 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

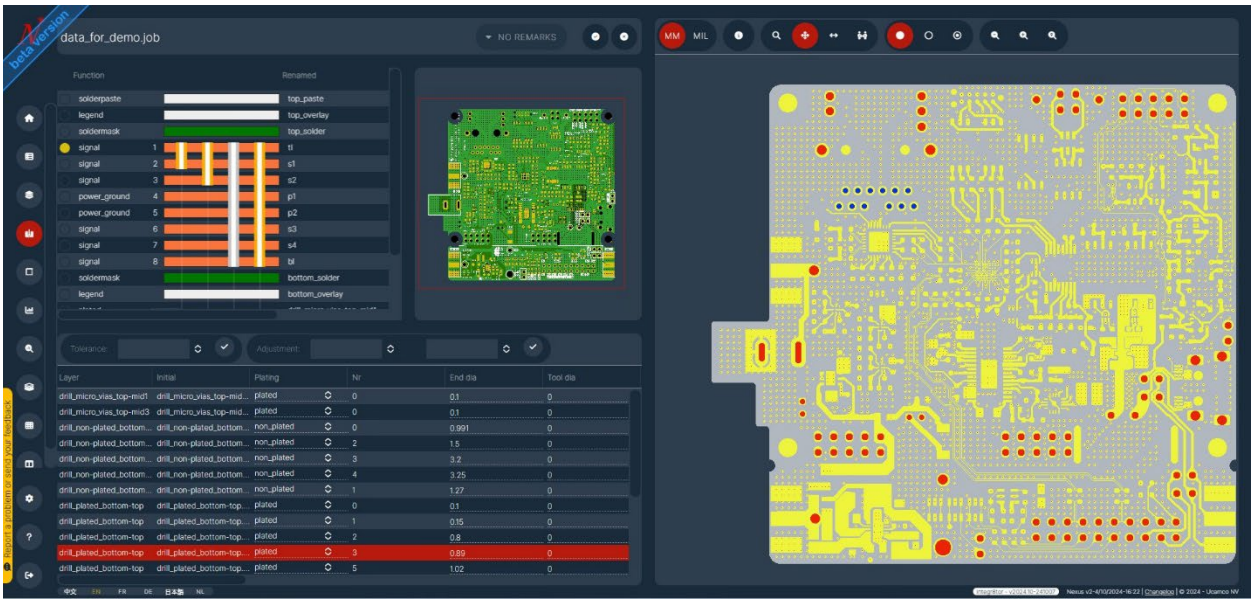


- Tec-spec Review
  - Dedicated application for checking correctness and completeness of technical specifications

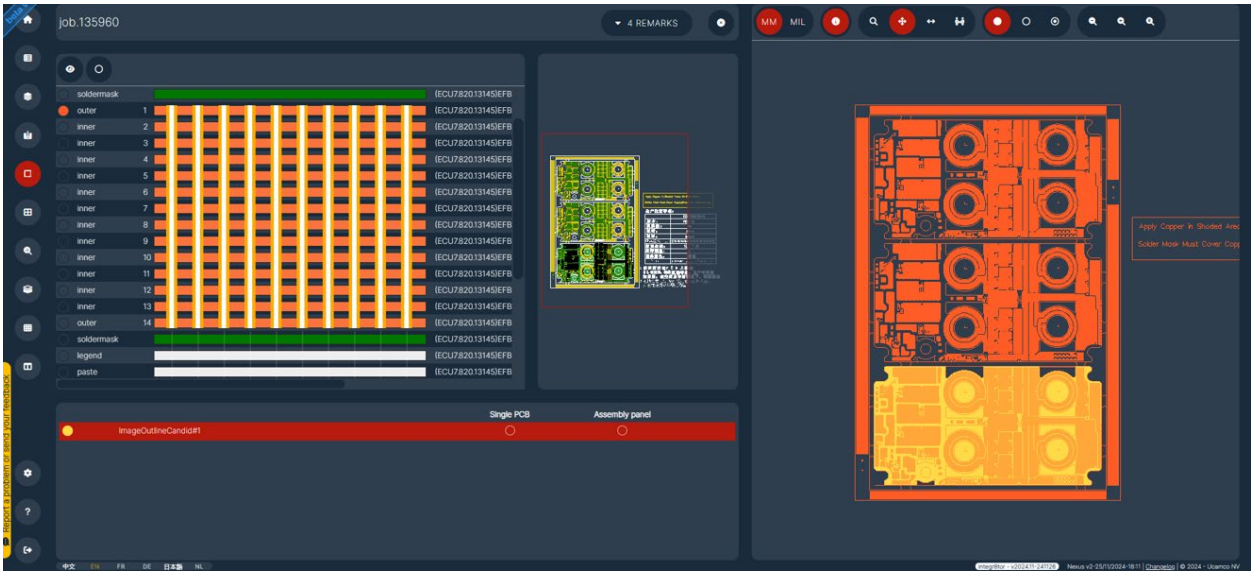
- Side-by-side display of tec-spec input form and archive documentation files contents
- Tracing AI-recognized technical specifications to their origin (under development)



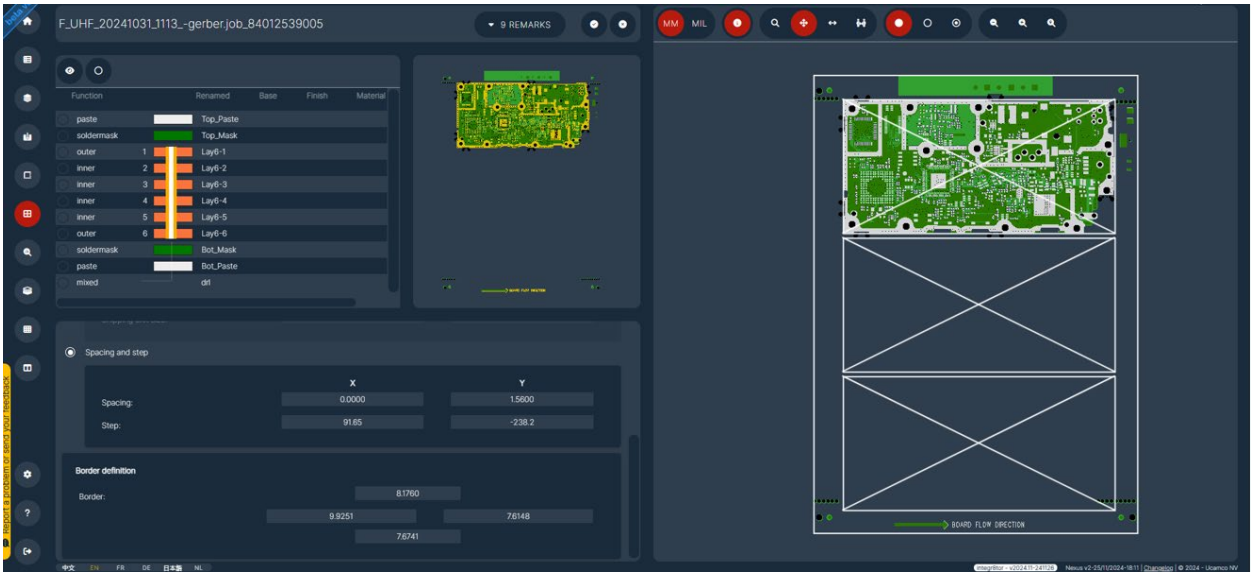
- Drill Data Review
  - Reviewing correct drill tool attribute assignments:
    - End diameter and tool diameter
    - Plated/non-plated recognition
    - Laser drilling recognition
    - Tool function (via, component,...)
    - Hole and slot counts



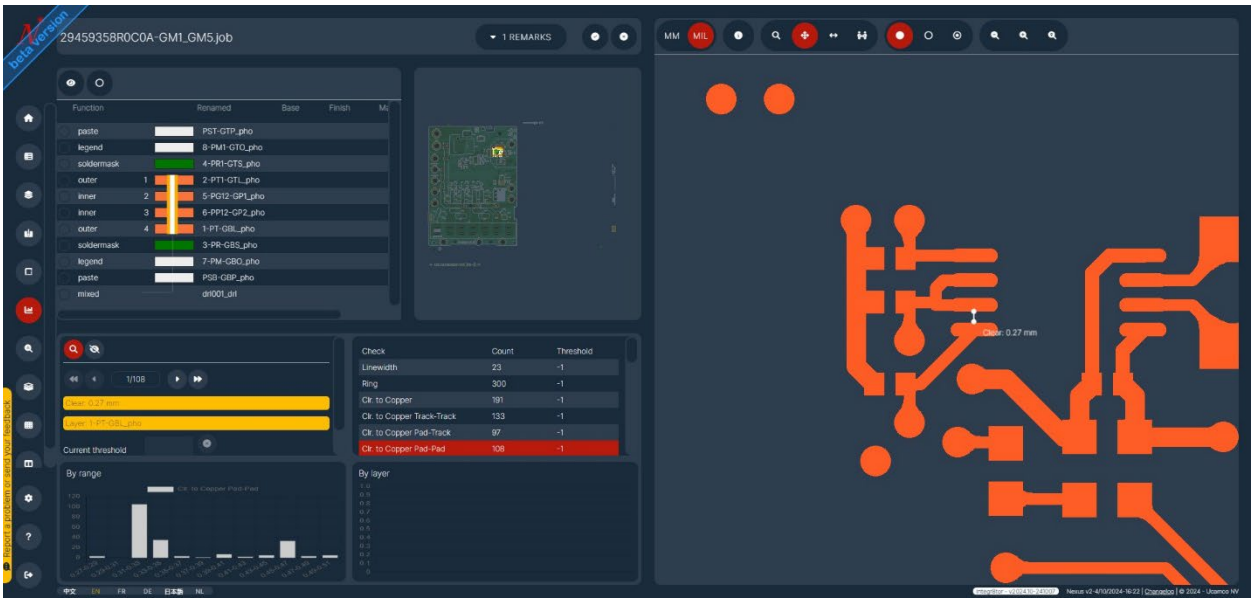
- Outline Review
  - ➢ Reviewing one or several potential outline candidates the system has discovered while searching for the best possible PCB or assembly panel outline



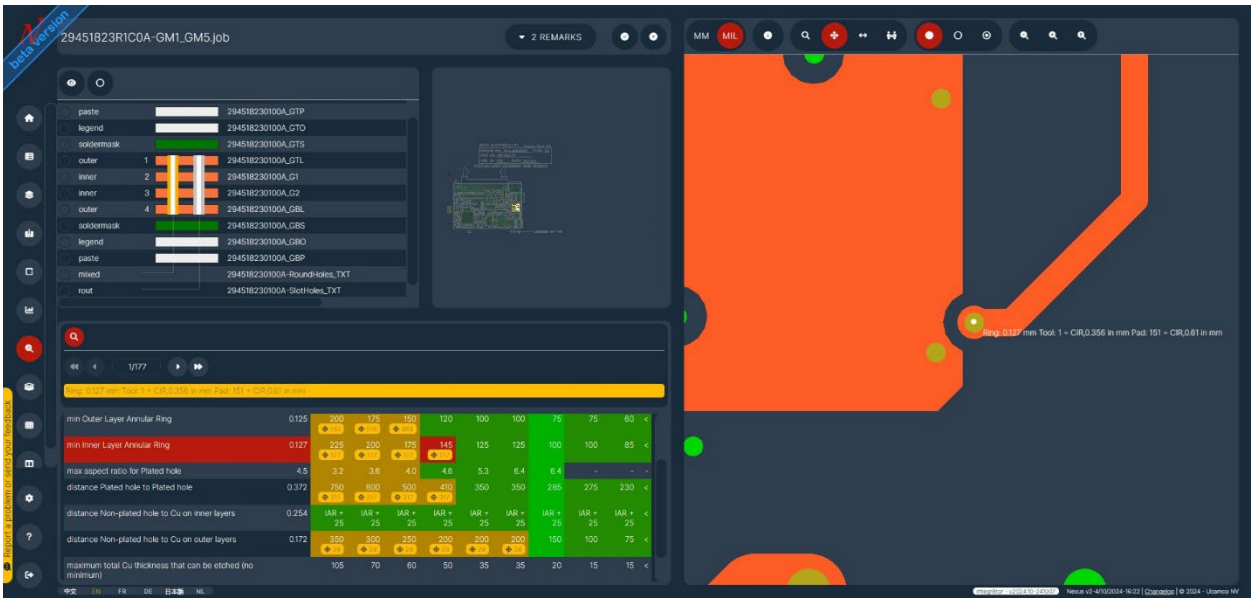
- Sizes Review
  - ➢ Reviewing an assembly panel layout, either manually defined or resulting from the assembly panel auto-recognition server module (licensed – under development)
  - ➢ Checking the correctness of the number of repeats in X and Y, the step/clearance values, and the size and location 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

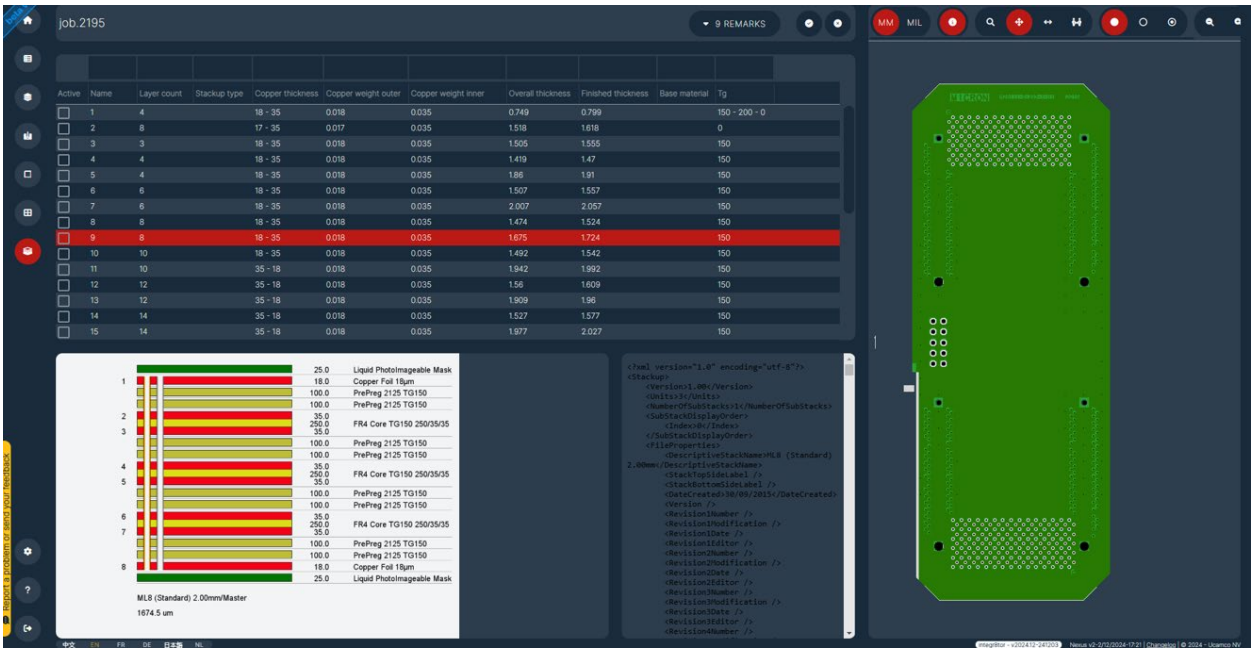


- Capabilities Review (Integr8tor Nexus DFM Classes server license required for generating analysis data)
    - ➢ Consulting the results of a board's manufacturability analysis
    - ➢ Locating the features on the board responsible for pushing it into a higher manufacturability class
    - ➢ Supporting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

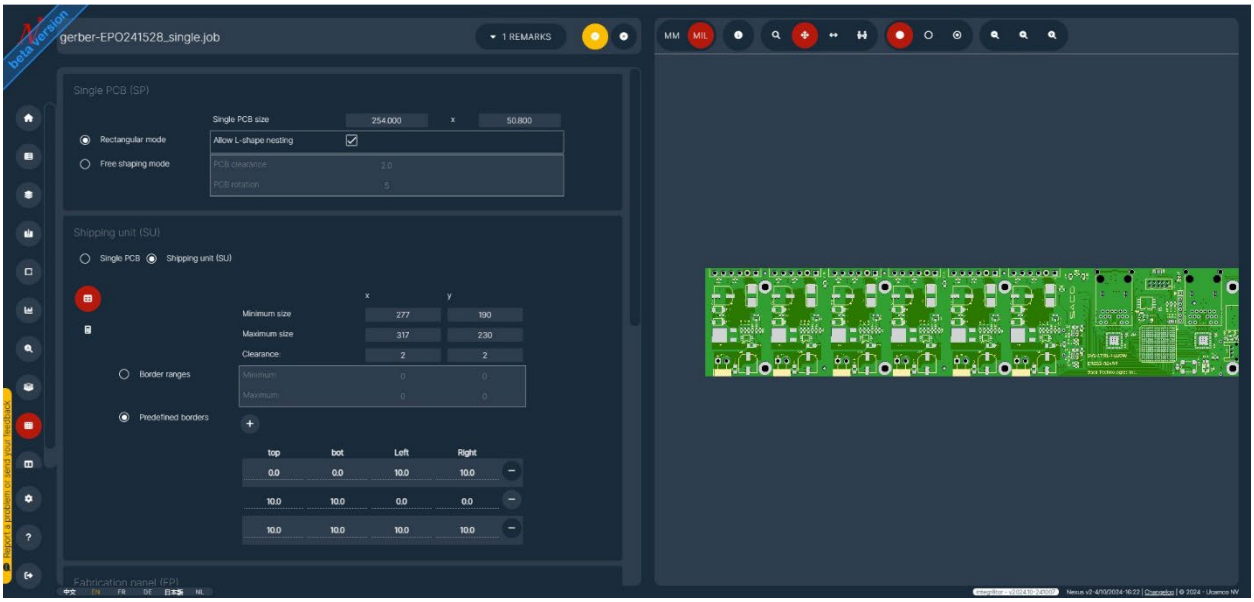


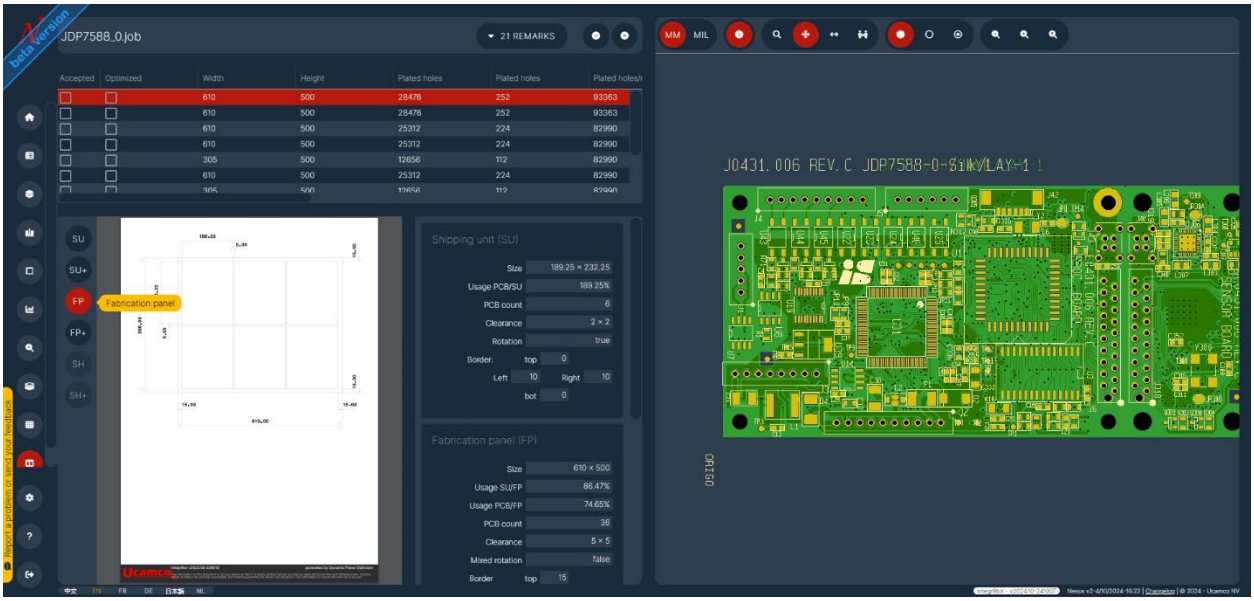
- Stackup library consultation (Integr8tor Nexus Stackup Template Library server license required)
    - ➢ Checking existing stackups in the library on the server to match customer requirements in terms of
        - Finished stackup thickness
        - Layer count
        - Base material requirements
        - PCB type
        - Copper weights
        - Tg value

    - ➢ Identifying “closest fit” if no 100% match turns out available



- 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


beta version
gerber-EPO241528_single.job
1 REMARKS
MM
MIL
Single PCB (SP)
Single PCB size
254.000
x
50.800
Rectangular mode
Free shaping mode
Allow L-shape nesting
PCB clearance
2.0
PCB rotation
5
Shipping unit (SU)
Single PCB
Shipping unit (SU)
x
y
Minimum size
277
190
Maximum size
317
230
Clearance
2
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)


beta version
JDP7588_0.job
21 REMARKS
MM
MIL
Accepted
Optimized
Width
Height
Plated holes
Plated holes
Plated holes/
610
500
28476
252
93363
610
500
28476
252
93363
610
500
25312
224
82990
610
500
25312
224
82990
305
500
12656
112
82990
610
500
25312
224
82990
SU
SU+
FP
Fabrication panel
FP+
SH
SH+
Shipping unit (SU)
Size
189.25 × 232.25
Usage PCB/SU
189.25%
PCB count
6
Clearance
2 × 2
Rotation
true
Border:
top
0
Left
10
Right
10
bot
0
Fabrication panel (FP)
Size
610 × 500
Usage SU/FP
86.47%
Usage PCB/FP
74.65%
PCB count
36
Clearance
5 × 5
Mixed rotation
false
Border
top
15
J0431.006 REV.C JDP7588-0-Silky/LAY-1
CRI60