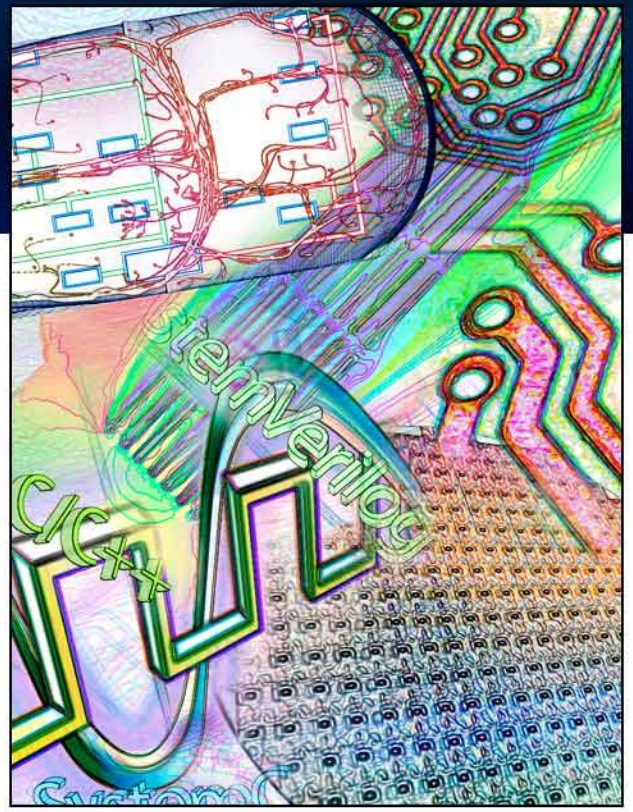


SMS 7.9.2 Features

JH An

PCB Team Korea

October 2011

Mentor Graphics®

Manufacturing Output Automation (MOA)

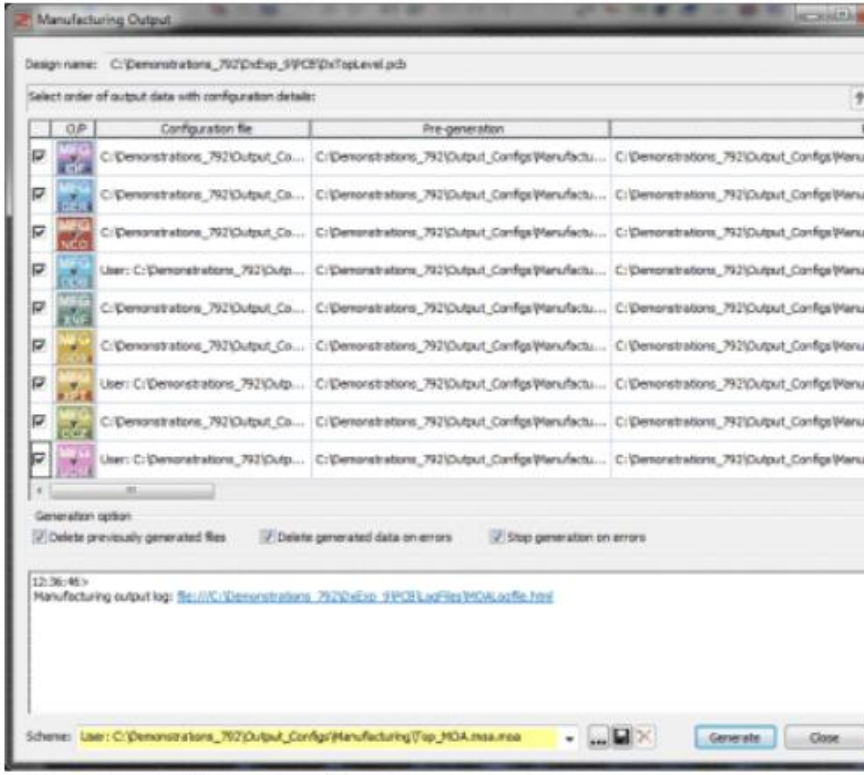
Manufacturing Outputs

- Manufacturing Output Automation
  - Configuration
    - Configure design for each specific output from single location
    - Store schemes in company specific central location
    - Add Pre/Post processes for additional user customization
    - Specify user defined locations for output files
  - Generation
    - Batch mode to generate all required outputs from a central location
    - Push button solution
    - Repeatable and consistent process
    - Delivers a solution that all customers can utilize

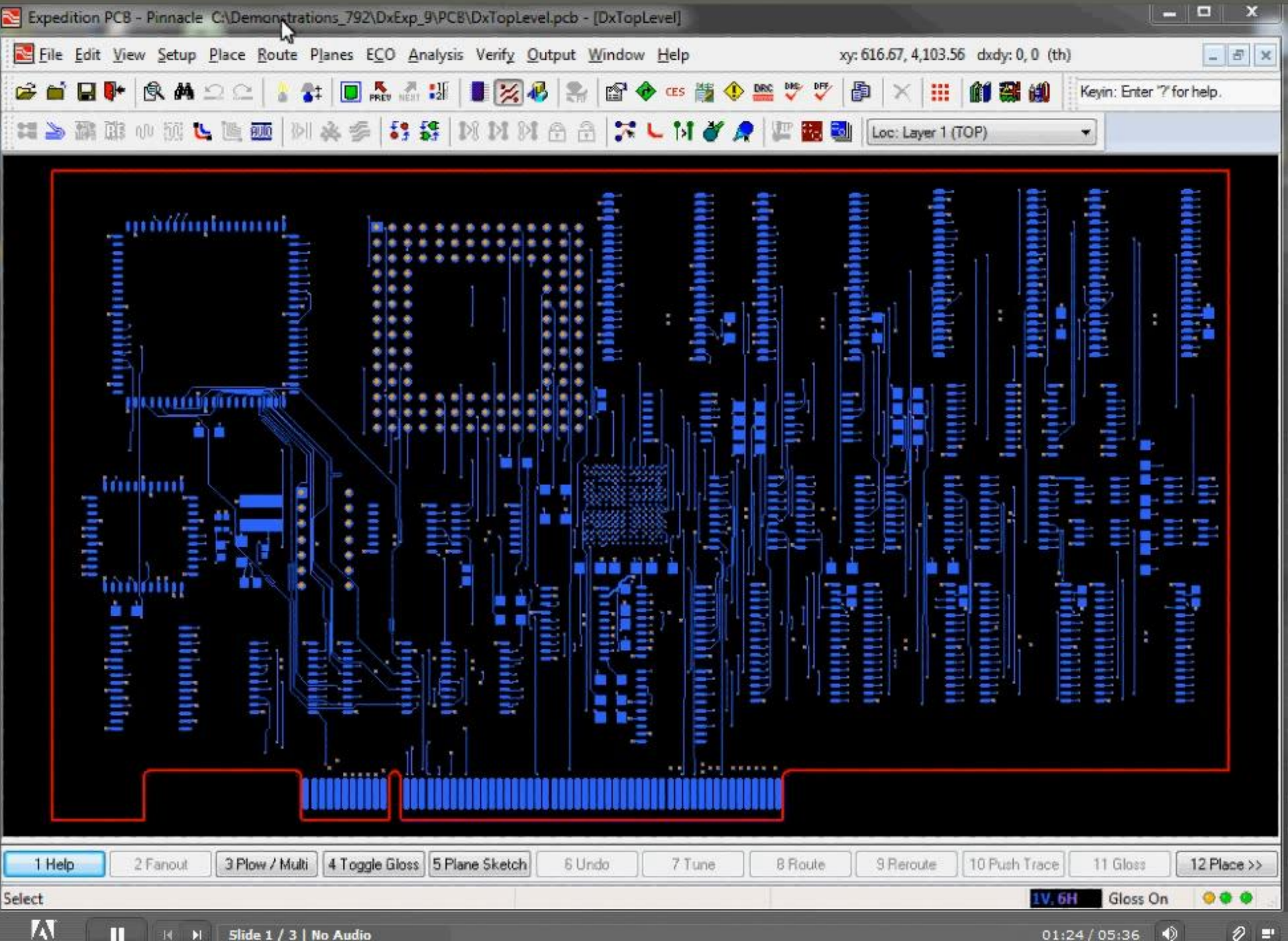
Manufacturing Outputs

Manufacturing Output Automation (MOA)

- "Configure" mode
  - Configure design for each specific output
  - Store schemes in central location
  - Supports Variant data
  - Add customized Pre/Post processes



- "Generate" mode
  - Batch mode to generate all required outputs from a central location
  - Push button solution
  - Repeatable and consistent process


Expedition PCB - Pinnacle C:\Demonstrations_792\DxExp_9\PCB\DxTopLevel.pcb - [DxTopLevel]
File Edit View Setup Place Route Planes ECO Analysis Verify Output Window Help
xy: 616.67, 4,103.56 dxdy: 0, 0 (th)
Keyin: Enter '?' for help.
Loc: Layer 1 (TOP)
1 Help
2 Fanout
3 Plow / Multi
4 Toggle Gloss
5 Plane Sketch
6 Undo
7 Tune
8 Route
9 Reroute
10 Push Trace
11 Gloss
12 Place >>
Select
1V, 6H
Gloss On
Slide 1 / 3 | No Audio
01:24 / 05:36

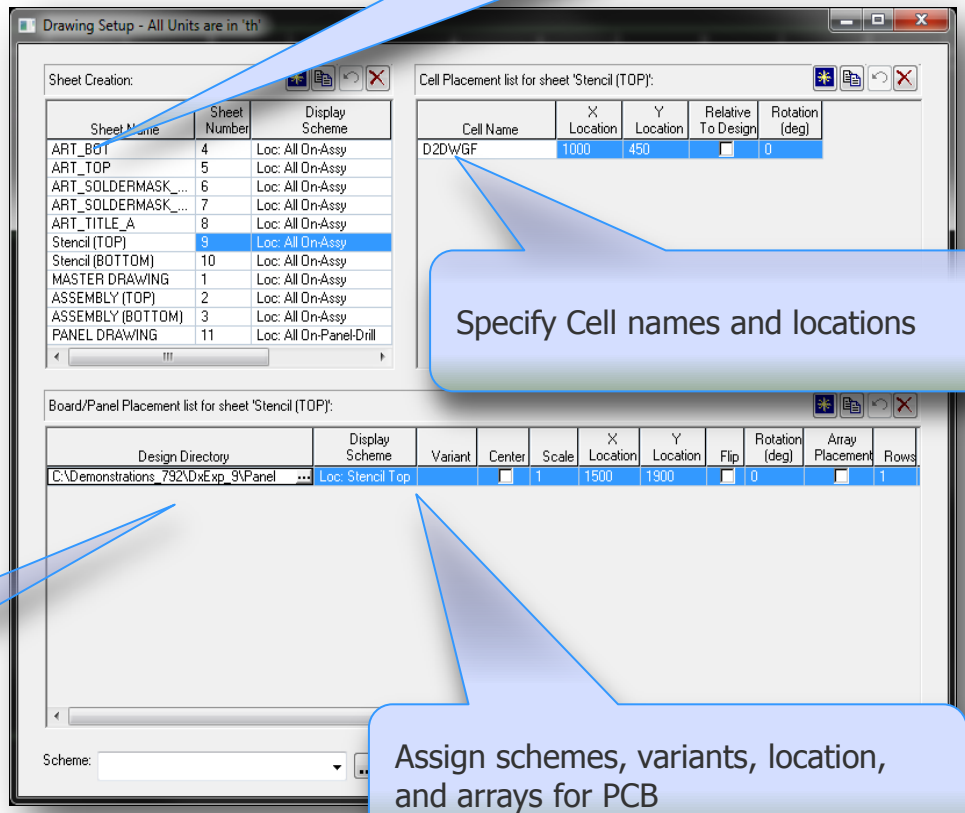
Drawing Automation

Drawing and Documentation

- Drawing creation and automation
  - Targeted at automating the process of generating manufacturing drawings
    - Currently a manual process
    - No out of the box solution
    - Customers reliant on developing custom Automation solution (Ample code in BoardStation flow)
    - Create the drawing quickly in a repeatable and consistent manner
    - Provide automated but customizable solution that is fully supported and maintained
    - Delivers a solution that all customers can utilize

Design and Cell Placement

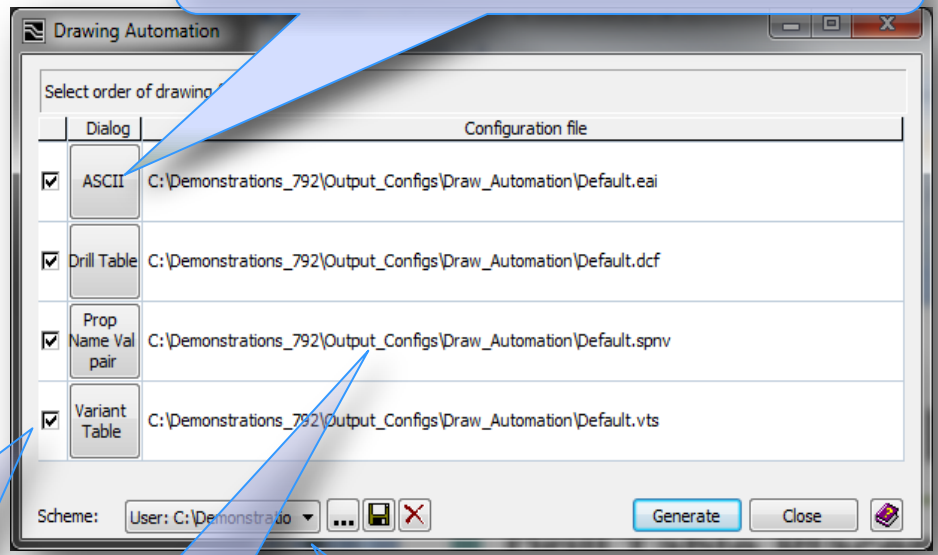
- **Drawing Setup**
  - Automatically place cells at user defined X-Y locations
    - Title block cells
    - Revision tables
    - Any Drawing cells
    - Mechanical cells
    - Notes
  - Automatically place PCB or Panel designs in sheets requiring them
  - Replaces 3 separate dialogs



Multiple Automated Tasks

- **Drawing Automation …**
  - A single dialog to automate:
    - **ASCII file** placement (notes, labels, table data, etc.)
    - **Drill table** placement (all spans to single table, or table by span)
    - **Prop Name Value** assignment
    - **Variant Table** placement
  - Enabled through FabLink XE Pro license

All individual dialogs accessible from a single master interface …



…. Select (check) all, or specific automation processes

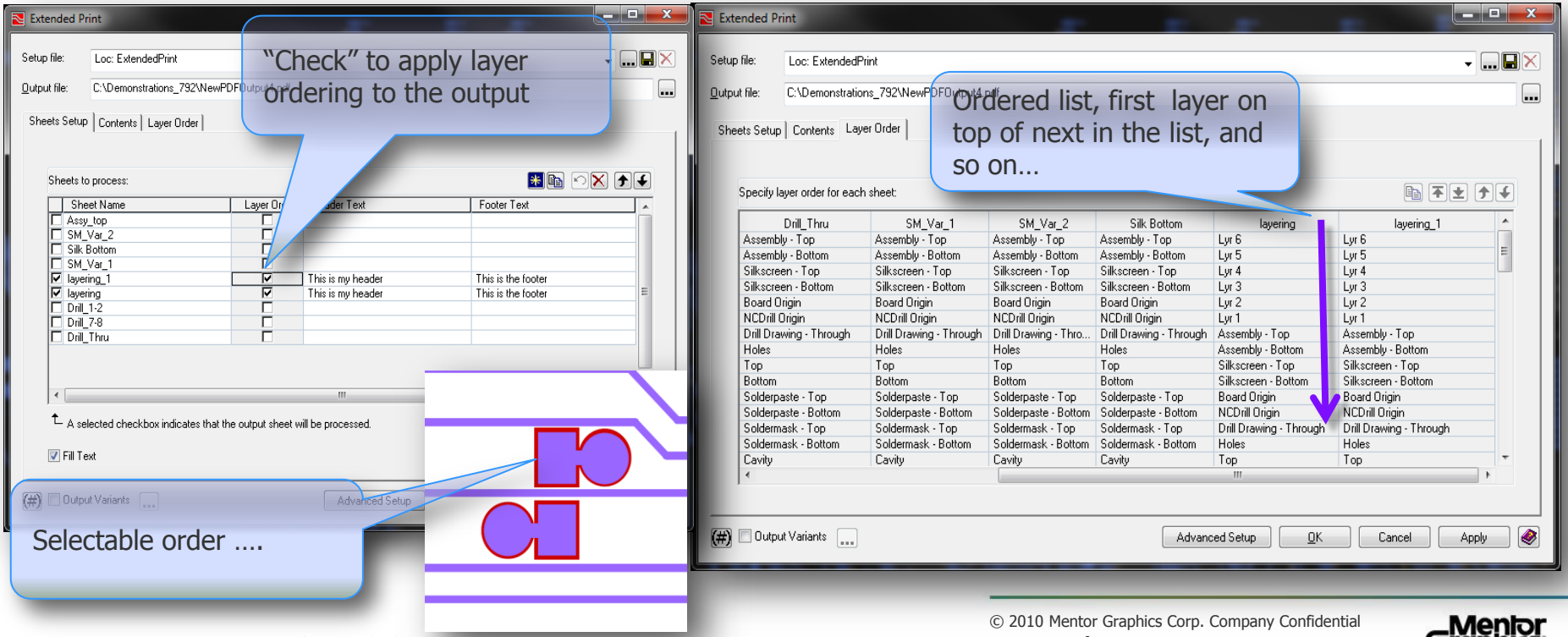
…. Configuration files can be in a network location

…. Save Automation schemes for specific project configurations

Extended Print and PDF

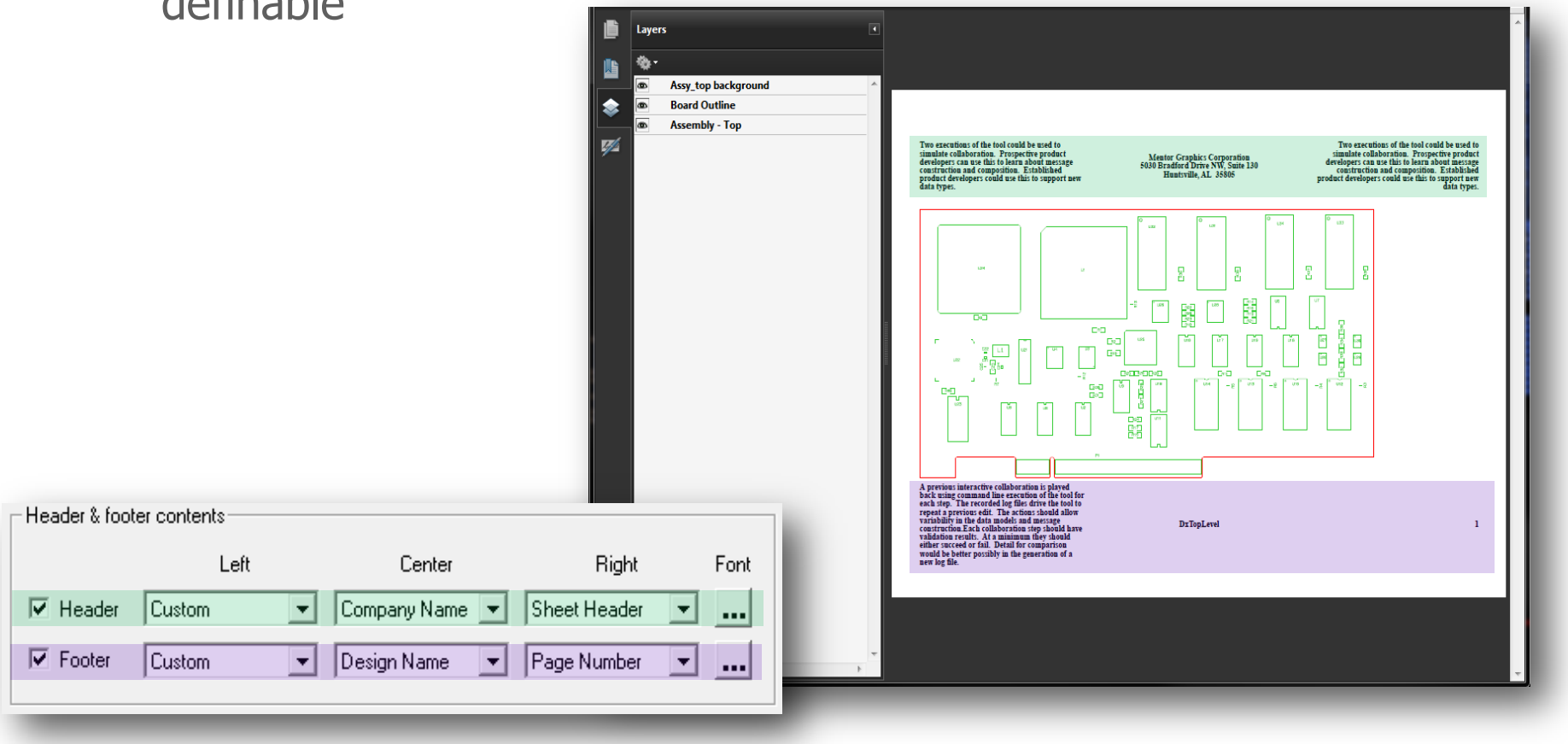
Extended Print

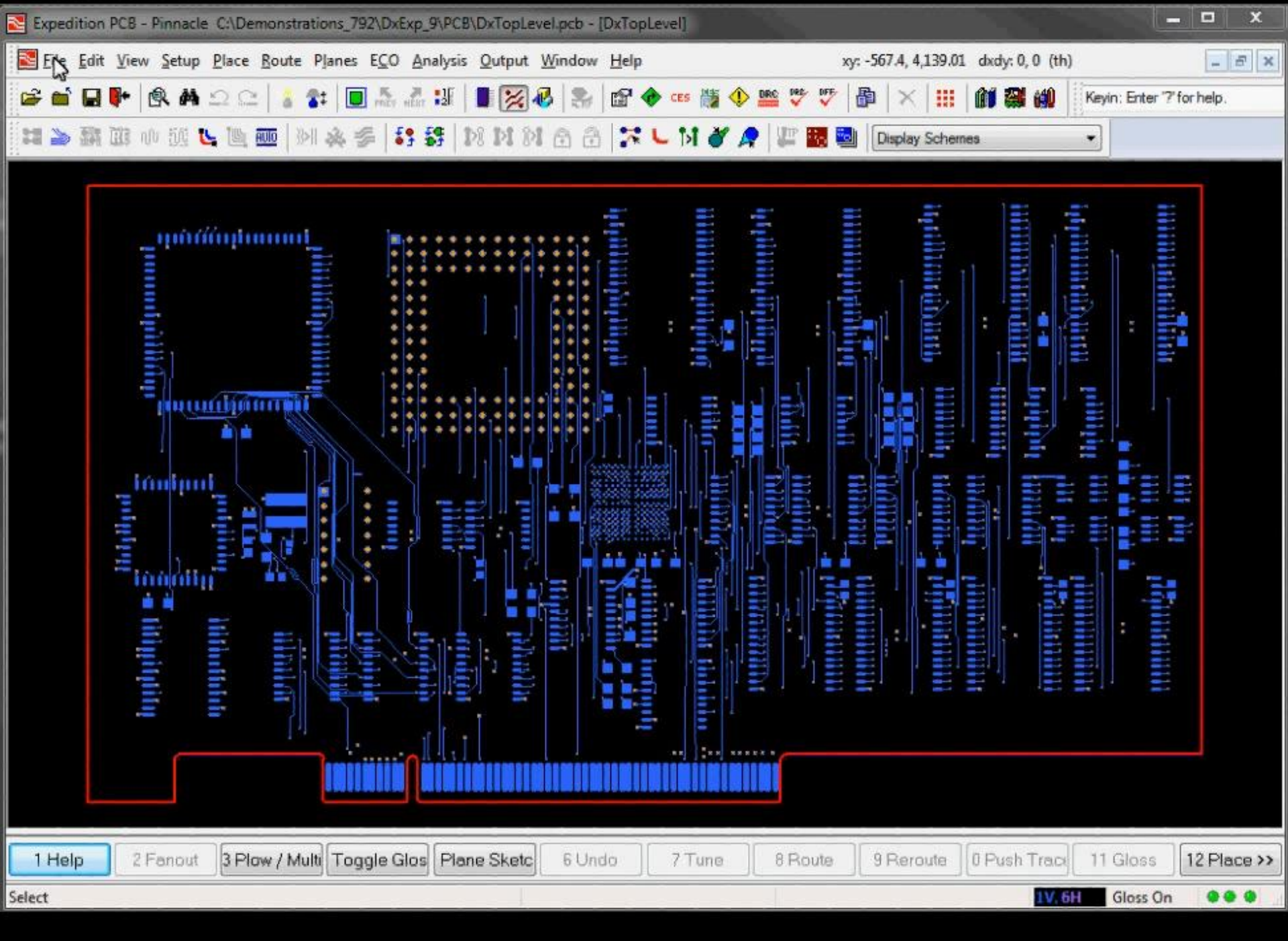
- **"Sheets Setup" tab ....**
  - Allows copying existing sheets, or change the order in the list
  - Addresses "**Layer Ordering**", for order-critical display control output, such as displaying copper pads on top, *then* Soldermask under them



Extended Print

- **Header and Footer Output (PDF) …**
  - — Left, center, and right (for top and bottom) are separately definable




Expedition PCB - Pinnacle C:\Demonstrations_792\DxExp_9\PCB\DxTopLevel.pcb - [DxTopLevel]
File Edit View Setup Place Route Planes ECO Analysis Output Window Help
xy: -567.4, 4,139.01 dxdy: 0, 0 (th)
Keyin: Enter '?' for help.
Display Schemes
1 Help
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3 Plow / Multi
Toggle Glos
Plane Sketc
6 Undo
7 Tune
8 Route
9 Reroute
0 Push Trac
11 Gloss
12 Place >>
Select
1V, 6H
Gloss On

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