Latest XL Designer v2.19 List
10 June 2017

General:

1. Crash when copying outlines between jobs: open a job, open a second job. From the 2nd job, right-click/Copy a component outline. Close that job. Right-click/Paste the Comp Outline folder of the first job. Crash. (SG Designs, July 12) Last chkd in v2.7.

2. Opening "old" jobs – check size tables for rect pads whose width is greater than length. Will not get flagged (unless the size table is opened) and will cause the gerber o/p file to be wrong. Job came from RXL. (Carera Sept 12)

3. Should remember which windows were open/their size/position/zoom levels when a job is saved/closed/reopened. Roger Froud Oct 14, also many others previously.

Schematic editor:

4. Deleting symbols off the sheet, deleting terminals off a symbol, adding busses – all very, very slow. (Phil, I sent you the job and you had a look - it was to do with the undo and quite involved to fix…..) rechecked in v2.12, email to Phil 16/3/2010

5. Tools > EMC Attribute Tags > Select Attribute, Import button greyed out (also greyed out in RXL unless I've forgotten how to use it) Remove if not operational.

6. Cannot locate a hidden min clearance attrib from a net - just can't locate it. Nor can you put the min clearance back to default in the wiring list editor (if a value present, new value has to be > 0. Last chkd in v2.7.

7. Increase length of part names from 20 (need to alter parts list too – see note in p/w list section below) example name: 100n_10%_100V_X7R_0805 (min 22 chars) Valeport, historic. Last chkd in v2.19.

8. In schematic view, select Edit > Preferences, the window that pops up is titled Properties. GKD Feb '12 Last chkd in v2.19.

9. Region > Move/Delete/Copy/Rotate (Copy & Rotate where appropriate) commands please in parts. Would be nice if terminals and attribs got copied as well but would settle for the outline being copied! Radix2Design Mar 12, also historic. Last chkd in v2.19.

10. Ability to find parts ie search all jobs for 7400. Last chkd in v2.19.

11. If you Region > Cut a block i/o port off a sheet, when it's connected on a higher level, it gives a "Connected I/O warning" window and you have to select Yes or No to continue. The problem is, selecting No doesn't close the window – you can only select Yes! Last chkd in v2.19.

12. Symbol > Replace – "Overwrite current part file" – says "Overwrite option not coded yet". Please code it. Valeport Dec 2011 Last chkd in v2.19.

13. Powerplacing symbols on repeated sheets in a hierarchy: allowed to place a power symbol on a repeated sheet in the hierarchy – results in the same reference no. on the power symbol on all the repeated power symbols - cause "Unconnected pin faults" warning messages when the ERC is run, these are repeated for as many times as the symbol is duplicated.

    Also the power symbols for the parts on the other sheets would be missing. Example 5 IC's on each repeated sheet. (IC's 1-5 on one sheet, 6-10 on the next, 11-15 and so on. The power symbols on all sheets would be for one set only like IC1-5. Would result in an incorrect wiring list, if for example the pins were being connected to pull-up/down resistors.

Artwork editor:

14. Improve routing to off-grid pins.

15. Ability to switch on/off individual EMC part classifications, ie just passive parts, just noisy, or combinations, etc.

16. Hilight > Selected nets, can only select copper fill areas on the end points of the fill or the polygon perimeters – should be able to select it in the middle. (Identify > Track allows it to be selected anywhere.) Last chkd in v2.19.

17. Mroute > Move Track command won't work if you've used Amend > Replace pad on the pad the track is attached to. Last chkd in v2.19.

18. Parts > Change Outline – used to give warnings in status bar if number of pins was different. If less pins, then the rats nest goes awry when moving the part – unroutes hang in mid-air where the pins used to be. Last chkd in v2.19.

19. Please don't fix power stubs when pulling them away from smd pins (Mroute > Corner) Last chkd in v2.19.

20. Auto-router: needs to be closed if the netlist is updated. Customer left router tool open, updated schematic (deleted & added a net) extracted netlist and then started the router again. It was using the old connectivity. Last chkd in v2.7.

21. Dynamic reconnection isn't working correctly. See attached RXL job ("for phil Derek reconnect test (RXL version).rxl") where it works perfectly in RXL but doesn't in SXLD. Place R3 from tray and move it round. Notice when it's released the reconnection occurs – this was dynamic in RXL. Last chkd in v2.12 Apr 2016.

22. Need a wider window in the pad style and user-defined via list dialogues of the Amend dialogue. Only 14.5 characters are shown in UDV's, and 11 in Pads - need to see16 chars. Last chkd in v2.7.

23. Macros don't include custom pads Last chkd in v2.19.

24. If the Auto-router dialogue bar is undocked, it's all greyed out. Last chkd in v2.19.

25. Ability to swap text from one layer to another (either individual strings or the complete layer) SG Designs – historic & current 2.19

26. Silk-screen checking: doesn't see circles when they cause an error against pads/vias (ok if replaced by two semi-circles - job available).

27. Copper fill: not following shape around user-defined pads (Valeport – historic and T&R Test Equip Oct 2012) Last chkd in v2.7.

28. Copper fill: Profile analysis error "Failed to clip fill region with board profile" jobs supplied Automated Nov '11, Valeport Dec '11 IAG June '15 Last chkd in v2.7.

29. Copper fill: behaving oddly around a keepout area – job supplied. GKD Nov '11

30. Copper fill: please alter the boundary lines so that they have no width, like profile and keepouts – at moment the size is set when added, and isn't then related to fill size. (Would be good if they weren't yellow as they don't stand out if outlines are visible) GKD Technik, Jan '12. Last chkd in v2.7.

31. Copper fill: please find away of saving the fill parameters with the boundary line – so that it's easy to delete/add fill after a mod. GKD Technik earlier, Valeport July 2015

32. Copper fill: won't fill (no error message) if there are small channels or tails in the boundary. Job attached "for phil gkd cu fill not filling pws tag iss2.0.rxl" Apr 12.

33. Copper fill: setting for connecting to Via Holes is ignored for user-defined vias when Cover or Not connected is selected. V2.8 Valeport Oct 2015.

34. Checker: not accepting that copper fill has created connectivity and leaves unroutes. Job supplied. Valeport Oct '11 & Colin Graham Aug '13, Multiple users chkd v2.19

35. Checking: could the unroutes be removed when the checker reports no errors - they remain for example if the copper fill creates the connectivity rather than a track, or the tracks don't end on the centres of pads/vias. Multiple requests. Chkd v2.19

36. Ability to add notes to copper fill boundaries so that instead of it just being Boundary 1, 2, 3 etc. they could have B1 VCC, B2 +5V, etc – sometimes there are lots of boundaries required on a layer and when modding a board (removing/re-adding the fill) it helps especially if there are multiple users working on the designs. Once a whole side of flood fill

gets removed its not easy to remember what should go back & where. (GKD Technik Nov 2011) Last chkd in v2.19.

37. Buried/blind vias: must be able to have buried/blind vias on top of one another in different layer pairs (have to be offset by one thou or more at the moment) (Re-checked v2.12)

38. Buried/blind vias: should be able to place a buried via or blind via (from opposite side of board) underneath a smd pad (Re-checked v1.98) Steve Atkins, Imperial

39. Blind vias: should be able to layer swap directly on a smd pin, to exit the pad on an inner layer. IGT April 2016 v2.12

40. Checking, include KO's: keepout lines that cross the centres of pads are not flagged, but if they skim a pad they are.

41. Macro don't assign the correct size to the square pads whan added to a new design. (Files supplied – see email Finham Park School (Mar 11) and GKD (Dec 11)
The size table doesn't have asterisks alongside the used pads/tracks after the macro has been added either

42. Moving unroutes crash – job supplied. IAG Technology May '11 chkd v2.12

43. Mroute > Move Track stops working on all tracks if you move a part & rotate it, then use Undo. Move Track becomes greyed out. GKD Jan '12, checked v2.12 Apr '16

44. Power planes – could we have nested split planes? Ie one polygon inside another.

45. Should remember the Mroute > Enable unroute reconnect setting – always gets switched off. (SMB Sept 2012, chkd v2.19)

46. Checking: Changes to UDV aren't reflected in artwork til save/close/reopen. UDV made bigger but artchecker didn't detect error til artwork closed/reopened. Chkd v2.12

47. Align x & y for part labels. Derek Hellum Oct 13

48. Keepouts – when visible could they turn on/off with the layers they're on. Valeport Jan 14

49. Adding a title to a split power plane layer will delete the polygons from the power-plane tool. If you don't spot it and hit Generate then the data is lost and therefore can't be imported. Chkd v2.19

50. Can't rotate pads to any other angle except 0/90/180/270. Mimic Craft, June 2015, v2.12

51. Tear drops don't get added to user-defined vias. Valeport Oct 15. V2.12

52. Could the keepouts in outlines turn on/off with the layers instead of always visible - request from Valeport not sure about it! Might be a good for some users and not others sort of change - might need an additional tickbox so you could override it?

53. Could the colour attribs be passed through to the artwork editor (preferable to emc rules)

54. UDVias don't disappear until after a refresh, after ripping up a track that contained them. Apr 2016 chkd V2.19

55. Artwork checking: could slight mis-alignments in the points of the board profile be "rounded up" to avoid "profile is not continuous" messages which stop checks for parts outside profile. Caused by imported DXf files sometimes having way too many decimal places – lots of examples if required.

56. Mroute > Move Unroute doesn't recognise UDV's so won't allow the unroute to move to them, even though it would be valid.

57.

Profile editor:

58. Would like to be able to add KO's on top, inner & bottom layers – as you can in outline editor!

Outline Editor:

59. Wizard for outlines

60. Auto pin numbering – could we have similar tools as in schematic parts, ie increment by <n>.

61. Auto-placement bounds box is taking into account holes in pads that are top mounted only – it shouldn't as they won't be drilled. (Forsberg May 2011, chkd v2.19)

62. Multiple master libraries to allow for different manufacturing processes (reflow/vapour phase. Point the job to the appropriate master library.

63. Ability to switch off layers in padstack – impossible to "see" a free copper padstack as they're all on top of one another. (IGT May 12, v2.12)

64. More colours available to show 8 free copper layers.

65. Add pads on a circle (specify diameter and quantity of pads)

Custom Pads
1) possible to mirror a pad? Alternatively mirror it when placing in the outline editor?
2) Scale it up/down?

Interfaces:
66. Electra will accept design and do files with spaces in the path but we get an error message when running from SXLD.

67. The Electra importer is not importing vias that are present in the .rte file – seem to be vias in fixed tracks that were exported from XLD. Sensatech Nov '11

68. Electra: custom pads exported as rectangles. Radix2 Oct 13

69. DXF In: gives "Invalid group code. Conversion truncated." message if polylines used in original file shape. Workround - define shape as individual lines instead.

70. GenCAD: user-defined pads aren't given the correct name in the PAD definition, it's putting in the co-ords from the previous line, which means the SHAPE calls up a non-existant pad.

71. GenCAD: we should include used, zero-sized pads with/without a hole in the PAD definition - the PAD definition is missing but they're called up in the SHAPE definition.

72. GenCAD: more resolution in the o/p file – a 0.001" pad is output as 0 because GenCAD uses the radius which would be 0.5, and we only output 0.

General:
73. Slots in pads. Suggestion: could we add the ability to define a router path in the custom pad editor, then include that path (for any used in the artwork) in the NC router o/p? Alter the NC o/p so that you choose whether to include the data from the profile or pad editor (or both – like the blind/buried vias).

74. European characters (.., ^ above letters, etc.)

75. If you open two jobs from a Windows Explorer window, the 2nd one should open in the same SXLD program (it runs up another SXLD). Valeport historic & Radix2Design Mar 12

76. Error messages: "OpenOperation: open_library (read-only), Path:r3fs:/design/profile (& artwork), Error:No such file or directory " if a RXL job is opened that has never had the profile or artwork opened/defined.

77. If the Documentation folder is used to create a new Excel spreadsheet, the changes are not saved if Excel was already running with another spreadsheet open (or if two spreadsheets are opened within XLD). Chkd v2.19

    Also, Open Office preloads in memory and this seems to have the same effect as having a file open. Miltech, Apr 12. GKD Apr 12.

78. In Logfiles folder, make a report that records the date/time the job is saved. Valeport Mar 12

Parts/Wiring list editor
79. Wiring list: Group signal names – can't find it.

80. Duplicate pin numbers in wiring list: design has no associated circuit and is made up of 3 identical channels, distinguished by adding 100 to the equivalent part reference i.e. R1, R2 on the first channel became R101, R102 etc. on the second channel, R201, R202 on the third.

The first channel was removed by unplacing the parts of the low numbered channel using the region command in artwork. The unwanted parts were then deleted from the parts list. (At this stage the invalid pins in the wiring list are highlighted - correctly.) In the artwork editor, used manual renumber to change the higher numbers to their single digit equivalent, i.e. changed R201 to R1 etc.

This process seems to have duplicated lines in the wiring list, i.e. any renumbered item appears twice. This could be due to the fact that the old references eg R1.1 weren't being removed from the netlist when R1 was deleted from the parts list. When R101 was renumbered to R1 two instances of the same net appeared.

81. Could the length of Type and Code entries in Parts list and Signal names in wiring list be increased to allow longer names to be transferred from the schematic (get truncated to 16 when compiled). Valeport particularly – example for part name they would like to use 100n_10%_100V_X7R_0805. Also Radix2Design & Forsberg.

82. Output to file – x/y co-ords wrt datum instead of original 0/0.

83. Output to file – separate column for flipped/unflipped (not merged with rotation) for ease of use in spreadsheets. Also U and F so there is an entry not a blank.

84. Output to .csv file

Outputs:

85. NC Drill o/p: Excellon can have a header with tool sizes included, can we add?
    Think it needs to be:
    M48
    T01C0.028   (where T01 is tool no., C is circular, 0.028 is the size)
    T02C0.035   (where T02 is tool no., C is circular, 0.035 is the size)
    %   (continues as drill file)

86. Add a Output Task & Batch folder to the Masters folder so that standard processes can be copied without having to remember which job to open and copy from.

87. Increase max dcodes allowed in the auto-job dcode table up to 999 (from 256) as per gerber spec.

88. DXF o/p: nice if cutouts in the board could be shown as holes. Maybe a part with negative height that's the same thickness as the board? Or a new category in the profile editor?

89. DXF o/p: rotated pads aren't o/p correctly.

90. DXF o/p: board profile doesn't appear if 3D is selected – appears when 3D isn't ticked. Dave Lelievre June 2016, v2.12

91. If the artwork is altered, this isn't reflected in the output task (and subsequent o/p files) until the task is closed/re-opened. (Radix2, Oct 13, chkd v2.19)

92. NC Drill o/p reports co-incident holes – could the report be sent to the logfiles folder or the window remain open on screen. Have to memorize/write down the co-ords……! IGT April 2017

Enhancements for future reference

93. Cross-hair (or user-def) cursor (request not gone away since first Windows versions - Valeport)

94. Artwork checking - include profile and router lines in artwork checking (copper checks) to avoid tracks off the board or cut by the router – which has just happened to a customer. Pre 2011

95. Artwork checking – include a check for overlapping holes – only looks for concentric - historic

96. In Grid>Measure Distances is it possible to recalculate the displayed result using the Inch/Metric function keys rather than having to re-do the measurement? Also applies to Identify > Pin/Pad

97. Import logos into artwork & schematic

98. gerber i/p: use RS 274-x codes or at least aperture list – especially for gerber files from other systems that aren't defined in the same way as ours

99. Schematic editor: ability to move/swap terminals on the sheet so that the pin nos & names also move. With the programmable devices, the pin numbers can be anything they like, so they like to decide when drawing the schematic what the numbers will be.

100. Right-click on items produces menu list (rather than going to command line each time – other systems do this and users like it)

101. Schematic symbols/wires: quick way to restore visibility of attributes.

102. Could the Export > GenCAD/BSL outputs be included in the batch processes?

103. Copper fill: delete area should delete the fill and the smooth edges simultaneously

104. Copper fill: could the settings be saved with the boundaries.

105. Component outlines: footprint ghost lines. Often a footprint maybe something complex which includes areas where via's are not allowed or it could be the enclosure outline. When the silk screen is made these end up being rendered and thus have to be manually deleted. Hence what would make life a lot easier is the ability to draw in ghost lines, the ghost lines are guides to the design and can never be generated into anything. GKD Technik (Nov 2011)

106. Outputs: would be nice to produce a printout showing the parts on the artwork coloured with their noisy/quiet/susceptible/normal settings – cross-hatched just like you see on the screen. Might need to "generate" it on to a silkscreen/doc layer first?

    Also, would it be possible to have other categories that get the cross hatching (heights with ranges, component values, etc.) with colours assigned. You choose which you want generated onto the layers, so that the print-out is colour coded. (Tim Loker suggestion.)

107. Artwork: would like net clearances displayed on pads and vias as well as on tracks.

108. Artwork: ability to switch pads & tracks on/off independently of one another. CED April '11

109. Schematic parts: It would be nice to be able to add text without needing terminals or adding it to the symbol. GKD Technik Jan 12

110. Schematic parts: It would be nice to be able to add variable line widths, sometimes a thinner line would be really nice to draw component inner detailing. GKD Technik Jan 12, Tony Sketchley

111. DXF in to pad and/or outline editors. IGT Jan 13

112. Add keepouts to layers.

113. Pad stacks (individual layers, not just T, Inner, B)

114. Basic Board dimensioning tool (ie set of arrows and line), even if values had to be typed in. Derek Hellum + various

115. Check for minimum gaps on solder stencils. Davtrend. Aug 2013

116. User-definable icons/toolbars

Things that generate calls:
The x/y co-ordinates given in reports doesn't tally with the datum offset in the artwork editor – either add a note indicating that fact or give the co-ords wrt the artwork datum position.
ie nc drill output, x/y listing of concentric pads, artchecker position of invalid for layer heat-rel/anti pads,

Unroutes for routed tracks
Profile not continuous (when checking, ok in split pplanes now)

List from July 2014

1) Schematic:
> b) P/w list extractor: should report which page the errors are on – see attached job and first few warnings that the compiler generates.
> c) Fast part tray – settings should be per job not per sheet – job with 34 sheets, seems impossible to switch off the FPT once it's on! (See job)
> d) Open detached like artwork (to allow two schematics from different jobs to be compared).
> f) can no longer Traverse Up through the hierarchy, nor when looking at the "tree" do you know which was your current sheet, so it's impossible to navigate your way up a tree as you don't know which upper level sheet to go to. Try fault finding the attached job.

2) Board Profile editor:

> a) Ability to Copy (as well as transfer) data between layers.

> b) Additional layers in board profile editor for:
>> construction details, dimensions
> c) keepouts on top & bottom layers (as well as All)

> d) maybe different categories of keepout (for use by placement, routing, planes, copper fill)

3) Output Batches:
> a) When moving Tasks to the Batch, it's no longer possible to select them all, or use the Shift/Ctrl keys like in normal Windows selection. It does work in reverse once you've got them all in the Batch.

3) General: In the Masters, under Configuration folder add:
> a) Layer Usage/Names defaults
> b) Output/Tasks defaults
> (Hazel will supply a job with a set of layers and tasks in if required)
> so that all new jobs have this set.

4) Possible for component outline editor's grid to be independent of the artwork editors?

5) Silk screen text:
> a) The text pick up point is in a different position to the placement box corner. This makes it difficult and time consuming to line text up neatly.
> b) A text alignment tool similar to the parts alignment tool, in X and Y would be helpful.
> c) layer swap text
> d) Ability to move data between layers. Example, they've put made an artwork macro of text, etc. and want to copy between jobs but the layers are assigned differently in the two jobs, or they've just put it on the wrong layer.

6) Split power plane tools:
> a) could do with arcs in boundaries.

b) should (optionally) recognise keepout areas as the tool can't cope with cutouts/slots inside the profile - the copper goes straight over them and can lead to shorts on the finished board.

7) Artwork checking:
    a) The profile analyser (for copper fill & split power planes) now permits slight coordinate mismatch in line/arc coordinates – max misalignment is 0.005". Could this be extended to the artwork checker as it won't check parts outside the profile if there are "gaps" in it.

    b) Whilst there, could you tell me what are the rules the checker uses to determine that a part is outside the profile – I get lots of calls regarding this because warnings are given and when visually checked, the part is inside the profile. i.e. is it the bounds box, the silk-screen, an approximation, etc., etc. ?

c)   Unroutes re-appearing when no errors are reported. Due to tracks ends not on centres of pads, copper fill "making" the connections, etc. Phil, you were of the opinion this wasn't intended behaviour when we spoke at the time. Subsequent to this, a user (Abrel) requested a switch so these types of unroutes were on or off as they can be useful! Maybe the switch could go in the artwork checker, i.e. "Check for broken (dodgy/iffy) connectivity" – in which case the unroutes would appear with the other unroutes?

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4) Artwork Checking - if no errors are reported, don't show the unroutes for tracks that are correctly joined. Examples:
a) the copper fill is often used instead of routing tracks - the unroutes never go despite no errors reported.
b) if Amend > Enter track is used and the track end point is not centred on the pad/via, same thing (no errors but unroute remains)
c) less common, but still occurs, tracks are laid straight over/through pads so there is no corner/endpoint, again no errors but unroute remains.

Phil, you were of the opinion this wasn't intended behaviour when we spoke at the time. Subsequent to this, a user (Abrel) requested a switch so these types of unroutes were on or off as they can be useful! Maybe the switch could go in the artwork checker, i.e. "Check for broken (dodgy/iffy) connectivity" – in which case the unroutes would appear or not as required.

5) Adding a title to a split power plane layer will delete the polygons from the power-plane tool. If you don't spot it and hit Generate then the data is lost and therefore can't be imported.

6) Output prevue:
a) Task "prevue" is not updated if a change is made to the schematic sheet or artwork whilst the task is open. Applies to drill sheet (drilled pads added to artwork), artwork (tracks moved), schematic parts added)
b) Prevue doesn't show voids in custom pads: If a library pad has another shape defined inside it to form a void, the output prevue doesn't show voids in custom pads - ok in pad ed, outline and artwork, also ok in gerber file.

c) remove Prevue icon from the icon bar

7) Output Tasks, Schematic printing - colour setup to be copied across all sheets (Luce/56 sheets)

Not sure if this one was for 2.17 or 2.18:

8) Output Tasks, ability to choose fonts for the schematic output - which would also allow PDF o/p file to contain searchable text strings as well - amazing! Have attached a schematic pdf file from Valeport/Ultium which has searchable text as an example.

For 2.18
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9) Improve NC drill o/p to include tooling info in header rather than as a separate file.

10) Improve router o/p as follows:
a) add router thickness to Miscellaneous line widths settings in the Sizes table
b) display that thickness in the profile editor
c) use the line width assigned when outputting the router output (ie add a tool to the header that corresponds to the line width from the sizes table)

if you really wanted to go for it:
d) include the router and profile lines as dummy tracks when running the connectivity checks - so if they touched anything it would get reported as a "should not be connected" or short.
e) actually show the router lines in the artwork editor.
(At least one customer has had a board made with tracks cut by a routed path.)

11) Slots in pads

12) Ability to import logos from Bitmap/gif/jpg files?

13) Dave Lel's job - checking flags 4 KO errors

The rest are a selection of oldies if you fancied any!

14) Ability to add pins on a circular pitch, also in a straight line
(without having to set the grid)

15) Schematic wire colours

16) Copper fill, Delete Area - include perimeters

17) Layer orientated keepout areas, individual layers would be great but Top, Inner & Bottom would be good.

18) PP tools to recognise keepout areas - no plane inside the keepout

areas - or maybe add a boundary line over the keepout line (like we do on the profile) - to avoid shorts on the manufactured design. Same for router lines if they are within the board. However, this needs thinking about - the keepouts may not apply to all layers.

19) Ability to copy tracks/text/added pads between layers in the artwork editor, using Region commands.

20) Outputs: Add a master "Outputs/Tasks" folder to the masters folder - have put some in the Worked example now, maybe they could be used?

22) Check: Autourouter is crashing when routing by Part or Net, OK with all (Phil had a look, graphics related.)

23) vanishing solder paste pads. If the shrinkage value is set so high that the paste would disappear, they should not come back full size

24) Highlighting: when highlighting tracks the vias that are attached go hollow. The shaded clearance isn't shown.

25) Job specific: Copper fill not deleting perimeters 2 jobs (will send them tomorrow)