Magic PadFrame Lecture

The starting point is a joe.cif file that contains your circuit.

1. From ~ type in mkdir temp
2. cd /usr/local/calp/PadFrame
3. cp *.* ~/temp
4. cd ~/temp
5. magic then :cif istyle lambda=0.30(c)
6. :cif read joe
7. :writeall return
8. [write] type in write and then return
9. Must specify name for cell (UNNAMED)
   File for cell (UNNAMED) type in joe3 return
10. :save
11. exit magic
12. magic
13. :load joe3 to check (:expand :drc why)
14. exit magic
15. magic
16. :load PadFrame
17. put cursor near where you want the lower left extreme of your circuit
18. :dum joe3 (joe3 must be a mag file)
19. :expand
20. :see allSame
21. :select clear
22. zoom to Vdd (upper center)
23. go over to +OEN on nearby multipurpose pad
24. :pai m2 past the cross hatch

+

23. :tool wiring
24. left click on m2 down on purple (outside cross-hatch)
    Response is Using metal2 so many units wide

24a Right click slightly outside metal2 box (OEN and extension of metal1 turns white)

25. :tool box (gets you out of wiring format)
26. go to Vdd
27. :pai m1 (extend past cross hatch)
28. :tool wiring
29. left click on m1 put on in 27 ->response Using metal1 …

29a right click outside ->Vdd and extension turns white.

30. go to PadGnd
31. zoom in (e.g. :zoom 0.25)

32 put cursor box around parts of PadGnd and PadBiDir (say 1st one up)

33. on PadGnd :pai m1 9 units wide outside \\\\\
34. :tool wiring

35. left click m1 ->response Using metal1 ..
    35a right click outside -> Gnd turns white
36. :tool box
37. expand Pad above if not expanded
38. use m2 to bring out OEN (as in 23 thru 24a above)
38a :tool wiring
39. left click m1 on GND -> response ..
40 right click to cross-over m2 on enable
41. put box over intersection and :pai via
42. go up to data in DI
43. :pai m2 to extend outside \\\
44. :tool wiring
45. left click m2 (DI turns white)
46. now we can cross m1 and m2 without a via
47. enable an output pad with m1 from top Vdd.