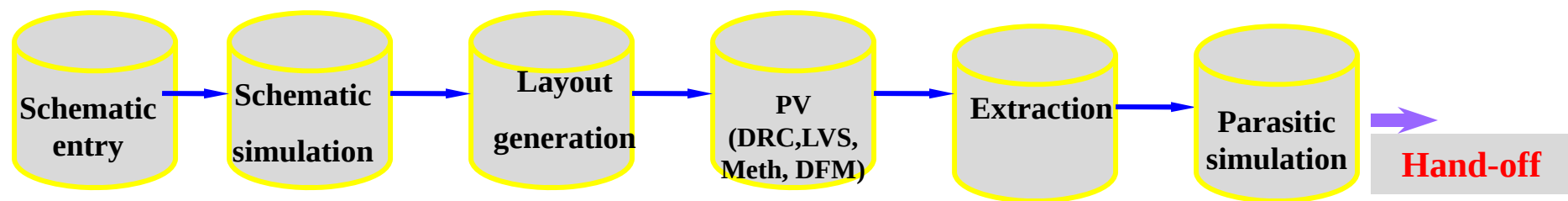
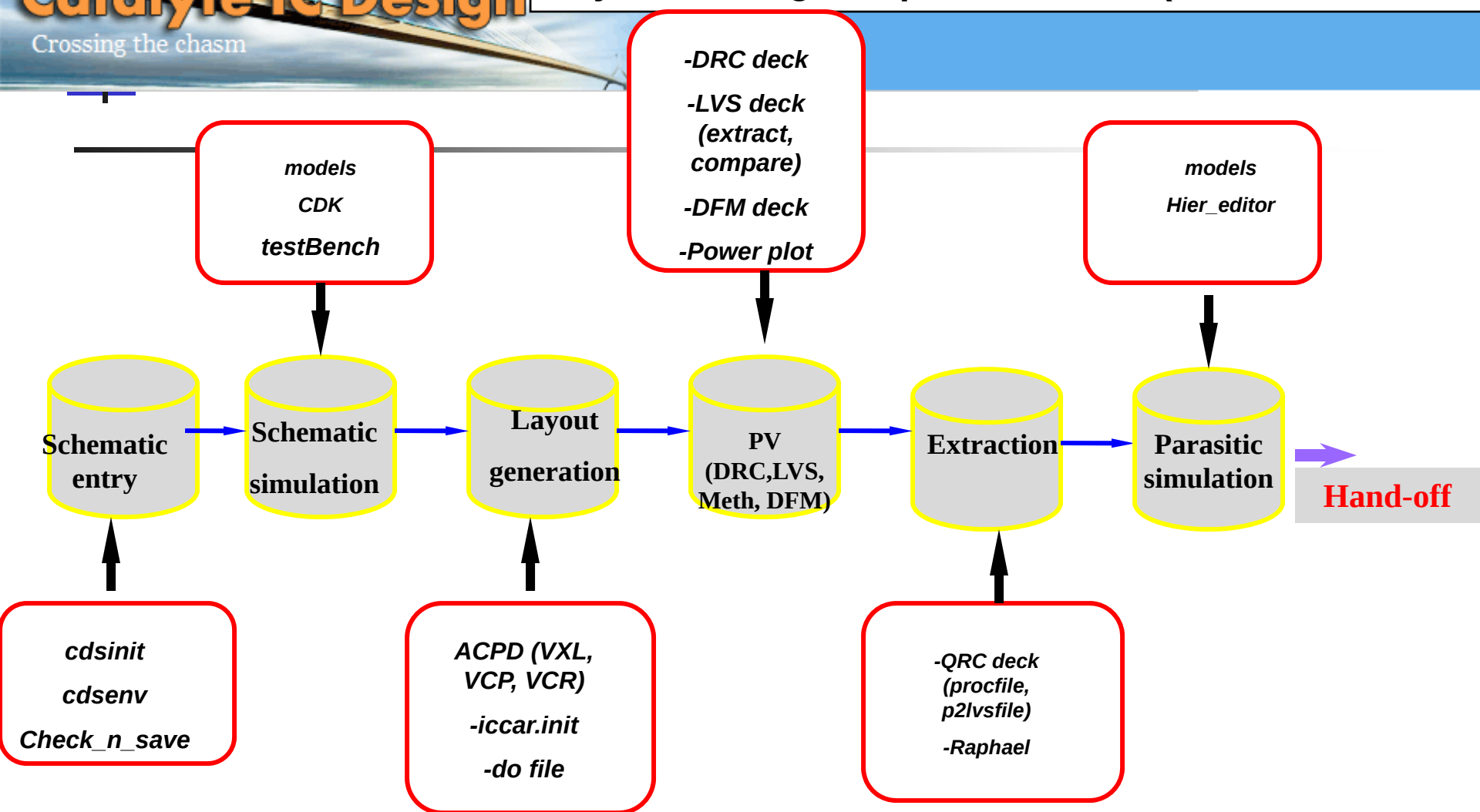


Custom Design Flow– Basic to Advanced Sample slides

***Faizul Alam
Nov 23, 2010***

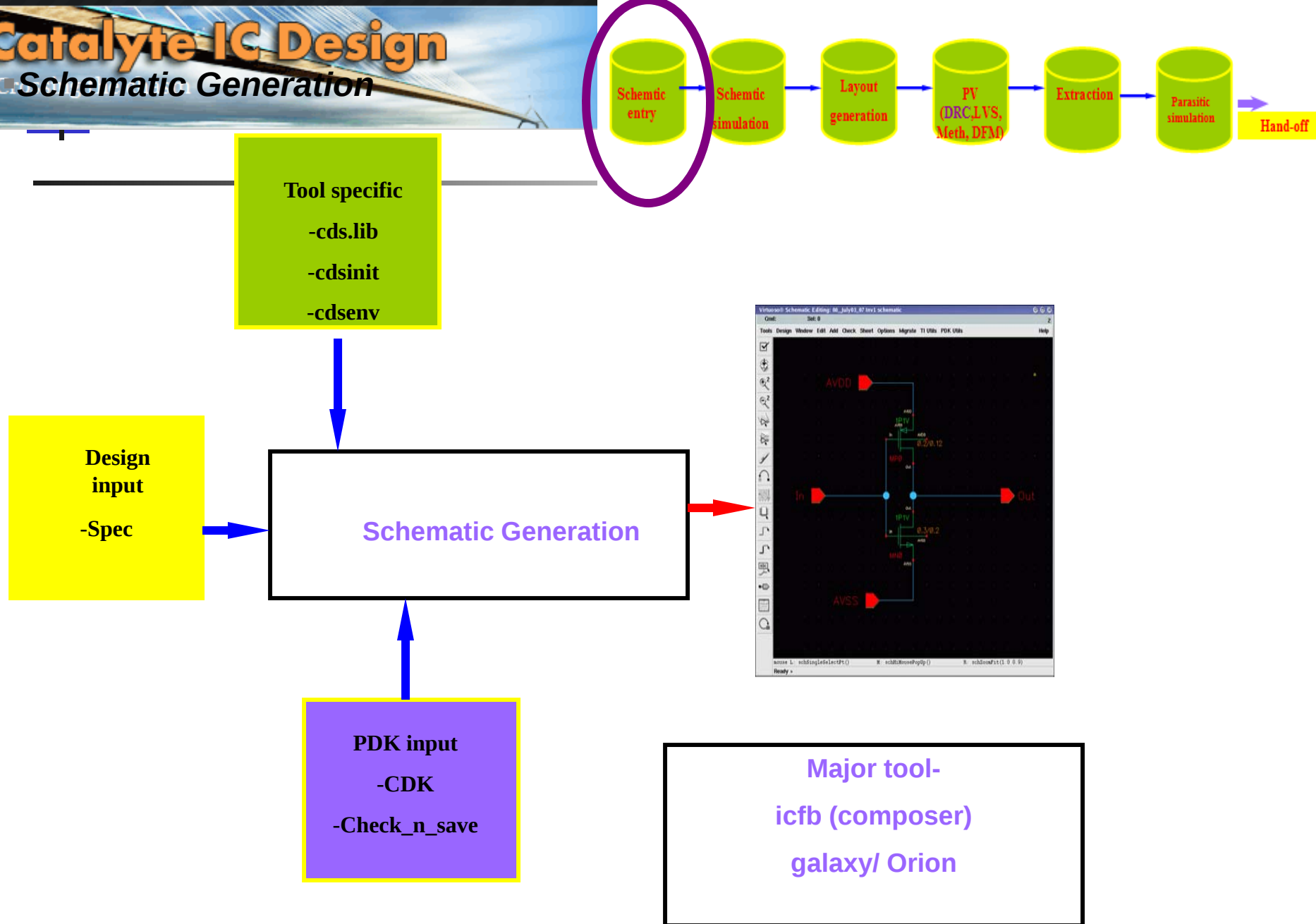
Catalyte IC Design





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Schematic Generation



Major tool-
icfb (composer)
galaxy/ Orion

```
; Set log filter to all true (Faizul, 6/22/09)
hiSetFilterOptions(t t t t t t t)

; load bindKeys
load(prependInstallPath("/samples/local/schBindKeys.il"))
;load(prependInstallPath("/samples/local/1eBindKeys.il"))
load("dacleBindKeys.il")
load(prependInstallPath("/samples/local/1xBindKeys.il"))

;set the interface environment etc.
hiiSetFont("text" "-adobe-courier-bold-r-*-12-")
hiShowOptionsForm = nil
window(1)->infix = nil
hiSetUndoLimit(10)

; Resize window etc.
hiFlush()
hiResizeWindow(window(1) list(3:3 750:180))
ddsOpenLibManager()

envLoadFile(".cdsenv")
printf( "Done with initialization.\n" )

; Load UCD utilities

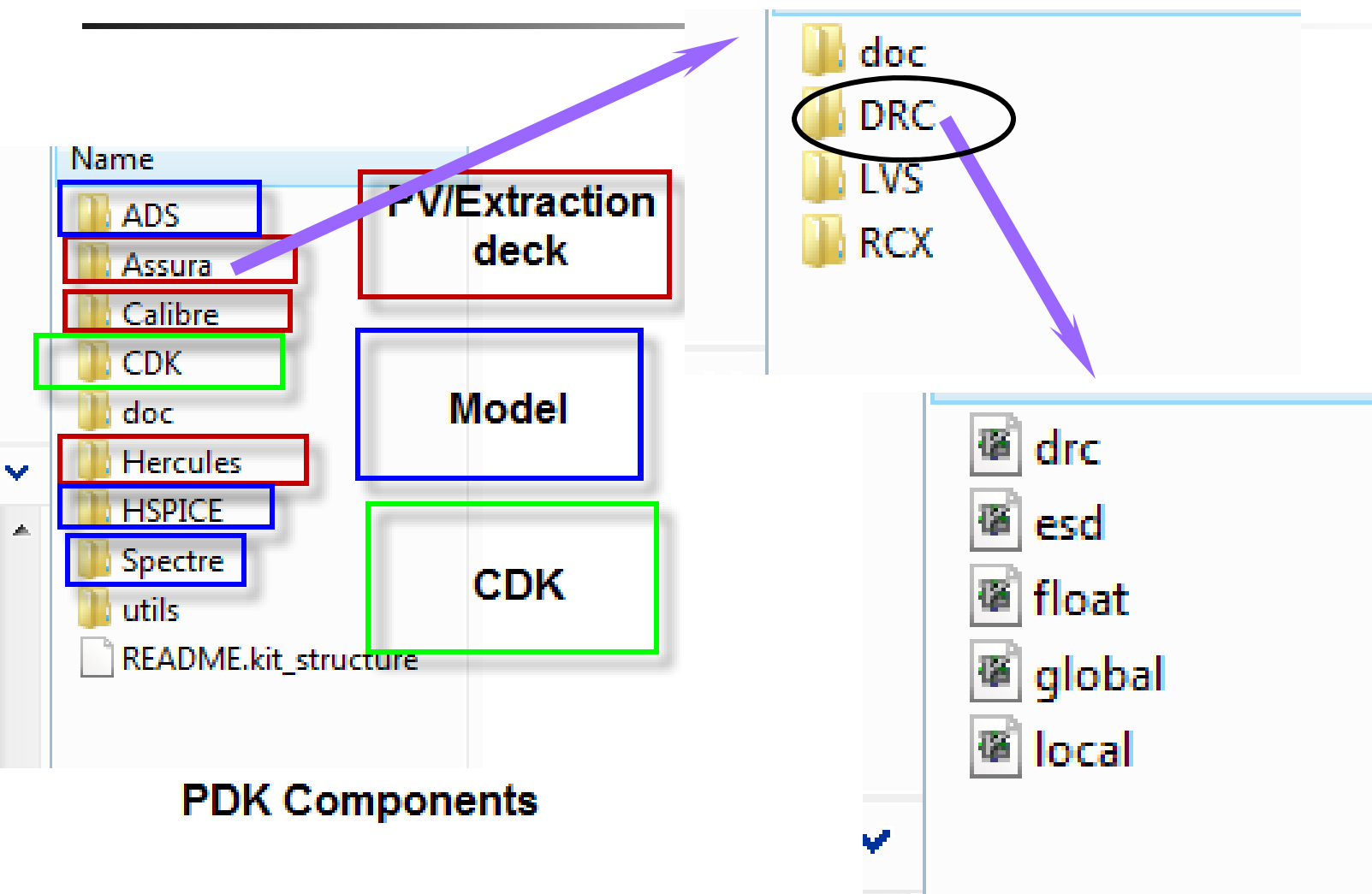
; Include Assura menu beside UCD in UXL window
ucdAssuraFlow = "set"
```

Sample cdsinit

```
cdsenv + (~\Desktop\July_09\mod2_def_2_power) - GVIM1
File Edit Tools Syntax Buffers Window Help
[Icons]

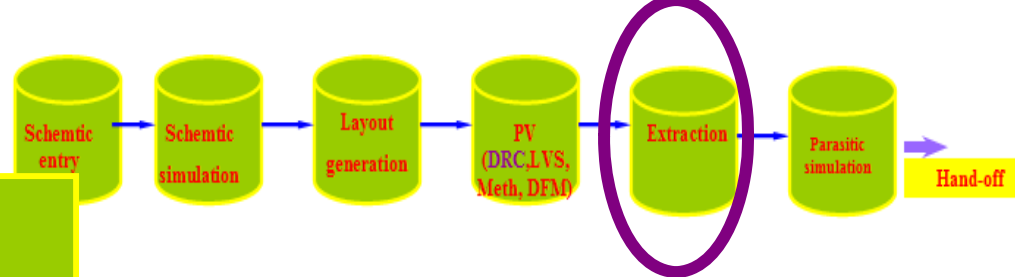
1 ;; Translator options
2 iccTranslator.ExportEditor      rulesFile      string "$AMS/share/lib/gpdk446/icc.r
3 iccTranslator.ExportEditor      useRulesFile    boolean t
4 iccTranslator.ExportEditor      routerOption    string "vcr"
5 iccTranslator.ExportEditor      incrementalUpdate boolean t
6 ;; Layout editor options
7 layout stopLevel               int           20
8 layout displayPinNames          boolean nil
9 layout flattenPCells            boolean nil
10 layout gridSpacing             float          0.2
11 layout viewNameList            string ""
12 layout snapToGrid              boolean nil
13 ;; UXL options
14 layoutXL viewList              string "schematic netlist symbol layout "
15 layoutXL alignMethod           string "BBox center"
16 layoutXL initAspectRatioOption string "Aspect Ratio W/H"
17 ; mfactor name can not be "M" because this param has been used in the CDF
18 layoutXL mfactorNames          string "m"
19 layoutXL initCreatePins         boolean t
20 layoutXL alignDirection         string "horizontal"
21 layoutXL ignoredParams         string "1xIgnoredParams dleIgnoredParams 1xStopList
    plist 1xUseCell dleUseCell maskLayoutViewName posi instancesLastChanged instNamePrefi
    1xTimeStamp dleSchExtractPath 1xPlacementStatus"
22 layoutXL autoAbutment          boolean t
23 layoutXL initBoundaryLayer      string "prBoundary drawing"
24 ; You can uncomment this and set it to whichever layer purpose is
25 ; applicable and desired as default for I/O pins.
26 layoutXL initIOPinLayer         string "Metal2 drawing"
27 ;; Composer options
28 schematic snapEnabled           boolean nil
29 schematic drawMode              string "anyAngle"
30 schematic viewNameList          string "schematic symbol"
31 ;; CIW options
32 ui textFont                    string "-adobe-courier-bold-r-*-12-"
33 ui userOutput                  boolean t
34 ui errorMsg                    boolean t
35 ui showFixedMenuLabels         boolean t
36 ;spectre.init languageSize      int           500
37 spectre.envOpts modelFiles      string "myPath/share/lib/gpdk446/models/gpdk.scs"
    26.1
```

Sample cdsenv



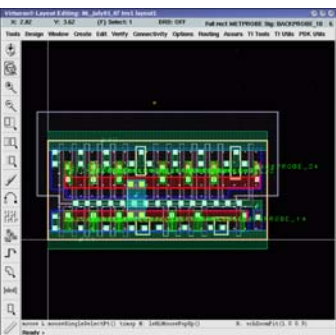
Catalyte IC Design

Parasitic Extraction



Tool specific

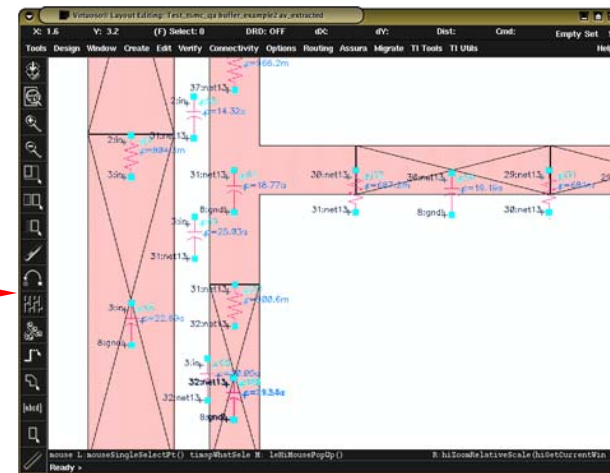
- Performance vs. accuracy
- (extType, Filter, outputNetlist)



Parasitic extraction
(R, C, L, K)

PDK input

- procfile (cap)
- p2lvsfile (Res)



Major tool-

- QRC/RCX
- startXT
- Xcalibre