

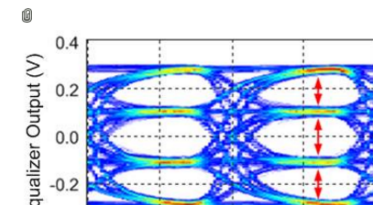
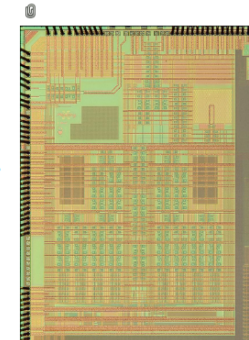
Easy Setup Guide for Launching IDEC_CBDF Materials

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Analog Cell Library Model

- ▶ This is an establishment of Analog Cell Library (ACL) model for PLL which is presented in lecture on cell-based design flow at IDEC, KAIST (May 19-20, 2016)
 - ▶ You can practice and review cell-based design flow using it
- ▶ We do NOT offer any commercial tools such as IC Compiler and Custom Designer
- ▶ XMODEL for education purpose only is free
 - ▶ For more detail, visit www.sciananalog.com




- ▶ Access to MICS homepage (mics.snu.ac.kr)
- ▶ Click “Download” tap on the top



Download it to Your Machine (2)

- ▶ At the download page, click the highlighted “IDEC_CBDF.tar.gz” file and download it

Please refer to the setup guide before you download the tutorial file package.

- Setup guide:  [Easy_Setup_Guide.pdf](#)
- Tutorial file package:  [IDEC_CBDF.tar.gz](#)
- Lecture notes:  [lecture_notes.zip](#)

(The setup guide and the lecture notes are appended to the tutorial file package: IDEC_CBDF/doc/)

- ▶ Unzip the .tar.gz file and move it to your home directory by the following commands:

```
$ tar xvfz IDEC_CBDF.tar.gz  
  
$ mv IDEC_CBDF ~/.
```

Download it to Your Machine (3)

► example

```
Terminal
seal:~/Downloads> tar xvfz IDEC_CBDF.tar.gz
IDEC_CBDF/ACL/tluplus/scmos_05.tluplus
IDEC_CBDF/ACL/verilog/
IDEC_CBDF/ACL/verilog/cello.sv
IDEC_CBDF/ACL/verilog/cello_udp.sv
IDEC_CBDF/ACL/verilog/cello.f
IDEC_CBDF/etc/
IDEC_CBDF/etc/srcme.csh
IDEC_CBDF/doc/
seal:~/Downloads> mv IDEC_CBDF ~/.
seal:~/Downloads> cd ~/IDEC_CBDF
seal:~/IDEC_CBDF> ls
ACL doc etc lib Place_Route Synthesis xmodel_dpll
```

- Note: You can locate IDEC_CBDF directory to anywhere you want
 - Just be careful while referencing the provided installation guide and lecture notes

Directories in IDEC_CBDF

- ▶ **xmodel_dp11/**
 - ▶ XMODEL simulation directory (GLISTER + script)
 - ▶ DPLL models and testbenches are included
- ▶ **ACL/**
 - ▶ (Generic) technology file, tluplus, logical libraries
- ▶ **Place_Route/**
 - ▶ Place and route execution directory
- ▶ **Synthesis/**
 - ▶ Digital synthesis directory
- ▶ **lib/**
 - ▶ Icarus Verilog and Python library path
- ▶ **doc/**
 - ▶ IDEC lecture notes (May 19-20, 2016)
- ▶ **etc/**
 - ▶ Source file (srcme.csh, srcme.bash) to set environment variables

Environment Variable Setting

- ▶ For csh-like shells, you need to setup `etc/srcme.csh`
- ▶ For bash-like shells, you need to setup `etc/srcme.bash`

Environment Variable Setting Example

► \$~/IDEC_CBDF>vi etc/srcme.csh

```
setenv CBD_ROOT      `pwd`  
#setting up xmodel environment  
setenv XMODEL_HOME   {your xmodel installation path}  
setenv LMX_LICENSE_PATH 6200@{your license host name}  
setenv XMODEL_SIMULATOR {vcs or ncverilog or modelsim}  
...
```

*Details about setting up the XMODEL Environments are in :
\${XMODEL_HOME}/doc/XMODEL_Installation_Guide.pdf

Environment Variable Setting Example

▶ `$~/IDEC_CBDF>vi etc/srcme.csh`

```
#Commands shown below are to set environment ...
```

```
...
```

```
##setting up Verilog simulator for xmodel
```

```
#setenv VSIM_HOME ...
```

```
#setenv PATH ...
```

```
...
```

- ▶ If you didn't setup your environment variable for Verilog simulator (vcs, modelsim, ncverilog), cadence IC, synopsys tools, you have to uncomment(remove #) the commands and setup them
- ▶ For more details, please refer to the user manuals of the tools

Getting Started with IDEC_CBDF

- ▶ You need to source “srcme.csh” file before getting started with IDEC_CBDF, (for csh-like shells)
- ▶ Type the following command:

```
$~/IDEC_CBDF> source etc/srcme.csh
```

```
$ your path for IDEC_CBDF is set to {your path}/IDEC_CBDF
```

- ▶ **Important:** You must source “etc/srcme.csh” at the directory, IDEC_CBDF/
 - ▶ Do NOT source the source file at ~/IDEC_CBDF/etc/ or any other directory
 - ▶ Please make sure that your current directory is ~/IDEC_CBDF/ while sourcing it
 - ▶ Check the message that your path is properly set