

## CATS QUICK START

**Log in on Windows PC** at CNF using your NetID or Guest ID - see <https://confluence.cornell.edu/display/CNF/Windows+at+CNF> - or log in on a Sunray.

**Copy GDS file to W: drive on PC**, which is your directory on the Andrew File System (AFS) server and also your home directory on the Linux CATS servers korat and minx, and your home directory when logged in on a Sunray - see <https://confluence.cornell.edu/pages/viewpage.action?pageId=84181039>

**Start X Windows** (Exceed or xming) on PC and log in with putty to korat or minx Linux server using your NetID or Guest ID - see <https://confluence.cornell.edu/pages/viewpage.action?pageId=81068525>

`cats` (64-bit version) or `cats32` (on minx for 32-bit version)      Start CATS; if graphics windows don't pop up, start X Windows (see above) and start CATS again.

## JEOL PROCEDURE (see next page for VB6 procedure)

Click **JEOL** in "Your Menu"; this defines JEOL9300FS fracturing parameters.

<code>input filename.gds</code>	Inputs the GDS file for conversion
<code>cont</code>	Shows the contents or cells within the gds file
<code>struct CellName</code>	Defines the cell to be converted
<code>extent all</code>	Defines the extents of the pattern

For aligned exposures define extents by typing **limits (x1,y1)(x2,y2)** where these limits are the same for all the levels.

<code>datalayers</code>	Shows all the layers present in the cell
<code>layers 1-4,22,45</code>	Selects layers to be fractured (in this case 1,2,3,4, 22 and 45)

For multiple clocks click **CFA by Layer** then click **Color by CFA** in "Your Menu".

<code>overlap yes</code>	Also needed for multiple clocks
<code>compact no</code>	Needed for multiple clocks

Click **reset** then **draw** in "CATS". These commands could also be typed in the CATS terminal window.

<code>output FileName</code>	Defines the CATS fracture file as <code>FileName_#.cref</code> where # denotes the first layer number
<code>area</code>	Displays pattern area in $\mu\text{m}^2$
<code>do</code>	Creates the file <code>FileName_#.cref</code>
<code>exit</code>	

At the UNIX prompt type:

<code>writefile FileName_#.cref</code>	Creates a <code>FileName_#.j309300fs</code> (may create a <code>FileName_#.v30</code> , depending on how CATS is set up)
<code>mv FileName_#.j309300fs FileName_#.v30</code>	Renames the <code>.j309300fs</code> file to a <code>.v30</code> (may not be necessary)

## FILE TRANSFER

```
ftp jeol
user name: ebttest
password: EBtest
cd pattern/user
bin
put FileName_#.v30
quit
```

## VB6 PROCEDURE (see previous page for login, starting CATS and JEOL procedures)

Click **VB6** in “Your Menu”; this defines Leica VB6-HR fracturing parameters.

<code>input filename.gds</code>	Inputs the GDS file for conversion
<code>cont</code>	Shows the contents or cells within the gds file
<code>struct CellName</code>	Defines the cell to be converted

For aligned exposures using the GEN2 template job file, `extent all` defines pattern limits from a bounding box layer which is not selected later for fracturing.

<code>extent all</code>	Defines the extents of the pattern
<code>datalayers</code>	Shows all the layers present in the cell
<code>layers 1-4,22,45</code>	Selects layers to be fractured (in this case 1,2,3,4, 22 and 45)

For multiple clocks click **CFA by Layer** then click **Color by CFA** in “Your Menu”; for VB6, clocks must be within 0 to 31. Then the following two commands are also necessary:

<code>overlap yes</code>	Allows shapes to overlap
<code>compact no</code>	Turns off “healing” of shapes

Click **reset** then **draw** in “CATS”. These commands could also be typed in the CATS terminal window.

<code>output FileName</code>	Defines the CATS fracture file as FileName_#.cflt (for VB6) where # denotes the first layer number
<code>area</code>	Displays pattern area in $\mu\text{m}^2$
<code>do</code>	Creates the file FileName_#.cflt
<code>exit</code>	

At the UNIX prompt type:

<code>writelfile FileName_#.cflt</code>	Creates a FileName_#.fre
<code>cvview</code>	Inspect the .fre file

## FILE TRANSFER

<code>ftp vb6b</code>	
<code>user name: vb</code>	
<code>password: [ask VB6 manager]</code>	
<code>cd ..</code>	Moves up a level in directory hierarchy, from [vb.users.manager] to [vb.users]
<code>cd userdirectory</code>	
<code>bin</code>	
<code>put FileName_#.fre</code>	
<code>quit</code>	

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