

# GenISys TRACER

Monte Carlo simulator

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## Description:

TRACER includes all the essentials needed to combine Monte-Carlo Point Spread Functions (PSFs) and process PSFs into one effective PSF that describe a particular process, to archive and maintain these functions.

Generated PSFs may then be loaded into [Beamer](#).

## Capabilities:

- Monte Carlo simulator that allows to compute the electron-solid interaction part of the exposure
- Archive/maintain/manage all point spread functions
- Visualization tool that allows to make a judgment on the quality of the PSF
- Facilitator to combine electron PSFs and process PSFs into an effective PSF or to separate out the process contribution PSF from an experimental PSF

## Invoking:

On the [CNF conversion computers](#), the current version of GenISys LayoutLAB can be invoked with any of the following commands (don't type in the dollar sign, that is the command prompt):

```
$ tracer
```

## Documentation:

### Material Archive:

#### Additional Supplemental Materials Files

Additional materials files added by CNF will be located in:

- /usr/local/cnf/tracer/MaterialArchive
1. In a terminal type in: `printenv HOME`
  2. In the File Properties menu dialogue, click on the Directories tab and set the Local Repository Directory to the output of step 1 followed by a forward slash `/.GenISys/Repository`
    - a. It may already be set to this
  3. Type into a terminal: `ls -l /etc/alternatives/TRACER`
  4. In the File Properties menu dialogue, click on the Directories tab and set the Global Repository Directory to the output of step 3, substituting the word 'Repository' for the word 'TRACER'
  5. Optionally copy the files from `/usr/local/cnf/tracer/MaterialArchive` to your local `Repository/MaterialArchive` directory

After making the above changes, you may have to expand/collapse the tree in the left pane of TRACER a few times.

You can create a local copy of the archive using the following terminal commands:

```
# Determine the TRACER version number with:
$ ls -l /etc/alternatives/TRACER

# Optionally copy the additional CNF Materials Archive files
$ rsync -av /usr/local/cnf/tracer/MaterialArchive/ ~/.GenISys/Repository/MaterialArchive
```

```
# For example:
ls -l /etc/alternatives/TRACER

# Gives output:
lrwxrwxrwx. 1 root root 34 Sep 17 2020 /etc/alternatives/TRACER -> /opt/local/TRACER/2.11.1/bin/TRACER

# So you would set the Global Archive to:
/opt/local/TRACER/2.11.1/bin/Repository
```

## Manual and Videos:

- [Manual](#)
- [Training Videos](#)