Composer

Composer is a shell script that calls **tgen** or **a2t**, described below. Operation of **composer** is intended to be self-explanatory. It asks questions about the parameters needed to run **tgen** or **a2t** and puts the answers on the command line to **tgen** or **a2t**. Here is an example of a typical **composer** dialog. Answers typed by the user are underlined:

```
This composer script can run either tgen or a2t to write a task
(tsf) file for opera to send to conductor.  Tgen reads vex files
for initial processing; a2t reads a reprocess list in afile
fringesum format.
Type T for tgen or A for a2t: T
For each question, just Enter of Return to keep defaults.
Experiment code (in global.evex) is 2611_std, change to: 2600_std
Correlator mode key defaults from evex, change to:
Number of useable tape drives is 6, change to:
Station list is a string of one-letter station codes with no spaces.
Station list defaults to all in ovex, change to: CXDBF
Following times are in the format ddd-hh:mm:ss.
Start time defaults to start of ovex, change to: 303-19:40:00
End time defaults to end of ovex, change to: 303-20:21:00
Use Lvex (Y or N) is Y, change to:
The output file will be created or, if it exists, appended.
Output file (in directory $TASK) is mytask, change to: 2600_proc
  I changed that to 2600_proc.tsf
If this is all OK, just Enter or Return.  Or to fix (correct)
  any of your entries, type F; to abort, type ^C (Ctrl C):
Tgen will write to file $TASK/2600_proc.tsf =
          /correlator/task/2600_proc.tsf
composer starting tgen, be patient ...
```

Or:

```
Type T for tgen or A for a2t:  A
For each question, just Enter or Return to keep defaults.
Reprocess (afile) list is 2611_alist, change to:  2600.repro
Number of useable tape drives is 6, change to:
Station list is a string of one-letter station codes with no spaces.
Station list is NULL, change to:  flpokK
The output file will be created or, if it exists, appended.
Output file (in directory $TASK) is mytask, change to:  2600.rep
  I changed that to 2600.rep.tsf
If this is all OK, just Enter or Return.  Or to fix (correct)
  any of your entries, type F; to abort, type ^C (Ctrl C):
A2t will write to file $TASK/2600.rep.tsf =
     /correlator/task/2600.rep.tsf
composer starting a2t ...
```

Tgen

Tgen is ready for alpha testing. **Tgen**, normally called from **composer**, reads ovex and lvex files and generates task files to be sent to **conductor** for correlation. **Tgen** has some known inefficiencies (e.g., it's sometimes very slow, and it doesn't always minimize tape changes) but no known obvious errors. It does not yet know how to do subnetting. (Later versions will read also reprocess lists (a-file format) to make reprocess task files. Meanwhile, see **a2t** for reprocessing.)

Please try **tgen** and tell us about errors or shortcomings. To run **tgen** without **composer**, try:

```
tgen experiment_name (from $SYSVEX/global.evex)  \
     mode_key (from evex)  \
     number_of_active_SUs  \
     station_list  \
     start_time(ddd-hh:mm:ss)  \
     end_time(ddd-hh:mm:ss)  \
     use_lvex (Y or N)  \
     >  output_file_name
```

All the arguments are optional: *experiment_file_name* defaults to 2611_std; *mode_key*, the correlator mode, defaults to just a comment in the task file, which tells conductor to read the default from evex; *number_of_active_SUs* (number of usable tape drives) defaults to 6, *station_list* (no spaces, order is significant) defaults to all stations, *start_time* defaults to zero, *end_time* defaults to end of the year, and *use_lvex* defaults to Y (yes). A dot (.) acts as a placeholder, if necessary, to preserve the defaults for any previous arguments. The *output_file_name* should end in .tsf and be put into $TASK.

a2t

a2t is a rather crude utility program that reads a reprocess list in **afile** fringesum format and writes a reprocess task-stream file to stdout. The lines in the input file should be grouped by scan, preferably in time sequence. Command-line arguments are the **afile** name, an ordered station list, and the number of SUs. The output is normally redirected to a *something*.tsf file. Since **a2t** knows the experiment number but not the experiment key, you may need to edit the output file to add ekey and also mode.

Typical usage:

```
a2t Afilename Stationlist NumSUs > outfile.tsf
```

or use >> instead of > to append to an existing task-stream file.

Since **a2t** can now be called from **composer**, this is the recommended usage.

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