

NX Nastran IO

WHITEPAPER

Flushing the .f04 and .f06 File Buffers to Disk

```
C:\>kill -l  
HUP INT QUIT ILL TRAP ABRT EMT FPE KILL  
U POLL XCPU XFSZ UALRM PROF WINCH LOST  
C:\>kill -USR1 24100
```

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Overview

```
C:\>kill -l
HUP INT QUIT ILL TRAP ABRT
U POLL XCPU XFSZ UALRM PRO
C:\>kill -USR1 24100
```

Software:
NX Nastran 10

Many times when running NX Nastran on larger models, you may be interested in looking at the .f04 or .f06 file to monitor the progress of the run or see an intermediate result. Unfortunately, those files are buffered and may not be updated if Nastran is working on something computationally challenging. Nastran has a feature that flushes the buffer and shows what has been written to the .f04 and .f06 files up to that point.

More information on .f04 files can be found in the NX Nastran User's Guide → NX Nastran Output Files → Understanding the .f04 File. More information on .f06 files can be found in the NX Nastran User's Guide → NX Nastran Output Files → Understanding the .f06 File.

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Brief Introduction to *Kill*

The Linux or UNIX command *kill* is a well-known way to terminate processes. Typically, a hanging or unresponsive process may need to be stopped. The command “ps” or equivalent lists all running processes and shows the associated process IDs (pid). Typing the following would terminate the process with the pid:

```
kill -9 pid
```

Fortunately, the *kill* command has more flexibility than that, and it is capable of sending other signals to processes. Type one of the following to find out which signals can be sent:

```
kill -l  
or  
kill --list
```

This list should hopefully contain the USR1 signal.

Flushing the .F04 and .F06 File Buffers

To flush the file buffers, send the Nastran process (usually called “analysis”) the signal “USR1.” If the process pid is known, type the following:

```
kill -USR1 pid
```

The signal number corresponding to USR1 on your system can also be used, but be very careful—the signal numbers change from system to system and most of the signals will terminate the process.

Once the Nastran process has received the signal to flush, the .f04 and .f06 files should be updated with the latest progress from Nastran. However, there may be some delay before the files are updated.

More information on flushing .f04 and .f06 files can be found in the NX Nastran Installation and Operations Guide → Using the Basic Functions of NX Nastran → Resolving Abnormal Terminations → Flushing .f04 and .f06 Output to Disk.

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