

## LESSON #8 WRITING AND RUNNING A COMMAND FILE

1. Open the SRT and a text editor such as Notepad.
2. We've learned how to do many different things with the SRT: how to move it, stow it, do npoints, change the frequency, change the bandwidth, calibrate it, and record data. We've also learned that the SRT moves very slowly, so doing these tasks can take a long time. Thankfully, there is a way to program the SRT and have it complete a list of commands by itself.
3. We'll write these programs in Notepad.
4. Each command will start with its own line.
5. Each line begins with a colon ":" unless it begins with a time.
6. The colon is followed by a space unless the line commands the telescope to wait for a given time.
7. Use an asterisk "\*" to comment out a line. (The computer will not read what is written between asterisks. This is a good way to explain to a person what the code means.)
8. The following is a list of some of the commands you can use.

2008:206:14:00:00 Wait until the 14<sup>th</sup> hour (UT) of the 206<sup>th</sup> day of the year

2008, then read the next line.

:60 Wait 60 seconds, then read the next line

: Sun Go to the sun. This also works for other sources like Test  
and the Moon



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: test                *go to the test position*
: calibrate           *calibrate the telescope*
: record sunjuly24.rad *record a data file named sunjuly 24*
                    *notice that the name of the file ends with*
                    * .rad *
: Sun n              *go to the sun and do an npoint*
2004:206:14:00:00 Sun n *wait until 14:00 UT and then do an npoint*
2004:206:16:00:00 Sun n *wait until 16:00 UT and then do an npoint*
2004:206:18:00:00 Sun n *wait until 18:00 UT and then do an npoint*
2004:206:20:00:00 roff *wait until 20:00 UT and then stop recording*
: stow               *go to stow, (we can't see the sun at night)*
2004:206:12:30:00 freq 1415 2 *wait until 12:30 UT on July 25th and then set*
                    *the frequency and mode*
: test                *go to the test position*
: calibrate           *calibrate the telescope*
: record sunjuly25.rad *record a data file named sunjuly25*
: Sun n              *go to the sun and do an npoint*
2004:207:14:00:00 Sun n *wait until 14:00 UT and then do an npoint*
2004:207:16:00:00 Sun n *wait until 14:00 UT and then do an npoint*
2004:207:18:00:00 Sun n *wait until 14:00 UT and then do an npoint*
2004:207:20:00:00 roff *wait until 14:00 UT and then stop recording*
: stow               *go to the stow position*

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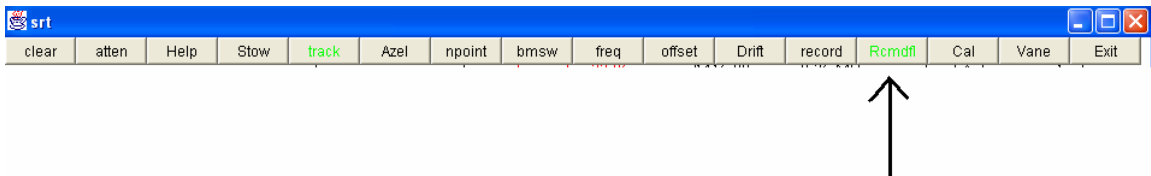
When she comes in on Monday, she'll have two data files waiting for here, one from July 24<sup>th</sup> named sunjuly24 and one from July 25<sup>th</sup> named sunjuly25. For each data file, she made sure that she was in the correct frequency and mode to record the sun. She also made sure to calibrate the telescope on an empty part of the sky (the test position) and to correct any aiming problems with repeated npoints. She could have used the “: roff” command to stop recording data when doing the npoints.

10. Decide on a task for the telescope to complete. Write out the task in words as if you were telling a person what to do. In Notepad, write a command file to perform the task. Comment each line (as my friend did) so that someone else will be able to understand what your program is doing.

11. Save your file to the SRT folder on the C:\ drive. YOUR FILE'S NAME MUST END WITH ".cmd".

12. Have the SRT run your program. In the SRT text window, type the name of your command file including the last four characters ".cmd". DO NOT HIT RETURN.

Instead click the Rcmdfl button on the task bar (it stands for read command file)



13. Make sure that your program runs as intended and your data files are recorded correctly.

14. Stow the telescope; you're done.