

Please extract the general purpose reader package into a workspace that contains the davinci_kinematics package or it would not compile.

Then try catkin_make to compile this package. This work has been lacking maintenance for quite a while so it is still possible that it would not compile on your machine. Please let me know if that happens.

HOW TO USE

After you successfully add this package. Please

1. first **cd to the directory** where you keep the **playfiles**, then:
2. run the following:
`roslaunch general_purpose_reader main_test_2`
3. input the full name of the target file

```
Hit ENTER to Start...

GENERAL PURPOSE PLAYFILE READER MKI
BAE SYSTEMS

If you want to work on one or multiple Cartesian space playfiles, please enter the
names, and hit Enter to finish.

* The utilities that require at least one playfile name:
  Gearbox
  Gearbox SMART
  Time Interpolation
  Playfile split
  IK solution
  Cartesian playfile reverse

If you don't need to input a playfile, please just hit the Enter to skip.

* The utilities that does not require any playfile names:
  ..List not complete

To QUIT, hit Enter to skip first and then select.
Do not try 'Ctrl + C'..

* * * Now please type in the playfile names or just hit Enter to skip * * *
Enter a playfile name:
test.csp
Loading.. entry #1: test.csp

Enter a playfile name:

You have entered 1 files.
```

4. Then hit Enter and press 1 to select Mode. You should use 12 to reverse a csp file. Choose from the filelist to select the file you wish to manipulate, if you only input one file, you should choose 0.

```
Do you wish to Proceed and Select Mode (press 1) or Restart (press 2) or Quit (p
ress 0)?
1
[ INFO] [1495009645.727008930]: Filelist:
0. test.csp

Please Choose Mode:
Press 1 for Gearbox
Press 2 for Gearbox SMART
Press 3 for Time Interpolation
Press 4 to Move the gripper (NOT TESTED)
Press 5 to Generate a playfile to command the gripper to draw a circle (NOT TEST
ED)
Press 6 to Split a playfile
Press 7 to Generate a circle drawing playfile in jointspace
Press 8 to Generate 2 sphere-rover playfiles for both psms in jointspace
Press 10 to Solve IK for a csp file
Press 11 to Generate 2 sphere-rover (collision avoidance) playfiles for both psms
in jointspace (for the current da Vinci config ONLY)
Press 12 to Reverse a csp file

Press 9 to change mode / return:
```

5. Then it will reverse the playfile. And you need to give it a name, the file will be saved under the same directory you are in.

```
Choose one file to reverse:
0
CSV file contains 7 records.
There are 7 records:
record test.csp has been loaded.
[ INFO] [1495009655.902399716]: Calling csp reversing function..
type name:
after.csp
```

Result

Before:

[illegible]

After:

1 7,1
2 6,2
3 5,3
4 4,4
5 3,5
6 2,6
7 1,7

So as you can see, the last column (arrival time) remained unchanged. But the order of the rows has been reversed.