PASSOS P INSTALACAO DO PLAYER

1) download source, versao 3.0.2, http://sourceforge.net/projects/playerstage/files/Player/

execute >$ echo $LD\_LIBRARY\_PATH

não pode estar apontando para diretorios do ROS.

abra um novo terminal sem executar o source /opt/ros/hydro/setup.bash

certifique que este novo terminal nao tem ROS re-executando o comando anterior.

2) Compilação e instalação

antes de iniciar a instalação, certiifique-se que estes pacotes estao instalados

$ sudo apt-get install cmake-curses-gui

$ sudo apt-get install libboost-all-dev

$ sudo apt-get install libgnomecanvas2-dev libgnomecanvasmm-2.6-dev python-gnome2

$ sudo apt-get install libgsl0-dev

$ sudo apt-get install libopencv-dev

seguir passsos do link http://www.control.aau.dk/~tb/wiki/index.php/Installing\_Player\_and\_Stage\_in\_Ubuntu

$ cd player-<version>

BUILD\_PYTHONCPP\_BINDINGS = ON :se nao aparecer teclar “t” depois “c” ate aparecer

BUILD\_DOCUMENT

$ mkdir build

$ cd build

$ ccmake ../ <= selecionar pacotes que devem ser instalados. prestar atencao nas msg de warning !

Obs: Se nada aparecer teclar “c” para configurar e listar os pacotes

ATION = ON

DEBUG\_LEVEL medium

$ cmake ../ <= prestar atencao nas msg de warning ! verificar se existem dependencias a serem resolvidas

$ make

possivelmente vai acontecer o seguinte erro:

/home/ale/Downloads/player-3.0.2/server/drivers/rfid/skyetekM1.cc:622:11: warning: variable ‘s\_rwStatus’ set but not used [-Wunused-but-set-variable]

[ 75%] Building CXX object server/libplayerdrivers/CMakeFiles/playerdrivers.dir/\_\_/drivers/rfid/acr120u.o

[ 75%] Building CXX object server/libplayerdrivers/CMakeFiles/playerdrivers.dir/\_\_/drivers/shell/cmdsplitter.o

[ 75%] Building CXX object server/libplayerdrivers/CMakeFiles/playerdrivers.dir/\_\_/drivers/shell/diocmd.o

[ 75%] Building CXX object server/libplayerdrivers/CMakeFiles/playerdrivers.dir/\_\_/drivers/shell/dummy.o

[ 75%] Building CXX object server/libplayerdrivers/CMakeFiles/playerdrivers.dir/\_\_/drivers/shell/gripcmd.o

[ 76%] Building CXX object server/libplayerdrivers/CMakeFiles/playerdrivers.dir/\_\_/drivers/shell/inhibitor.o

[ 76%] Building CXX object server/libplayerdrivers/CMakeFiles/playerdrivers.dir/\_\_/drivers/shell/kartowriter.o

[ 76%] Building CXX object server/libplayerdrivers/CMakeFiles/playerdrivers.dir/\_\_/drivers/shell/writelog.o

[ 76%] Building CXX object server/libplayerdrivers/CMakeFiles/playerdrivers.dir/\_\_/drivers/shell/encode.o

[ 77%] Building CXX object server/libplayerdrivers/CMakeFiles/playerdrivers.dir/\_\_/drivers/shell/readlog\_time.o

[ 77%] Building CXX object server/libplayerdrivers/CMakeFiles/playerdrivers.dir/\_\_/drivers/shell/readlog.o

/home/ale/Downloads/player-3.0.2/server/drivers/shell/readlog.cc: In member function ‘virtual void ReadLog::Main()’:

/home/ale/Downloads/player-3.0.2/server/drivers/shell/readlog.cc:668:43: error: cannot convert ‘FILE\* {aka \_IO\_FILE\*}’ to ‘gzFile’ for argument ‘1’ to ‘off\_t gzseek(gzFile, off\_t, int)’

/home/ale/Downloads/player-3.0.2/server/drivers/shell/readlog.cc:714:62: error: cannot convert ‘FILE\* {aka \_IO\_FILE\*}’ to ‘gzFile’ for argument ‘1’ to ‘char\* gzgets(gzFile, char\*, int)’

make[2]: \*\*\* [server/libplayerdrivers/CMakeFiles/playerdrivers.dir/\_\_/drivers/shell/readlog.o] Error 1

make[1]: \*\*\* [server/libplayerdrivers/CMakeFiles/playerdrivers.dir/all] Error 2

make: \*\*\* [all] Error 2

ale@robot:~/Downloads/player-3.0.2/build$ geany /home/ale/Downloads/player-3.0.2/server/drivers/shell/readlog.cc &

A solucao deste erro eh simples. no arquivo /home/ale/Downloads/player-3.0.2/server/drivers/shell/readlog.cc

linhas 668 e 714, realizar a seguinte modificação.

ret = gzseek(this->file,0,SEEK\_SET);

to

ret = gzseek((gzFile)this->file,0,SEEK\_SET);

esta solucao foi encontrada em http://sourceforge.net/p/playerstage/mailman/message/28996935/

$ sudo make install # You need administrator privileges if you install in the default /usr/local, hence sudo.

TODO: nao compilei o Player com o driver p ARToolkit.

para isso, eh necessario 1o instalar o ARToolkit e depois repetir o processo de compilacao do Player.

3) testando o player

fonte: http://playerstage.sourceforge.net/doc/Player-cvs/player/start.html

$ player /usr/local/share/player/config/pioneer.cfg

Registering driver

Player v.3.0.2

\* Part of the Player/Stage/Gazebo Project [http://playerstage.sourceforge.net].

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\* for details.

/usr/local/share/player/config/pioneer.cfg:15 error: unknown interface: [sound]

/usr/local/share/player/config/pioneer.cfg:15 error: unknown interface: [sound]

/usr/local/share/player/config/pioneer.cfg:15 error: unknown interface: [sound]

/usr/local/share/player/config/pioneer.cfg:15 error: unknown interface: [sound]

/usr/local/share/player/config/pioneer.cfg:15 error: unknown interface: [sound]

/usr/local/share/player/config/pioneer.cfg:15 error: unknown interface: [sound]

/usr/local/share/player/config/pioneer.cfg:15 warning: field [provides] has unused element 10

listening on 6665

Listening on ports: 6665

não vai acontecer nada pois nao temos o robo. para ter animacao/simulacao eh necessario compilar tb o stage.

4) compilação dos exemplos

fontes:

- http://playerstage.sourceforge.net/doc/Player-cvs/player/group\_\_cplusplus\_\_example.html

- http://www.csupomona.edu/~ftang/courses/player%20stage/player-stage-intro.htm

incluir a seguinte linha no final do arquivo ~/.bashrc

# linha necessaria p poder compilar com Player

export PKG\_CONFIG\_PATH=/usr/local/lib64/pkgconfig/:$PKG\_CONFIG\_PATH

Ao executar este comando

$ pkg-config --cflags playerc++

a saida deve ser

-I/usr/local/include/player-3.0

$ mkdir meus\_exemplos

$ cd meus\_exemplos

$ ccmake /usr/local/share/player/examples/libplayerc++ <= pressione 'c' e 'g'

$ cmake

$ make

isto vai gerar varias msg de compilacao dos exemplos e vários executáveis

ale@robot:~/Downloads/player-3.0.2/meus\_exemplos$ ll

total 1148

drwxrwxr-x 3 ale ale 4096 Mai 17 12:17 ./

drwxrwxr-x 24 ale ale 4096 Mai 17 12:23 ../

-rwxrwxr-x 1 ale ale 21351 Mai 17 12:16 camera\*

-rwxrwxr-x 1 ale ale 21505 Mai 17 12:16 clientgraphics\*

-rwxrwxr-x 1 ale ale 21406 Mai 17 12:16 clientgraphics3d\*

-rw-rw-r-- 1 ale ale 13724 Mai 17 12:16 CMakeCache.txt

drwxrwxr-x 21 ale ale 4096 Mai 17 12:17 CMakeFiles/

-rw-rw-r-- 1 ale ale 1647 Mai 17 12:16 cmake\_install.cmake

-rwxrwxr-x 1 ale ale 46149 Mai 17 12:16 example0\*

-rwxrwxr-x 1 ale ale 193281 Mai 17 12:16 example1\*

-rwxrwxr-x 1 ale ale 142451 Mai 17 12:17 example2\*

-rwxrwxr-x 1 ale ale 33903 Mai 17 12:17 example3\*

-rwxrwxr-x 1 ale ale 46229 Mai 17 12:17 example4\*

-rwxrwxr-x 1 ale ale 146446 Mai 17 12:17 goto\*

-rwxrwxr-x 1 ale ale 20983 Mai 17 12:17 grip\*

-rwxrwxr-x 1 ale ale 51716 Mai 17 12:17 laserobstacleavoid\*

-rw-rw-r-- 1 ale ale 20548 Mai 17 12:16 Makefile

-rwxrwxr-x 1 ale ale 51454 Mai 17 12:17 ptz\*

-rwxrwxr-x 1 ale ale 56418 Mai 17 12:17 randomwalk\*

-rwxrwxr-x 1 ale ale 51657 Mai 17 12:17 sonarobstacleavoid\*

-rwxrwxr-x 1 ale ale 21215 Mai 17 12:17 speech\*

-rwxrwxr-x 1 ale ale 104955 Mai 17 12:17 speech\_cpp\_client\*

-rwxrwxr-x 1 ale ale 46507 Mai 17 12:17 wallfollow\*

5) download, compilacao e instalacao do stage 4.1.1

https://github.com/rtv/Stage/archive/master.zip

de acordo com o arquivo INSTALL.txt, este pacotes devem ser instalados inicialmente

$ sudo apt-get install git cmake g++ fltk1.1-dev libjpeg8-dev libpng12-dev libglu1-mesa-dev libltdl-dev

execute este comando para ele achar o Player

$ pkg-config --modversion playercore

não nao mostrar a versao do Player, certifique-se de configurar o comando com

$ export PKG\_CONFIG\_PATH=/usr/local/lib64/pkgconfig/:$PKG\_CONFIG\_PATH

execute o prox comand verificando se todas as libs e dependencias relevantes foram encontradas.

$ cmake .

CMAKE\_BUILD\_TYPE debug

execute o prox comando para verificar as configuracoes de compilacao

$ ccmake .

execute o prox comando para realizar a compilação

$ make

execute o prox comando para instalar no dir /usr/local

Stage will install its components in various directories, for example:

<prefix>/bin (executables, including the 'stage' program)

<prefix>/lib (libraries, including libstage)

<prefix>/share (contains data resources, such as images)

Os exemplos de mundos estão instalados no dir

/usr/local/share/stage/worlds/

os includes estao em /usr/local/include/Stage-4.1/

$ sudo make install

6) configuracao do stage

export LD\_LIBRARY\_PATH=$LD\_LIBRARY\_PATH:/usr/local/lib64:/usr/lib:.

export PLAYER\_PATH=/usr/local/lib64

export STAGEPATH=/usr/local/lib64

export PYTHONPATH=$PYTHONPATH:/usr/local/lib64/python2.7/site-packages/

export PKG\_CONFIG\_PATH=/usr/local/lib64/pkgconfig/:$PKG\_CONFIG\_PATH

Obs**:**PKG\_CONFIG\_PATH necessário para compilar programas

o prox cmd vai executar o stage com um robo vermelho

$ stage worlds/simple.world

Outras fontes

- http://yorkroboticist.blogspot.com.br/2011/12/installing-playerstage-in-ubuntu-1110.html

http://yorkroboticist.blogspot.com.br/2011/12/upgrading-to-ubuntu-1110-with.html

6) verificando compilacao

fonte: http://mobotica.blogspot.com.br/2010/03/installing-player-stage-what-worked-for.html

$ mkdir meus\_exemplos

$ cd meus\_exemplos

$ cp /usr/local/share/player/examples/libplayerc++/args.h .

$ cp /usr/local/share/player/examples/libplayerc++/laserobstacleavoid.cc .

$ g++ -o laserobstacleavoid `pkg-config --cflags playerc++` laserobstacleavoid.cc `pkg-config --libs playerc++`

verifique se o executavel foi gerado

7) teste

em um terminal execute

$ player /usr/local/share/stage/worlds/simple.cfg

em outro terminal execute

$ playerv --position2d --ranger

duas diferentes janelas de visualizacao serão abertas. experimente mover o

robo vermelho na janela do stage. Note que a janela do PlayerViewer detecta

as mudanças no ambiente a medida que vc movo o robô.

De forma similar, experimente mudar a posição do robo na janela do PlayerViewer.

1o, habilite esta opção no menu devices->position2d->command

click no centro do robô e arraste para outra posição. Note que agora o robo

se move na janela do Stage. Experimente habilitar os outros senrores na janela do PlayerViewer.

O proximo passo é fazer o robô se mover sozinho.