

# **Useful commands at SDCC**

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# Status at SDCC

- Data from the buffer box: /sphenix/lustre01/sphnxpro/commissioning/INTT/
  - Our working place: /sphenix/tg/tg01/commissioning/INTT
    - Hit base and event base ROOT files: /sphenix/tg/tg01/commissioning/INTT/root\_files
    - Merged ROOT files: /sphenix/tg/tg01/commissioning/INTT/merged\_root\_files
- One may want to know which run is available in SDCC easily
- We should share such useful commands
- Additionally, setting analysis environment up easily.

# The setup directory for the INTT group

I just made it: /sphenix/lustre01/sphnxpro/commissioning/INTT/repositories/libraries

- **intt\_setup.sh** : PATH, LD\_LIBRARY\_PATH, etc. are configured.
- **bin** : some useful commands are there
- **lib** : Libraries to be shared in the INTT group should be here (nothing there now, to be discussed)
- **include** : Header files to be shared in the INTT group should be here (nothing there now, to be discussed)

```
[nukazuka@sphnx05 17:02:45 libraries] $ ls  
bin  include  intt_setup.sh  intt_setup.sh~  lib
```

# Useful command: intt\_runs

## A list of runs in SDCC is shown

Usage: intt\_runs [file type] [run type]

[file type]: evt hit\_base event\_base merged\_event\_base DST

[run type]: beam calib calibration cosmics junk pedestal

```
[nukazuka@sphnx05 17:08:20 libraries] $ intt_runs evt cosmics
/sphenix/lustre01/sphnxpro/commissioning/INTT/cosmics/
00021052
00021053
00021076
00021077
00021078
00021079
00021080
00021081
00021082
00021084
00021085
00021086
00021087
00021088
00021089
00021090
00021212
00024201
00024202
00024203
00024205
```

```
[nukazuka@sphnx05 17:10:30 libraries] $ intt_runs merged_event_base beam
/sphenix/tg/tg01/commissioning/INTT/merged_root_files/
00020864
00020866
00020867
00020868
00020869
00020878
00020880
00020881
00020883
00020885
```



# Useful command: `intt_runs_felix`

## A list of run in SDCC is shown FELIX by FELIX

Usage: `intt_runs_felix [file type] [run type]`

```
[file type]: evt hit_base event_base merged_event_base DST
```

```
[run type]: beam calib calibration cosmics junk pedestal
```

```
[nukazuka@sphnx05 17:11:08 libraries] $ intt_runs_felix evt cosmos
00021052 : 0 (0, ) 1 (0, ) 2 (0, ) 3 (0, ) 4 (0, ) 5 (0, ) 6 (0, ) 7 (0, )
00021053 : 0 (0, ) 1 (0, ) 2 (0, ) 3 (0, ) 4 (0, ) 5 (0, ) 6 (0, ) 7 (0, )
00021076 : 0 (0, ) 1 (0, ) 2 (0, ) 3 (0, ) 4 (0, ) 5 (0, ) 6 (0, ) 7 (0, )
00021077 : 0 (0, ) 1 (0, ) 2 (0, ) 3 (0, ) 4 (0, ) 5 (0, ) 6 (0, ) 7 (0, )
00021078 : 0 (0, ) 1 (0, ) 2 (0, ) 3 (0, ) 4 (0, ) 5 (0, ) 6 (0, ) 7 (0, )
00021079 : 0 (0, ) 1 (0, ) 2 (0, ) 3 (0, ) 4 (0, ) 5 (0, ) 6 (0, ) 7 (0, )
00021080 : 0 (0, 1, 2, 3, ) 1 (0, 1, ) 2 (0, 1, 2, ) 3 (0, 1, 2, 3, ) 4 (0, 1, ) 5 (0, 1, 2, 3, 4, 5, ) 6 (0, 1, 2, ) 7 (0, 1, 2, 3, 4, 5, )
00021081 : 0 (0, ) 1 (0, ) 2 (0, ) 3 (0, ) 4 (0, ) 5 (0, ) 6 (0, ) 7 (0, )
00021082 : 0 (0, ) 1 (0, ) 2 (0, ) 3 (0, ) 4 (0, ) 5 (0, ) 6 (0, ) 7 (0, )
```

```
[nukazuka@sphnx05 17:13:33 libraries] $ intt_runs_felix event_base beam
00000001 : 0 (0, ) 1 (0, ) 2 (0, ) 3 (0, ) 4 (0, ) 5 (0, ) 6 (0, ) 7 (0, )
00000012 : 0 ( ) 1 ( ) 2 ( ) 3 ( ) 4 (1, ) 5 ( ) 6 ( ) 7 ( )
00007420 : 0 (0, ) 1 (0, ) 2 (0, ) 3 (0, ) 4 (0, ) 5 (0, ) 6 (0, ) 7 (0, )
00007421 : 0 (0, ) 1 (0, ) 2 (0, ) 3 (0, ) 4 (0, ) 5 (0, ) 6 (0, ) 7 (0, )
00007422 : 0 (0, ) 1 (0, ) 2 (0, ) 3 (0, ) 4 (0, ) 5 (0, ) 6 (0, ) 7 (0, )
00007423 : 0 (0, ) 1 (0, ) 2 (0, ) 3 (0, ) 4 (0, ) 5 (0, ) 6 (0, ) 7 (0, )
00007424 : 0 (0, ) 1 (0, ) 2 (0, ) 3 (0, ) 4 (0, ) 5 (0, ) 6 (0, ) 7 (0, )
00007425 : 0 (0, ) 1 (0, ) 2 (0, ) 3 (0, ) 4 (0, ) 5 (0, ) 6 (0, ) 7 (0, )
00007426 : 0 (0, ) 1 (0, ) 2 (0, ) 3 (0, ) 4 (0, ) 5 (0, ) 6 (0, ) 7 (0, )
00007427 : 0 (0, ) 1 (0, ) 2 (0, ) 3 (0, ) 4 (0, ) 5 (0, ) 6 (0, ) 7 (0, )
00007428 : 0 (0, ) 1 (0, ) 2 (0, ) 3 (0, ) 4 (0, ) 5 (0, ) 6 (0, ) 7 (0, )
00007429 : 0 (0, ) 1 (0, ) 2 (0, ) 3 (0, ) 4 (0, ) 5 (0, ) 6 (0, ) 7 (0, )
```

[illegible]



# Useful command: intt\_runs\_diff

**The difference of available runs between file types for the same run type**

Usage: `intt_runs_diff [file type A] [file type B] [run type]`

[file type A], [file type B]: `evt hit_base event_base merged_event_base DST`

[run type]: `beam calib calibration cosmics junk pedestal`

```
[nukazuka@sphnx05 12:58:44 ~] $ intt_runs_diff evt event_base cosmics
/sphenix/lustre01/sphnxpro/commissioning/INTT/cosmics/      | /sphenix/tg/tg01/commissioning/INTT/root_files/
00021052                                                    <
00021053                                                    <
00021076                                                    <
00021077                                                    <
00021078                                                    <
00021079                                                    <
00021080                                                    <
00021081                                                    <
00021082                                                    <
00021084                                                    <
00021085                                                    <
00021086                                                    <
00021087                                                    <
00021088                                                    <
```

↑  
Runs only in the list of evt files

↑  
Runs only in the list of event base ROOT files

# Useful command: intt\_help

An explanation is shown

Usage: intt\_runs\_felix

```
# HELP for INTT softwares
```

```
## How to use
```

Run the setup script:

```
source
```

```
/sphenix/tg/tg01/commissioning/INTT/repositories/librares/intt_setup.sh
```

so PATH and LD\_LIBRARY\_PATH are set. It takes no argument.

If you write the command in your .bashrc, it's done automatically👍.

```
## Commands
```

```
### intt_help
```

This command

```
### intt_readme
```

A command to show README.md (or any text files in markdown style) nicely.

It's actually runs glow ( <https://github.com/charmbracelet/glow> ).

You can run it simply

```
intt_readme README.md
```

(README.md above is a path to a text file to be shown).

```
### intt_runs
```

It shows a list of runs in SDCC.

Usage: intt\_runs [file type] [run type]

[file type]: evt hit\_base event\_base merged\_event\_base DST

[run type]: beam calib calibration cosmics junk pedestal

So you will see for example

# Useful command: intt\_readme

## It prints contents in a text file

Usage: intt\_readme [file name]

[file name]: The txt file name to be shown.

```
[nukazuka@sphnx05 17:15:33 INTT] $ pwd -P
/direct/sphenix+tg+tg01/commissioning/INTT
[nukazuka@sphnx05 17:15:35 INTT] $ ls
README.md  README.md~  commissioning_production  dst_files  evt_files  map_ladder  merged_root_files  repositories  root_files  show_README.sh  show_README.sh~  work
[nukazuka@sphnx05 17:15:37 INTT] $ intt_readme README.md
```

### The working directory for INTT

#### ## Directories

#### ### Place for processing commissioning data

- commissioning\_production

#### ### Data Storage

- evt\_files : A directory for evt files, but actually, we use /sphenix/lustre01/sphnxpro/commissioning/INTT/ since data from the buffer box comes there.
- root\_files : ROOT files (hit-base TTree, event-base TTree, not merged) are here.
- merged\_root\_files : Merged ROOT files for each run are here.
- dst\_files : DST files are here (in the future).

#### ### Map

- map\_ladder : Maps of ladder are here. They are copy of those in OPC0.

#### ### Working place for individuals

- work : Your place!

#### ### Software

- repositories : Common softwares should be put here. A setup shell script will be made to use them easily.

#### #### Contents in repositories directory

- INTT
- INTT\_ExpertGUI
- INTT\_Geo
- INTT\_HV\_GUI
- INTT\_standalone\_DAQ
- InttEventDisplay
- README.md
- librares : A prefix for installation.

#### ### Files

- README.md : This file
- show\_README.sh : This script shows this README nicely.

例

/sphenix/tg/tg01/commissioning/INTT/  
README.md

Each directory should have a README file. To read it, this command, which just uses the external command, is better than *cat*.

Any questions/opinions/requests?  
You can share your commands!