# *Grass on HPC*

## What is Grass?

**Geographic Resources Analysis Support System**, commonly referred to as GRASS GIS, is a Geographic Information System (GIS) used for geospatial data management and analysis, image processing, graphics/maps production, spatial modeling, and visualization. GRASS is currently used in academic and commercial settings around the world, as well as by many governmental agencies and environmental consulting companies.

Links:

[Official Website](#)

[Documentation](#)

## Versions Available:

The following versions are available on the cluster:

- Grass-v6.4.3

## How to load Grass?

To load Grass, use the following commands:

```
#Load the Grass module
module load physical/grass
```

To verify if the module and dependencies are loaded correctly, use the following command.

```
#See dependencies
module list
```

This should list all the software and dependencies that are loaded.  In this case, only grass will be loaded. If user wants to create python environment compatible for grass, load the Miniconda3 module.

## How to use Grass?

The main executable of the program is **grass64.**

```
Usage:
  grass64 [-h | -help | --help] [-v | --version] [-c]
          [-text | -gui | -tcltk | -oldtcltk | -wxpython | -wx]
          [[[<GISDBASE>/]<LOCATION_NAME>/]<MAPSET>]

Flags:
  -h or -help or --help          print this help message
  -v or --version                show version information and exit
  -c                             create given mapset if it doesn't
exist
  -text                          use text based interface
                                   and set as default
  -gui                           use graphical user interface
(wxpython by default)
                                   and set as default
  -tcltk                         use Tcl/Tk based graphical user
interface
                                   and set as default
  -oldtcltk                      use old Tcl/Tk based graphical user
interface
                                   and set as default
  -wxpython or -wx               use wxPython based graphical user
```

```
interface
                                      and set as default

Parameters:
  GISDBASE                            initial database (path to GIS data)
  LOCATION_NAME                       initial location
  MAPSET                              initial mapset

  GISDBASE/LOCATION_NAME/MAPSET   fully qualified initial mapset
directory

Environment variables relevant for startup:
  GRASS_GUI                           select GUI (text, gui, tcltk,
oldtcltk, wxpython)
  GRASS_TCLSH                         set tclsh shell name to override
'tclsh'
  GRASS_WISH                          set wish shell name to override
'wish'
  GRASS_HTML_BROWSER                  set html web browser for help pages
  GRASS_ADDON_PATH                    set additional path(s) to local GRASS
modules
  GRASS_BATCH_JOB                     shell script to be processed as batch
job
  GRASS_PYTHON                        set python shell name to override
'python'
```

See the following links for tutorial and HPC resources for using grass,

QuickStart

HPC scripts

## *Where to find help?*

If you are stuck on some part or need help at any point, please contact OIT at the following address.

https://ua-app01.ua.edu/researchComputingPortal/public/oitHelp