



# Regular Expressions on Command

🕒 3 hours

🔧 Prerequisites (see below)

📍 At your campus

💰 No cost to members

```
$GPGGA,000157.000,3508.2382,S,14841.19  
$GPRMC,000157.000,A,3508.2382,S,14841.19  
$GPGGA,000340.000,3508.3105,S,14841.10  
$GPRMC,000340.000,A,3508.3105,S,14841.10  
$GPGGA,000519.000,3508.3764,S,14840.77  
$GPRMC,000519.000,A,3508.3764,S,14840.77  
$GPGGA,000700.000,3508.3982,S,14840.75  
$GPRMC,000700.000,A,3508.3982,S,14840.75  
$GPGGA,000839.000,3508.6913,S,14840.65  
$GPRMC,000839.000,A,3508.6913,S,14840.65
```

```
#!/usr/bin/awk -f  
function to_deg(coord, dir)  
{  
    match(coord, /([0-9]+)([0-9]{2})  
    minutes = arr[2] "." arr[3]  
    fractional_degrees = minutes  
    degrees = arr[1] + fractional_degrees  
  
    if (dir == "S" || dir == "W")  
        degrees = -degrees  
  
    return degrees  
}
```



## Why do this course?

Would you like to use regular expressions with the classic command line utilities `find`, `grep`, `sed` and `awk`? These venerable Unix utilities allow you to search, filter and transform large amounts of text (including many common data formats) efficiently and repeatably.

## You'll learn how to use:

- `find` to locate files and directories matching regexes.
- `grep` to filter lines in files based on pattern matches.
- `sed` to find and replace using regular expressions and captures.
- `awk` to work with row- and column-oriented data.

## Prerequisites

This course assumes prior knowledge of the basic syntax of regular expressions. If you're new to regular expressions or would like a refresher, take our **Powerful Text Searching & Matching with Regular Expressions** course first.

This course also assumes basic familiarity with the Bash command line environment found on GNU/Linux and other Unix-like environments. Take our **Introduction to Unix** course to get up to speed quickly.

## The Intersect approach to training

At Intersect, we work closely with our member universities to develop and deliver training that targets the day-to-day software and technology problems that researchers face. We deliver hands-on courses in a relaxed setting with knowledgeable, helpful trainers who are themselves researchers and who know how researchers work.

Questions always welcome.

For more information visit  
**Learn.intersect.org.au**



**Learn**  
[.intersect.org.au](https://www.intersect.org.au)