

How to (not) use module

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Issue: clashes

```
$ module load snakemake
```

```
$ snakemake --version
```

```
3.11.2
```

```
$ module load SEPP
```

```
$ snakemake --version
```

```
3.8.0
```

Issue: clashes

```
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```
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```
3.11.2
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```
$ snakemake --version
```

```
3.8.0
```

*Be careful with the SEPP
module, it's a Kitchen sink!*

A more subtle clash

```
$ module load Java/1.7.0_80
```

```
$ java -version
```

```
java version "1.7.0_80"
```

```
$ module load R
```

```
$ java -version
```

```
java version "1.8.0_112"
```

Discoverability

```
$ samtools<TAB><TAB>
```

```
samtools          samtools-0.1.19    samtools-1.3.1    samtools.pl-1.2.0
samtools-0.1.16   samtools-1.2       samtools.pl        samtools.pl-1.3.1
samtools-0.1.18   samtools-1.2.0     samtools.pl-1.2
```

```
$ samtools-1.2.0 --version
```

```
samtools 1.2
```

```
Using htlib 1.2.1-115-g10c4920
```

```
Copyright (C) 2015 Genome Research Ltd.
```

Discoverability cont'd

```
$ which bzip
```

```
/usr/bin/which: no bzip in [...]
```

```
$ module avail bzip
```

```
# no results
```

Fix: readily available, versioned commands

```
$ samtools<TAB><TAB>
```

```
samtools  samtools-1.3.1  samtools.pl  samtools.pl-1.3.1
```

```
$ cat /g/funcgen/bin/samtools
```

```
#!/usr/bin/bash
```

```
set -e
```

```
module load SAMtools/1.3.1-foss-2016b &> /dev/null
```

```
samtools "$@"
```

Fix: discoverability (when using modules directly)

```
$ merit find bgzip
```

```
HTSlib/1.3.2-foss-2016b
```

```
SEPP/1.0
```

```
tabix/0.2.6-foss-2016b
```

```
$ merit list tabix
```

```
executables:
```

- names:
 - tabix
 - bgzip

Wrappers: roll your own

```
$ merit wrap delly/0.7.6-foss-2016b -d -o ~/bin --install
```

```
$ ls ~/bin
```

```
cov  cov-0.7.6  delly  delly-0.7.6  dpe  dpe-0.7.6
```

```
$ cat ~/bin/delly
```

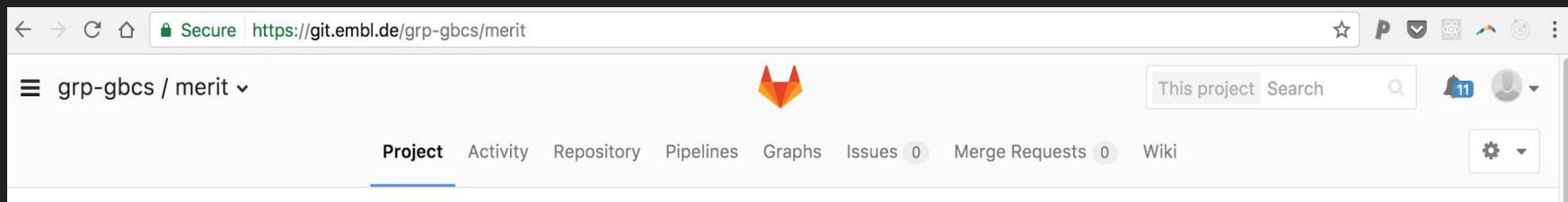
```
#!/usr/bin/bash
```

```
set -e
```

```
module load delly/0.7.6-foss-2016b &> /dev/null
```

```
delly "$@"
```

merit



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