

Template programming reduces code duplication

Developer could make assumptions about the data type that a user will use. e.g.

library code

```
int read_time(...) {...}
```

user code

```
int T = read_time(...);
```

Template functions allow the developer to relax the assumptions he/she makes:

library code

```
template <class time_type>  
time_type read_time(...) {...}
```

user code for discrete time

```
int T = read_time<int>(...);
```

user code for continuous time

```
double T = read_time<double>(...);
```