

```
1 from symp1 import (
2     AdamsBashforth, NetCDFMonitor)
3 import climt
4 from datetime import timedelta
5
6 # Define model timestep in minutes
7 model_timestep = timedelta(minutes=1)
8
9 # Create components
10 radiation = climt.RRTMGLongwave()
11 convection = climt.EmanuelConvection()
12 boundary_layer = climt.SimplePhysics()
13
14 # Create model state
15 model_state = climt.get_default_state(
16     [radiation, convection, boundary_layer])
17
18 # Create integrator
19 time_stepper = AdamsBashforth(
20     [radiation, convection])
21
22 # Create monitor
23 monitor = NetCDFMonitor('radiative_convective.nc')
24
25 # step model forward
26 for step in range(10):
27     bl_diagnostics, bl_new_state = boundary_layer(
28         model_state, model_timestep)
29     model_state.update(bl_diagnostics)
30     model_state.update(bl_new_state)
31
32     diagnostics, new_state = time_stepper(
33         model_state, model_timestep)
34     model_state.update(diagnostics)
35     monitor.store(model_state)
36     model_state.update(new_state)
37     model_state['time'] += model_timestep
```