

Examples: Dining Philosophers with Conditional Critical Regions

A. Nested CCRs

Shared Object:

```
void stick[5];
```

```
Philosopher(Num);
```

```
0..4 Num;
```

```
{do {
```

```
    Think();
```

```
    region stick[(Num+4)%5] do
```

```
        region stick[Num] do {
```

```
            PickUp((Num+4)%5,Num);
```

```
            Eat();
```

```
            PutDown((Num+4)%5,Num);
```

```
}
```

```
while (1);
```

```
}
```

B. One CCR

Shared:

```
struct {
```

```
    boolean eating[5]=(False..False);
```

```
} table;
```

```
Philosopher(Num);
```

```
0..4 Num;
```

```
{do {
```

```
    Think();
```

```
    region table when
```

```
        not (eating[(Num+1)%5] ||
```

```
            eating[(Num+4)%5]) do
```

```
            eating[Num]=True;
```

```
Eat();
```

```
region table do
```

```
            eating[Num]=False;
```

```
} while (1);
```