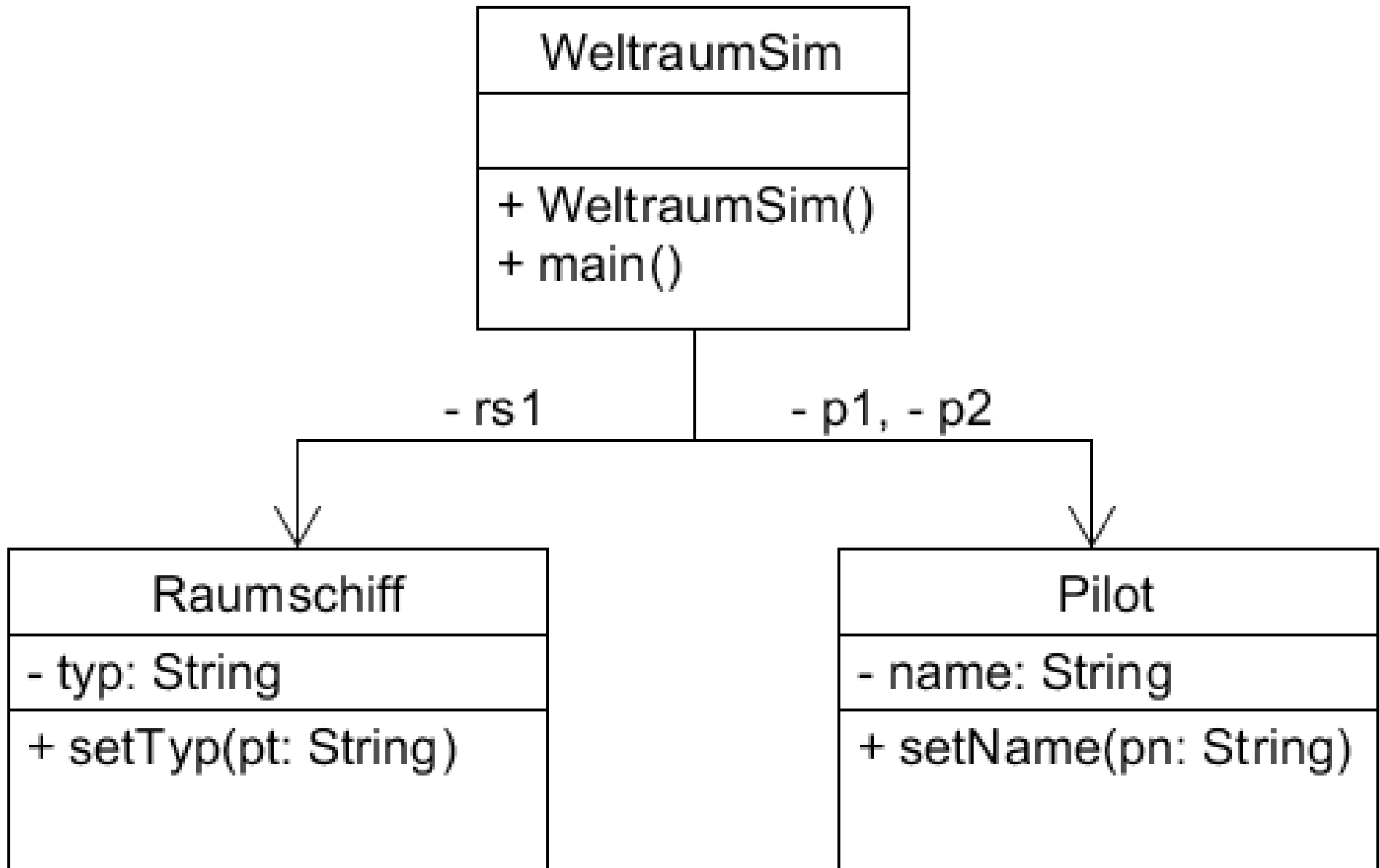


Referenz als Parameter

Beispiel: Weltraum-Simulation



Wdh.: Set-Methode

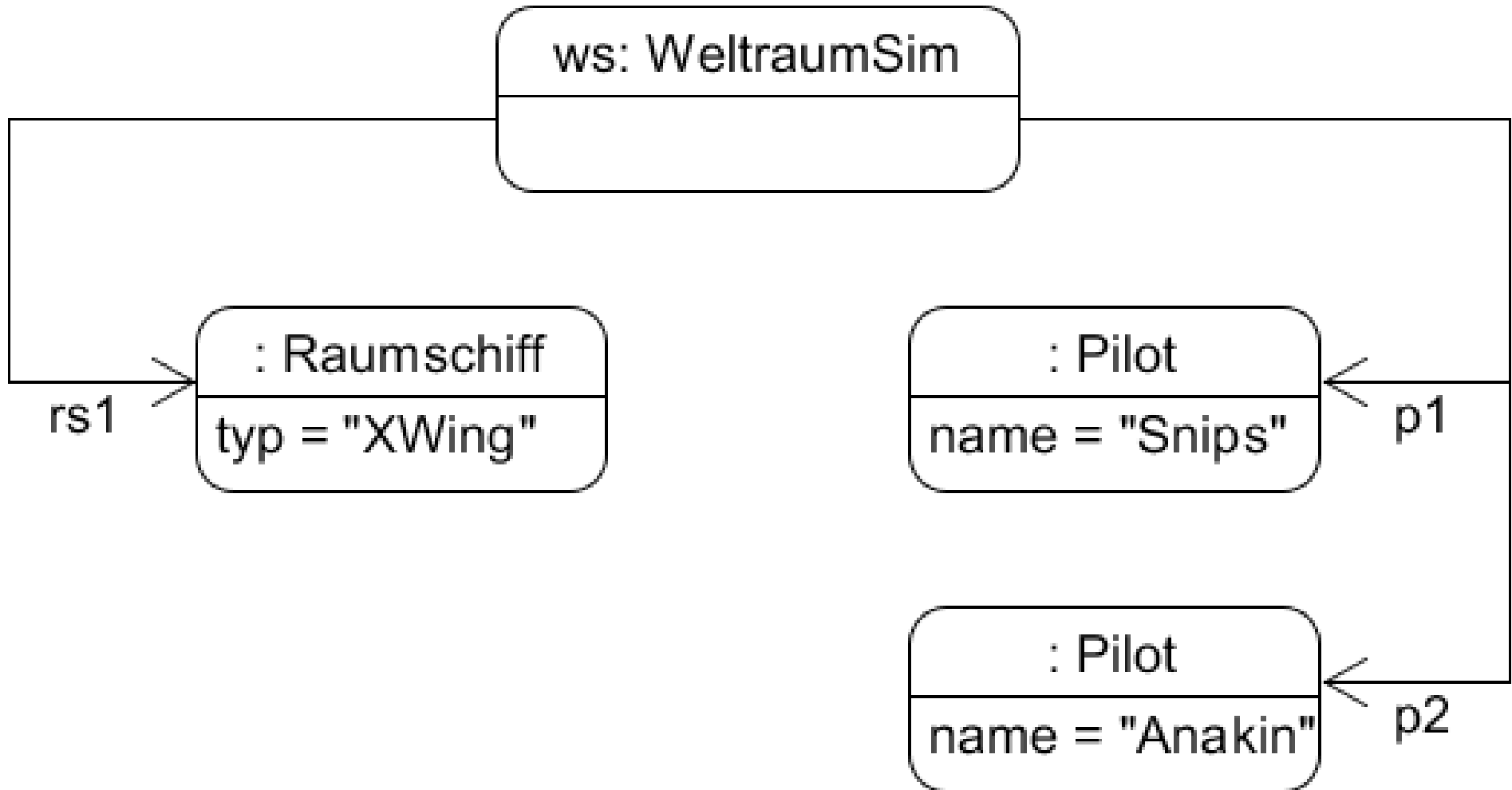
```
public class Raumschiff  
{  
    private String typ;  
    ...  
  
    set-Methode?
```

Wdh.: Set-Methode

```
public class Raumschiff
{
    private String typ;

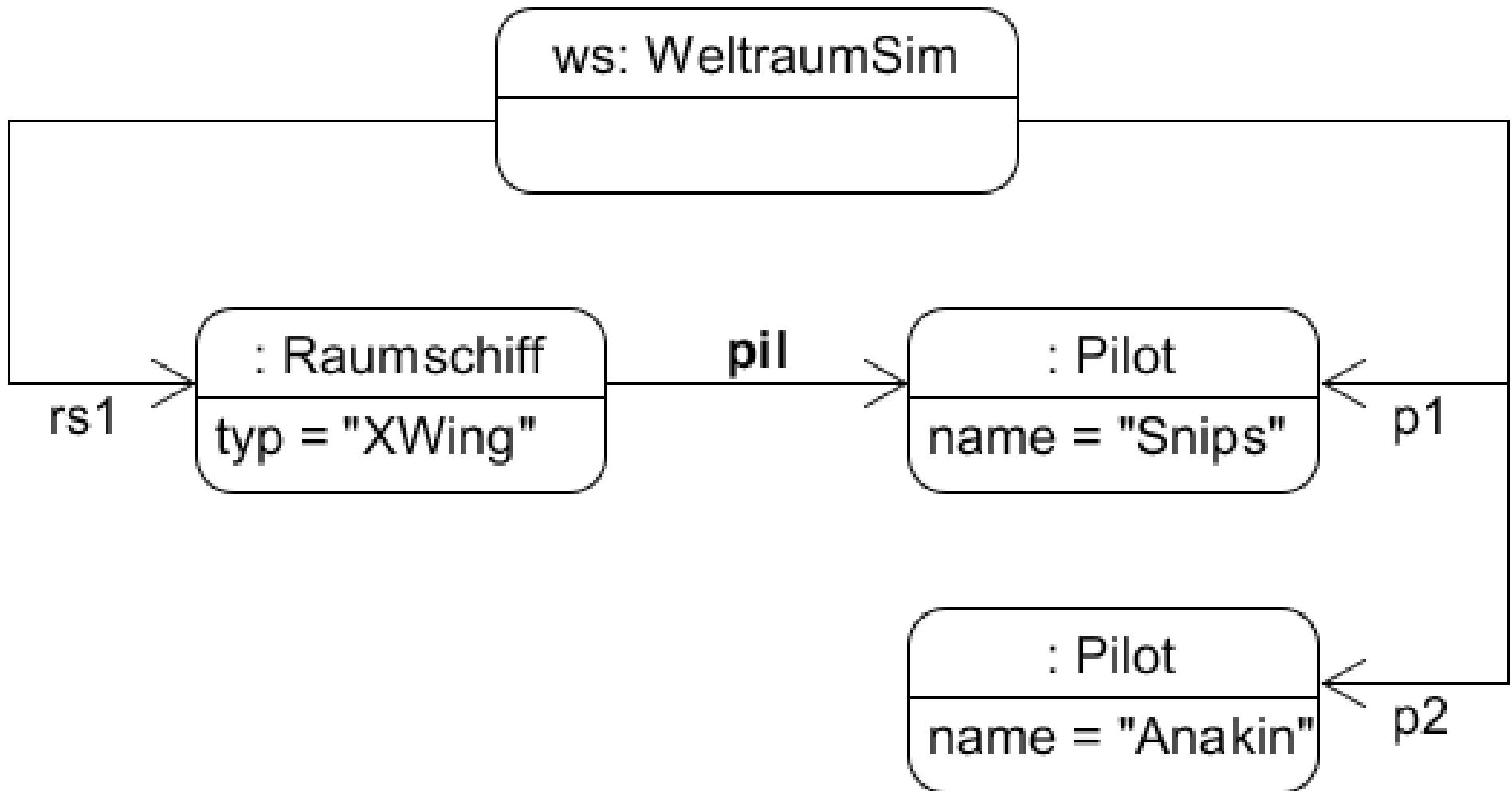
    public void setTyp(String pt)
    {
        typ = pt;
    }
}
```

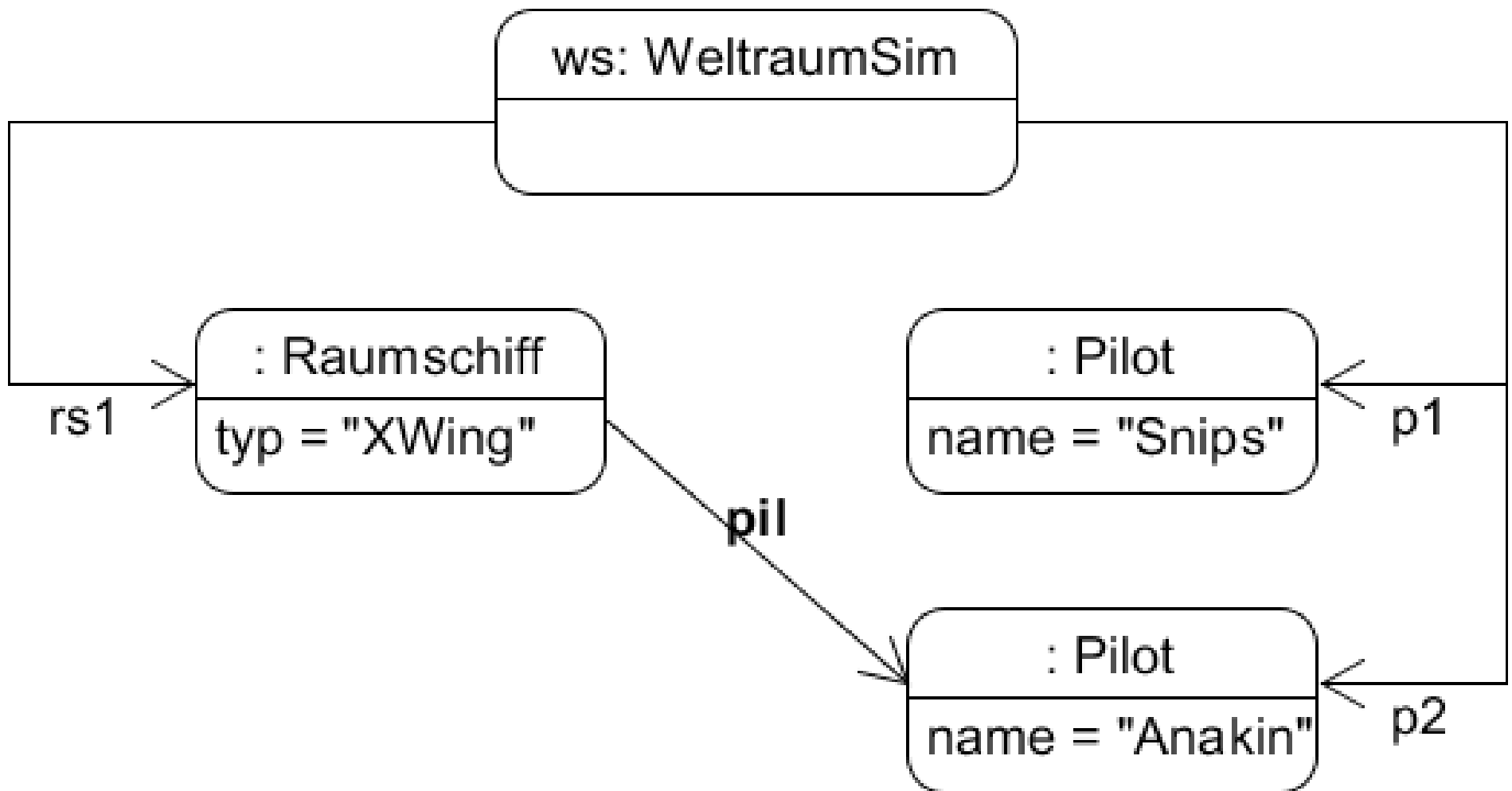
Objektdiagramm



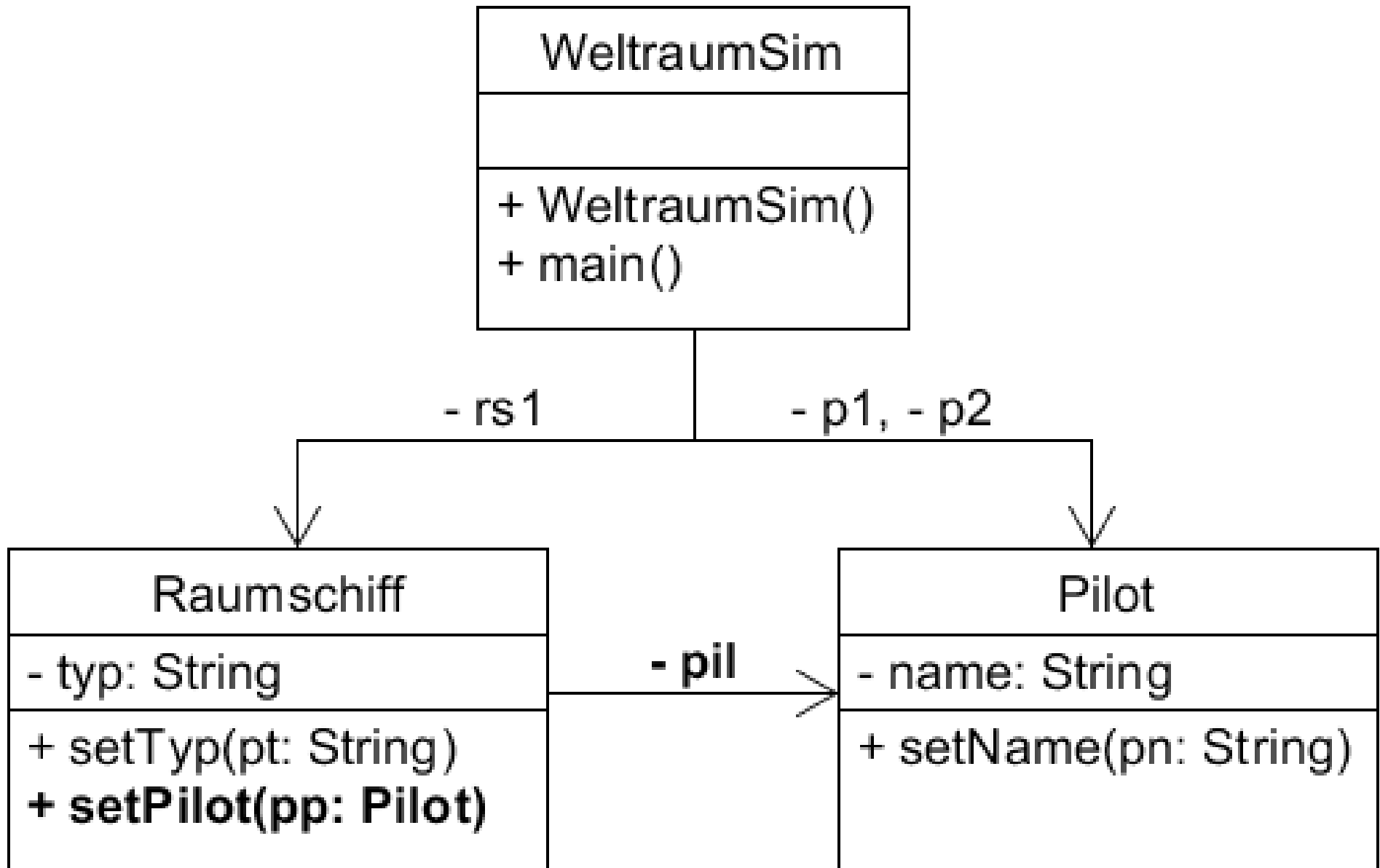
Wünschenswert:

Zuordnung, welcher *Pilot*
welches *Raumschiff* steuert.





Referenz Raumschiff → Pilot



Referenz Raumschiff → Pilot

```
public class Raumschiff
{
    private String typ;
    private Pilot pil;
}
```

Referenz Raumschiff → Pilot

```
public class Raumschiff
{
    private String typ;
    private Pilot pil;
}
```

Referenz „pil“ soll auf ein Objekt zeigen.

Das Objekt wird nicht vom Raumschiff erzeugt, sondern vom Haupt-Objekt.

Es wird der Referenz nur zugewiesen.

Set-Methode für Referenz

```
public class Raumschiff
{
    private String typ;
    private Pilot pil;

    public void setPilot(Pilot pp)
    {
        pil = pp;
    }

    ...
}
```

Hauptklasse

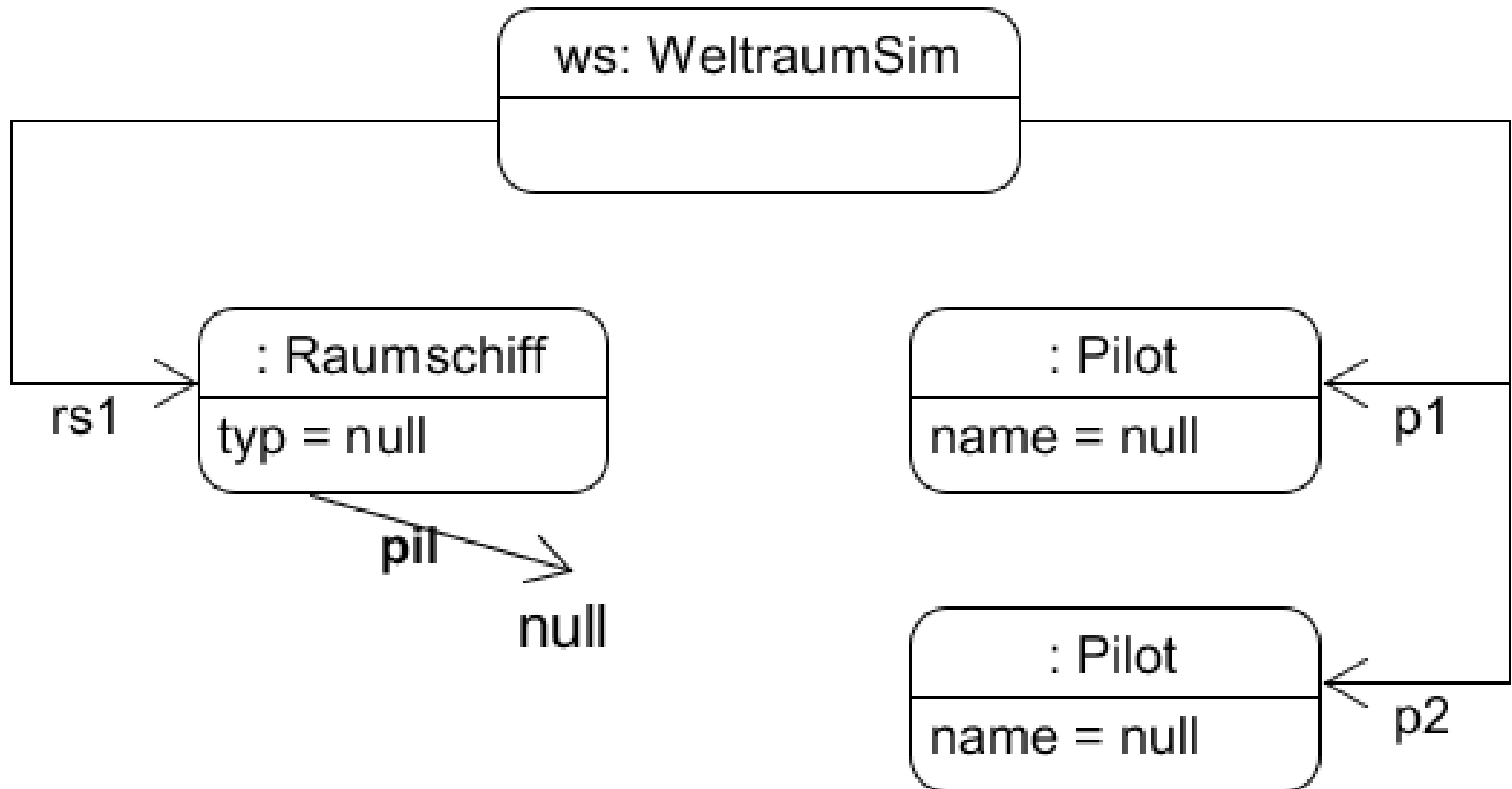
```
public class WeltraumSim  
{  
    private Raumschiff rs1;  
    private Pilot p1, p2;
```

Konstruktor erzeugt Objekte

```
public class WeltraumSim
{
    private Raumschiff rs1;
    private Pilot p1, p2;

    public WeltraumSim()
    {
        rs1 = new Raumschiff();
        p1 = new Pilot();
        p2 = new Pilot();
    }
}
```

Attribute zunächst 0 / null

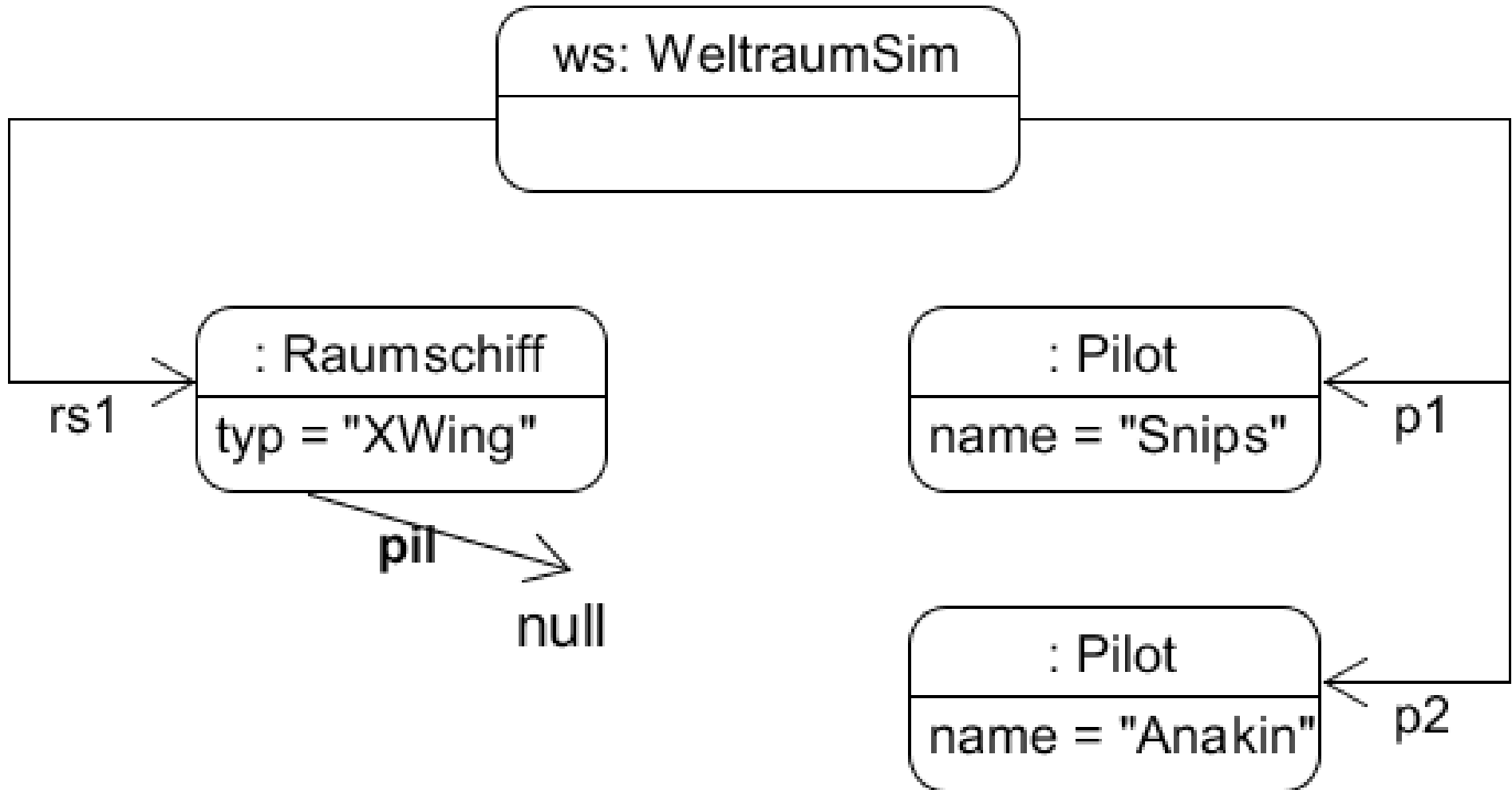


Werte für Attribute setzen

```
public class WeltraumSim
{
    ...
    void main()
    {
        p1.setName("Snips");
        p2.setName("Anakin");

        rs1.setTyp("XWing");
        ...
    }
}
```


Werte für Attribute setzen



Zuordnung Raumschiff → Pilot

...

```
void main()
```

```
{
```

```
    p1.setName("Snips");
```

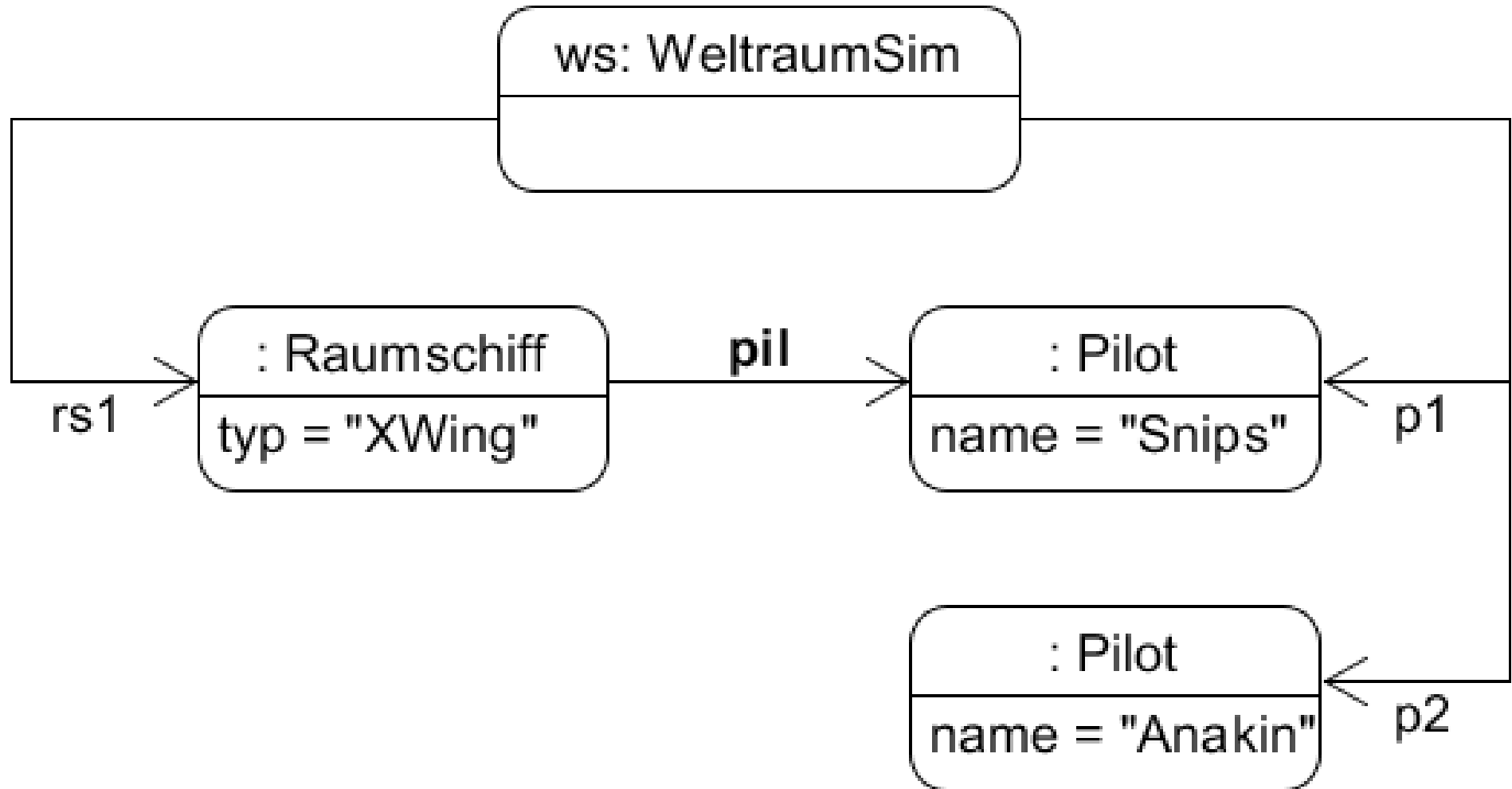
```
    p2.setName("Anakin");
```

```
    rs1.setTyp("XWing");
```

```
    rs1.setPilot(p1);
```

```
}
```

Zuweisung Raumschiff → Pilot

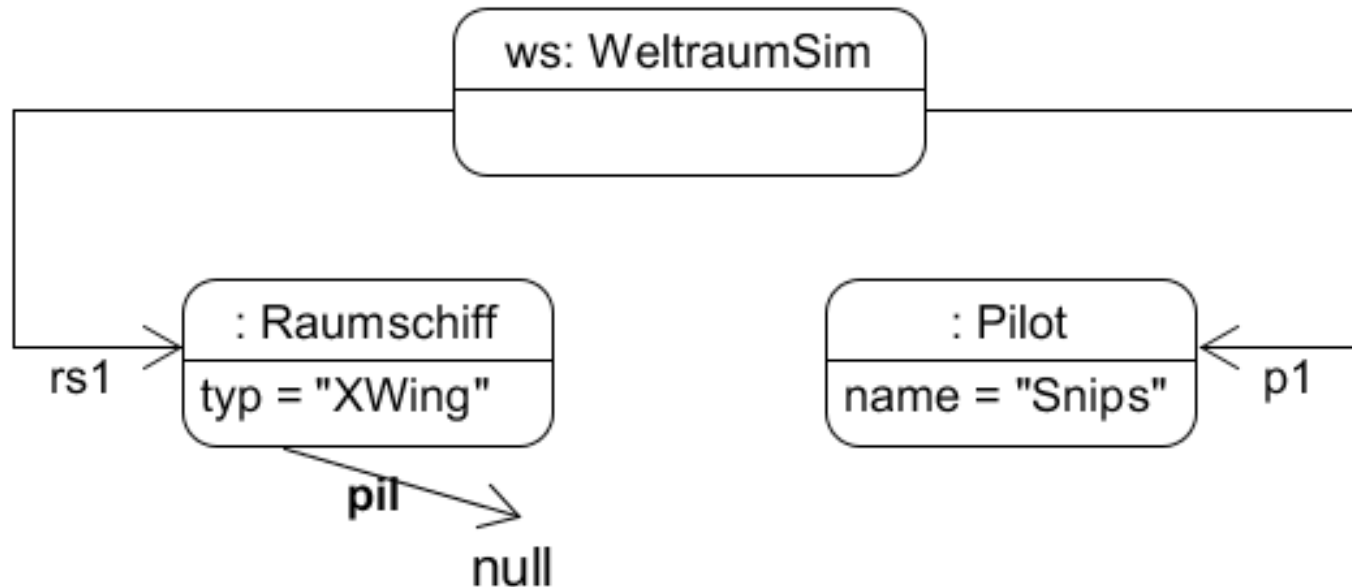


Weltraumsim

```
void main()  
{  
    ...  
    rs1.setPilot(p1);  
}
```

Raumschiff

```
void setPilot(Pilot pp)  
{  
    pil = pp;  
}
```

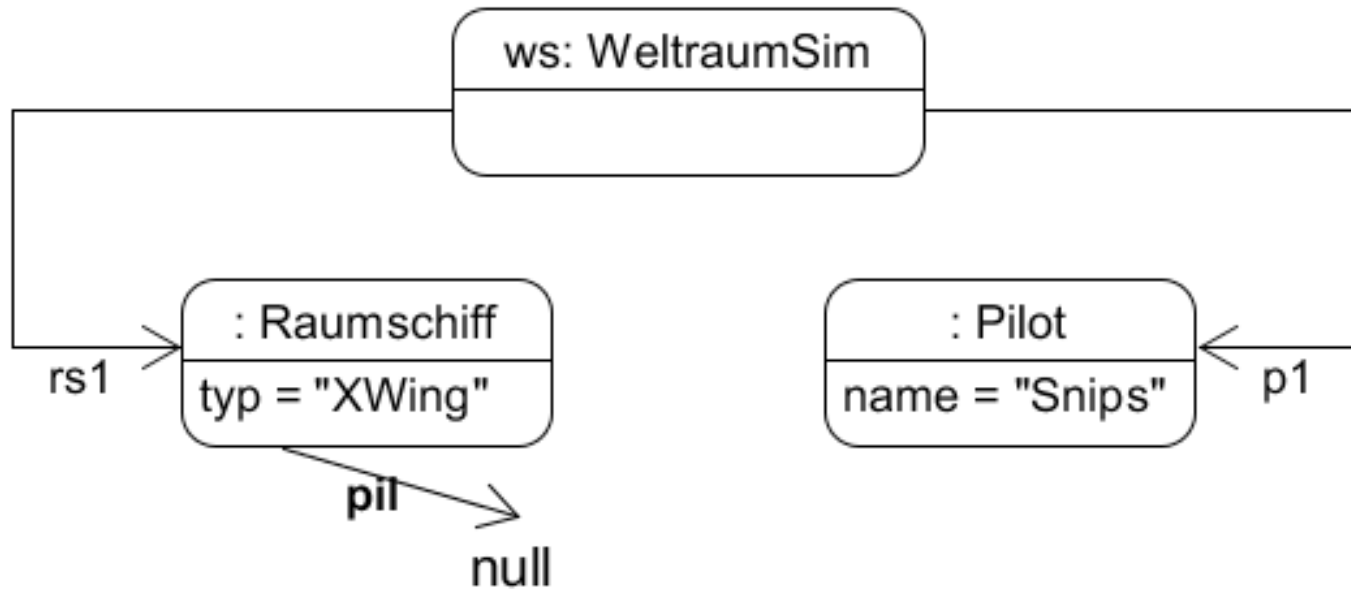
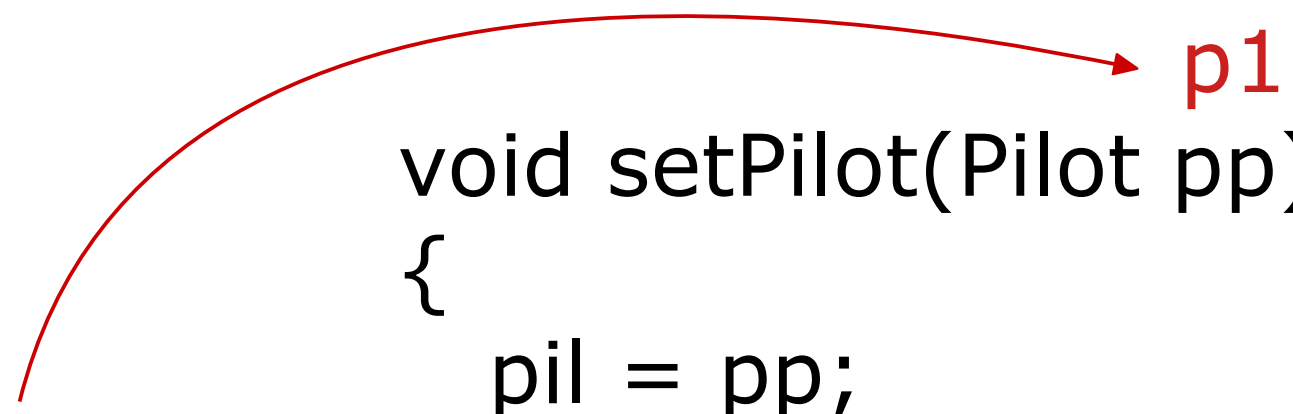


Weltraumsim

```
void main()  
{  
  ...  
  rs1.setPilot(p1);  
}
```

Raumschiff

```
void setPilot(Pilot pp)  
{  
  pil = pp;  
}
```

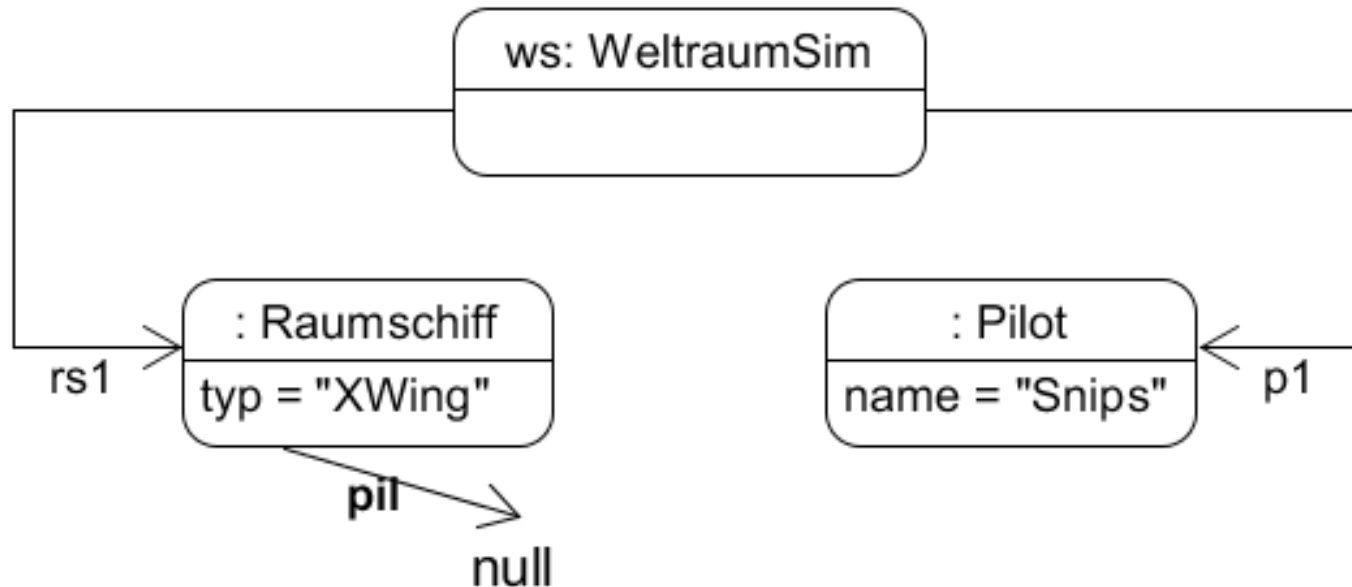


Weltraumsim

```
void main()  
{  
  ...  
  rs1.setPilot(p1);  
}
```

Raumschiff

```
void setPilot(Pilot pp)  
{  
  pil = pp;  
}
```

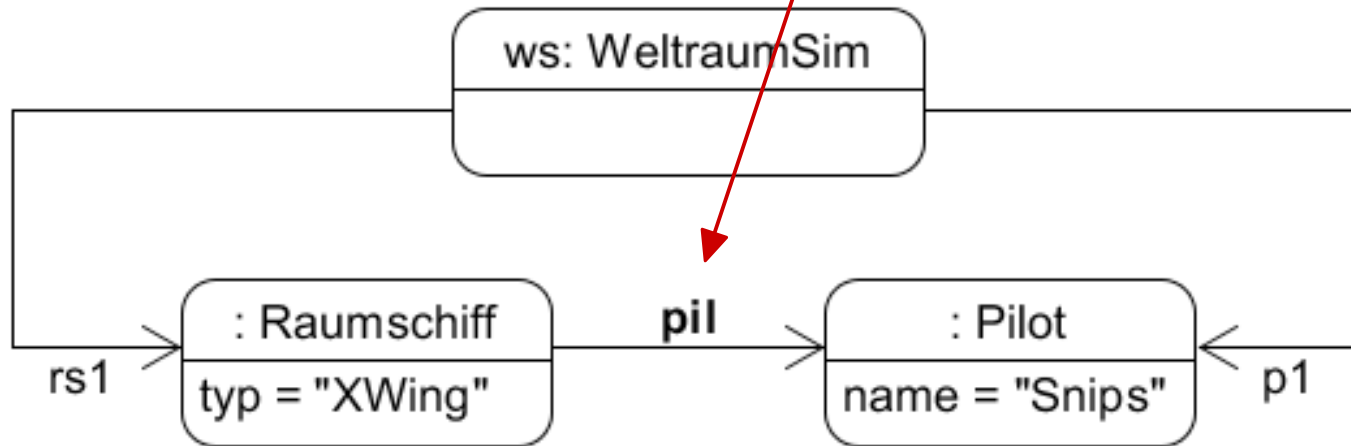


WeltraumSim

```
void main()  
{  
  ...  
  rs1.setPilot(p1);  
}
```

Raumschiff

```
void setPilot(Pilot pp)  
{  
  pil = pp;  
}
```



Autor / Quellen

Autor:

- Christian Pothmann (cpothmann.de)
Freigegeben unter CC BY-NC-SA 4.0, Mai 2021

