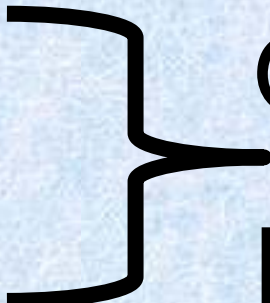


# SBML Level 3 Core

based on L2V4

- additions
  - changes
- 
- Overview NOW
- Discuss TOMORROW

# Additions ???

- packages

```
<?xml version="1.0"?>
<sbml xmlns="http://www.sbml.org/sbml/level3/version1"
      level="3" version="1"
...
>
  <listOfPackages>
    <package namespace="http://www.sbml.org/sbml/..."
      required="false" />
  </listOfPackages>
```

# Changes ???

- xpath/xpointer instead of references

## L2V4

```
<species id="S" compartment="C" />
```

## L3

```
<species id="S">  
  <compartment xlink:type="simple"  
    xlink:href="xpointer(/model/compartment/1)"  
  />  
</species>
```

# Changes ???

- No default values

L2V4

```
<compartment id="C" />
```

L3

```
<compartment id="C" spatialDimensions="3" />
```

# Changes ???

=> No default UNITS

L2V4

`<compartment id="C" />` Implicitly has unit 'litre'

L3

Model with no declared units is just NUMBERS

# Changes ???

- UNITS of a Kinetic Law

L2V4

Amount of substance per time

L3

Reaction Extent per time

# Additions ???

- New attribute 'yield' on species

L2V4

Stoichiometry embodies unit conversion

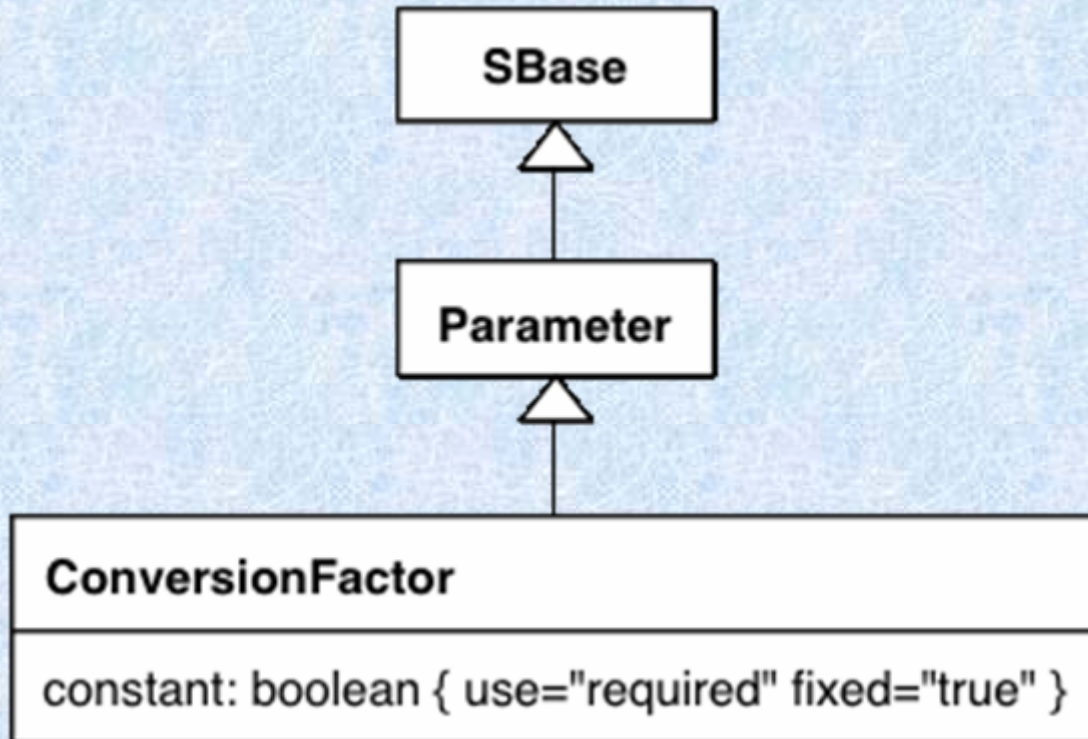
L3

Stoichiometry – as biochemists intend

Yield – to allow correct unit analysis

# Additions ???

- conversionFactors



# SBML Level 3 Core

Discussion - tomorrow

[http://sbml.org/Community/Wiki/  
SBML\\_Level\\_3\\_Core](http://sbml.org/Community/Wiki/SBML_Level_3_Core)