

# **Templates: Prototype document elements**

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- Copying code every time is error prone
- But there are both smaller and larger variations
- *Templates*: mechanism to swap out how elements are implemented

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2. Create one or more interfaces to flesh out the type
3. Define the implementation for the interface
4. Use what you've made: see later

## Template types

- There are only really a small number of template types
- As such, it's likely most will be provided by the kernel
- Little code here: it's about defining semantics

# Template interfaces

```
\DeclareTemplateInterface{type}{template}{no.~of args}  
  {key list}
```

- This step is to help designers/users: no code
- Keys will flexibility of this template
- Different templates for the same type can have different keys ...

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- Different templates for the same type can have different keys ...
- ...but in practice likely to see common ones

## Template code

```
\DeclareTemplateImplementation{type}{template}{no. of args}  
  {key bindings}{code}
```

- The business end: define the code
- Can be given separate from the interfaces in the sources

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- Instead, most templates are used by making *instances*
- In an instance, the key list is parsed into a set of (fast) assignments
- We can change one template/instance for another and it should still work

## User control

- Document-wide changes can be made:  
edit instance defaults
- One-off changes also allowed using established key names
- Can also make copies of instances and edit these 'child' templates