

Hacked user finite element

Dimension finite element (0d,1d,2d,3d) and derived special entity elements, e.g. flat prism

Generic finite element

### Finite element data

access by operator interface

- e.g. integration quadrature, Jacobian, ...

Data structures on element sub-entities  
access by argument of overload doWork  
operator method.

- e.g. field data, DOFs indices, orientation, ...

set integration rule

calculate base

...

Low level hacks  
(alters default element  
procedures by  
overloaded virtual  
methods)

DataOp  
operator N

...

DataOp  
operator 1

Sequence of DataOperators

Sequence of UserDataOperators

UserDataOp  
operator 1

...

UserDataOp  
operator N

Loop over entity on entities

UserDataStr  
for shared  
data

In majority of applications user  
implements **UserDataOperators**  
and **UserDataStructure**

Legend

