Advanced Object-Oriented Design

Avoid hardcoding classes

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Goal

- Think that a class is a kind of global
- Think about parametrization



A simple case

```
| source expr |
```

What if we want to check that an alternate Formatter is satisfying the test?

Solution

- Do not hardcode class name
- Define test parameters



Step 1

```
| source expr |
| expr := self parserClass parseExpression: 'a:=1'.
| source := (self formatterClass new installNewContext:
| (self perform: configurationSelector) yourself) format: expr.
| self assert: source equals: 'a := 1'
```

```
EFTest >> parserClass
^ RBParser
```

EFTest >> formatterClass

^ EFFormatter



Step 2: state and setter

EFTest >> formatterClass: aFormatterClass formatterClass := aFormatterClass



Step 3: introducing test parameters

EFTest class >> testParameters

```
^ ParametrizedTestMatrix new addCase: { #formatterClass -> EFFormatter. #contextClass -> EFContext }; addCase: { #formatterClass -> AlternateFormatter. #contextClass -> EFContext }; yourself.
```

- All the tests will run for each configuration.
- Now we can turn parserClass as a test parameter if needed!

Having a nice logic

into

```
testAssignment
| source expr |
expr := self parseExpression: 'a:=1'.
source := self formatter format: expr.
self assert: source equals: 'a := 1'
```



And finally

```
EFTest >> testAssignment
self
assert: (self formatExpression: 'a:=1')
equals: 'a := 1'
```



Conclusion

- Factor out class references
- Ease extension by overriding (Remember self-sends are plans for reuse)
- Support test parametrization

A course by

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