

currentcontext and currentrole

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Introduction

The Perspectives Language consists partly of *expressions* used:

1. to create a CalculatedRole or CalculatedProperty;
2. as the condition of a bot rule (the left hand side of the rule);
3. to retrieve values for assignment expressions in the right hand side of the rule;
4. to retrieve values to be bound in a let-expression.

An expression traces a path through the network of roles and contexts, possibly ending in a property's values. Obviously these paths must start somewhere:

- For a CalculatedRole, the path starts the context that we calculate the role for;
- For a CalculatedProperty, it starts with the role that we calculate the property for;
- For all expressions in a rule (condition and those that provide arguments to assignment operations) it starts with the context that the rule is executed in.

A note on let* expressions. Though they introduce a new scope for the modeller to bind names in to values, they are just expressions that continue the path.

Re-basing the path

Sometimes it is necessary to return, in the middle of a calculation, to the base of a calculation in order to retrieve some value from it. An example might be when we want to filter one role with a property value sitting on another. While in theory it should be possible to retrace the path back to the root, this is at least inconvenient.

For that reason we introduce the notion of *current context*. The current context is, for each expression, the base context with respect to which it is calculated (as given above). The modeller can start a subexpression with the keyword `currentcontext`.

Similarly, he can use the keyword `currentrole` in the definition of a CalculatedProperty.