Bank Choose shaft method Data Flow Diagram

Leon Starr
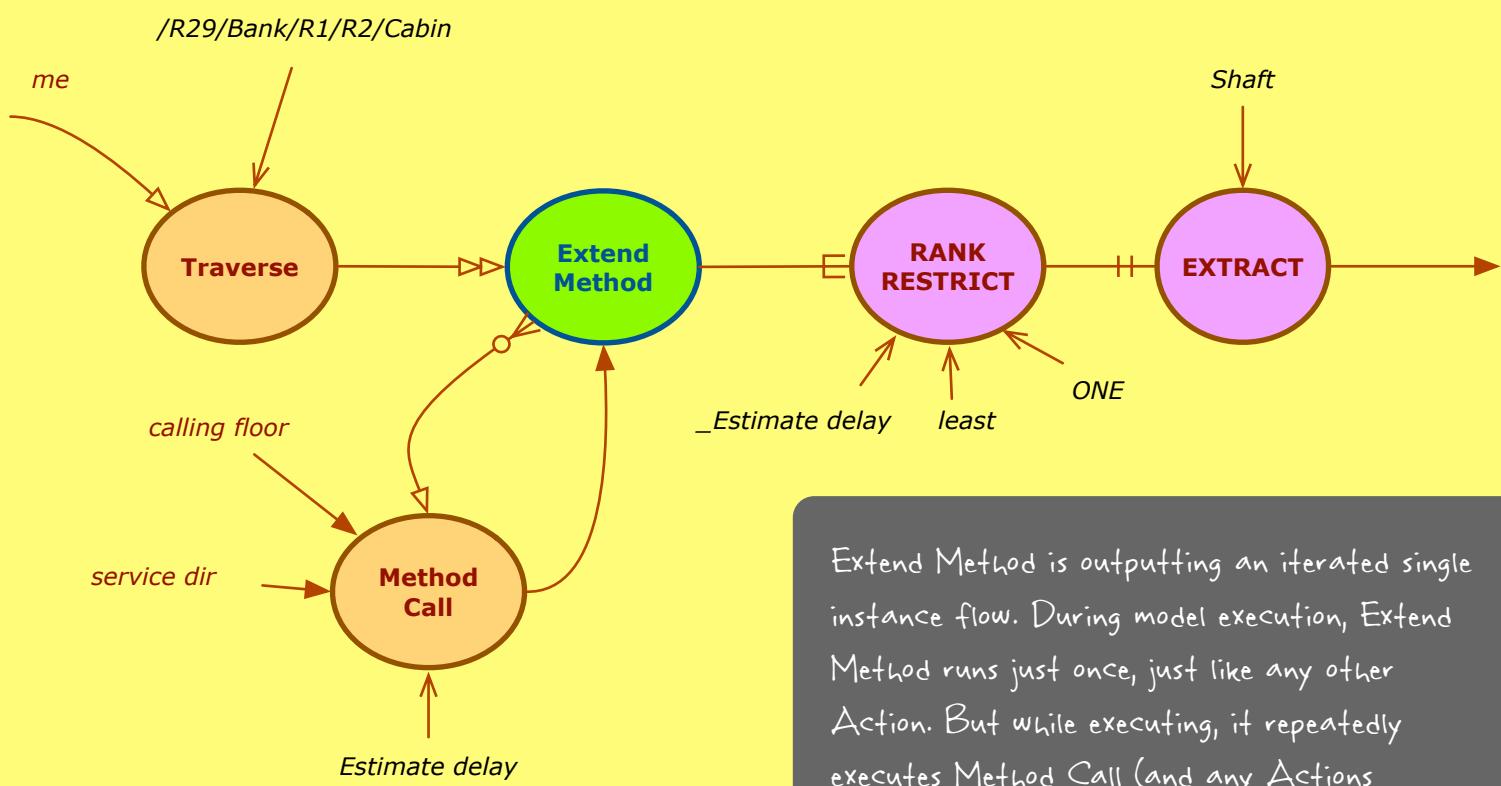
2025-12-15/0.2

```
=>> /R29/Bank/R1/R2/Cabin(1, ^-.Estimate delay( ^calling floor, ^service dir ) ).Shaft
```

/R29/Bank/R1/R2/Cabin

me

Traverse

Extend Method

Shaft

RANK RESTRICT

EXTRACT

calling floor

service dir

Method Call

Estimate delay

_Estimate delay

least

ONE
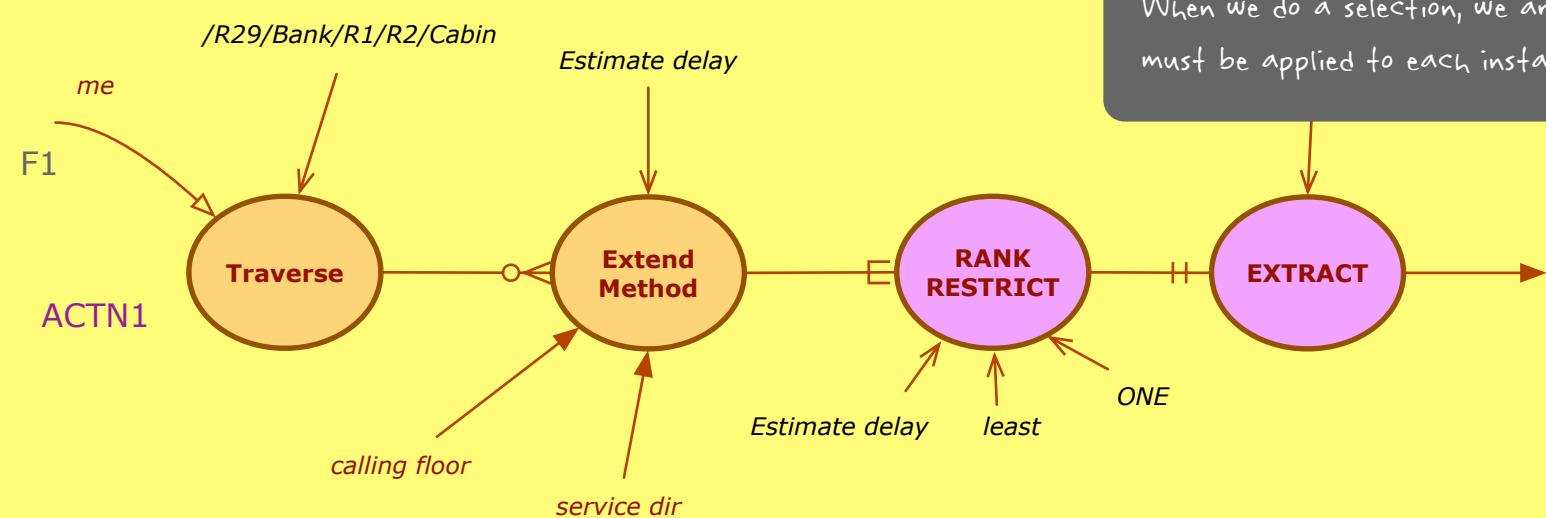
Extend Method is outputting an iterated single instance flow. During model execution, Extend Method runs just once, just like any other Action. But while executing, it repeatedly executes Method Call (and any Actions downstream from Method Call). This means that the iterated flow into Method Call is reset each time Method Call completes and re-enabled with new input. Method Call can execute once per renabled input.

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A2

```
=>> /R29/Bank/R1/R2/Cabin(1, ^-.Estimate delay( ^calling floor, ^service dir ) ).Shaft
```

/R29/Bank/R1/R2/Cabin

me

F1

ACTN1

Traverse

Estimate delay

Extend Method

calling floor

service dir

RANK RESTRICT

Estimate delay

least

ONE

EXTRACT

When we do a selection, we are actually just specifying a boolean expression that must be applied to each instance or tuple of the input.

During model execution, we execute a DFD. So ultimately, we need to populate whatever it takes to get that graph.

The selection phrase consists of a cardinality (1, *) and an optional boolean expression. That boolean expression consists of multiple operands.

If a Method Call has many input ->>, it is invoked separately for each instance in the input yielding a single result.

So the Extend Method action is applied to each instance operating on any supplied attribute or flows.

Now if we see a type operation

If we apply a method within a select, we need to do the extend before we perform any other comparisons. If there are multiple methods, they all get executed to create virtual attributes. Same with type operations. So all methods must yield a scalar or tuple (multiple scalars) which extend the class into a table. Only after we do that do we select.

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