

Func BPML

Functional Business Process Modelling Language

Model Transform Quality Assure

What is Func BPML ?

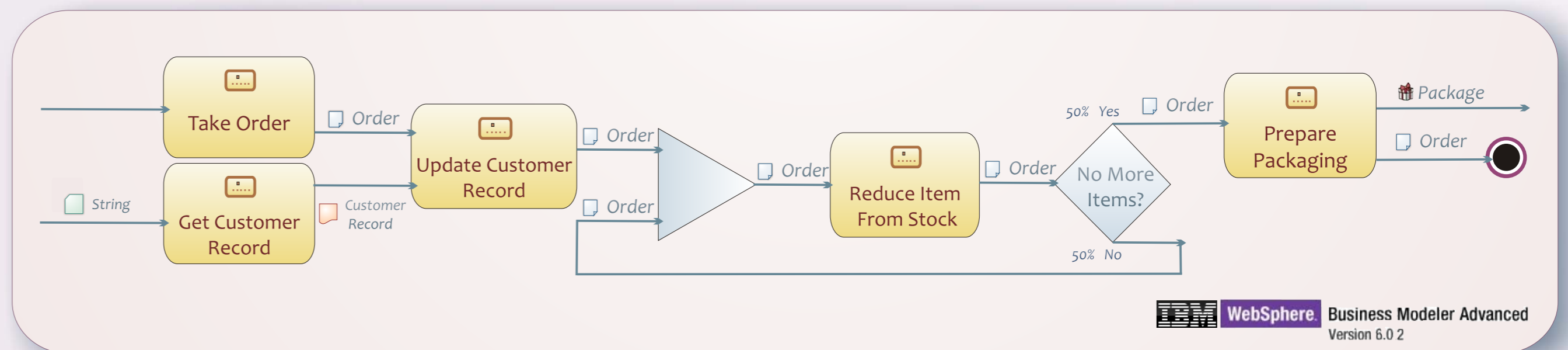
Func BPML is a functional modelling language to textually **model**, **transform** and **quality assure** business processes in Business-Driven Development

Business-Driven Development

Business process models are produced by business analysts to graphically **communicate** the business requirements. In **Business - Driven Development**, the IT solution is **directly derived** from these models

We developed **Func BPML**, a functional domain specific language embedded in Haskell, with which:

- Models can *rapidly* be produced in a *concise* and *abstract* manner
- Modellers unfamiliar with Haskell can *easily grasp* the concepts
- Enables focus on the *specifications* rather than the implementation
- Ensures that all the required details, to generate the *executable* code, are specified
- Models can be *transformed*, *analyzed* and *interpreted* in various ways
- Quality assures** models by carrying out 3 checks:
 - by *Haskell's* type checker
 - at *construction-time*
 - by functions that *analyze* the soundness of models
- Enables users to define *quality assured composite* model transformations



```
pfOrderHandling = (tTakeOrder -|- tGetCustRec) ->>- tUpdateCustRec ->>-  
  soundCycle tReduceItemFromStock ("No More Items?",  
    (branchProp eNoMoreItems 0.5, branchProp eMoreItems 0.5))  
  ->>- tPreparePackaging ->>- (id -|- stop)
```

Func BPML

Func BPML captures the domain semantics of IBM's WebSphere Business Modeler Advanced v6.0.2

Strengths of Func BPML

- Programmatically construct *complex*, yet *regular* models, *concisely*
- Provides *safe patterns* and *models* to *rapidly* and *safely* construct complex models
- Supports user-defined *quality assurance* checks
- Supports user-defined *model transformations*
- Supports user-defined sequential, branching and iterative *composite quality assured model transformations*

Model Transform Quality Assure

An Embedded Domain Specific Language to **Model**, **Transform** and **Quality Assure** Business Processes in Business-Driven Development