

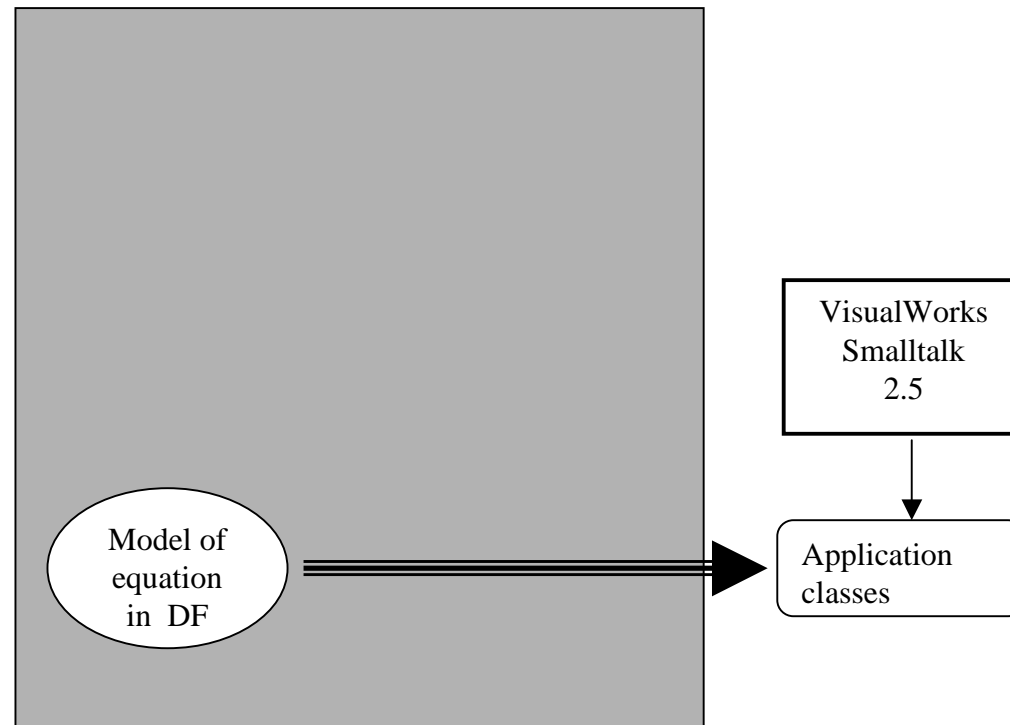
Model transformation and metamodel instantiation (demo with a simple ex.)

- *From a DataFlow (DF) model...*
- *... to a Smalltalk computing application*
- *... through an intermediate model (transformed)*
- *... according to 2 metamodels*
- *... following an « implementation expertise » expressed by production rules*

Model transformation (Demo)

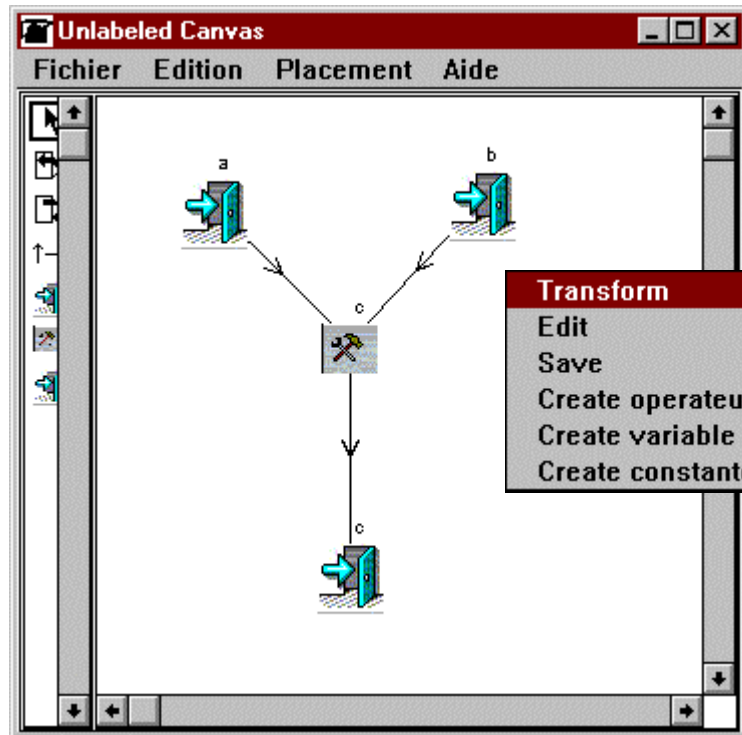
- *Schematically...*
 - From a DataFlow (DF) model of an equation...
 - ... to a Smalltalk computing application

Model transformation : Schema !



Demo !

Demo : $a * b = c...$



- Transform
- Edit
- Save
- Create operateur
- Create variable
- Create constante

The 'VisualWorks' window has a menu bar with 'File', 'Browse', 'Tools', 'Changes', 'Database', 'Window', 'Metagen', 'NeOpus', and 'Help'. Below the menu bar is a toolbar with several icons. The main area contains the text: 'dataflowReuMeta.im created at November 8, 2000 10:38:10 am'. Below this, there is a list of variables: 'Variable avec relation : c', 'Variable sans relation : a', 'Variable sans relation : b', 'INTERFACE recompiling... done', 'INTERFACE recompiling... done', 'INTERFACE recompiling... done', and 'INTERFACE open'. To the right of this list is a vertical menu with options: 'find...', 'replace...', 'undo', 'copy', 'cut', 'paste', 'do it', 'print it', and 'inspect'. The 'do it' option is highlighted in red.

The 'Interface' window displays three input fields. The first is labeled 'a : 3' and has a slider control. The second is labeled 'b : 2' and has a slider control. The third is labeled 'c' and has a text input field containing the number '6'.

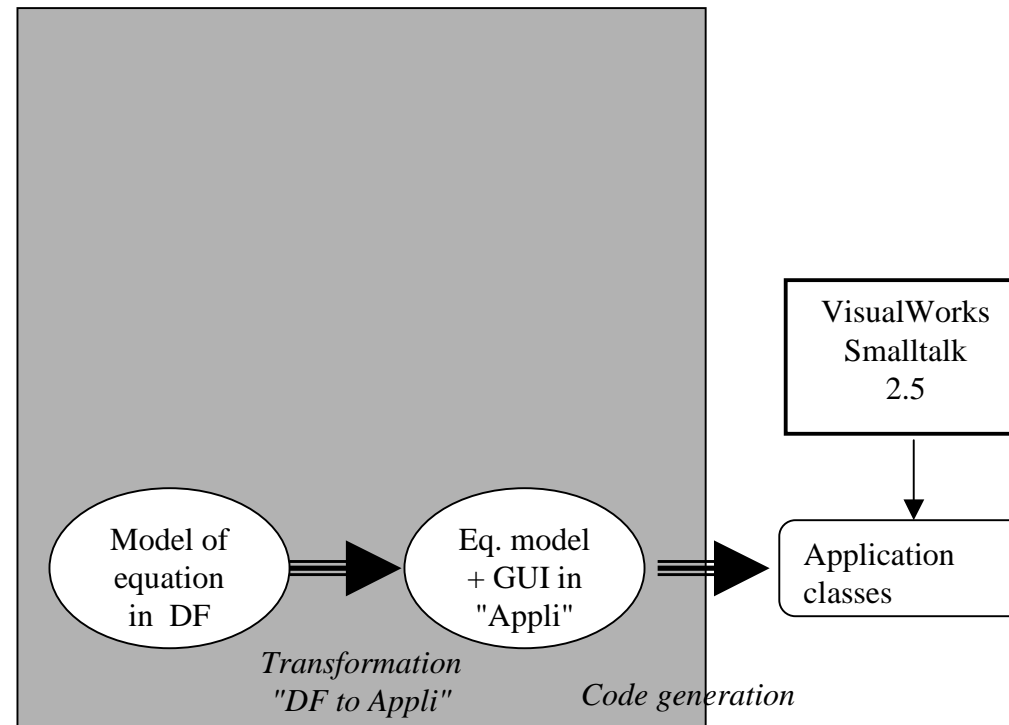
Demo : equation of payback amount...

The image shows a screenshot of the VisualWorks software interface. The main window, titled "Unlabeled Canvas", displays a network of variables and their relationships. Variables include "taux", "capital", "interet", "somme", "nbmensualité", and "mensualité". Relationships are represented by arrows and icons. A "Transform" menu is open, showing options like "Edit", "Save", "Create opera", "Create variab", and "Create const". The "VisualWorks" menu is also visible, listing various actions such as "find...", "replace...", "undo", "copy", "cut", "paste", "do it", "print it", "inspect", "accept", "cancel", and "hardcopy".

The "Interface" window shows the following values:

capital : 100000	<input type="text"/>
taux : 0.1	<input type="text"/>
nbmensualité : 12	<input type="text"/>
interet	<input type="text" value="10000.0"/>
somme	<input type="text" value="110000.0"/>
mensualité	<input type="text" value="9166.67"/>

Model transformation : Schema !



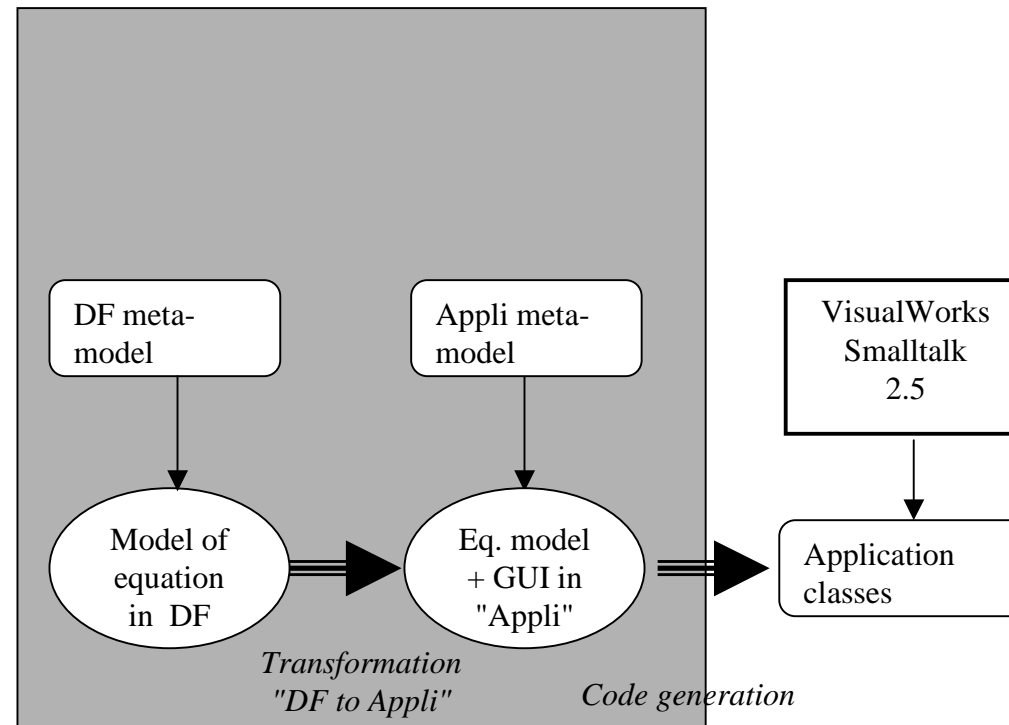
Demo !

Demo : $a * b = c...$

The image illustrates a software development workflow. It features three 'Unlabeled Canvas' windows and two 'Transform' menus.

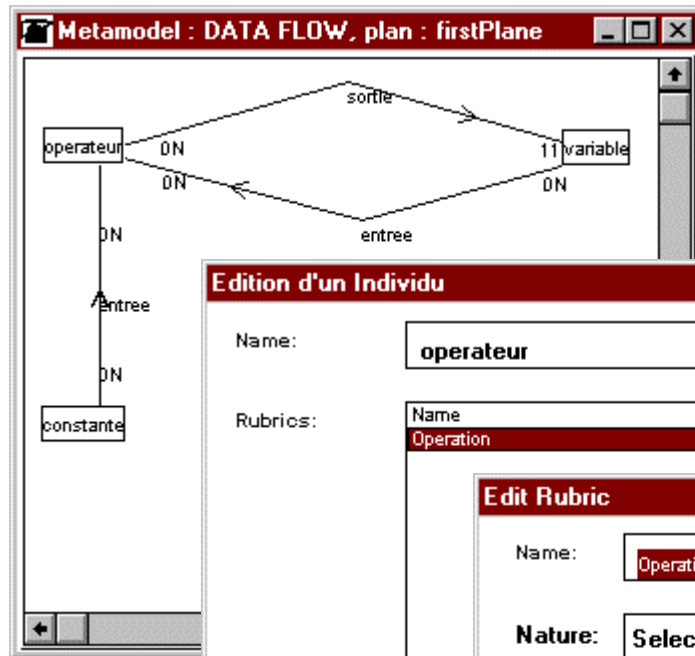
- Unlabeled Canvas (Top Left):** Shows a simple flow diagram with nodes 'a', 'b', and 'c'. Arrows point from 'a' and 'b' to 'c', and from 'c' to another 'c' node below.
- Unlabeled Canvas (Middle):** Shows a complex graphical user interface diagram. It includes an 'interface' node at the top, several input fields labeled 'a' and 'b', and a central calculation area with a red asterisk and a question mark. Arrows indicate relationships between these elements.
- Unlabeled Canvas (Bottom Right):** Shows a Java interface window titled 'Interface'. It contains three input fields: 'a : 3', 'b : 2', and 'c' with the value '6' entered.
- Transform Menus:** Two menus are shown, both titled 'Transform'. The left menu lists: Edit, Save, Create operateur, Create variable, Create constante. The right menu lists: Edit, Save, Create interface, Create label, Create bouton, Create slider, Create action, Create operateur, Create variable, Create constante, Transforme vers JAVA, Create saisie.

Model transformation : Schema !

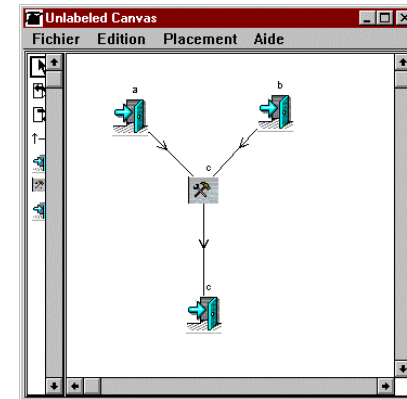


Demo !

Demo : DF metamodel in PIR3



a model :



Edition d'un Individu

Name:

Rubrics:

Edit Rubric

Name:

Nature:

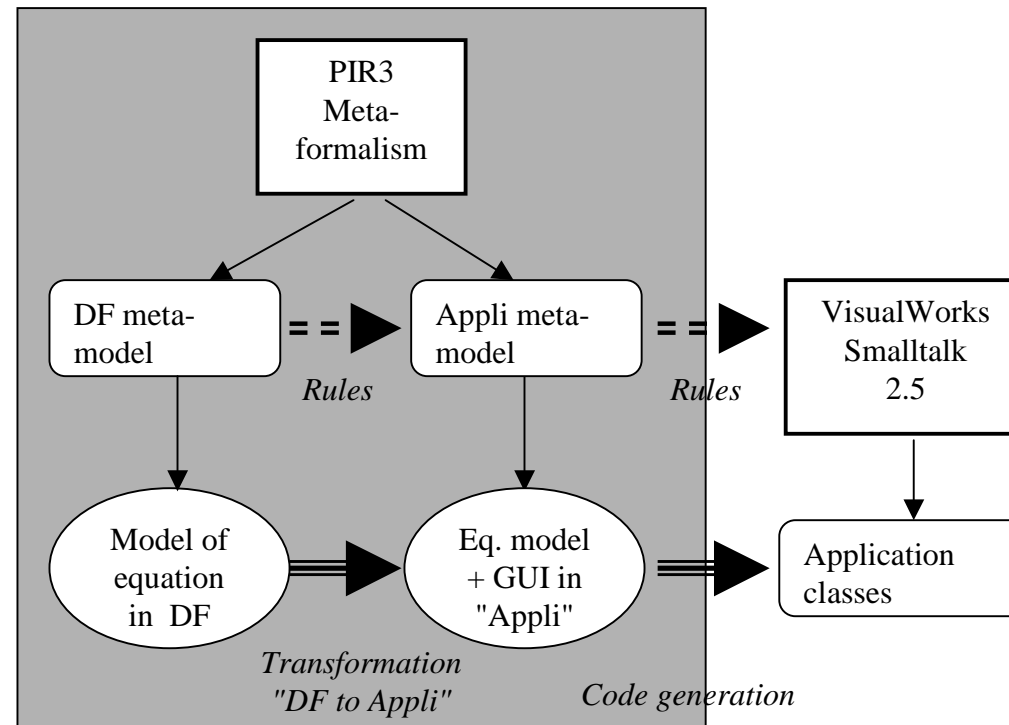
Type:

Size:

Report Information

Valeurs

Model transformation : Schema !



Demo !

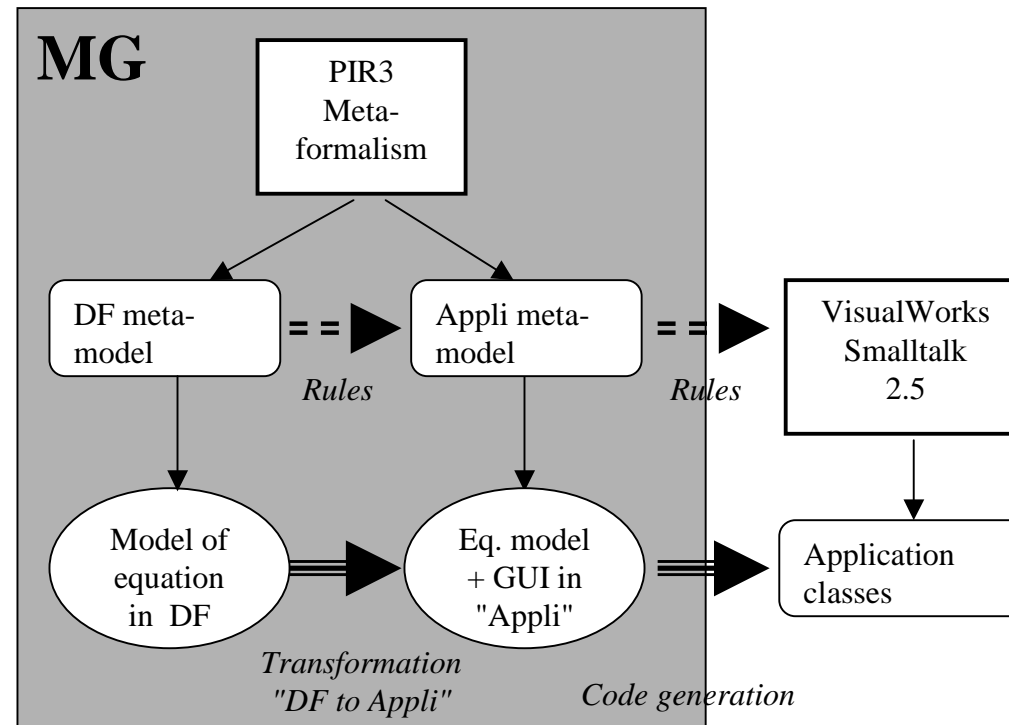
Example of transformation rules

- *DFTransRules*>>*variableWithoutRelation*
- *MMITransRules*>>*slider*
 - Code illustrations !

Metamodel prototyping

- *Example: evolution of variable interval representation*
 - Demo !

MétaGen implementation : Schema !



Other demo ?