

MICRODOWN

Conception et **P**aradigmes de **P**rogrammations par la **P**ratique

PLAN



PRESENTATION DE MICRODOWN



MICRODOWN ET LES EXTENSIONS



EXTENSION - MATHCHECKER



**ACQUIS DURANT LA REALISATION DU
PROJET**

MICRODOWN

MicrodownParser parse: '-----'

Des visiteurs

Microdown-HTMLExporter

.
. .
.

Microdown-LaTeXExporter

MicRootBlock

- MicParagraphBlock
- .
- .
- MicMathBlock
- MicParagraphBlock

MICRODOWN

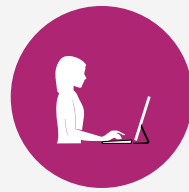
Langages de balisage: Description de la structure du document écrit (titre, paragraphes, sauts de ligne, passages en gras ou en italique, etc.)

Exemple: *le HTML*



Concept

- Langage de balisage basé sur **Markdown**
- Reprend des éléments de **Pillar**
- Parser générant un arbre de document



Utilisations

- Commentaire de classe
- Livre
- Slides
- Documentation en Pharo



Propriétés

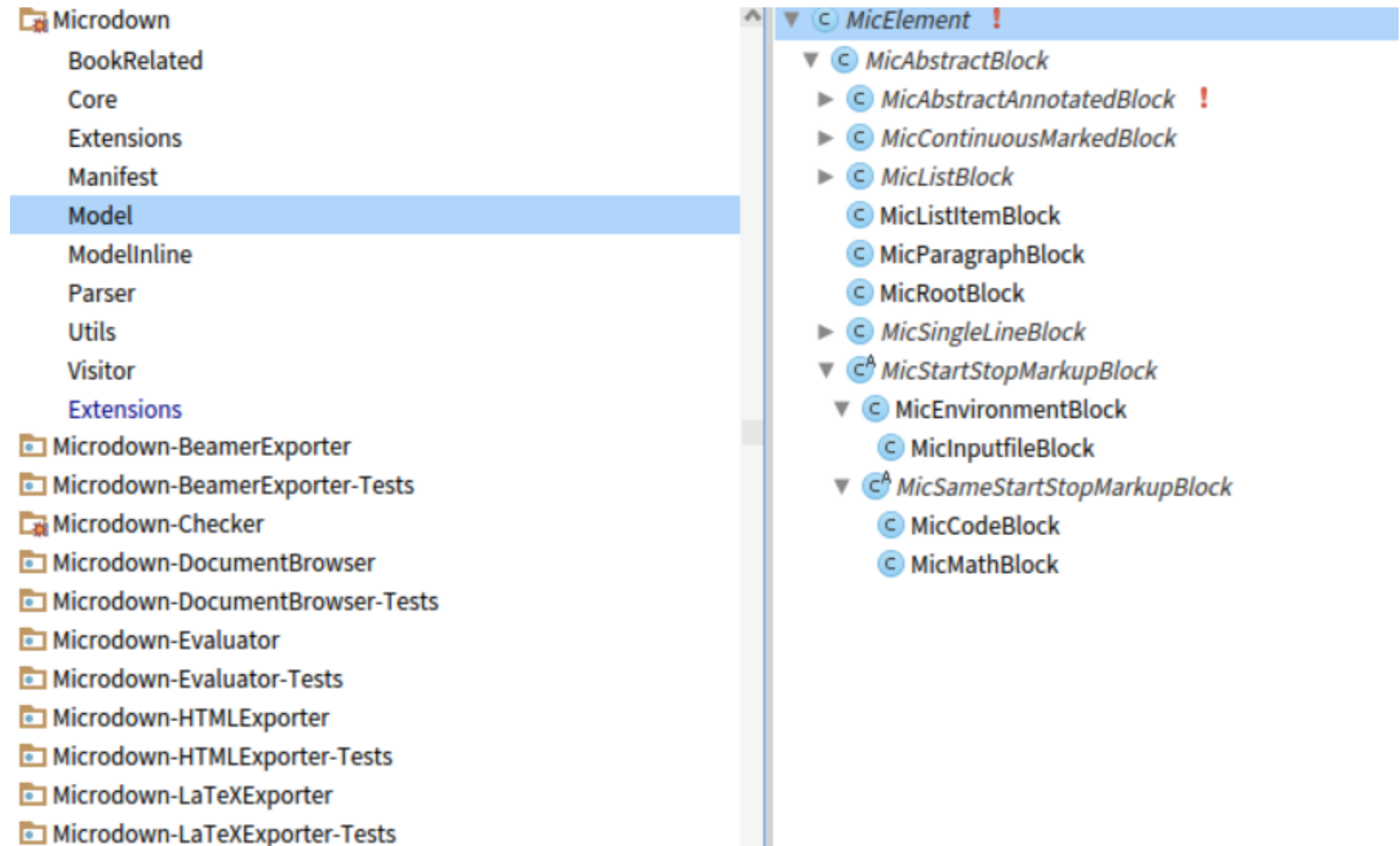
- Conception minimale mais riche en fonctionnalités
- Reutilisation de Markdown et de Pillar
- se base sur les **Visitors**

MICRODOWN

BLOCKS

Forme un arbre/ hiérarchie

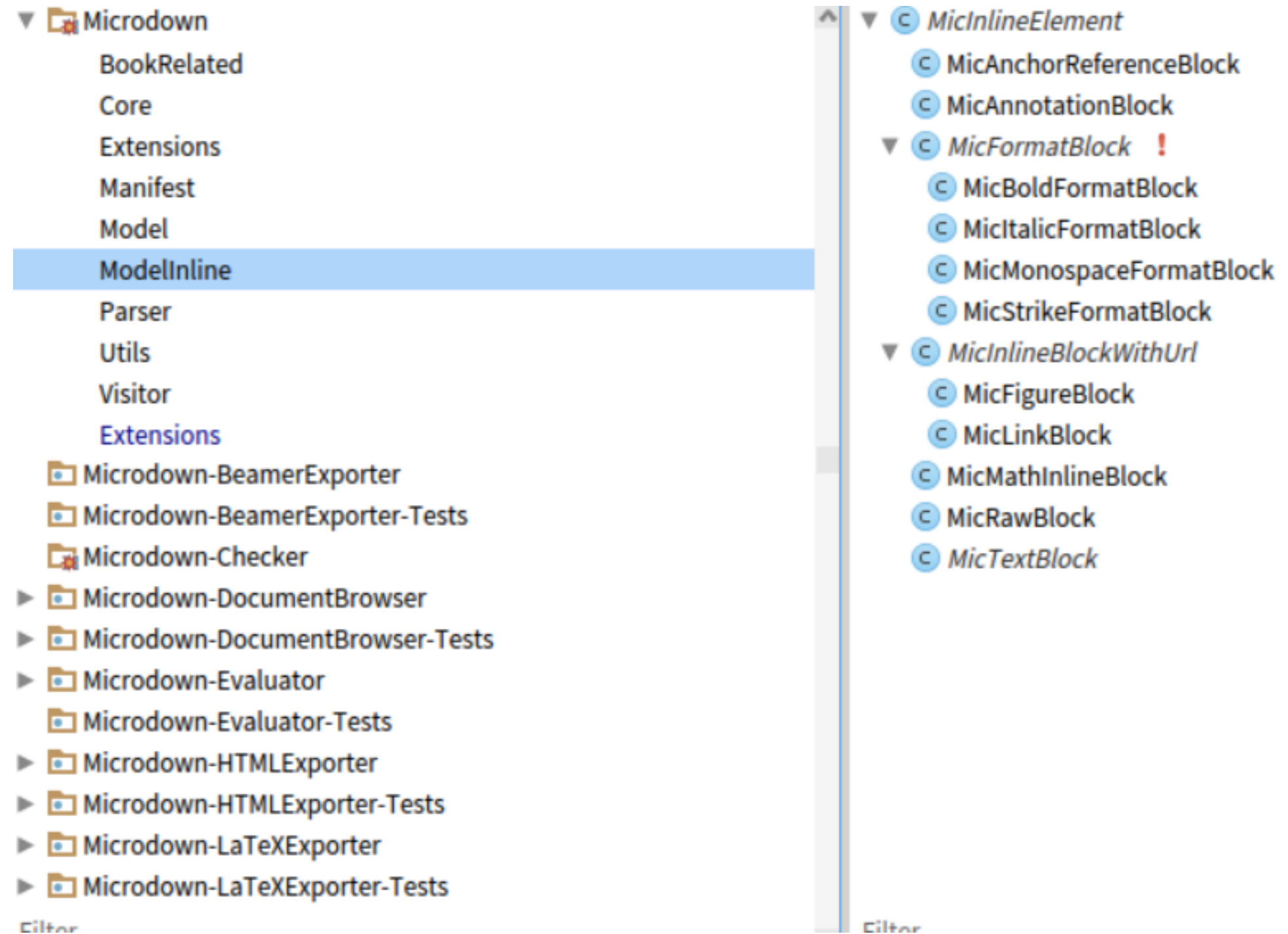
- Blockquotes
- Paragraphes
- Listes
- ...



MICRODOWN

INLINES

- Lignes
- Italiques
- Gras
- Maths
- ...



MICRODOWN UN PARSER

Do it

Publish

Bindings

Versions

Pages

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

|source style|

source := Microdown parse: 'Paragraphe du haut

\$\$

\frac{45}{7}

\$\$

Paragraphe du bas

1. Premier Element

2. Second Element

3. Second Element

<!center

Je suis au centre

!>'

.

a MicRootBlock

RawMicTreeRenderedBreakpointsMeta

▼ a MicRootBlock

▼ a MicParagraphBlock

Text(Paragraphe du haut)

a MicMathBlock

▼ a MicParagraphBlock

Text(Paragraphe du bas)

▼ a MicOrderedListBlock

▼ a MicListItemBlock

Text(Premier Element)

▼ a MicListItemBlock

Text(Second Element)

▼ a MicListItemBlock

Text(Second Element)

▼ a MicCenterAlignmentBlock

▼ a MicParagraphBlock

Text(Je suis au centre)

MICRODOWN UN PARSER

Do it

Publish

Bindings

Versions

Pages

Playground

a MicRootBlock

Raw

MicTree

Rendered

Breakpoints

Meta

1

2 |source style|

3 source := Microdown parse: 'Paragraphe du haut

4 \$\$

5 \frac{45}{7}

6 \$\$

7 Paragraphe du bas

8

9 1. Premier Element

10 2. Second Element

11 3. Second Element

12

13 <!center

14 Je suis au centre

15 !>'

16

17 .

18

Paragraphe du haut

45

7

Paragraphe du bas

1. Premier Element

2. Second Element

3. Second Element

Je suis au centre

1 self

Line: 12:1
























+L



MICRODOWN ET LES EXTENSIONS

Un Visitor sur MICRODOWN

Extension ajoutée

- ▶  Microdown
 -  Microdown-BeamerExporter
 -  Microdown-BeamerExporter-Tests
 -  Microdown-Checker
- ▶  Microdown-DocumentBrowser
- ▶  Microdown-DocumentBrowser-Tests
- ▶  Microdown-Evaluator
 -  Microdown-Evaluator-Tests
- ▶  Microdown-HTMLExporter
- ▶  Microdown-HTMLExporter-Tests
- ▶  Microdown-LaTeXExporter
- ▶  Microdown-LaTeXExporter-Tests
- ▶  Microdown-MathFlaky-Tests
- ▶  Microdown-Pharo-Tools
 -  Microdown-PrettyPrinter
 -  Microdown-PrettyPrinter-Tests
- ▶  Microdown-RichTextComposer
 -  Microdown-RichTextComposer-Tests
- ▶  Microdown-RichTextPresenter
 -  Microdown-RichTextPresenter-Tests
- ▶  Microdown-Tests
- ▶  Microdown-Transformer
 -  Microdown-Transformer-Tests

Microdown-LatexExporter

Extension envoyant une expression Mathématique sur Le serveur Latex, pour en exporter une **image**.

Microdown-LaTeXExporter

- Extensions
- Microdown-LaTeXExporter-Tests
 - Uncategorized
 - Manifest

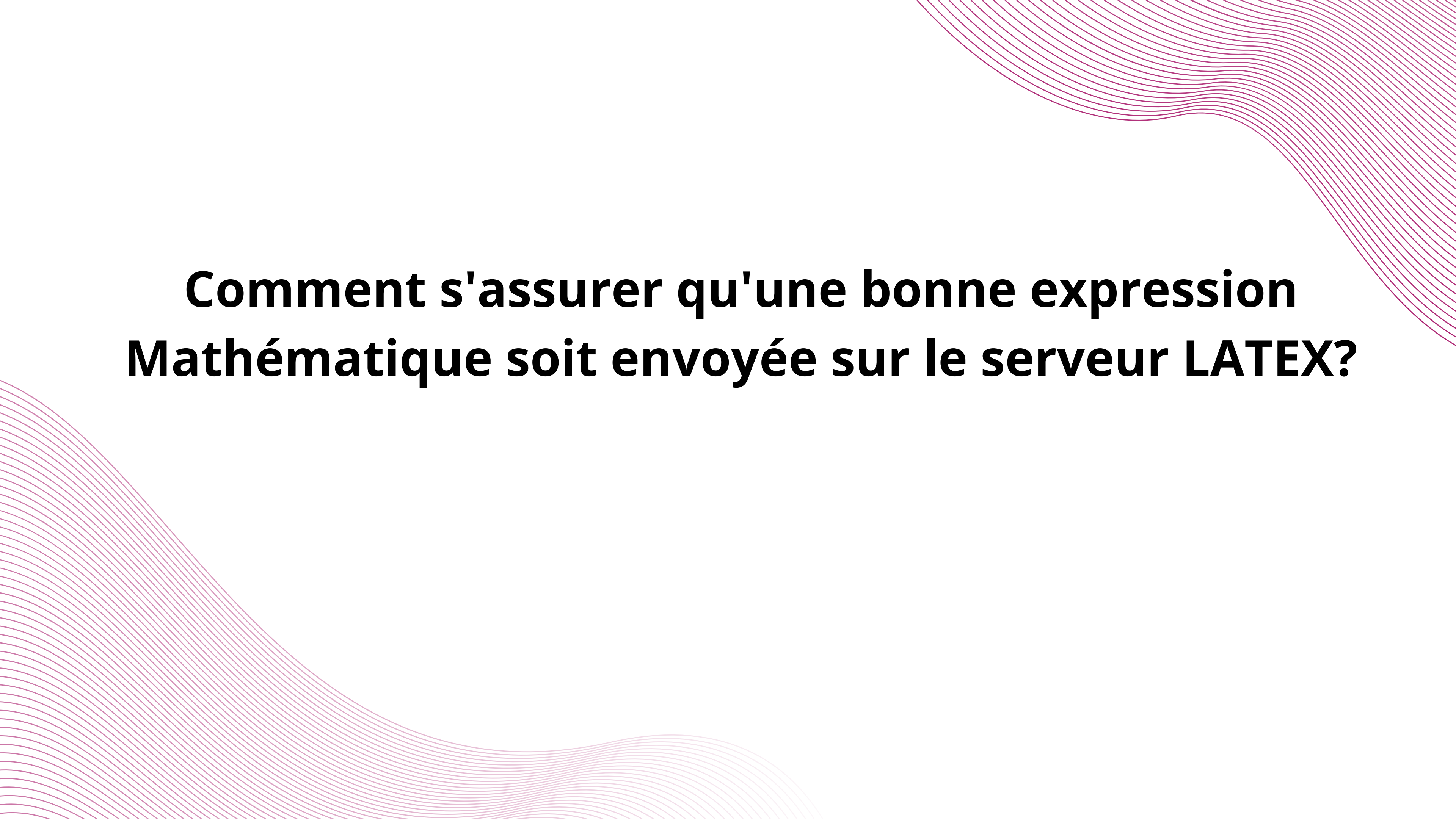
MicDocumentWriter

- MicLaTeXWriter
 - MicSBALaTeXWriter
- MicExportBrush
 - MicLaTeXBrush
 - MicLaTeXCommand
 - MicLaTeXEnvironment
- MicExportCanvas
 - MicLaTeXCanvas
- MicLatexPathUpdateVisitor
- MicTableBlock

```
|expression |  
expression := Microdown parse: '  
$$  
\frac{2}{7}  
$$  
'.
```

Raw	MicTree	Rendered	Breakpoints	Meta
		$\frac{2}{7}$		

1	self
---	------



**Comment s'assurer qu'une bonne expression
Mathématique soit envoyée sur le serveur LATEX?**



EXTENSION - MATHCHECKER

CREATION D'UN VISITOR MATH CHECKER

The screenshot displays an IDE interface for developing a Math Checker visitor. The left sidebar shows a project tree with the following structure:

- Microdown
 - BookRelated
 - Core
 - Extensions
 - Manifest
 - Model
 - ModelInline
 - Parser
 - Utils
 - Visitor
 - Extensions
- Microdown-BeamerExporter
- Microdown-BeamerExporter-Tests
- Microdown-Checker**
- Microdown-Evaluator
- Microdown-Evaluator-Tests
- Microdown-HTMLExporter
- Microdown-HTMLExporter-Tests

The top right pane shows the class hierarchy for 'MicMathCheckerTest', with the following methods listed:

- instance side
- tests
- failed tests

The bottom right pane shows the source code for the 'testIsOkWithWrongExpression' test method:

```
testIsOkWithWrongExpression
|expression mic|

expression := Microdown parse: '
$
\frac{A}{B}
$$'.
mic := MicMathChecker new visitMath: expression.
self assert: (mic errors size) equals: 1.
```


TEST SUR UNE BONNE EXPRESSION MATHEMATIQUE

Playground

a Text for 'foo' foo'

Do it Publish Bindings Versions Pages

```
1 expression := Microdown parse:
2 '
3 foo
4 $$
5 \frac{A}{B}
6 $$
7 foo'.
8
9 mic := MicMathChecker new.
10 mic visit: expression.
11
```

Text Items Raw Breakpoints Meta

foo

$\frac{A}{B}$

foo

1 self

Line: 1:6 +L

TEST SUR UNE MAUVAISE EXPRESSION MATHEMATIQUE

The screenshot shows a web-based application titled "Playground". The interface includes a toolbar with icons for "Do it", "Publish", "Bindings", "Versions", and "Pages". The main editor on the left contains the following code:

```
1 expression := Microdown parse:  
2 '  
3 foo  
4 $  
5 \frac{A}{B  
6 $$  
7 foo'.  
8  
9 mic := MicMathChecker new.  
10 mic visit: expression.  
11
```

The right-hand side of the application displays the output of the parsing process. It features a tabbed interface with "Text", "Items", "Raw", "Breakpoints", and "Meta" tabs. The "Text" tab is active, showing the input string "foo \$ frac{A}{B..." and the resulting LaTeX fragments: "foo", "\$", and "frac{A}{B". Below these, a message indicates a syntax error: "\$\$ - SYNTAXE LATEX ERROR - \$\$". At the bottom right, a small table shows a single entry:

1	self
---	------

The status bar at the bottom left indicates "Line: 9:22", and a "+L" button is visible next to it.



**ACQUIS DURANT LA
REALISATION DU PROJET**

- COMPRENDRE MICRODOWN
- REVERSE ENGINEERING
 - Debugger
 - Implementations
- **LES VISITORS**

MERCI DE VOTRE
ATTENTION