

# The `latex-lab-mathintent` code<sup>\*</sup>

LATEX Project

September 24, 2025

## Abstract

## Contents

<b>1</b>	<b>Introduction</b>	<b>1</b>
<b>2</b>	<b>The Implementation</b>	<b>1</b>
2.1	File declaration . . . . .	1
2.2	Invisible ops . . . . .	1
2.3	MathML intent and arg . . . . .	2
2.4	Wrapper files for testphase key . . . . .	2
	<b>Index</b>	<b>3</b>

## 1 Introduction

This file implements Experiments with the MathML4 `intent` feature. Initially to give readings for invisible times and function application.

## 2 The Implementation

1 `\ProvidesFile{ $\@math$ .ltx}`

2 `\ExplSyntaxOn`

### 2.1 File declaration

3 `\ProvidesFile{ $\@math$ .ltx}`  
4        [2025-08-03 v0.1c MathML intent attributes]

### 2.2 Invisible ops

5 `\ExplSyntaxOn`

6 `\protected\def\invisibletimes{`  
7    `\if_cs_exist:N\luamml_annotate:en`  
\_\_\_\_\_\*

```

8   \luamml_annotate:en {
9     core = {[0] = 'mo', intent="times", "^^^^2062"}, 
10  }{
11    \latelua{}
12  }
13 \fi:
14 }

15 \protected\def\functionapplication{
16 \if_cs_exist:N\luamml_annotate:en
17   \luamml_annotate:en {
18     core = {[0] = 'mo', intent="applied_to", "^^^^2061"}, 
19  }{
20    \latelua{}
21  }
22 \fi:
23 }

```

### 2.3 MathML intent and arg

These commands have stub definitions in the Kernel. Here we enable their active definition.

```

24 \AtBeginDocument{
25 \if_cs_exist:N \luamml_attribute:een
26 \let\MathMLintent\relax
27 \NewDocumentCommand \MathMLintent {} {
28   \luamml_attribute:een { intent }
29 }

30 \let\MathMLarg\relax
31 \NewDocumentCommand \MathMLarg {} {
32   \luamml_attribute:een { arg }
33 }
34 \fi:
35 }

36 \ExplSyntaxOff
37 ⟨/kernel⟩

```

### 2.4 Wrapper files for testphase key

# Index

The italic numbers denote the pages where the corresponding entry is described, numbers underlined point to the definition, all others indicate the places where it is used.

A	L
\AtBeginDocument .....	24 \latelua .....
	11, 20
	\let .....
	26, 30
D	luamml commands:
\def .....	6, 15 \luamml_annotation:nn .....
	7, 8, 16, 17
	\luamml_attribute:nnn .....
	25, 28, 32
E	
\ExplSyntaxOff .....	36 M
\ExplSyntaxOn .....	5 \MathMLarg .....
	30, 31
	\MathMLintent .....
	26, 27
F	
fi commands:	
\fi: .....	13, 22, 34 P
\functionapplication .....	15 \protected .....
	6, 15
I	\ProvidesFile .....
if commands:	3 R
\if_cs_exist:N .....	7, 16, 25 \relax .....
\invisibletimes .....	6 26, 30