# An Event-B Specification of

# WellCommented

This project is used to verify that rendering of complicated and long comments work.

1	CONTEXT Tale  1.1 STUFF	
	MACHINE Journey 2.1  r x z	4

```
A context comment.
Test some accented unicode non-ascii chars: ÅÄÖôâôîãüïäáà
Test all unicode Event-B chars: :=\bot \top \land \Rightarrow \neg \lor \Leftrightarrow \forall \exists \mapsto \neq \leq \geq \in \notin \subseteq \subset \not\subseteq \not\subset \otimes \times
Inline tex: 5 \times \sqrt{123}
SETS
                                                                                        1.1
 STUFF
                                                                                        1.2
CONSTANTS
 AAAA
 BBBB
          CCCC
 DDDD
         d
 EEEE
         е
 FFFF
          f
 GGGG
         g
 НННН
         h
 IIII
          i
 maa
          ma
 mii
          _{
m mi}
AXIOMS
        \operatorname{partition}(\operatorname{STUFF}, \{\operatorname{AAAA}\}, \{\operatorname{BBBB}\}, \{\operatorname{CCCC}\}, \{\operatorname{DDDD}\},
         \{EEEE\}, \{FFFF\}, \{GGGG\}, \{HHHH\}, \{IIII\}\}
 Here is a
 comment.....
 axm2: maa > 1
 axm3: mii > 10
```

 $maa > 1 \Rightarrow maa > 1$ 

CONTEXT Tale

axm4:

**END** 

 $maa > 1 \Rightarrow maa > 1$ 

1

MACHINE Journey 7a 2

A machine comment. A complicated comment with % # ! 4^5 x\_y More of a comment. Now its done! Some inline tex:  $\sqrt{123}$  Here I really want a newline.  $x > 1 \Rightarrow \max > 0 \lor \top \Leftrightarrow \bot \forall x \cdot x \in \mathbb{N} \to \mathbb{N}1 \times (\mathbb{Z} \setminus \{123\})$ 

SEES Tale

VARIABLES 2.1

- x Fin variabel
- r En annan variabel
- z Z represents the unknown STUFF in the universe.

#### INVARIANTS

```
inv1: x > 0 A comment.

inv2: x > 0 \lor x > 0 \lor x > 0 \lor x > 3

\lor x > 0 \lor x > 0 \lor x > 4

\lor x > 0 \lor x > 0 \lor x > 5

\lor x > 0 \lor x > 0 \lor x > 6

\lor x > 0 \lor x > 0 \lor x > 7

\lor x > 0
```

Helpful stuff comment with comments en masse.

```
inv3: r \in 1...99
```

The third invariant needs a lot of explanation. For example it  $5 \times \sqrt{4}$  is not good. Must exemplify better.

```
inv4: x > 0 \lor x > 0
```

Another interesting comment  $\cdot$  a lot of text indeded. Will the line break eventually? Another line.

```
inv5: z \in STUFF
```

```
EVENT INITIALISATION
```

```
THEN
```

```
\begin{array}{ll} \text{init1:} & x := \max \\ \text{init2:} & r := 2 \\ \text{init3:} & z := \text{HHHH} \end{array}
```

END

**EVENT About** 

2.2

ANY

WHERE

act1: x := 2

Comment x := 2 Another x := 2 Third x := 2

END

## About, 3

## INITIALISATION, 3

Journey, 3

r, 3

Tale, 2, 3

x, 3

z, 3