: BETA Quick Reference Card

Table of Contents

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A summary of all special characters in BETA, and a short list of the syntax of the language is given below along with a short description of their semantics:

Special characters	Semantics
:	Declaration
: @	Static object reference declaration
: ^	Dynamic object reference declaration
: ##	Pattern reference declaration
: @|	Static component declaration
: ^|	Dynamic component declaration
: [range]	Declaration of repetition. range must be an integer evaluation
:<	Virtual declaration
::<	Extended binding of virtual declaration
::	Final binding of virtual declaration
&	Dynamic creation of item; new
&|	Dynamic creation of component
->	Assignment
[]	Reference
##	Pattern reference
(#	Object descriptor begin
#)	Object descriptor end
//	Selection in if-imperative

Keywords

> **do**
> **else**

enter
exit
inner
leave
none
repeat
restart
suspend
then
this
(if
if)
(for
for)

Additional keywords (for their usage, see below)

Short syntax	Semantics
P: (# E do E #)	Definition of a pattern
PP: P(# E do E #)	Definition of a subpattern
enter E	Specification of enter-parameters
exit E	Specification of exit-parameters
inner P	Execute the actions in the subpattern. P is an optional name of an enclosing pattern.
this(P)	Denotation of this object
this(P)[]	Reference to this object
E.P	Remote name
(E).P	Computed remote name
L: Imp	In action part: labelled imperative
L: (# E do E #)	In action part: labelled imperative (descriptor)

leave L	Terminate labelled imperative or object instance L
restart L	Goto beginning of labelled imperative or object instance L
suspend	Component suspension
E1 -> E2	Assignment imperative
(if E **// E1** **then** **Imp1** **// En** **then** **Impn** **else Imp** **if)**	General selection imperative: Sequential evaluation of E, E1, E En First Impi is executed where Ei=E If no Ei=E, then Imp is executed 'else Imp' is optional
(if E **then** **Imp**1 else **Imp**2 if)	Simple if imperative: Evaluation of E (must exit a single boolean value); Execute Imp1 if E is true; Otherwise Imp2 is executed 'else Imp2' is optional
(for I: **range** **repeat** **Imp** **for)**	Repetition imperative: I is a locally scoped integer variable within Imp. Execute Imp with I assigned each value in [1..range]
NONE	The nil reference value
R[i:j]	Repetition slice
R[i]	Indexed repetition element
(e1, e2, **E, en)**	Evaluation list

Please note, that the above description is by no means complete, and in some cases ambiguous. The ultimate reference is naturally the BETA grammar as defined in the BETA book [MMN 93].