op_conditional — Conditional operator

Description Syntax Remarks and examples Conformability Diagnostics Also see

Description

The conditional operator returns b if a is true (a is not equal to 0) and c otherwise.

Syntax

a ? b : c

where a must evaluate to a real scalar, and b and c may be of any type whatsoever.

Remarks and examples

Conditional operators

```
dof = (k==0 ? n-1 : n-k)
```

are more compact than the `if`–`else` alternative

```
if (k==0) dof = n-1
else      dof = n-k
```

and they can be used as parts of expressions:

```
mse = ess/(k==0 ? n-1 : n-k)
```

Conformability

a ? b : c:

a:	1×1		
b:	$r_1 \times c_1$		
c:	$r_2 \times c_2$		
result:	$r_1 \times c_1$	or	$r_2 \times c_2$

Diagnostics

In a ? b : c, only the necessary parts are evaluated: a and b if a is true, or a and c if a is false. However, the ++ and − operators are always evaluated:

```
( k==0 ? i++ : j++)
```

increments both i and j, regardless of the value of k.

Also see

[M-2] **exp** — Expressions

[M-2] **Intro** — Language definition