The PSL Reference Guide

Repetition – Consecutive [*]

The consecutive repetition operator `[*]` is used where a sequence repeats on consecutive cycles.

Syntax

```
SERE [*N]
```

```
SERE [*lowbound RANGE_SYM highbound]
```

`N` is a statically computable positive integer. Range definitions must be declared in the ascending direction. The SERE operand is optional - without it the operator just counts evaluation cycles.

Note: `0 <= lowbound <= highbound <= inf` .

Verilog	VHDL	Meaning
`[*n]`	`[*n]`	Repeats for `n` cycles
`[*n:m]`	`[*n to m]`	Repeats between `n` and `m` cycles
`[*]`	`[*]`	0 to `inf` cycles
`[+]`	`[+]`	1 to `inf` cycles

Rules and Examples

```
{S; T[*3]; V}
```

This sequence begins with `S`, followed by 3 consecutive occurrences of `T`, followed by `V`. The following pattern matches this sequence:-

```
{S; T; T; T; V}
```

```
{J; D[*2 to 4]; K}
```

VHDL flavor. A sequence beginning with J, followed by 2, 3 or 4 consecutive occurrences of `D`, finishing with `K`. The following patterns match this sequence:-

```
{J; D; D; K}
{J; D; D; D; K}
{J; D; D; D; D; K}
```


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```
{J[*]; T}
```

This sequence begins with 0 or more occurrences of J (i.e J does not need to occur at all), followed by T. As there can be an infinite number of repetition of J, T does not have to occur if J remains true. The following patterns match this sequence:-

```
{J; T}
{J; J; J; J; T}
{T}
```

Without a SERE operand, the operator counts evaluation cycles without checking any conditions:-

```
{S; [*3]; V}
```

This sequence beginning with S, followed four cycles later by V. The following pattern matches this sequence, where - signifies no conditions are checked:-

```
{S; -; -; -; V}
```

```
{K; [*0:2]; L}
```

Verilog flavor. This sequence beginning with K, followed by between zero and two cycles later L. The following patterns match this sequence, where - signifies no conditions are checked:-

```
{K; L}
{K; -; L}
{K; -; -; L}
```

Note that counting cycles with a high bound of inf (infinite) will never fail. These forms should be avoided if possible:-

```
{S; [*]; V}
```

This sequence begins with S, but then there can be any number of cycles before V. V does not have to occur.

See Also

non-consecutive and go-to repetition, inf