

A Quick Introduction to Tcl / OTcl / ns-2

Part I

Tcl

a scripting language



a b c d; e f g
h i j k

To run a script, Tcl evaluates each command after substitutions.

$\$a$

is substituted with the
value of variable a

expr \$a + 1

expr 1 + 1

2

[a b c d]

is substituted with
results after evaluating
command **a** on
arguments **b**, **c**, and **d**

```
set c [expr $a + 1]
set c [expr 1 + 1]
set c 2
```


“a b c d”

is substituted with the
results after evaluating
a, b, c, and d

```
set c "$a $c"
```

```
set c "1 2"
```

{a b c d}

just substitute

with a b c d

without any evaluation

set c {\$a \$c}

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Part 2

set x {a b c d}

set y {1 2 {3 3.4}}

llength \$x

lindex \$x 2

lsearch \$x c

```
foreach i $x {  
    puts $i  
}
```



```
foreach {i j} $x {  
  puts "$i : $j"  
}
```

```
set a(0) 1  
set a(1) 10  
set a(100) 3
```

set b(ftp) 21

set b(http) 80

set b(ssh) 22

```
foreach {i j} [array get b] {  
    puts "$i uses port $j"  
}
```

```
for {set x 0} {$x < 10} {incr x} {  
    puts "$x [expr 2**$x]"  
}
```

```
if {$x > 0} {  
    puts "positive"  
}  
elseif {$x < 0}  
    puts "negative"  
}  
else {  
    puts "zero"}
```