UNIX SHELL PROGRAMMING

SHELL SCRIPTING

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Test and []

when we use if statement we need “test” command as if directly cant not handle the return values.

Test works in three ways:

. Compares two numbers

. Compares two strings or a single one with a null

. Checks a file’s attributes

Note: test sets the $? Positional parameters

SHELL SCRIPTS

Test and []

test –option along with operands

EX: test $x –ne $y ; Not Equal

test $x –eq $y ;

test $x –lt $y ;

test $x –gt $y ;

test $Z –le $y ;

test $x –ge $y ;

Note: numeric comparison is restricted to integers only

SHELL SCRIPTS

Test and []

EX:

```
#!/bin/sh
if test $# -eq 0;then
        echo “2 arguments are must”
elif test $# -eq 2; then
        grep “$1” $2    || echo “$1 not found”
else
        echo “two arguments please”
fi
```

SHELL SCRIPTS

Test and []

Shorthand for test:

[$x –ne $y] ←---- replaces the test word

In c programming if(x) meaning if x is greater than 0, in the same way if [$x] means the same

SHELL SCRIPTS

String comparison using test:

s1 = s2 True if s1 is equal to s2

s1 ! = s2 True if s1 is not equal to s2

-n string true if not a null string

-z string True if null string

String True if it is assigned and not null

s1==s2 true if s1 is equal to s2 and works in korn and bash shell

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Ex:

```
if [ -n “$pname” –a –n “$filename” ] ; then
echo “two arguments are not null”
else
echo “at least one input is null”
fi
```

Note : -a indicates AND operators and –o indcates OR operator

! Symbol is used as a negation.

File test:

-f filename: File exists and regular file

-e filename: file Exists

-r filename: file exists & File is readable

-w filename: file exists & File is writable

-x filename: file exists & file is executable

-d filename: file exists & file is a directory

-s filename: file exists and size greater than zero

-u filename: file exists has SUID bit is set

-k filename: file exists and Sticky bit set

-L Filename: file exists and is a symbolic link

SHELL SCRIPTS

File test:

f1 –nt f2: f1 is newer than f2

f1 –ot f2: f1 is older than f2

f1 –ef f2: f1 is linked to f2

```
EX: if [ ! –e $1 ]; then
        echo “File does not exists”
    elif [ ! –r $1 ]; then
        echo “not readable”
    elif [ ! –w $1] ; then
        echo “not writable”
    else
        echo “$1 is readable as well as writable”
    fi
```

THANK YOU

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