

Re: Using foreach loop to create radiobutton menu

Source: <http://coding.derkeiler.com/Archive/Tcl/comp.lang.tcl/2006-04/msg01343.html>

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 - *Date:* Fri, 28 Apr 2006 15:27:35 GMT
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aj@xxxxxxxx wrote:

I appreciate the significance of your answer, however, my problem persists. Here is the updated code...

```
menubutton range -text "Set Range" -underline 0 -bd 0 -menu {
foreach range { 1 2 3 4 5 6 7 8 9 10} "
radiobutton range$range -label $range -command {puts hello}
"
}
```

When this code executes, I get this error:

```
"..... - can't read "range": no such variable"
```

That's an interesting application of my advice. Unfortunately, it is wrong on many levels.

Let's get back to your original loop:

```
> foreach range { 1 2 3 4 5 6 7 8 9 10} {
> radiobutton range$range -label $range -command {
> puts "hello: $range"
> }
> }
```

.... and your original complaint was that you got an error saying that the variable range doesn't exist. The complaint comes, not when you create the radiobutton, but when you click on it. Is that correct?

The reason it doesn't exist is that when the `-command` actually runs, it runs in the global scope. Your variable 'range' is a local variable. That is the crux of the problem. Your foreach loop is not the problem, the problem is how you define the `-command`.

Now, there are (at least) two solutions. You might be tempted to just declare range as global, but that will just give you a different problem. Remember that the `-command` runs sometime later. So, imagine some arbitrary point in time the following script runs:

```
puts "hello: $range"
```

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The only possible thing the interpreter can do is substitute the current value of `range` (or throw an error if `range` isn't global), which is likely the last value once your loop exited. Remember, this `puts` statement isn't running inside a loop; it is running some time in the future when the loop has long since gone away.

So, using a global variable won't work. What you want is the value of `$range` at the time the button is created. How do we get that? What are the fundamental rules of tcl quoting? You tried this:

```
... -command {puts "hello: $range"}
```

The curly braces mean that `$range` will not be substituted. You want the variable `_to_` be substituted, so clearly we can't use curly braces here. Do you u