

1. 用perl产生verilog文件

主要是perl可以很方便支持类似1..3, a..c, A..C的语法，对生成规律性的verilog语句很有帮助。 -- 而python没有这样的语法。

1.1 t.pl

t.pl

```
@ar = (1..3, a..c, A..C);
foreach $i (@ar) {
    print "hello0${i}good\n";
}

print "\n";
@ar = reverse @ar;
foreach $i (@ar) {
    print "hello1${i}good\n";
}
```

执行效果：

```
>perl t.pl
```

```
hello01good
hello02good
hello03good
hello0agood
hello0bgood
hello0cgood
hello0Agood
hello0Bgood
hello0Cgood
```

```
hello1Cgood
hello1Bgood
hello1Agood
hello1cgood
hello1bgood
hello1agood
hello13good
hello12good
hello11good
```

1.2 vpl.pl

vpl.pl

```
if (scalar @ARGV < 1) {
    print "usage: perl vpl.pl xxx.vpl\n";
    exit;
}

$ivpl = shift @ARGV;
$oapl = $ivpl;
$oapl =~ s/\.\w+$/\opl/;
$vfile = $ivpl;
$vfile =~ s/\.\w+$/\v/;

open(fh, "$ivpl") || die "can not open $ivpl";
open(ofh, ">$oapl") || die "can not open $oapl";

print ofh "open (vfh, \">>$vfile\");\n";
while($line = <fh>) {
    chomp $line;

    if ($line =~ /^;(.*)/) {
        # is perl program
        $perl_line = $1;
        $perl_line =~ s/print\s*/print vfh /;
        print ofh "$perl_line" ."\n";
    }
    else{
        $line =~ s/\\/\\/\\/g;
        $line =~ s/"/"/g;
        print ofh "print vfh \"$line\n\" " .";\n";
    }
}
close fh;
close ofh;

# excute .opl file, and then delete tmp .opl file
$syscmd = "perl $opl";
$ret = system("$syscmd");
if ($ret == 0) {
    print "generate $vfile ok!\n";
    @ar = glob "$opl*";
    #print "will delete @ar\n";
    foreach $tmp (@ar) {
        unlink ($tmp);
    }
}
```

```
exit 0;
```