

```
1: // $Id: maxvalues.cpp,v 1.3 2016-09-21 17:09:57-07 - - $
2:
3: #include <iostream>
4: #include <locale>
5: #include <string>
6: using namespace std;
7:
8: struct comma_numpunct: public numpunct<char> {
9:     string digits;
10:     comma_numpunct (const string& dig = "\3"): digits(dig) {}
11:     virtual char do_thousands_sep() const { return ','; }
12:     virtual string do_grouping() const { return digits; }
13: };
14:
15: template <typename unsigned_t>
16: void print (const string& type) {
17:     unsigned_t max = -1LL;
18:     unsigned long long maxx = max;
19:     cout << endl << type << ":" << endl;
20:     cout << "0" << oct << maxx << endl;
21:     cout << dec << maxx << endl;
22:     cout << "0x" << uppercase << hex << maxx << endl;
23: }
24:
25: #define PRINT(X) print<X> (#X);
26:
27: int main() {
28:     cout.imbue (locale (locale(), new comma_numpunct()));
29:     PRINT (unsigned char);
30:     PRINT (unsigned short);
31:     PRINT (unsigned int);
32:     PRINT (unsigned long);
33:     PRINT (unsigned long long);
34:     PRINT (size_t);
35:     return 0;
36: }
37:
38: //TEST// ./maxvalues >maxvalues.lis 2>&1
39: //TEST// mkpspdf maxvalues.ps maxvalues.cpp* maxvalues.lis
40:
```

[illegible]

```
1:
2: unsigned char:
3: 0377
4: 255
5: 0xFF
6:
7: unsigned short:
8: 0177,777
9: 65,535
10: 0xF,FFF
11:
12: unsigned int:
13: 037,777,777,777
14: 4,294,967,295
15: 0xFF,FFF,FFF
16:
17: unsigned long:
18: 01,777,777,777,777,777,777,777
19: 18,446,744,073,709,551,615
20: 0xF,FFF,FFF,FFF,FFF,FFF,FFF
21:
22: unsigned long long:
23: 01,777,777,777,777,777,777,777
24: 18,446,744,073,709,551,615
25: 0xF,FFF,FFF,FFF,FFF,FFF,FFF
26:
27: size_t:
28: 01,777,777,777,777,777,777,777
29: 18,446,744,073,709,551,615
30: 0xF,FFF,FFF,FFF,FFF,FFF,FFF
```