

```
1: // $Id: numlimits.cpp,v 1.14 2015-05-19 15:26:38-07 - - $
2:
3: #include <iomanip>
4: #include <iostream>
5: #include <limits>
6: #include <typeinfo>
7:
8: #include <cxxabi.h>
9:
10: using namespace std;
11:
12: template <typename T>
13: void show (const string &label) {
14:     cout << label << " [" << sizeof (T) << "]" << " "
15:         << setprecision (numeric_limits<T>::digits10)
16:         << numeric_limits<T>::min() << " .. "
17:         << numeric_limits<T>::max() << endl;
18: }
19:
20: #define SHOW(T) show<T>(#T)
21:
22: int main() {
23:     SHOW (bool);
24:     SHOW (char);
25:     SHOW (signed char);
26:     SHOW (unsigned char);
27:     SHOW (short);
28:     SHOW (signed short);
29:     SHOW (unsigned short);
30:     SHOW (int);
31:     SHOW (signed int);
32:     SHOW (unsigned int);
33:     SHOW (unsigned);
34:     SHOW (long);
35:     SHOW (signed long);
36:     SHOW (unsigned long);
37:     SHOW (long long);
38:     SHOW (signed long long);
39:     SHOW (unsigned long long);
40:     SHOW (float);
41:     SHOW (double);
42:     SHOW (long double);
43:     return 0;
44: }
45:
46: //TEST// ./numlimits >numlimits.out 2>&1
47: //TEST// mkpspdf numlimits.ps numlimits.cpp* numlimits.out*
48:
```

[illegible]

```
1: bool [1] 0 .. 1
2: char [1] \200 .. \177
3: signed char [1] \200 .. \177
4: unsigned char [1] \000 .. ý
5: short [2] -32768 .. 32767
6: signed short [2] -32768 .. 32767
7: unsigned short [2] 0 .. 65535
8: int [4] -2147483648 .. 2147483647
9: signed int [4] -2147483648 .. 2147483647
10: unsigned int [4] 0 .. 4294967295
11: unsigned [4] 0 .. 4294967295
12: long [8] -9223372036854775808 .. 9223372036854775807
13: signed long [8] -9223372036854775808 .. 9223372036854775807
14: unsigned long [8] 0 .. 18446744073709551615
15: long long [8] -9223372036854775808 .. 9223372036854775807
16: signed long long [8] -9223372036854775808 .. 9223372036854775807
17: unsigned long long [8] 0 .. 18446744073709551615
18: float [4] 1.17549e-38 .. 3.40282e+38
19: double [8] 2.2250738585072e-308 .. 1.79769313486232e+308
20: long double [16] 3.36210314311209351e-4932 .. 1.18973149535723177e+4932
```