Subject: findarg_r, a findarg variant that works with value ranges.
Posted by Oblivion on Sun, 06 Jun 2021 22:09:28 GMT
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Hi,

Sometimes it is useful to search a value in a value range (min, max val).

Below is the code of findarg variant that works with value ranges.
It returns the index of range (starting with 0) of arg,. If not found, -1 is returned.

```
#include <Core/Core.h>

using namespace Upp;


template <class T, class K>
constexpr int findarg_r(const T& x, const K& l, const K& h)
{
 return x >= l && x <= h ? 0 : -1;
}

template <class T, class L, typename... R>
constexpr int findarg_r(const T& sel, const L& l, const L& h, const R& ...args)
{
 if(sel >= l && sel <= h)
  return 0;
 int q = findarg_r(sel, args...);
 return q >= 0 ? q + 1 : -1;
}

CONSOLE_APP_MAIN
{
 StdLogSetup(LOG_COUT|LOG_FILE);

 String s = "dcba";

 RDUMP(findarg_r(s,
   "aa", "bb",
   "cc", "dd"));

 RDUMP(findarg_r(123,
  0, 1,
  2, 3,
  4, 100,
  100, 400,
  500, 1000) == 3);
```

}

Output:

findarg_r(s, "aa", "bb", "cc", "dd") = 1
findarg_r(123, 0, 1, 2, 3, 4, 100, 100, 400, 500, 1000) == 3 = true

A decode_r can also be implemented in a similar way.

Best regards,
Oblivion
