

Quicksort v1.4

Quicksort implementation for Operation Flashpoint: Resistance; by Faguss (ofp-faguss.com)

1. Overview

Quicksort is presumably the fastest sorting algorithm. It will get items (in your arrays) in order faster than other methods.

2. Usage

- Copy `quicksort.sqf` to the mission directory.
- Write in `Init.sqs`:

```
quicksort = preProcessFile "quicksort.sqf"
```

Function call syntax:

```
<array variable name> call quicksort
```

For example:

```
ARRAY = [5, 4, 1, 3, 2]  
ARRAY call quicksort  
hint format ["%1", ARRAY]
```

Game will display:

```
[1, 2, 3, 4, 5]
```

3. Variants

a) Quicksort MULTI

This version will sort multiple arrays in the same way as the first given array.

Let's say you have in your mission two related with each other matrices. One stores players names and the second one – earned points.

```
POINTS = [100, 10, 15, 0, 50]
          ↑   ↑   ↑   ↑   ↑
          ↓   ↓   ↓   ↓   ↓
NAMES = ["Josh", "John", "Paul", "Jones", "Dave"]
```

At the end of the mission you may want to show results sorted on a leaderboard. That's where `quicksort_MULTI` comes in.

- Copy `quicksort_MULTI.sqf` to the mission directory.
- Write in `Init.sqs`:

```
quicksortM = preprocessFile "quicksort_MULTI.sqf"
```

Syntax:

```
[ <array1>, <array2>, ... ] call quicksortM
```

All arrays must have the same size.

For example:

```
[POINTS,NAMES] call quicksortM
hint format ["%1 %2", POINTS, NAMES]
```

Game will display:

```
[0,10,15,50,100] ["Jones", "John", "Paul", "Dave", "Josh"]
```

b) Quicksort ALPHA

This version sorts alphabetically strings stored in an array. Requires [Fwatch version 1.15](#)

Example:

```
[NAMES, ""] call quicksortA
```

Second argument is a string that may contain additional options. For example:

```
[NAMES, "caseSensitive:true natural:false reverseCase:true"] call quicksortA
```

It's case insensitive by default. Natural order is for comparing text that contains digits. Option `reverseCase` will make words with capital letters appear first in the list.

c) Quicksort ALPHA MULTI

This version will sort multiple arrays in the same way as the first given array which is sorted alphabetically. Requires [Fwatch version 1.15](#). Example:

```
[NAMES, POINTS, ""] call quicksortAM
```

Last argument is a string that may contain additional options. For example:

```
[NAMES, POINTS, "caseSensitive:true natural:false"] call quicksortAM
```

It's case insensitive by default. Natural order is for comparing text that contains digits.

4. Notes

More information about Quicksort algorithm you'll find on: <http://en.wikipedia.org/wiki/Quicksort>

5. Version history

v1.0 (08.09.10)

First release.

v1.1 (02.09.11)

- added alphabetical sorting variants
- variant *quicksort2* renamed to *quicksort_MULTI*

v1.2 (24.07.12)

- in alphabetical sorting you may pass extra param for case sensitivity (Fwatch 1.11)

v1.3 (27.05.13)

- all local variables are now private
- function does not return anything
- global variable QUICKSORT_RECURRENCE is now used
- letter case in argument "casesensitive" does not matter
- not required anymore to pass array size numbers in the call to function

v1.4 (01.06.16)

- quicksortA and quicksortAM use Fwatch 1.15

- quicksortA and quicksortAM syntax change – must pass array with string as a last item