“Сортировка”

Листинг Selection

using System;

namespace Sorting

{

class Selection

{

public static void SelectionSort(int[] array)

{

if (array == null || array.Length < 2)

return;

for (int index = 0; index < array.Length; index++)

{

int minIndex = index;

for (int next = index + 1; next < array.Length; next++)

if (array[minIndex] < array[next])

minIndex = next;

if (minIndex != index)

{

//swap

Swap.DoSwap(array, index);

}

}

}

}

}

Листинг Bubble

using System;

namespace Sorting

{

class Bubble

{

public static void BubbleSort(int[] array)

{

if (array == null || array.Length < 2)

return;

bool swapDetected = false;

while (true)

{

swapDetected = false;

for (int index = 0; index < array.Length - 1; index++)

{

if (array [index] < array [index+1])

{

//swap

Swap.DoSwap(array, index);

swapDetected = true;

}

}

if (!swapDetected) break;

}

}

}

}

Листинг Bubble

using System;

namespace Sorting

{

class Swap

{

public static void DoSwap(int[] array, int index)

{

int tmp = array[index];

array[index] = array[index + 1];

array[index + 1] = tmp;

}

}

}

Листинг Bubble

using System;

namespace Sorting

{

class Program

{

static void Main(string[] args)

{

int[] mass = new int[] { 1, 3, 5, 1, 4, 7, 1, -2 };

//bubble

Bubble.BubbleSort(mass);

foreach (int item in mass)

Console.Write(item + " ");

Console.WriteLine(" <--- BubbleSort");

//Selection sort

Console.WriteLine();

Selection.SelectionSort(mass);

foreach (int item in mass)

Console.Write(item + " ");

Console.WriteLine(" <--- Selection sort");

Console.ReadKey();

}

}

}

Результат работы программы

