Структурная схема изучаемой архитектуры ВС с размещенной на ней разработанной программы.

Таблица типов.

|  |  |
| --- | --- |
| **Тип** | **Память в байтах [сдвиг]** |
| int  double  char | 4 [0]  8 [4]  1 [12] |
| **class Container** | **12** |
| int len  Text \*storage[10000] | 4 [0]  8 [4] |
| **class Digits** | **20** |
| int length  char \*open\_text  int \*encrypted\_text | 4 [0]  8 [4]  8 [12] |
| **class Shift** | **20** |
| int length  char \*open\_text  char \*encrypted\_text | 4 [0]  8 [4]  8 [12] |
| **class Swap** | **20** |
| int length  char \*open\_text  char \*encrypted\_text | 4 [0]  8 [4]  8 [12] |
| **class Random** | **8** |
| int first  int last | 4 [0]  4 [4] |

Память программы.

|  |  |
| --- | --- |
| **main()** |  |
| int argc  int \*argv[]  Container c  ifstream ifst  int size  ofstream ofst1  ofstream ofst2 | 4 [0]  8 [4]  8 [12]  8 [20]  4 [28]  8 [32]  8 [40] |
| **Container::BubbleSort()** |  |
| int right  Text\* temp  int k  int i | 4 [0]  8 [4]  4 [12]  4 [16] |
| **Container::In()** |  |
| ifstream &ifst | 8 [0] |
| **Container::InRnd()** |  |
| int size | 4 [0] |
| **Container::Out()** |  |
| ofstream &ofst  int i | 8 [0]  4 [8] |
| Digits::Encrypt() |  |
| int \*encrypted\_text[length]  int i | 8 [0]  4 [8] |
| Digits::InRnd() |  |
| int size  std::string local  char \*open\_text[size]  int i  int randomNumber  char randomLetter | 4 [0]  32 [4]  8 [36]  4 [44]  4 [48]  1 [52] |

Стек вызовов (сверху вниз).

main

errorMessage1 (поведение main) | errorMessage2 (поведение main)

In | InRnd | errorMessage3 (поведение цикла)

In done | InRnd done

Out

Out done

BubbleSort

BubbleSort done

Out

Out done

Clear

Clear done

main done