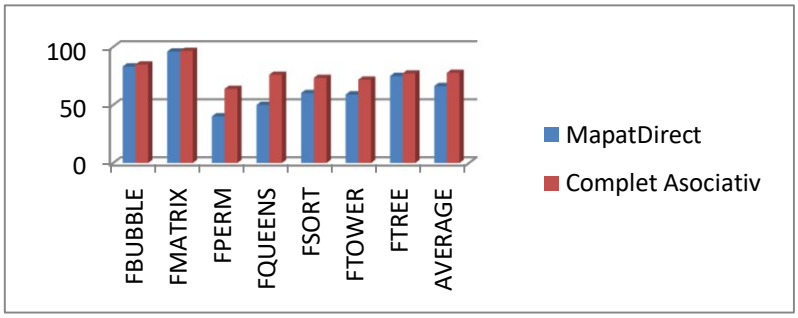
Să se reprezinte sub formă grafică funcţiile utilizând implicit automatul de predicţie pe doi biţi:
1. Ap = f (tip_arhitectură)

| Table = 256, HR = 4, LRU = 0, Arhitectura = MapatDirect, Automat = 2 biti | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | **FBUBBLE** | **FMATRIX** | **FPERM** | **FQUEENS** | **FSORT** | **FTOWER** | **FTREE** | **AVERAGE** |
| Instr. Proc. | 41216 | 21341 | 54819 | 38462 | 12601 | 37930 | 32887 | |
| Ap | 34271 | 20518 | 22023 | 19245 | 7600 | 22396 | 24644 | |
| Raport | 83.15 | 96.1436 | 40.174 | 50.0364 | 60.31 | 59.0456 | 74.94 | 66.2568 |

| Table = 256, HR = 4, LRU = 2, Arhitectura = CompletAsociativ, Automat = 2 biti | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | **FBUBBLE** | **FMATRIX** | **FPERM** | **FQUEENS** | **FSORT** | **FTOWER** | **FTREE** | **AVERAGE** |
| Instr. Proc. | 41216 | 21341 | 54819 | 38462 | 2601 | 37930 | 32887 | |
| Ap | 34966 | 20613 | 35050 | 29257 | 9251 | 27269 | 25385 | |
| Raport | 84.836 | 96.589 | 63.938 | 76.067 | 73.410 | 71.893 | 77.190 | 77.704 |

| | **FBUBBLE** | **FMATRIX** | **FPERM** | **FQUEENS** | **FSORT** | **FTOWER** | **FTREE** | **AVERAGE** |
|---|---|---|---|---|---|---|---|---|
| MapatDirect | 83.149 | 96.143 | 40.174 | 50.036 | 60.31 | 59.045 | 74.94 | 66.2567 |
| Complet Asociativ | 84.836 | 96.588 | 63.938 | 76.067 | 73.41 | 71.893 | 77.19 | 77.7031 |



2. Analizaţi influenţa gradului de localizare al saltului
asupra acurateţi de predicţie: Ap = f (i) unde i = dim. PClow.

| **Table = 256, HR = 1, LRU = 0, Arhitectura = MapatDirect, Automat = 2 biti** | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | **FBUBBLE** | **FMATRIX** | **FPERM** | **FQUEENS** | **FSORT** | **FTOWER** | **FTREE** | **AVERAGE** |
| Instr. Proc. | 41216 | 21341 | 54819 | 38462 | 12601 | 37930 | 32887 | |
| Ap | 34965 | 20613 | 35048 | 28508 | 9157 | 27265 | 25401 | |
| Raport | 84.83 | 96.59 | 63.93 | 74.12 | 72.67 | 71.88 | 77.24 | 77.32 |

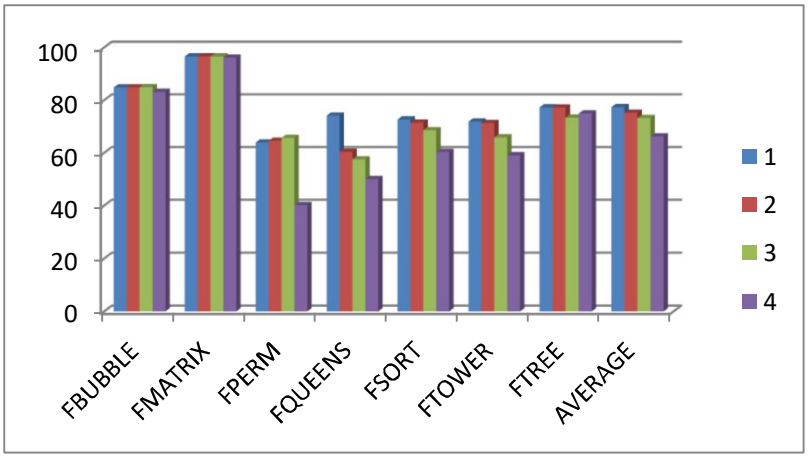
| **Table = 256, HR = 2, LRU = 0, Arhitectura = MapatDirect, Automat = 2 biti** | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | **FBUBBLE** | **FMATRIX** | **FPERM** | **FQUEENS** | **FSORT** | **FTOWER** | **FTREE** | **AVERAGE** |
| Instr. Proc. | 41216 | 21341 | 54819 | 38462 | 12601 | 37930 | 32887 | |
| Ap | 34978 | 20613 | 35388 | 23224 | 9001 | 27037 | 25393 | |
| Raport | 84.865 | 96.588 | 64.554 | 60.381 | 71.430 | 71.281 | 77.212 | 75.187 |

| **Table = 256, HR = 3, LRU = 0, Arhitectura = MapatDirect, Automat = 2 biti** | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | **FBUBBLE** | **FMATRIX** | **FPERM** | **FQUEENS** | **FSORT** | **FTOWER** | **FTREE** | **AVERAGE** |
| Instr. Proc. | 41216 | 21341 | 54819 | 38462 | 12601 | 37930 | 32887 | |
| Ap | 34992 | 20613 | 35994 | 22118 | 8642 | 24977 | 24120 | |
| Raport | 84.899 | 96.588 | 65.659 | 57.506 | 68.581 | 65.850 | 73.342 | 73.203 |

| **Table = 256, HR = 4, LRU = 0, Arhitectura = MapatDirect, Automat = 2 biti** | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | **FBUBBLE** | **FMATRIX** | **FPERM** | **FQUEENS** | **FSORT** | **FTOWER** | **FTREE** | **AVERAGE** |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Instr. Proc. | 41216 | 21341 | 54819 | 38462 | 12601 | 37930 | 32887 | |
| Ap | 34271 | 20518 | 22023 | 19245 | 7600 | 22396 | 24644 | |
| Raport | 83.149 | 96.143 | 40.174 | 50.036 | 60.312 | 59.045 | 74.935 | 66.256 |

| | **FBUBBLE** | **FMATRIX** | **FPERM** | **FQUEENS** | **FSORT** | **FTOWER** | **FTREE** | **AVERAGE** |
|---|---|---|---|---|---|---|---|---|
| 1 | 84.833 | 96.588 | 63.934 | 74.119 | 72.668 | 71.882 | 77.237 | **77.323** |
| 2 | 84.865 | 96.588 | 64.554 | 60.381 | 71.430 | 71.281 | 77.212 | **75.187** |
| 3 | 84.899 | 96.588 | 65.659 | 57.506 | 68.581 | 65.850 | 73.342 | **73.203** |
| 4 | 83.149 | 96.143 | 40.174 | 50.036 | 60.312 | 59.045 | 74.935 | **66.256** |

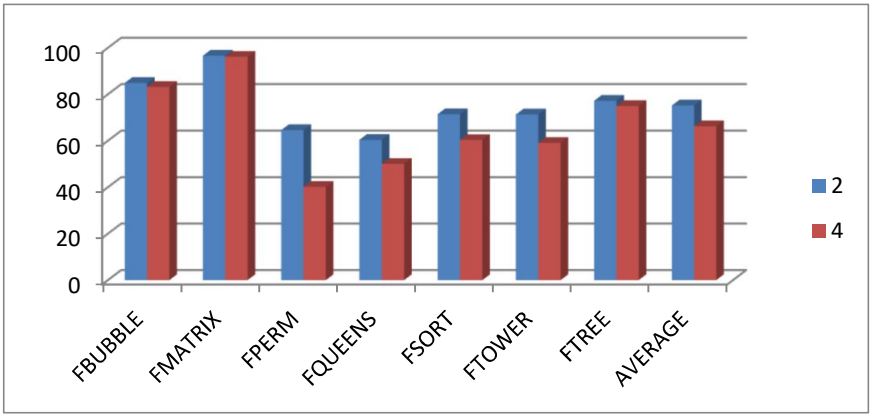


3. Stabiliţi influenţa contextului în care se situează saltul în program:
Ap = f (HRglobal).

| Table = 256, HR = 2, LRU = 0, Arhitectura = MapatDirect, Automat = 2 biti | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | **FBUBBLE** | **FMATRIX** | **FPERM** | **FQUEENS** | **FSORT** | **FTOWER** | **FTREE** | **AVERAGE** |
| Instr. Proc. | 41216.00 | 21341.00 | 54819.00 | 38462.00 | 12601.00 | 37930.00 | 32887.00 | |
| Ap | 34978.00 | 20613.00 | 35388.00 | 23224.00 | 9001.00 | 27037.00 | 25393.00 | |
| Raport | 84.87 | 96.59 | 64.55 | 60.38 | 71.43 | 71.28 | 77.21 | 75.19 |

| Table = 256, HR = 4, LRU = 0, Arhitectura = MapatDirect, Automat = 2 biti | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | **FBUBBLE** | **FMATRIX** | **FPERM** | **FQUEENS** | **FSORT** | **FTOWER** | **FTREE** | **AVERAGE** |
| Instr. Proc. | 41216.00 | 21341.00 | 54819.00 | 38462.00 | 12601.00 | 37930.00 | 32887.00 | |
| Ap | 34271.00 | 20518.00 | 22023.00 | 19245.00 | 7600.00 | 22396.00 | 24644.00 | |
| Raport | 83.15 | 96.14 | 40.17 | 50.04 | 60.31 | 59.05 | 74.94 | 66.26 |

| | **FBUBBLE** | **FMATRIX** | **FPERM** | **FQUEENS** | **FSORT** | **FTOWER** | **FTREE** | **AVERAGE** |
|---|---|---|---|---|---|---|---|---|
| 2 | 84.87 | 96.59 | 64.55 | 60.38 | 71.43 | 71.28 | 77.21 | 75.19 |
| 4 | 83.15 | 96.14 | 40.17 | 50.04 | 60.31 | 59.05 | 74.94 | 66.26 |



4. Reprezentaţi Ap = f (nr_biţi_automat_predicţie) considerând parametrii optimi (PClow, HRglobal) rezultaţi în urma simulării efectuate la 1), 2) şi 3).

| Table = 256, LRU = 2, Arhitectura = CompletAsociativ, Automat = 1 bit | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | **FBUBBLE** | **FMATRIX** | **FPERM** | **FQUEENS** | **FSORT** | **FTOWER** | **FTREE** | **AVERAGE** |
| Instr. Proc. | 41216 | 21341 | 54819 | 38462 | 12601 | 37930 | 32887 | |
| Ap | 33798 | 19915 | 33209 | 27659 | 8966 | 27437 | 24864 | |
| Raport | 82.0021 | 93.3180 | 60.5794 | 71.9125 | 71.1531 | 72.3359 | 75.6043 | 75.2722 |

| Table = 256, LRU = 2, Arhitectura = CompletAsociativ, Automat = 2 biti | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | **FBUBBLE** | **FMATRIX** | **FPERM** | **FQUEENS** | **FSORT** | **FTOWER** | **FTREE** | **AVERAGE** |
| Instr. Proc. | 41216 | 21341 | 54819 | 38462 | 12601 | 37930 | 32887 | |
| Ap | 34966 | 20613 | 35050 | 29257 | 9251 | 27269 | 25385 | |
| Raport | 84.836 | 96.5887 | 63.9377 | 76.0673 | 73.4148 | 71.893 | ###### | 77.7037 |

| | **nr=1** | **nr=2** |
|---|---|---|
| **FBUBBLE** | 82.0021 | 84.836 |
| **FMATRIX** | 93.318 | 96.5887 |
| **FPERM** | 60.5794 | 63.9377 |
| **FQUEENS** | 71.9125 | 76.0673 |
| **FSORT** | 71.1531 | 73.4148 |
| **FTOWER** | 72.3359 | 71.893 |
| **FTREE** | 75.6043 | 77.1886 |
| **AVERAGE** | 75.2722 | 77.7037 |