

# Creation Of Files In jBASE 4

TEMENOS EDUCATION CENTRE

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**TEMENOS**  
The Banking Software Company



After completing this learning course, you will be able to:

- Differentiate an RDBMS table from a jBASE
- Identify the file types in jBASE
- Create UD and J4 files in jBASE
- Analyse how records are read and written onto j4 files

Table Name : EMPLOYEE

EMP.ID	NAME	ADDRESS	PHONE	DOB
1	TOM	XXX	XXX	XXX
2	YYY	YYY	YYY	YYY
3	ZZZ	ZZZ	ZZZ	ZZZ
4	XYZ	XYZ	XYZ	XYZ

1FMXXXFMXXXFMXXXFMXXX
2FMYYYFMYYYFMYYYFMYYY
3FMZZZFMZZZFMZZZFMZZZ
4FMXYZFMXYZFMXYZFMXYZ

EMPLOYEE – Data File

EMP.ID 0 5L
NAME 1 25L
ADDRESS 2 30L
PHONE 3 10L
DOB 4 8L

EMPLOYEEJD – Dictionary File

jBASE 4
Non Hashed Files
Hashed Files

```
jsh r1trn21 ~ -->CREATE.FILE TEMENOS.NON.HASHED TYPE=UD  
[ 417 ] File TEMENOS.NON.HASHED]D created , type = UD  
[ 417 ] File TEMENOS.NON.HASHED created , type = UD
```

```
drwxr-xr-x    2 r1trn21  trne          256 Jun 13 07:50 TEMENOS.NON.HASHED  
drwxr-xr-x    2 r1trn21  trne          256 Jun 13 07:50 TEMENOS.NON.HASHED]D
```

```
jsh coretech ~ -->mkdir TEMENOS.NON.HASHED  
jsh coretech ~ -->mkdir TEMENOS.NON.HASHED]D
```

```
jsh r1trn21 ~ -->CREATE.FILE DATA TEMENOS.NON.HASHED.1 TYPE=UD  
[ 417 ] File TEMENOS.NON.HASHED.1 created , type = UD  
jsh r1trn21 ~ -->CREATE.FILE DICT TEMENOS.NON.HASHED.1 TYPE=UD  
[ 417 ] File TEMENOS.NON.HASHED.1]D created , type = UD
```

```
jsh r1trn21 ~ -->CREATE.FILE TEMENOS.HASHED TYPE=J4 3,2,2 4,2,2  
[ 417 ] File TEMENOS.HASHED]D created , type = J4  
[ 417 ] File TEMENOS.HASHED created , type = J4
```

```
-rw-r--r--  1 r1trn21  trne          49152 Jun 13 08:00 TEMENOS.HASHED  
-rw-r--r--  1 r1trn21  trne          32768 Jun 13 08:00 TEMENOS.HASHED]D
```

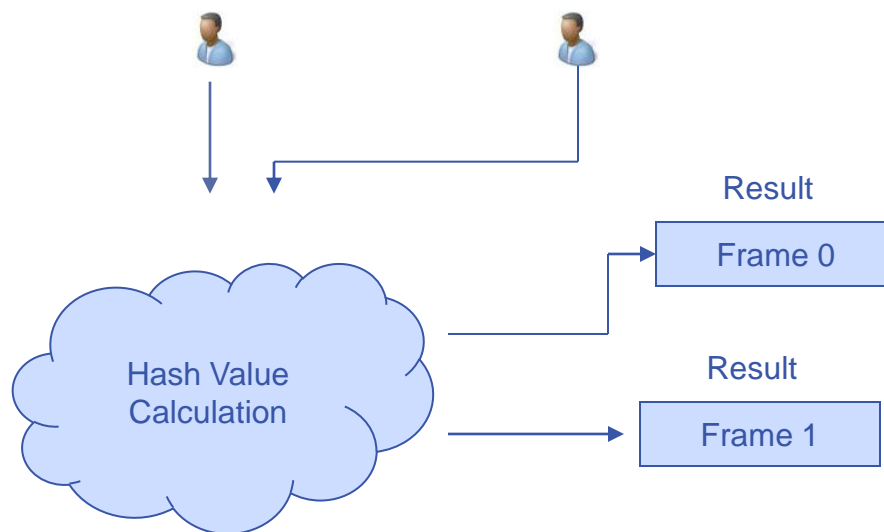


Dict File : TEMENOS.HASHED

Modulo 0 Size:4096 * 2	Modulo 1 Size:4096 * 2	Modulo 2 Size:4096 * 2
---------------------------	---------------------------	---------------------------

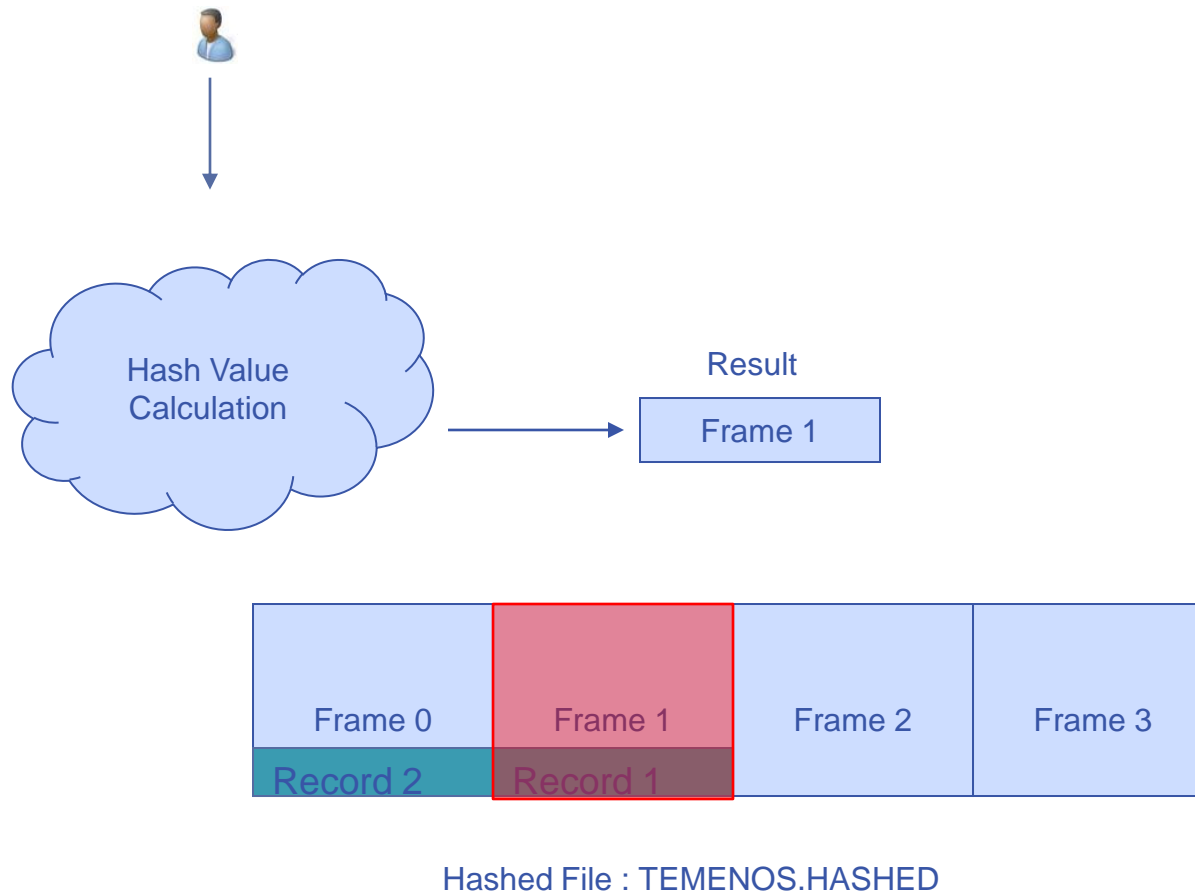
Data File : TEMENOS.HASHED

Modulo 0 Size:4096 * 2	Modulo 1 Size:4096 * 2	Modulo 2 Size:4096 * 2	Modulo 3 Size:4096 * 2
---------------------------	---------------------------	---------------------------	---------------------------

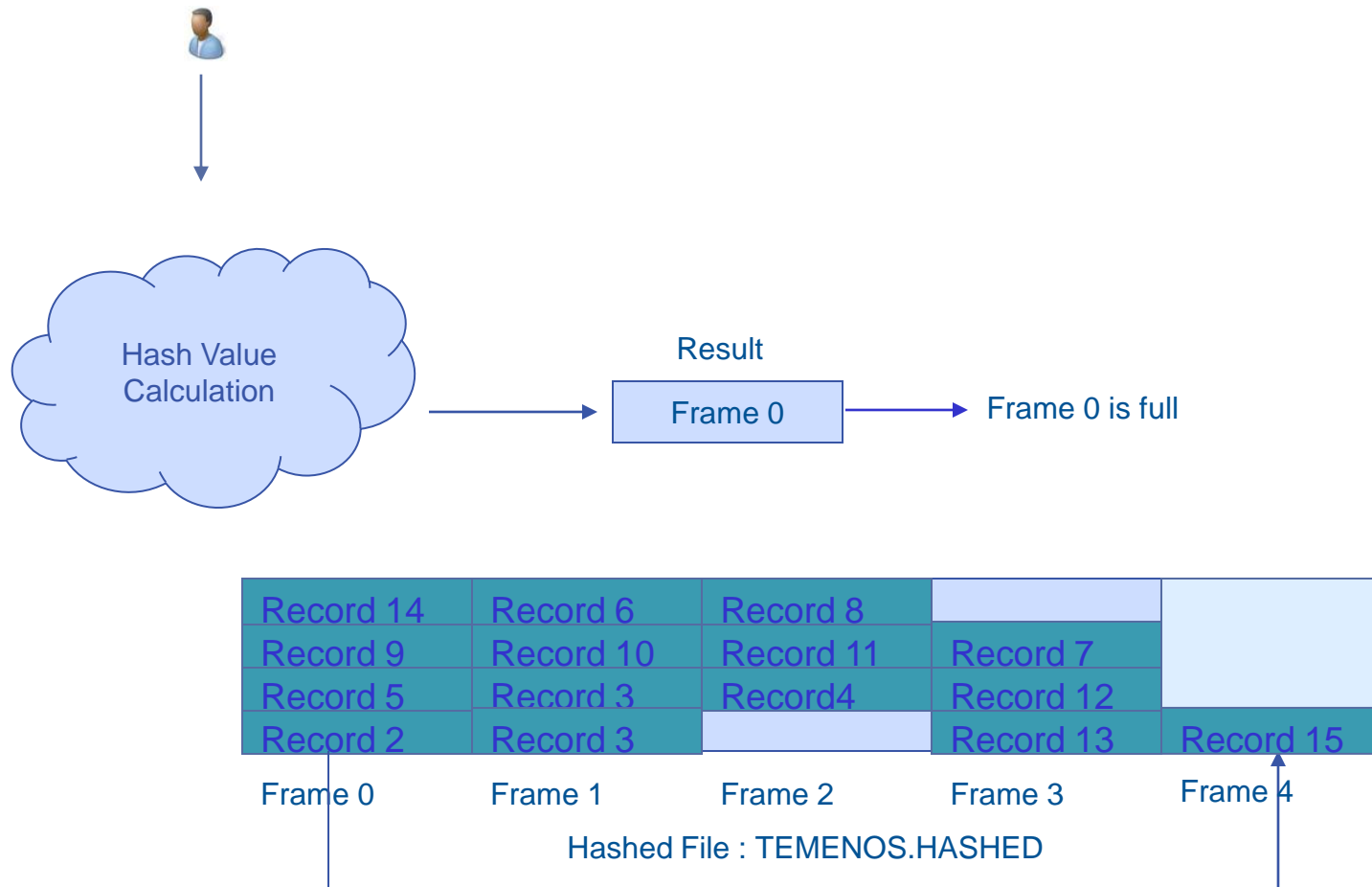


Frame 0	Frame 1	Frame 2	Frame 3
Record 2	Record 1		

Hashed File : TEMENOS.HASHED




# What Happens When All Frames Are Full?



```
jsh r1trn21 ~ -->CREATE.FILE TEMENOS.HASHED TYPE=J4 3,2,2 4,2,2  
[ 417 ] File TEMENOS.HASHED]D created , type = J4  
[ 417 ] File TEMENOS.HASHED created , type = J4
```

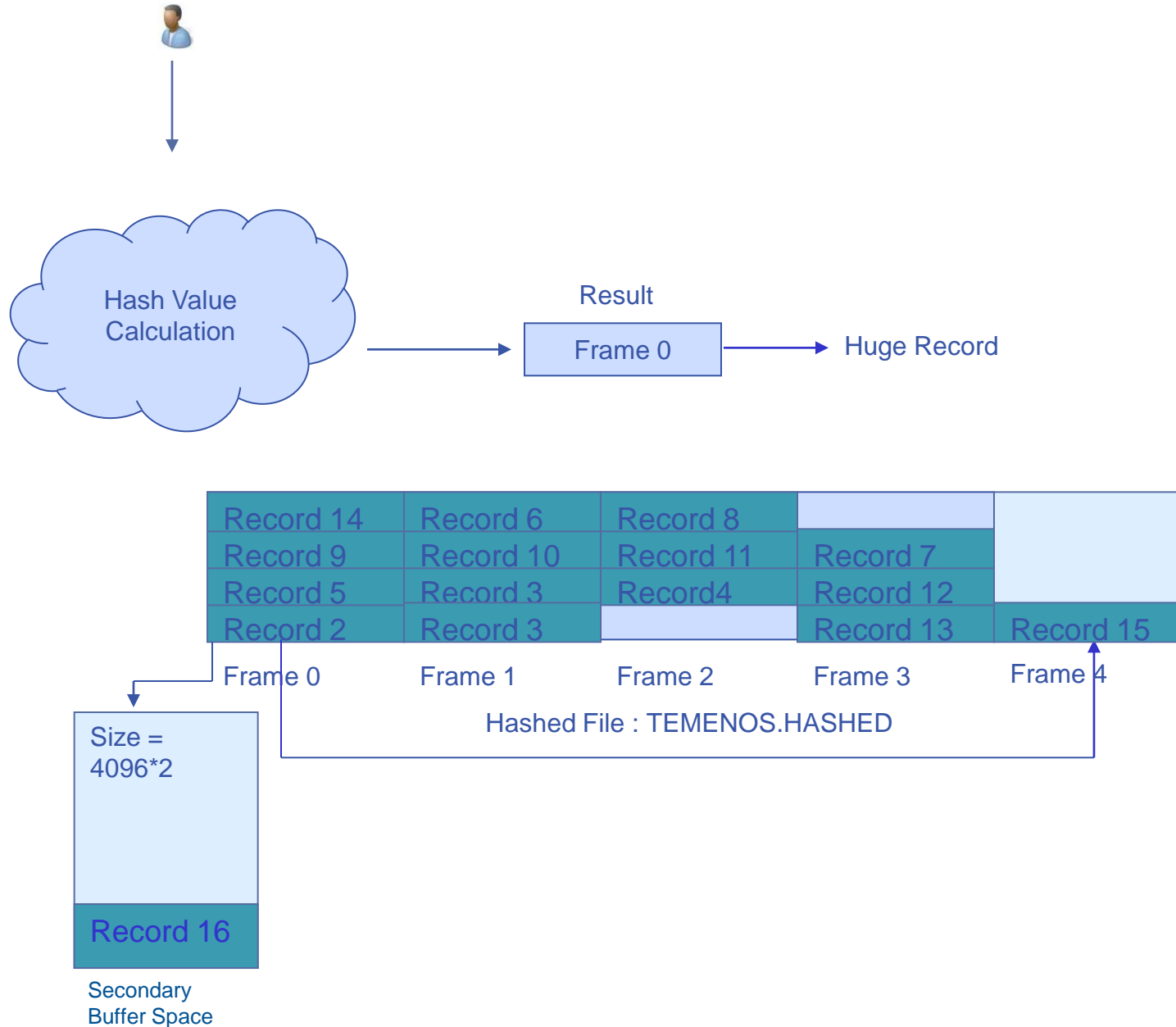
1

- Secondary buffer space calculation
  - Size of one frame \* Secondary Buffer Size value
  - $(4096 * 2) * 2 = 16384$  Bytes



Default size of one frame   Separation   Secondary Buffer Size Parameter

# What Happens When A Huge Record Is To Be Written To The File?



- Keep separation to the minimum
  - Higher the separation, higher will be search time within a frame as the read within a frame is sequential
- How do we decide the best separation
  - Follow the thumb rule – Don't store more than 10 to 20 records in a frame. More the records in a frame, higher will be the search time
- When ever data gets stored in the secondary buffer space (When the record is huge) or when data gets split over to other frames other than the primary, file access will become slow
- J4 always spreads and stores records evenly across all frames

```
jsh r1trn21 ~ -->LIST TEMENOS.NON.HASHED
LIST TEMENOS.NON.HASHED                PAGE      1 08:22:40  13 JUN 2007

TEMENOS.NON.HASHED

No Records Listed

jsh r1trn21 ~ -->
```

```
jsh r1trn21 ~ -->LIST TEMENOS.HASHED
LIST TEMENOS.HASHED                    PAGE      1 08:23:01  13 JUN 2007

TEMENOS.HASHED

No Records Listed

jsh r1trn21 ~ -->
```



```
jsh r1trn21 ~ -->CLEAR.FILE TEMENOS.HASHED  
jsh r1trn21 ~ -->CLEAR.FILE TEMENOS.NON.HASHED
```

```
jsh r1trn21 ~ -->DELETE.FILE TEMENOS.HASHED  
jsh r1trn21 ~ -->DELETE.FILE TEMENOS.NON.HASHED
```

jsh r1trn21 ~ -->CLEAR.FILE	DATA	TEMENOS.NON.HASHED
jsh r1trn21 ~ -->CLEAR.FILE	DICT	TEMENOS.NON.HASHED
jsh r1trn21 ~ -->CLEAR.FILE	DATA	TEMENOS.HASHED
jsh r1trn21 ~ -->CLEAR.FILE	DICT	TEMENOS.HASHED

jsh r1trn21 ~ -->DELETE.FILE	DATA	TEMENOS.NON.HASHED
jsh r1trn21 ~ -->DELETE.FILE	DICT	TEMENOS.NON.HASHED
jsh r1trn21 ~ -->DELETE.FILE	DATA	TEMENOS.HASHED
jsh r1trn21 ~ -->DELETE.FILE	DICT	TEMENOS.HASHED

1. To create a non-hashed file the CREATE.FILE command should be specified with TYPE = UD - **TRUE/FALSE**
2. Size of a modulo by default is set to 4k - **TRUE/FALSE**
3. The default value for SEPARATION is 2 - **TRUE/FALSE**
4. J4 always spreads and stores records evenly across all frames - **TRUE/FALSE**
5. DELETE.FILE command clears the contents of the hashed file - **TRUE/FALSE**

In this learning course, you learnt about J4 file creation and maintenance

You will now be able to

- Differentiate an RDBMS table from a jBASE
- Identify the file types in jBASE
- Create UD and J4 files in jBASE
- Analyze how records are read and written onto j4 files

### **Authoring Contributions:**

Alagammai Palaniappan(First Edition, 2002) – Temenos India Private Ltd.

Alagammai Palaniappan(Second Edition, 2007) – Temenos India Private Ltd.

Alagammai Palaniappan(Third Edition, 2007) – Temenos India Private Ltd.

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