DavisBase
Page Format Example

CS-6360
Chris Irwin Davis

Page Header

Number of records
There are 4 records on this page.

Start of Content
This is page offset value where the content begins

Right Page
This is page number of the leaf to the right. The value is -1 (0xFFFFFFFF) if this is the rightmost leaf page.

Type of page
This is a table leaf page

Array of Record Locations
This is the array of 2-byte record location offsets. One of each of the four records. They are sorted by their rowid (i.e. PK) values.

```
           0  1  2  3  4  5  6  7  8  9  A  B  C  D  E  F   0123456789ABCDEF
0000h:    0D 04 01 8C FF FF FF FF 01 E5 01 C7 01 AB 01 8C   .........  ....
0010h:    00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00   ................
0020h:    00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00   ................
0030h:    00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00   ................
0040h:    00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00   ................
0050h:    00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00   ................
0060h:    00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00   ................
0070h:    00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00   ................
0080h:    00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00   ................
0090h:    00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00   ................
00A0h:    00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00   ................
00B0h:    00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00   ................
00C0h:    00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00   ................
00D0h:    00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00   ................
00E0h:    00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00   ................
00F0h:    00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 AB   ................
0100h:    CD EF 33 00 00 00 00 00 00 00 00 00 00 00 00 00   ................
0110h:    00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00   ................
0120h:    00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00   ................
0130h:    00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00   ................
0140h:    00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00   ................
0150h:    00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00   ................
0160h:    00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00   ................
0170h:    00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00   ................
0180h:    00 00 00 00 00 00 00 00 00 00 00 00 00 19 00 00   ................
0190h:    00 04 02 1A 09 42 61 72 62 61 72 61 20 54 61 79   .....Barbara Tay
01A0h:    6C 6F 72 40 0C 00 00 00 00 00 00 00 16 00 00 00   lor@............
01B0h:    03 02 17 09 44 61 76 69 64 20 57 65 6C 6C 73 40   ....David Wells@
01C0h:    0C 00 00 00 00 00 00 00 18 00 00 00 02 02 19 09   ................
01D0h:    4D 61 72 79 20 57 69 6C 6C 69 61 6D 73 40 0C 00   Mary Williams@..
01E0h:    00 00 00 00 00 00 15 00 00 00 01 02 16 09 4A 6F   ..............Jo
01F0h:    68 6E 20 53 6D 69 74 68 40 0C 00 00 00 00 00 00   hn Smith@.......
0200h:    |
```

This column

First Record
This record begins at page offset address 0x01E5

This row

First record begins here

```
        0  1  2  3  4  5  6  7  8  9  A  B  C  D  E  F   0123456789ABCDEF
0000h:  0D 04 01 8C FF FF FF FF 01 E5 01 C7 01 AB 01 8C  .........  . ....
0010h:  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
0020h:  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
0030h:  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
0040h:  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
0050h:  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
0060h:  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
0070h:  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
0080h:  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
0090h:  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
00A0h:  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
00B0h:  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
00C0h:  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
00D0h:  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
00E0h:  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
00F0h:  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 AB  ................
0100h:  CD EF 33 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
0110h:  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
0120h:  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
0130h:  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
0140h:  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
0150h:  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
0160h:  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
0170h:  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
0180h:  00 00 00 00 00 00 00 00 00 00 00 00 00 19 00 00  ................
0190h:  00 04 02 1A 09 42 61 72 62 61 72 61 20 54 61 79  .....Barbara Tay
01A0h:  6C 6F 72 40 0C 00 00 00 00 00 00 00 16 00 00 00  lor@............
01B0h:  03 02 17 09 44 61 76 69 64 20 57 65 6C 6C 73 40  ....David Wells@
01C0h:  0C 00 00 00 00 00 00 00 18 00 00 00 02 02 19 09  ................
01D0h:  4D 61 72 79 20 57 69 6C 6C 69 61 6D 73 40 0C 00  Mary Williams@..
01E0h:  00 00 00 00 00 00 15 00 00 00 01 02 16 09 4A 6F  ...............Jo
01F0h:  68 6E 20 53 6D 69 74 68 40 0C 00 00 00 00 00 00  hn Smith@.......
0200h:  |
```

Record Header

```
        0  1  2  3  4  5  6  7  8  9  A  B  C  D  E  F    0123456789ABCDEF
0000h:  0D 04 01 8C FF FF FF FF 01 E5 01 C7 01 AB 01 8C  .......... .....
0010h:  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
0020h:  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
0030h:  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
0040h:  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
0050h:  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
0060h:  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
0070h:  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
0080h:  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
0090h:  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
00A0h:  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
00B0h:  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
00C0h:  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
00D0h:  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
00E0h:  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
00F0h:  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 AB  ................
0100h:  CD EF 33 00 00 00 00 00 00 00 00 00 00 00 00 00  ..3.............
0110h:  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
0120h:  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
0130h:  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
0140h:  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
0150h:  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
0160h:  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
```

```
                           00                              00   ................
                           00                              00   ................
                           61                              79   .....Barbara Tay
                           00 00 00 00    00 16 00 00 00   lor@............
                           76 69 64 20 57 7 65 6C 6C 73 40  ....David Wells@
01C0h:  0C 00 00 00 00 00 00 00 00 00 00 02 02 19 09  .................
01D0h:  4D 61 72 79 20 57 79 6C 6C 69 61 6D 73 40 0C 00  Mary Williams@..
01E0h:  00 00 00 00 00 00 15 00 00 00 01 02 16 09 4A 6F  ...............Jo
01F0h:  68 6E 20 53 6D 69 74 68 40 0C 00 00 00 00 00 00  hn Smith@.......
0200h:  
```

Record Payload
Columns and Data Types

First Record
This record begins at page offset address 0x01E5

This column

```
       0  1  2  3  4  5  6  7  8  9  A  B  C  D  E  F    0123456789ABCDEF
0000h: 0D 04 01 8C FF FF FF FF 01 E5 01 C7 01 AB 01 8C  ......... . ....
0010h: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
0020h: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
0030h: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
0040h: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
0050h: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
0060h: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
0070h: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
0080h: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ........
0090h: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ......
00A0h: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ......
00B0h: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ......
00C0h: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ......
00D0h: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ......
00E0h: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ......
00F0h: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 AB  ......
0100h: CD EF 33 00 00 00 00 00 00 00 00 00 00 00 00 00  .....
0110h: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  .....
0120h: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  .....
0130h: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  .....
0140h: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  .....
0150h: 00 00 00 00 00                                00  ......
0160h: 00 00 00 00 00                                00  ........
0170h: 00 00 00 00 00                                00  ................
0180h: 00 00 00 00 00                                00  ................
0190h: 00 04 02 1A 09 42 61 72 62 61 72 61 20 54 61 79  .....Barbara Tay
01A0h: 6C 6F 72 40 0C 00 00 00 00 00 00 00 16 00 00 00  lor@............
01B0h: 03 02 17 09 44 61 76 69 64 20 57 65 6C 6C 73 40  ....David Wells@
01C0h: 0C 00 00 00 00 00 00 00 18 00 00 00 02 02 19 09  ................
01D0h: 4D 61 72 79 20 57 69 6C 6C 69 61 6D 73 40 0C 00  Mary Williams@..
01E0h: 00 00 00 00 00 00 15 00 00 00 01 02 16 09 4A 6F  ..............Jo
01F0h: 68 6E 20 53 69 74 68 40 0C 00 00 00 00 00 00 00  hn Smith@.......
0200h: 
```
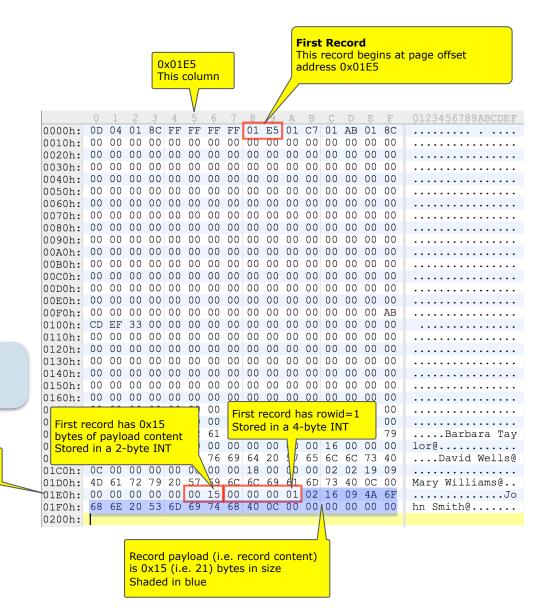
The **Record Payload** (shaded in blue) is variable length:
- Payload header
  - Number of columns (1-byte int), followed by
  - Column data types (1-byte int for each column, followed by
- Payload content – the values for each column.

There are 2 columns (in addition to the rowid). The data types of which are stored in the 2 following bytes.

This row

Data type is TEXT since it's greater than 0x0C. Length is values minus 0x0C, i.e. 0x0A or decimal 10 characters long.

Data type is DOUBLE since it's 0x09

Record Payload Content

```
        0  1  2  3  4  5  6  7  8  9  A  B  C  D  E  F   0123456789ABCDEF
0000h:  0D 04 01 8C FF FF FF FF 01 E5 01 C7 01 AB 01 8C  ......... . ....
0010h:  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
0020h:  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
0030h:  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
0040h:  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
0050h:  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
0060h:  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
0070h:  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
0080h:  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
0090h:  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
00A0h:  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
00B0h:  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
00C0h:  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
00D0h:  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
00E0h:  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
00F0h:  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 AB  ................
0100h:  CD EF 33 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
0110h:  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
0120h:  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
0130h:  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
0140h:  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
0150h:  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
0160h:  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
0170h:  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
0180h:  00 00 00 00 00 00 00 00 00 00 00 00 00 19 00 00  ................
0190h:  00 04 02 1A 09 42 61 72 62 61 72 61 20 54 61 79  .....Barbara Tay
01A0h:  6C 6F 72 40 0C 00 00 00 00 00 00 00 16 00 00 00  lor@............
01B0h:  03 02 17 09 44 61 76 69 64 20 57 65 6C 6C 73 40  ....David Wells@
01C0h:  0C 00 00 00 00 00 00 00 18 00 00 00 02 02 19 09  ................
01D0h:  4D 61 72 79 20 57 69 6C 6C 69 61 6D 73 40 0C 00  Mary Williams@..
01E0h:  00 00 00 00 00 00 15 00 00 00 01 02 16 09 4A 6F  ..............Jo
01F0h:  68 6E 20 53 6D 69 74 68 40 0C 00 00 00 00 00 00  hn Smith@.......
0200h:
```

Data type is TEXT since it's greater than 0x0C. Length is value minus 0x0C, i.e. 0x0A or decimal 10 characters long.

The 0x0A, ten ASCII character string (shaded in blue).

Record Payload Content

First Record
This record begins at page offset address 0x01E5

```
      0  1  2  3  4  5  6  7  8  9  A  B  C  D  E  F   0123456789ABCDEF
0000h: 0D 04 01 8C FF FF FF FF 01 E5 01 C7 01 AB 01 8C  ......... . ....
0010h: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
0020h: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
0030h: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
0040h: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
0050h: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
0060h: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
0070h: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
0080h: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
0090h: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
00A0h: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
00B0h: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
00C0h: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
00D0h: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
00E0h: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
00F0h: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 AB  ................
0100h: CD EF 33 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
0110h: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
0120h: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
0130h: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
0140h: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
0150h: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
0160h: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
0170h: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
0180h: 00 00 00 00 00 00 00 00 00 00 00 00 00 19 00 00  ................
0190h: 00 04 02 1A 0              20 54 61 79  .....Barbara Tay
01A0h: 6C 6F 72 40 0              16 00 00 00  lor@............
01B0h: 03 02 17 09 4              6C 6C 73 40  ....David Wells@
01C0h: 0C 00 00 00 00 00 00 00 18 00 00 00 2 02 19 09  ................
01D0h: 4D 61 72 79 20 57 69 6C 6C 69 61 6D 7  40 0C 00  Mary Williams@..
01E0h: 00 00 00 00 00 00 15 00 00 00 01 02 16 09 4A 6F  ..............Jo
01F0h: 68 6E 20 53 6D 69 74 68 40 0C 00 00 00 00 00 00  hn Smith@.......
0200h: |
```

Data type is DOUBLE since it's 0x09

The 8-byte double precision floating point (shaded in blue).