

# Procedure using the SUBSTRING() function (Substr procedure)

Unfortunately Firebird 1.5 does not allow any variable parameters in the SUBSTRING() SQL function.

Although there are diverse UDF implementations, for those preferring to use stored procedures, here is an example from Lucas Franzen:

(For those of you who may be wondering what on earth “Donaudampfschiffahrtsgesellschaftskapitän” is, it is the German word for “Donau Steam Navigation Company Captain”!).

Call:

```
SELECT RESULT FROM SP_SUBSTRING
  ( INPUTSTRING, STARTPOS, NO_CHAR_FROM_STARTPOS ).
```

```
E.g.: SELECT RESULT FROM SP_SUBSTRING
      ( 'Donaudampfschiffahrtsgesellschaftskapitän', 1, 10 )
--> Donaudampf
```

```
E.g.: SELECT RESULT FROM SP_SUBSTRING
      ( 'Donaudampfschiffahrtsgesellschaftskapitän', 35, 8 )
--> kapitän
```

```
CREATE PROCEDURE SP_SUBSTRING (
  SRC                                VARCHAR (255),
  START_AT                          INTEGER,
  NLEN                              INTEGER
)
RETURNS (
  RESULT                            VARCHAR (255)
)
AS
  declare variable II INTEGER;
  declare variable VGL VARCHAR(255);
  declare variable PFX VARCHAR(255);
  declare variable C CHAR(1);
BEGIN

  /* Version : 1 */
  /* Author: LUC, 08.01.2003*/
  /* Description: */
  /*          */

  IF ( START_AT <= 0 ) THEN START_AT = 1;
  IF ( START_AT > 255 ) THEN START_AT = 255;

  IF ( NLEN > 255 ) THEN NLEN = 255;
```

```
IF ( NLEN < 1 OR NLEN IS NULL ) THEN NLEN = 1;

VGL = '';
RESULT = '';
PFX = '';

IF ( START_AT > 1 ) THEN
BEGIN
    II = 1;
    WHILE ( II < START_AT ) DO
    BEGIN
        PFX = PFX || '_';
        II = II + 1;
    END
END

II = START_AT;
WHILE ( II < NLEN + START_AT ) DO
BEGIN
    /* WHAT DOES THE STRING LOOK LIKE AT THE CURRENT POSITION, I.E. QUERY
    THE CURRENT CHARACTER */
    C = ' ';

    IF ( SRC LIKE PFX || ' %' ) THEN C = ' ';
    ELSE IF ( SRC LIKE PFX || 'A%' ) THEN C = 'A';
    ELSE IF ( SRC LIKE PFX || 'B%' ) THEN C = 'B';
    ELSE IF ( SRC LIKE PFX || 'C%' ) THEN C = 'C';
    ELSE IF ( SRC LIKE PFX || 'D%' ) THEN C = 'D';
    ELSE IF ( SRC LIKE PFX || 'E%' ) THEN C = 'E';
    ELSE IF ( SRC LIKE PFX || 'F%' ) THEN C = 'F';
    ELSE IF ( SRC LIKE PFX || 'G%' ) THEN C = 'G';
    ELSE IF ( SRC LIKE PFX || 'H%' ) THEN C = 'H';
    ELSE IF ( SRC LIKE PFX || 'I%' ) THEN C = 'I';
    ELSE IF ( SRC LIKE PFX || 'J%' ) THEN C = 'J';
    ELSE IF ( SRC LIKE PFX || 'K%' ) THEN C = 'K';
    ELSE IF ( SRC LIKE PFX || 'L%' ) THEN C = 'L';
    ELSE IF ( SRC LIKE PFX || 'M%' ) THEN C = 'M';
    ELSE IF ( SRC LIKE PFX || 'N%' ) THEN C = 'N';
    ELSE IF ( SRC LIKE PFX || 'O%' ) THEN C = 'O';
    ELSE IF ( SRC LIKE PFX || 'P%' ) THEN C = 'P';
    ELSE IF ( SRC LIKE PFX || 'Q%' ) THEN C = 'Q';
    ELSE IF ( SRC LIKE PFX || 'R%' ) THEN C = 'R';
    ELSE IF ( SRC LIKE PFX || 'S%' ) THEN C = 'S';
    ELSE IF ( SRC LIKE PFX || 'T%' ) THEN C = 'T';
    ELSE IF ( SRC LIKE PFX || 'U%' ) THEN C = 'U';
    ELSE IF ( SRC LIKE PFX || 'V%' ) THEN C = 'V';
    ELSE IF ( SRC LIKE PFX || 'W%' ) THEN C = 'W';
    ELSE IF ( SRC LIKE PFX || 'X%' ) THEN C = 'X';
    ELSE IF ( SRC LIKE PFX || 'Y%' ) THEN C = 'Y';
    ELSE IF ( SRC LIKE PFX || 'Z%' ) THEN C = 'Z';
```

```

ELSE IF ( SRC LIKE PFX || 'a%' ) THEN C = 'a';
ELSE IF ( SRC LIKE PFX || 'b%' ) THEN C = 'b';
ELSE IF ( SRC LIKE PFX || 'c%' ) THEN C = 'c';
ELSE IF ( SRC LIKE PFX || 'd%' ) THEN C = 'd';
ELSE IF ( SRC LIKE PFX || 'e%' ) THEN C = 'e';
ELSE IF ( SRC LIKE PFX || 'f%' ) THEN C = 'f';
ELSE IF ( SRC LIKE PFX || 'g%' ) THEN C = 'g';
ELSE IF ( SRC LIKE PFX || 'h%' ) THEN C = 'h';
ELSE IF ( SRC LIKE PFX || 'i%' ) THEN C = 'i';
ELSE IF ( SRC LIKE PFX || 'j%' ) THEN C = 'j';
ELSE IF ( SRC LIKE PFX || 'k%' ) THEN C = 'k';
ELSE IF ( SRC LIKE PFX || 'l%' ) THEN C = 'l';
ELSE IF ( SRC LIKE PFX || 'm%' ) THEN C = 'm';
ELSE IF ( SRC LIKE PFX || 'n%' ) THEN C = 'n';
ELSE IF ( SRC LIKE PFX || 'o%' ) THEN C = 'o';
ELSE IF ( SRC LIKE PFX || 'p%' ) THEN C = 'p';
ELSE IF ( SRC LIKE PFX || 'q%' ) THEN C = 'q';
ELSE IF ( SRC LIKE PFX || 'r%' ) THEN C = 'r';
ELSE IF ( SRC LIKE PFX || 's%' ) THEN C = 's';
ELSE IF ( SRC LIKE PFX || 't%' ) THEN C = 't';
ELSE IF ( SRC LIKE PFX || 'u%' ) THEN C = 'u';
ELSE IF ( SRC LIKE PFX || 'v%' ) THEN C = 'v';
ELSE IF ( SRC LIKE PFX || 'w%' ) THEN C = 'w';
ELSE IF ( SRC LIKE PFX || 'x%' ) THEN C = 'x';
ELSE IF ( SRC LIKE PFX || 'y%' ) THEN C = 'y';
ELSE IF ( SRC LIKE PFX || 'z%' ) THEN C = 'z';

```

```

ELSE IF ( SRC LIKE PFX || '0%' ) THEN C = '0';
ELSE IF ( SRC LIKE PFX || '1%' ) THEN C = '1';
ELSE IF ( SRC LIKE PFX || '2%' ) THEN C = '2';
ELSE IF ( SRC LIKE PFX || '3%' ) THEN C = '3';
ELSE IF ( SRC LIKE PFX || '4%' ) THEN C = '4';
ELSE IF ( SRC LIKE PFX || '5%' ) THEN C = '5';
ELSE IF ( SRC LIKE PFX || '6%' ) THEN C = '6';
ELSE IF ( SRC LIKE PFX || '7%' ) THEN C = '7';
ELSE IF ( SRC LIKE PFX || '8%' ) THEN C = '8';
ELSE IF ( SRC LIKE PFX || '9%' ) THEN C = '9';

```

```

ELSE IF ( SRC LIKE PFX || 'ä%' ) THEN C = 'ä';
ELSE IF ( SRC LIKE PFX || 'ö%' ) THEN C = 'ö';
ELSE IF ( SRC LIKE PFX || 'ü%' ) THEN C = 'ü';
ELSE IF ( SRC LIKE PFX || 'Ä%' ) THEN C = 'Ä';
ELSE IF ( SRC LIKE PFX || 'Ö%' ) THEN C = 'Ö';
ELSE IF ( SRC LIKE PFX || 'Ü%' ) THEN C = 'Ü';
ELSE IF ( SRC LIKE PFX || 'ß%' ) THEN C = 'ß';

```

```

ELSE IF ( SRC LIKE PFX || '!' ) THEN C = '!';
ELSE IF ( SRC LIKE PFX || '"' ) THEN C = '"';
ELSE IF ( SRC LIKE PFX || '$%' ) THEN C = '$';
ELSE IF ( SRC LIKE PFX || '$%' ) THEN C = '$';
ELSE IF ( SRC LIKE PFX || '&%' ) THEN C = '&';

```

```
ELSE IF ( SRC LIKE PFX || '/' ) THEN C = '/';
ELSE IF ( SRC LIKE PFX || '(' ) THEN C = '(';
ELSE IF ( SRC LIKE PFX || ')' ) THEN C = ')';
ELSE IF ( SRC LIKE PFX || '=' ) THEN C = '=';
```

```
ELSE IF ( SRC LIKE PFX || '@%' ) THEN C = '@';
ELSE IF ( SRC LIKE PFX || '%' ) THEN C = '%';
ELSE IF ( SRC LIKE PFX || '*%' ) THEN C = '*';
ELSE IF ( SRC LIKE PFX || '~%' ) THEN C = '~';
ELSE IF ( SRC LIKE PFX || '#%' ) THEN C = '#';
ELSE IF ( SRC LIKE PFX || '%' ) THEN C = '%';
ELSE IF ( SRC LIKE PFX || '%' ) THEN C = '%';
```

```
ELSE IF ( SRC LIKE PFX || 'Á%' ) THEN C = 'Á';
ELSE IF ( SRC LIKE PFX || 'É%' ) THEN C = 'É';
ELSE IF ( SRC LIKE PFX || 'Í%' ) THEN C = 'Í';
ELSE IF ( SRC LIKE PFX || 'Ó%' ) THEN C = 'Ó';
ELSE IF ( SRC LIKE PFX || 'Ú%' ) THEN C = 'Ú';
ELSE IF ( SRC LIKE PFX || 'á%' ) THEN C = 'á';
ELSE IF ( SRC LIKE PFX || 'é%' ) THEN C = 'é';
ELSE IF ( SRC LIKE PFX || 'í%' ) THEN C = 'í';
ELSE IF ( SRC LIKE PFX || 'ó%' ) THEN C = 'ó';
ELSE IF ( SRC LIKE PFX || 'ú%' ) THEN C = 'ú';
```

```
ELSE IF ( SRC LIKE PFX || 'À%' ) THEN C = 'À';
ELSE IF ( SRC LIKE PFX || 'È%' ) THEN C = 'È';
ELSE IF ( SRC LIKE PFX || 'Ì%' ) THEN C = 'Ì';
ELSE IF ( SRC LIKE PFX || 'Ò%' ) THEN C = 'Ò';
ELSE IF ( SRC LIKE PFX || 'Ù%' ) THEN C = 'Ù';
ELSE IF ( SRC LIKE PFX || 'à%' ) THEN C = 'à';
ELSE IF ( SRC LIKE PFX || 'è%' ) THEN C = 'è';
ELSE IF ( SRC LIKE PFX || 'ì%' ) THEN C = 'ì';
ELSE IF ( SRC LIKE PFX || 'ò%' ) THEN C = 'ò';
ELSE IF ( SRC LIKE PFX || 'ù%' ) THEN C = 'ù';
```

```
ELSE IF ( SRC LIKE PFX || 'Â%' ) THEN C = 'Â';
ELSE IF ( SRC LIKE PFX || 'Ê%' ) THEN C = 'Ê';
ELSE IF ( SRC LIKE PFX || 'Î%' ) THEN C = 'Î';
ELSE IF ( SRC LIKE PFX || 'Ô%' ) THEN C = 'Ô';
ELSE IF ( SRC LIKE PFX || 'Û%' ) THEN C = 'Û';
ELSE IF ( SRC LIKE PFX || 'â%' ) THEN C = 'â';
ELSE IF ( SRC LIKE PFX || 'ê%' ) THEN C = 'ê';
ELSE IF ( SRC LIKE PFX || 'î%' ) THEN C = 'î';
ELSE IF ( SRC LIKE PFX || 'ô%' ) THEN C = 'ô';
ELSE IF ( SRC LIKE PFX || 'û%' ) THEN C = 'û';
```

```
ELSE IF ( SRC LIKE PFX || '{%' ) THEN C = '{';
ELSE IF ( SRC LIKE PFX || '}' ) THEN C = '}';
ELSE IF ( SRC LIKE PFX || '[' ) THEN C = '[';
ELSE IF ( SRC LIKE PFX || ']' ) THEN C = '];
```

```
RESULT = RESULT || :C;  
  
PFX = PFX || '_';  
II = II + 1;  
IF ( II > 255 ) THEN  
BEGIN  
    SUSPEND;  
    EXIT;  
END  
END  
SUSPEND;  
END
```

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