

# EXAMPLE - UNICODE Function

In this example, you can see how the CHAR function can be used to convert numeric index values to Unicode characters, and the UNICODE function can be used to convert characters back to numeric values.

## Functions:

| Item             | Description  |
|------------------|--|
| CHAR Function    | Generates the Unicode character corresponding to an inputted Integer value.    |
| UNICODE Function | Generates the Unicode index value for the first character of the input string. |

## Source:

The following column contains some source index values:

| index |
|-------|
| 1     |
| 33    |
| 33.5  |
| 34    |
| 48    |
| 57    |
| 65    |
| 90    |
| 97    |
| 121   |
| 254   |
| 255   |
| 256   |
| 257   |
| 9998  |
| 9999  |

## Transformation:

When the above values are imported to the Transformer page, the column is typed as integer, with a single mismatched value (33.5). To see the corresponding Unicode characters for these characters, enter the following transformation:

|                                   |                    |
|-----------------------------------|--------------------|
| <b>Transformation Name</b>        | New formula        |
| <b>Parameter: Formula type</b>    | Single row formula |
| <b>Parameter: Formula</b>         | CHAR(index)        |
| <b>Parameter: New column name</b> | 'char_index'       |

To see how these characters map back to the index values, now add the following transformation:

|                                   |                      |
|-----------------------------------|----------------------|
| <b>Transformation Name</b>        | New formula          |
| <b>Parameter: Formula type</b>    | Single row formula   |
| <b>Parameter: Formula</b>         | UNICODE(char_index)  |
| <b>Parameter: New column name</b> | 'unicode_char_index' |

**Results:**

| index | char_index | unicode_char_index |
|-------|------------|--------------------|
| 1     |            | 1                  |
| 33    | !          | 33                 |
| 33.5  |            |                    |
| 34    | "          | 34                 |
| 48    | 0          | 48                 |
| 57    | 9          | 57                 |
| 65    | A          | 65                 |
| 90    | Z          | 90                 |
| 97    | a          | 97                 |
| 122   | z          | 122                |
| 254   | þ          | 254                |
| 255   | ÿ          | 255                |
| 256   |            | 256                |
| 257   |            | 257                |
| 9998  |            | 9998               |
| 9999  |            | 9999               |

Note that the floating point input value was not processed.