

# CHAR Function

Generates the Unicode character corresponding to an inputted Integer value. **Unicode** is a digital standard for the consistent encoding of the world's writing systems, so that representation of character sets is consistent around the world.

- The first 256 Unicode characters (0, 255) correspond to the ASCII character set.
- Input values for the CHAR function should be of integer type. Decimal type column data can be used as input. However, if the data contains digits to the right of the decimal point, the CHAR function returns a missing value.
- If the function cannot evaluate the numeric data, a null value is returned.

## Basic Usage

### Column reference example:

```
derive type:single value:CHAR(MyCharIndex)
```

**Output:** The Unicode value for the number in the MyCharIndex column is written to the new column.

### String literal example:

```
derive type:single value:CHAR(65)
```

**Output:** The string A is written to the new column.

## Syntax and Arguments

```
derive type:single value:CHAR(index_value)
```

Argument	Required?	Data Type	Description
index_value	Y	integer (positive)	Unicode index value of the character

For more information on syntax standards, see *Language Documentation Syntax Notes*.

### index\_value

Unicode index value of the character to generate or match.

- The Unicode character set contains up 1,114,112 characters. Most uses rely on the first 10,000 characters.
- Value must be less than end\_index.

### Usage Notes:

Required?	Data Type	Example Value
Yes	Integer (non-negative)	65

## Examples

**Tip:** For additional examples, see *Common Tasks*.

## Example - char and unicode functions

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.

### 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

### Transform:

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 transform:

```
derive type:single value: CHAR(index) as: 'char_index'
```

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

```
derive type:single value: UNICODE(char_index) as: '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.