

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.

Wrangle vs. SQL: This function is part of Wrangle, a proprietary data transformation language. Wrangle is not SQL. For more information, see *Wrangle Language*.

Basic Usage

Column reference example:

```
char(MyCharIndex)
```

Output: Returns the Unicode value for the number in the `MyCharIndex` column.

String literal example:

```
char(65)
```

Output: Returns the string: A.

Syntax and Arguments

```
char(index_value)
```

Argument	Required?	Data Type	Description
<code>index_value</code>	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 to 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.

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:

Transformation Name	New formula
Parameter: Formula type	Single row formula
Parameter: Formula	CHAR(index)
Parameter: New column name	'char_index'

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

Transformation Name	New formula
Parameter: Formula type	Single row formula
Parameter: Formula	UNICODE(char_index)
Parameter: New column name	'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.