



## Number

Plugin Name:	number
Display Name:	Number
Class Name:	com.audium.sayitsmart.plug-ins.AudiumSayItSmartNumber

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## Description

This Say It Smart type handles the reading of any number. The number can be negative or positive, contain a decimal, and can even contain an exponent. The whole part of the number is read normally and the decimal part of the number is read digit-by-digit. This plug-in can handle numbers up to 999 trillion.

The number can be read back in a way that sounds somewhat robotic, though it uses a minimum number of audio files. The number can also be read back in a manner that sounds better to the caller but will require more files to do so. These differences are encapsulated in the Number type's two filesets: *standard* and *enhanced*. All Unified CVP Say It Smart plug-ins that have numerical components use the Number plug-in to convert their numbers so those plug-ins will list these two filesets as well.

## Input Formats

Name (Display Name)	Description
standard (Standard)	This represents any number, negative or positive, with or without a decimal, and optionally containing an exponent. No commas are allowed.

## Output Formats

Name (Display Name)	Input Format Depends On	Description
standard (Standard Number)	standard	The whole part of the number is read normally and the decimal is read digit-by-digit.
no_trailing_0s (Read w/ no Trailing 0s)	standard	The whole part of the number is read normally, the decimal is read digit-by-digit, omitting trailing zeros.

## Filesets

Name (Display Name)	Output Format Depends On	Description
standard (Standard)	standard no_trailing_0s	This fileset involves fewer audio files to render the number but at the cost of sounding a bit robotic.
enhanced (Enhanced)	standard no_trailing_0s	This fileset involves more audio files to render a better sounding number.

## Audio Files

### Standard Fileset

0	1	2	3	4	5	6	7	8	9
10	11	12	13	14	15	16	17	18	19
20	30	40	50	60	70	80	90		
negative	point	hundred	thousand	million	billion	trillion			

### Enhanced Fileset

0	1	2	3	4	5	6	7	8	9
10	11	12	13	14	15	16	17	18	19
20	21	22	23	24	25	26	27	28	29
30	31	32	33	34	35	36	37	38	39

40	41	42	43	44	45	46	47	48	49
50	51	52	53	54	55	56	57	58	59
60	61	62	63	64	65	66	67	68	69
70	71	72	73	74	75	76	77	78	79
80	81	82	83	84	85	86	87	88	89
90	91	92	93	94	95	96	97	98	99
100	200	300	400	500	600	700	800	900	
1000	2000	3000	4000	5000	6000	7000	8000	9000	
negative	point	thousand	million	billion	trillion				

## Examples

Example #1

Data:	4836945.160
Input Format:	standard
Output Format:	standard
Fileset	enhanced
Playback:	“4” “million” “800” “36” “thousand” “900” “45” “point” “1” “6” “0”

Example #2

Data:	3.10
Input Format:	standard
Output Format:	no_trailing_0s
Fileset	standard
Playback:	“3” “point” “1”

Example #3

Data:	36.1234E2
Input Format:	standard
Output Format:	standard
Fileset	standard

Playback:	“3” “thousand” “6” “hundred” “12” “point” “3” “4”
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## Example #4

Data:	-3E-2
Input Format:	standard
Output Format:	standard
Fileset	standard
Playback:	“negative” “0” “point” “0” “0” “3”