Reference Guide for aytm Logic
powering up surveys with [square brackets]

Aytm logic is a syntax that can be used to power up your surveys. You can customize respondents' survey experience using simple logic such as [show if] or [mask by] commands, or you can take it to the next level and create complex random path assignments, pipe responses or custom text, and even assign and calculate hidden values.

To learn more about aytm logic, visit our Help Center.

HOW DO I USE AYTM LOGIC?

Aytm logic is written in **[square brackets]** and can be used in most text input fields in the survey editor. Turn on aytm logic autocomplete to be guided with suggestions by the platform as soon as you open a square bracket ([ ).

CAN I USE MULTIPLE LOGIC BRACKETS IN ONE FIELD?

Yes, there is no limit to how many aytm logic sets within their own brackets can be used in a field. If there are multiple sets of [Show if…] and/or [Hide if…] logic, they will be evaluated sequentially and will have AND logic applied between them. However, we recommend simplifying to one [Show/Hide if…] logic set.

EXAMPLES OF AYTM LOGIC

[Show if Q1SQ1A1]	Show if selected A1 at SQ1 of Q1
[Show if Q2A1 or Q3A1-2]	Show if selected (A1 at Q2) OR (A1 or A2 at Q3)
[Show if Q4A6pv=1]	Show if 6th item at Q4 was ranked first
[Mask by Q5]	Show corresponding items selected at Q5
[Q6R]	Pipe the response from Q6
[Q7Ri]	Pipe the image associated with response from Q7
[Q8A3c]	Pipe the open-ended comment from A3 at Q8
["products" if Q9Rn>=2]	Pipe "products" if selected 2+ items at Q9
[Group Q4-5 and Q6-7]	Randomize the order (Q4-5) and (Q6-7) are shown
[Hide Text]	Hide all text in field from respondents

REFERENCES

Syntax	Represents	When to Use
Q#	Question	Reference question
SQ#	Sub-Question	Reference sub-question (Matrix-based questions)
A#	Answer	Reference answer option
E#	Entity	For Quadrant and Topography questions, reference entity
R	Response	Return response given at reference question; for checkbox, will separate multiple selections by "and" with commas as applicable
P	Position	Return rank order (Reorder, Side-by-Side)
V	Value	Return data point, such as R (response) or P (position), as numeric
N	Number	For checkbox (multi-select), return the number of options selected
C	Comment	Reference OE (open end) text box/field
I	Image	Reference image associated with term
X	Expand	For image, enable expanded image formatting
S	Scroll	For image, enable vertical scrolling formatting
' ' or " "	Text	Single or double quotes for inputs to read as text (non-numeric)
@...	Alias	Create hidden alias for question or answer; can reference in logic

DELIMITERS/OPERATORS

Syntax	Represents	When to Use
and	And	Combine terms with requirement of meeting both criteria
:	And	Represent a range of terms with a delimiter of "and"
,	And	Separate terms with a delimiter of "and"
or	Or	Combine terms with requirement of meeting either criteria
-	Or	Represent a range of terms with a delimiter of "or"
.	Or	Separate terms with a delimiter of "or"
not	Not	Apply inverse meaning to immediately following term
=	Equal	Check if two terms are equal
!=	Not Equal	Check if two terms are not equal
>	Greater Than	Check if first term is greater than second term
>=	Greater Than or Equal To	Check if first term is greater than or equal to second term
<	Less Than	Check if first term is less than second term
<=	Less Than or Equal To	Check if first term is less than or equal to second term
... if ...	If Conditional	Define conditional criteria to be met for logic to apply
( )	Logic Term	Define compound logic terms grouped by parenthesis

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COMMANDS

Syntax	Function	When to Use
Show if …	Show Item	Show question, sub-question, or answer if logic condition met
Hide if …	Hide Item	Hide question, sub-question, or answer if logic condition met
Hide if 1=1	Always Hide	Always hide question, sub-question, or answer
Hide Text	Hide Text	Hide text of question, sub-question, or answer
Skip to …	Skip To	Skip to specified question if logic condition met
Mask by …	Hide Items If Not Selected	Hide items <u>not</u> selected at prior question; Applies to all options, including "Other" and "None" options so use with caution
Rev-Mask by …	Show Items If Not Selected	Hide items <u>selected</u> at prior question; Applies to all options, including "Other" and "None" options so use with caution
Group …	Randomize Question Order	Specify questions or sets of questions to be rotated and presented in a random order, commonly referred to as "nodes" See also Balance, Max, RandFill for optional sub-commands
Max ….	Set Max Number Of Nodes To Assign	In Group logic, optional command to limit the maximum number of nodes to be answered by any given respondent; by default, least fill assignment is used with "Max" limit to prioritize assigning nodes that have been answered by fewer total respondents
RandFill	Pure Random Assignment	In Group logic, optional command to use pure random assignment to nodes instead of the default least fill assignment
Balance …	Balance	In Group logic, optional command to balance nodes by specific subgroup criteria; separate subgroups by "," (comma)
Sort by a-z / Sort by z-a	Sort Items From A to Z or Z to A	Sort answer options or sub-questions from A to Z or Z to A Must specify question number and if elements to be sorted are answer options (e.g., Q1A) or sub-questions (e.g., Q1SQ)
Sort … by …	Sort Items By Array Order	Sort answer options or sub-questions according to array of values Must specify question number and if elements to be sorted are answer options (e.g., Q1A by…) or sub-questions (e.g., Q1SQ by…)
Glue …	Keep Items Together	Specify a set of question answer options or sub-questions to be kept together, or glued, when UI randomization is used Separate by ":" or "," (AND term) to keep glued items in order Separate by "-" or "." (OR term) to randomize order of glued items
Show first # …	Show First # Items	Show only the first specified number of answer or sub-questions Combine with UI randomization to randomly show subset of items
Show last # …	Show Last # Items	Show only the last specified number of answer or sub-questions Combine with UI randomization to randomly show subset of items
Rand #:##	Generate Random Number	Generate a random whole number from the specified range For this value to be stored in the dataset for later reference, it needs to be assigned to a variable (e.g., [randvar = rand 1:100])

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Calculations can be performed and stored using custom variables. These calculations can use values based on survey responses, other custom variables, and/or any other specified value.

Syntax	Function	When to Use
+	Addition	Add a value to another value
-	Subtraction	Subtract a value from another value
*	Multiplication	Multiple a value by another value
/	Division	Divide a value by another value; creates fractional value (decimal)
** or ^	Exponential	Raise a value to the power of another value
exp	Euler's Number (e^x)	Raise Euler's number (e) to the power of a specified value; creates fractional value (decimal)

Arrays are a type of variable that can hold multiple data points in one collection. Items in an array are often referred to as "elements" and can be numeric and/or alphabetic in nature. Arrays can be overwritten to apply desired functions below (e.g., custarray = sort custarray).

Syntax	Function	When to Use
<<	Add	Add an element, numeric or text, to an array; separate multiple elements by comma
|#	Array Element	Return array element in specified position
= shuffle	Randomize	Randomize order of elements of specified array
= reverse	Reverse Order	Reverse the order of elements of specified array
= sort	Sort	Sort the order of elements of specified array in ascending order. Sorts individual numbers from least to greatest followed by letters from "A" to "z" where capitalized letter are sorted before lowercase letters (e.g., "1", "10", "100", "11", "Apples", "Kiwi", "apples", "kiwi")
= reverse sort	Reverse Sort	Sort the order of elements of specified array in descending order. Functions opposite of "sort" as above. Sorts letters from "z" to "A" where lowercase letters are sorted before capital letters followed by individual numbers from greatest to least (e.g., "kiwi", "apples", "Kiwi", "Apples", "11", "100", "10", "1")
= unique	Remove Duplicates	Remove all duplicate elements of specified array
in	Find Exact Element	Search for exact element within specified array; must match within the array completely and element in full (e.g., "apple" to "apple")
like	Find Within Element	Search for element within specified array that matches completely and element at least in part; (e.g., "apple" within "red apple")