

# Set Question Display Logic and Skip Logic Using the v5 API

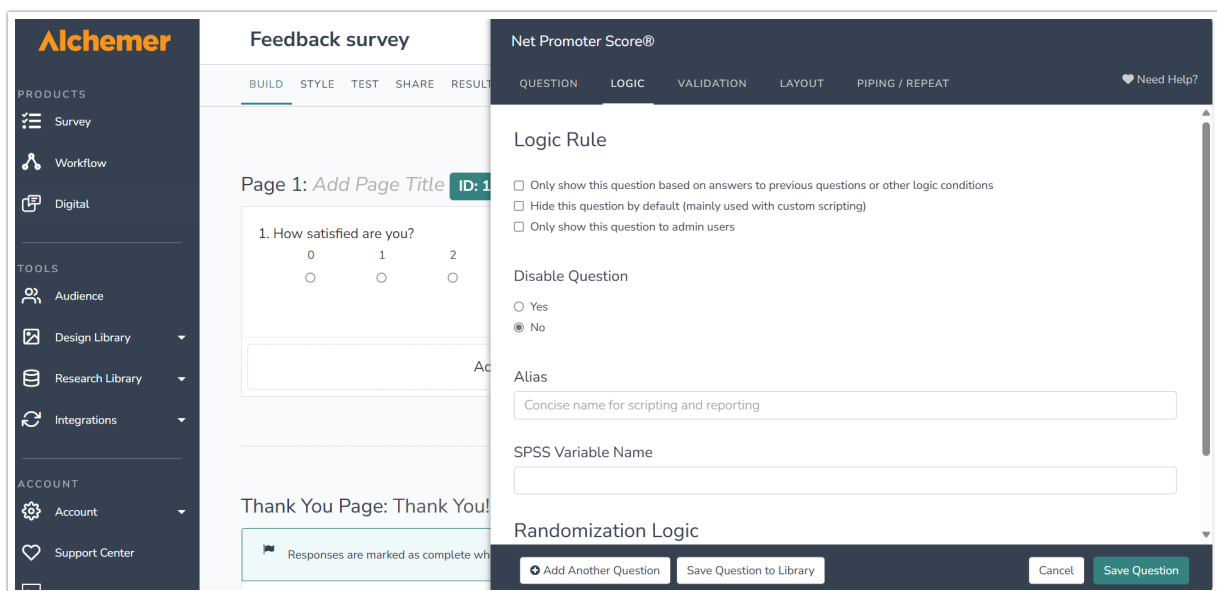
The v5 Alchemer API allows you to configure both Display Logic and Skip Logic for survey questions with the [surveyquestion methods](#) for GET, PUT, and POST (get, create, update).

```
https://api.alchemer.com/v5/survey/123456/surveyquestion/1
```

```
https://api.alchemer.com/v5/survey/123456/surveypage/1/surveyquestion?_method=PUT
```

```
https://api.alchemer.com/v5/survey/123456/surveyquestion/1?_method=POST
```

These options correspond to the options on the 'Logic' tab in the question builder.



## Set Question Display Options with the v5 API

### Save Question Data if Hidden After Initial Display

- Parameter: `properties[save_logic_data]`
- Implementation: Pass the `save_logic_data` parameter.

### Hide Question After Answering

- Parameter: `properties[hide_after_response]`
- Implementation: Pass the `hide_after_response` parameter.
- To Disable: Pass an empty string.

### Hide Question by Default (Used with Custom Scripting)

- **Parameter:** `properties[hidden]`
- **Type:** Boolean: `true/false`

## Show Question Only to Admin Users

- **Parameter:** `properties[admin_question]`
- **Type:** Boolean: `true/false`

## Disable Question

- **Parameter:** `properties[disabled]`
- **Type:** Boolean: `true/false`

## Alias (Short Name for the Question)

- **Parameter:** `shortname`
- **Type:** String

## SPSS Variable Name

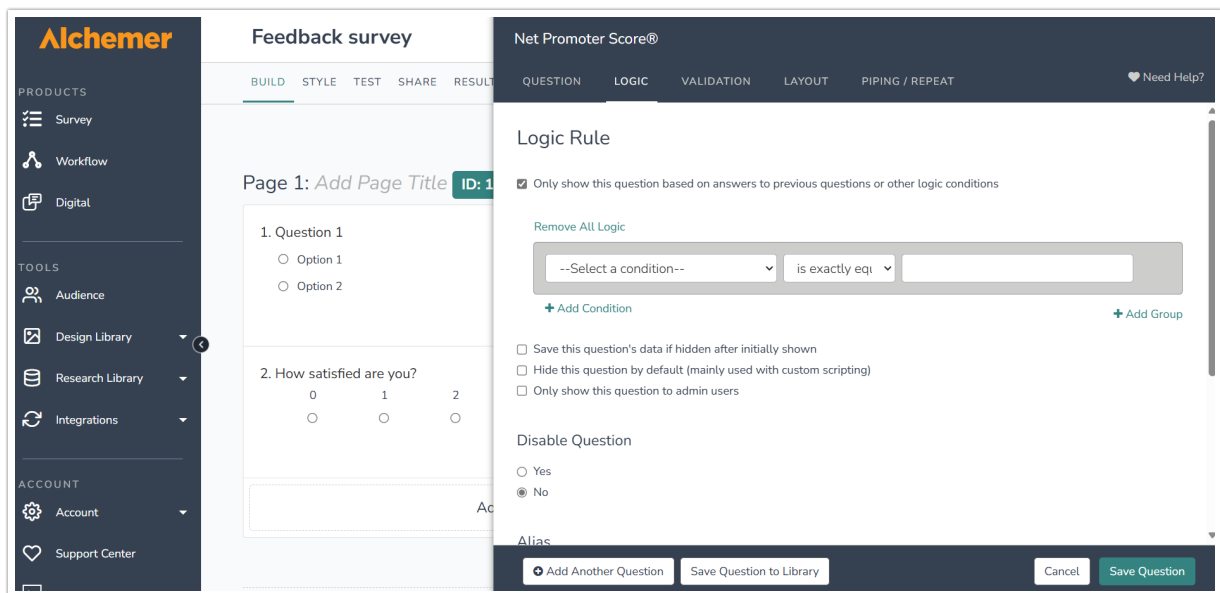
- **Parameter:** `varname`
- **Type:** String

## Randomization & Placement Properties

- **Always Include Question When Showing a Random Selection**
  - **Parameter:** `properties[randomizer_ignore]`
  - **Type:** Boolean: `true/false`
- **Fix Question Position When Shuffling is Enabled**
  - **Parameter:** `properties[fixed_placement]`
  - **Type:** Boolean: `true/false`

# Set question skip logic with the v5 API

These options correspond to the logic rules in the 'Logic' tab in the question builder.



## Logic Structure

The API uses a structured JSON format to define question display conditions in the `show_rules` parameter.

```
{
  "show_rules": {
    "atom": {
      "type": 3,
      "value": 2
    },
    "operator": 20,
    "atom2": {
      "type": 17,
      "value": null
    }
  }
}
```

## Components:

- **atom** : The primary condition entity id. This is usually a question or respondent metadata. This corresponds to the 'select a condition' dropdown in the builder interface.
- **operator** : The logical condition id (e.g., 20 for ANSWERED). Different question types or conditions have different operators. See below for details.
- **atom2** : The secondary condition entity or expected value. This is a complex type and will vary depending on the question type and operator. See below for details.

### Tip:

The quickest way to get a sense of the logic structure is to build the desired logic using the web interface then get the question details using the API. The response includes the full `show_rules`.

**Note:**

The question details API response also includes the show\_rules id and same\_page\_skus. These are not required to be supplied when setting the show\_rules with the API.

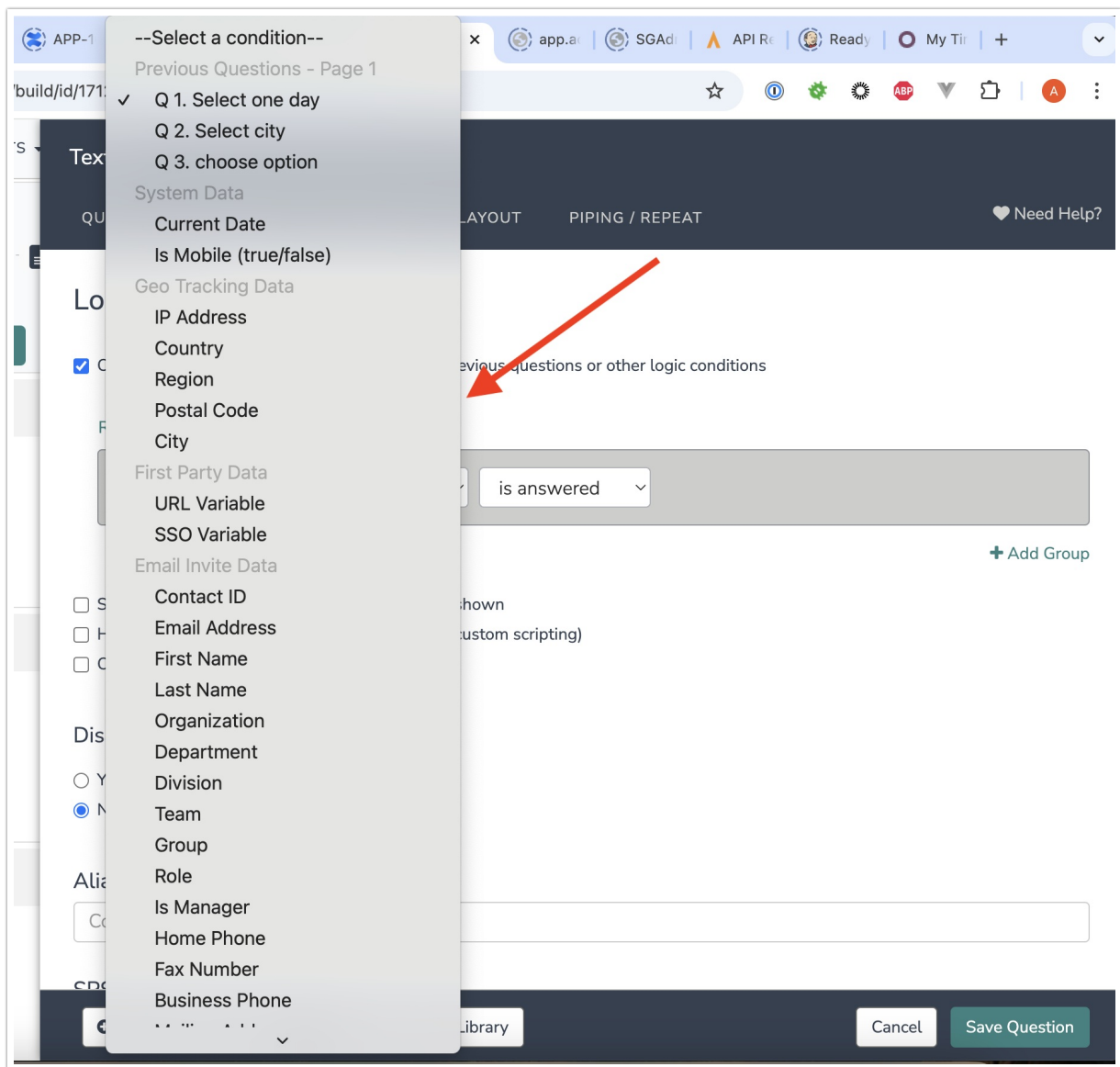
An **Atom** corresponds to the minimal logic unit where:

- **Type** is 3 is the QUESTION condition type. Other available condition types are:

**List of Condition Types**

| Type ID | Type Description             |
|---------|------------------------------|
| 3       | SGLogicAtom_TYPE_QUESTION    |
| 6       | SGLogicAtom_TYPE_CURRENTDATE |
| 21      | SGLogicAtom_TYPE_MOBILE      |
| 5       | SGLogicAtom_TYPE_IP          |
| 8       | SGLogicAtom_TYPE_COUNTRY     |
| 9       | SGLogicAtom_TYPE_REGION      |
| 19      | SGLogicAtom_TYPE_POSTAL      |
| 10      | SGLogicAtom_TYPE_CITY        |
| 4       | SGLogicAtom_TYPE_URLVAR      |
| 36      | SGLogicAtom_TYPE_SSOVAR      |
| 13      | SGLogicAtom_TYPE_INVITEFIELD |

The above table corresponds with the options available in the Alchemer UI:



Every condition has a set of operators:

Textbox

QUESTION

LOGIC

VALIDATION

LAYOUT

PIPING / REPEAT

Need Help?

Logic Rule

☒ Only show this question based on answers to previous questions or other logic conditions

Remove All Logic

Q 1. Select one day

Logic Operators

☒ is one of the following answers
 ☐ is not one of the following answers
 ☐ is answered
 ☐ is not answered

☐ Friday
 ☐ Saturday
 ☐ Sunday

+ Add Condition

+ Add Group

☐ Save this question's data if hidden after initially shown
 ☐ Hide this question by default (mainly used with custom scripting)
 ☐ Only show this question to admin users

Disable Question

☐ Yes

+ Add Another Question

Save Question to Library

Cancel

Save Question

## Example 1: Basic Condition

The following example represents a condition in which the visibility of an element depends on specific criteria:

```
[
  'atom' => [
    'type' => 3,
    'value' => 2
  ],
  'operator' => 20,
  'atom2' => [
    'type' => 17,
    'value' => null
  ],
]
```

- Atom ( **atom** )
  - type: 3 (Question)

- `value: 2` (ID of the relevant question)
- The `value` field represents the entity to which the condition applies. If the type is a question, the value must be the question's ID.
- Operator ( `operator` )
  - `20` (Represents the "ANSWERED" condition)
  - Each condition type has a corresponding set of valid operators, similar to the options available in the UI.
- Second Atom ( `atom2` )
  - `type: 17` (QUESTION\_OPTIONS)
  - `value: null`
  - Since the operator is `ANSWERED`, no specific value is needed. The condition is satisfied if the question has been answered.

## Example 2: Multi-Condition

To specify particular answers for a question, the structure must be adjusted as follows:

```
[
  "atom": [
    "type": 3,
    "value": 2
  ],
  "operator": 12,
  "atom2": [
    "type": 17,
    "value": [
      "2-10003",
      "2-10004",
      "2-10005"
    ]
  ]
]
```

- Atom ( `atom` )
  - `type: 3` (Question)
  - `value: 2` (ID of the "Select One Day" question)
- Operator ( `operator` )
  - `12` (Represents the "IN\_LIST" condition)
- Second Atom ( `atom2` )

- `type: 17` (QUESTION\_OPTIONS)
- `value: ["2-10003", "2-10004", "2-10005"]`
- Each value consists of a question ID ( `2` ) and option IDs ( `10003` , `10004` , `10005` ). In the UI, these correspond to the options "Monday," "Tuesday," and "Wednesday."

### Logic Rule

☒ Only show this question based on answers to previous questions or other logic conditions

[Remove All Logic](#)

Q 1. Select one day

is one of the fr

☒ Monday  
☒ Tuesday  
☒ Wednesday  
☐ Thursday  
☐ Friday  
☐ Saturday  
☐ Sunday

[+ Add Condition](#)
[+ Add Group](#)

## Question-Specific Logic

For `atom2` type, use the following:

- If the question has predefined answer options:  
`17 => SGLogicAtom_TYPE_QUESTION_OPTIONS`
- If the question allows free text input (e.g., text fields, common text-based responses):  
`2 => SGLogicAtom_TYPE_VALUE`

### Prohibited Question Types

The following question types are not supported:

- File Upload
- Drag and Drop
- Ranking Grid
- Signature
- Continuous Sum
- Textbox List
- Slider List
- Video Sentiment
- Audio Sentiment
- Grouping (Open Card Sort)
- Dropdown Menu Grid
- Textbox Grid
- Max Diff



- Custom Table

Additionally, since the platform treats **Actions** and **Text/Media** elements as questions, they are also excluded from the Logic Builder.

## Single-Select Questions

(Applies to: Radio Buttons, Radio Button Grid, Net Promoter Score, Rating (Likert Scale), Image (Select One), Dropdown Menu List, Grouping (Closed Card Sort), Quick Sort, Semantic Differential, User Data)

```
3 => SGLogicAtom_TYPE_QUESTION => [  
  12 => SGLogicUnit_LOGIC_IN_LIST,  
  5  => SGLogicUnit_LOGIC_NOTEQUAL,  
  20 => SGLogicUnit_LOGIC_ANSWERED,  
  21 => SGLogicUnit_LOGIC_NOTANSWERED  
] => [  
  17 => SGLogicAtom_TYPE_QUESTION_OPTIONS  
],
```

## Multi-Select Questions

(Applies to: Checkboxes, Image (Multi-Select), Checkbox Grid, Conjoint (Choice-Based))

```
3 => SGLogicAtom_TYPE_QUESTION => [  
  4  => SGLogicUnit_LOGIC_EQUAL,  
  22 => SGLogicUnit_LOGIC_NOT_EXACTLYEQUAL,  
  12 => SGLogicUnit_LOGIC_IN_LIST,  
  5  => SGLogicUnit_LOGIC_NOTEQUAL,  
  20 => SGLogicUnit_LOGIC_ANSWERED,  
  21 => SGLogicUnit_LOGIC_NOTANSWERED  
] => [  
  17 => SGLogicAtom_TYPE_QUESTION_OPTIONS  
],
```

## Text-Based Questions

(Applies to: Textbox, Essay/Long Answer)

Atom 2 type should be changed to `SGLogicAtom_TYPE_VALUE`

```

3 => SGLogicAtom_TYPE_QUESTION => [
  4 => SGLogicUnit_LOGIC_EQUAL,
  22 => SGLogicUnit_LOGIC_NOT_EXACTLYEQUAL,
  6 => SGLogicUnit_LOGIC_GT,
  7 => SGLogicUnit_LOGIC_GTE,
  8 => SGLogicUnit_LOGIC_LTE,
  9 => SGLogicUnit_LOGIC_LT,
  23 => SGLogicUnit_LOGIC_GTE_DATE,
  24 => SGLogicUnit_LOGIC_LTE_DATE,
  20 => SGLogicUnit_LOGIC_ANSWERED,
  21 => SGLogicUnit_LOGIC_NOTANSWERED,
  10 => SGLogicUnit_LOGIC_CONTAINSTR,
  14 => SGLogicUnit_LOGIC_REGEX,
  15 => SGLogicUnit_LOGIC_NOTREGEX,
  28 => SGLogicUnit_LOGIC_SENTIMENT_POS,
  30 => SGLogicUnit_LOGIC_SENTIMENT_NEU,
  29 => SGLogicUnit_LOGIC_SENTIMENT_NEG,
  31 => SGLogicUnit_LOGIC_SENTIMENT_GT,
  32 => SGLogicUnit_LOGIC_SENTIMENT_LT,
] => [
  2 => SGLogicAtom_TYPE_VALUE
],

```

## Email, Date, Number, Percent

Atom 2 type should be changed to `SGLogicAtom_TYPE_VALUE`

```

3 => SGLogicAtom_TYPE_QUESTION => [
  4 => SGLogicUnit_LOGIC_EQUAL,
  22 => SGLogicUnit_LOGIC_NOT_EXACTLYEQUAL,
  6 => SGLogicUnit_LOGIC_GT,
  7 => SGLogicUnit_LOGIC_GTE,
  8 => SGLogicUnit_LOGIC_LTE,
  9 => SGLogicUnit_LOGIC_LT,
  23 => SGLogicUnit_LOGIC_GTE_DATE,
  24 => SGLogicUnit_LOGIC_LTE_DATE,
  20 => SGLogicUnit_LOGIC_ANSWERED,
  21 => SGLogicUnit_LOGIC_NOTANSWERED,
  10 => SGLogicUnit_LOGIC_CONTAINSTR,
  14 => SGLogicUnit_LOGIC_REGEX,
  15 => SGLogicUnit_LOGIC_NOTREGEX
] => [
  2 => SGLogicAtom_TYPE_VALUE
],

```

## Slider

```

3 => SGLogicAtom_TYPE_QUESTION => [
  4 => SGLogicUnit_LOGIC_EQUAL,
  22 => SGLogicUnit_LOGIC_NOT_EXACTLYEQUAL,
  12 => SGLogicUnit_LOGIC_IN_LIST,
  5 => SGLogicUnit_LOGIC_NOTEQUAL,
  6 => SGLogicUnit_LOGIC_GT,
  7 => SGLogicUnit_LOGIC_GTE,
  8 => SGLogicUnit_LOGIC_LTE,
  9 => SGLogicUnit_LOGIC_LT,
  23 => SGLogicUnit_LOGIC_GTE_DATE,
  24 => SGLogicUnit_LOGIC_LTE_DATE,
  20 => SGLogicUnit_LOGIC_ANSWERED,
  21 => SGLogicUnit_LOGIC_NOTANSWERED,
  10 => SGLogicUnit_LOGIC_CONTAINSTR,
  14 => SGLogicUnit_LOGIC_REGEX,
  15 => SGLogicUnit_LOGIC_NOTREGEX
] => [
  17 => SGLogicAtom_TYPE_QUESTION_OPTIONS
],

```

## Star Rating Grid

```

3 => SGLogicAtom_TYPE_QUESTION => [
  4 => SGLogicUnit_LOGIC_EQUAL
  22 => SGLogicUnit_LOGIC_NOT_EXACTLYEQUAL
  12 => SGLogicUnit_LOGIC_IN_LIST,
  5 => SGLogicUnit_LOGIC_NOTEQUAL,
  23 => SGLogicUnit_LOGIC_GTE_DATE,
  24 => SGLogicUnit_LOGIC_LTE_DATE,
  20 => SGLogicUnit_LOGIC_ANSWERED,
  21 => SGLogicUnit_LOGIC_NOTANSWERED
] => [
  2 => SGLogicAtom_TYPE_VALUE
],

```

## Image Heatmap, Text Highlighter, Cascading Dropdown

```

3 => SGLogicAtom_TYPE_QUESTION => [
  20 => SGLogicUnit_LOGIC_ANSWERED,
  21 => SGLogicUnit_LOGIC_NOTANSWERED
] => [
  2 => SGLogicAtom_TYPE_VALUE
],

```

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