Data Types \ Json \ JsonObject

A JSON object is a collection of named fields — for example `{"name": "Sam", "age": 42}`. Each field has a name (sometimes called a *key*) and a value. The nodes on this page let you build objects, set or read fields by name, inspect them, and turn them into plain text you can store, send, or print.

What's on this page

- **Create** — start a brand-new object, either empty or from a piece of text.
- **Set a field** — add or change a named field on an object (one node per value type).
- **Read a field** — pull the value of a named field back out (one node per value type).
- **Inspect** — list every field's name, or find out what kind of value a field holds.
- **Convert** — turn the whole object into a single piece of text.

About fields: field names are case-sensitive — `"Name"` and `"name"` are different. Setting a value on a field that already exists replaces the old value; setting one with a new name adds the field.

Create

Create Json Object

Makes a fresh, empty JSON object. Use this as the starting point when you want to build a record from scratch.

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What it does

This node produces a brand-new JSON object with nothing in it: `{}`. From there you'd typically wire it into one or more **Set Json Object Field** nodes to fill it with named fields.

Inputs

Port	Type	What to connect
Execute	Trigger	Wire this from the previous node's **Execute** output. The node only runs when triggered.

Outputs

Port	Type	What you get
Execute	Trigger	Fires after this node finishes. Wire it into whatever should run next.
JsonObject	JSON object	A new, empty object `{}`.

Tips

- **Chain it.** Wire this node's **JsonObject** output into the **JsonObject** input of a **Set Json Object Field** node to add the first field.
- **Or start from text.** If you already have your data as a string like `{"name": "Sam"}`, use **Create Json Object From String** instead.

Create Json Object From String

Reads a piece of text written in JSON object form and turns it into a real JSON object you can work with.

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What it does

Useful when the data arrived as text — for example from a file you read, a message someone sent, or a value pasted into a configuration. The node parses the text and gives

you back a proper JSON object that the other JSON nodes can use.

Inputs

Port	Type	What to connect
Execute	Trigger	Wire this from the previous node's **Execute** output.
String	Text	The text to parse. It must look like a JSON object — that is, start with `{` and end with `}`, with comma-separated `"name": value` pairs.

Outputs

Port	Type	What you get
Execute	Trigger	Fires after this node finishes.
String	Text	The same text you passed in (in case the next node needs it as well).
JsonObject	JSON object	The parsed object.

Example

String input	`{"name": "Sam", "age": 42}`
JsonObject output	`{"name": "Sam", "age": 42}` — now a real JSON object

Tips

- **Match the format.** If the text is malformed (a missing brace, unquoted field name, extra comma, etc.) the node won't be able to parse it.
- **Reverse direction.** To go the other way and turn an object *into* text, see **Json Object To String** further down this page.

Set a field

These seven nodes all do the same thing — set a named field on a JSON object — but each one accepts a different kind of value. Pick the one that matches what you're storing.

If the field already exists on the object, its value is replaced. If it doesn't exist, the field is added. The original object isn't modified; what comes out is a new object with the change applied.

Set Json Object Field (String)

Sets a text field on a JSON object.

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What it does

This node takes a JSON object, a field name, and a piece of text, and gives you back a new object with that field set to the text.

Inputs

Port	Type	What to connect
Execute	Trigger	Wire this from the previous node's **Execute** output.
JsonObject	JSON object	The object to update. Often comes from a **Create Json Object** node or from a previous step.
Name	Text	The name of the field to set. If the field already exists its value is replaced; if not, it's added.
Value	Text	The text to store under that name.

Outputs

Port	Type	What you get
Execute	Trigger	Fires after this node finishes.
JsonObject	JSON object	The updated object with your field set.
Name	Text	The same name you passed in.

Port	Type	What you get
Value	Text	The same text you passed in.

Example

JsonObject input	`{"name": "Sam", "age": 42}`
Name input	`"city"`
Value input	`"Portland"`
JsonObject output	`{"name": "Sam", "age": 42, "city": "Portland"}`

Set Json Object Field (Number)

Sets a numeric field on a JSON object.

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What it does

Same as the text version, but the value being stored is a number. Works with whole numbers and decimals; positive or negative.

Inputs

Port	Type	What to connect
Execute	Trigger	Wire this from the previous node's **Execute** output.
JsonObject	JSON object	The object to update.
Name	Text	The name of the field to set.
Value	Number	The number to store under that name.

Outputs

Port	Type	What you get
Execute	Trigger	Fires after this node finishes.

Port	Type	What you get
JsonObject	JSON object	The updated object with your field set.
Name	Text	The same name you passed in.
Value	Number	The same number you passed in.

Example

JsonObject input	`{"width": 800, "height": 600}`
Name input	`"depth"`
Value input	`24`
JsonObject output	`{"width": 800, "height": 600, "depth": 24}`

Set Json Object Field (Boolean)

Sets a true/false field on a JSON object.

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What it does

Same idea as the other Set variants, but the value being stored is a true/false.

Inputs

Port	Type	What to connect
Execute	Trigger	Wire this from the previous node's **Execute** output.
JsonObject	JSON object	The object to update.
Name	Text	The name of the field to set.
Value	Boolean (true/false)	The value to store under that name.

Outputs

Port	Type	What you get

Execute	Trigger	Fires after this node finishes.
JsonObject	JSON object	The updated object with your field set.
Name	Text	The same name you passed in.
Value	Boolean	The same value you passed in.

Example

JsonObject input	`{"name": "Crate", "locked": true}`
Name input	`"visible"`
Value input	`false`
JsonObject output	`{"name": "Crate", "locked": true, "visible": false}`

Set Json Object Field (JsonObject)

Sets a field whose value is another JSON object.

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What it does

Stores a JSON object as the value of a named field — useful for grouping related sub-fields together. The original outer object isn't modified; you get a new object with the nested one attached under your chosen name.

Inputs

Port	Type	What to connect
Execute	Trigger	Wire this from the previous node's **Execute** output.
JsonObject	JSON object	The outer object to update.
Name	Text	The name of the field to set.
Value	JSON object	The inner object to store under that name.

Outputs

Port	Type	What you get
Execute	Trigger	Fires after this node finishes.
JsonObject	JSON object	The updated outer object with the inner object nested under your field name.
Name	Text	The same name you passed in.
Value	JSON object	The same inner object you passed in.

Example

JsonObject input	`{"user": {"id": 7}}`
Name input	`"config"`
Value input	`{"dark": true}`
JsonObject output	`{"user": {"id": 7}, "config": {"dark": true}}`

Set Json Object Field (JsonArray)

Sets a field whose value is a JSON array.

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What it does

Stores a JSON array (a list) as the value of a named field — useful for fields that hold a collection of related items, like tags, scores, or coordinates.

Inputs

Port	Type	What to connect
Execute	Trigger	Wire this from the previous node's **Execute** output.
JsonObject	JSON object	The object to update.
Name	Text	The name of the field to set.

Port	Type	What to connect
Value	JSON array	The array to store under that name. See the **JSON Arrays** page for nodes that build one.

Outputs

Port	Type	What you get
Execute	Trigger	Fires after this node finishes.
JsonObject	JSON object	The updated object with the array stored under your field name.
Name	Text	The same name you passed in.
Value	JSON array	The same array you passed in.

Example

JsonObject input	`{"title": "Project", "priority": 1}`
Name input	`"tags"`
Value input	`["urgent", "review"]`
JsonObject output	`{"title": "Project", "priority": 1, "tags": ["urgent", "review"]}`

Set Json Object Field (SceneNode)

Sets a field whose value is a scene node — an object in your SimLab scene like a robot, a part, or a marker.

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What it does

Stores a reference to a scene node under a named field. The reference points to the live object — not a copy — so other nodes that read this field later receive the actual scene node.

Inputs

Port	Type	What to connect
Execute	Trigger	Wire this from the previous node's **Execute** output.
JsonObject	JSON object	The object to update.
Name	Text	The name of the field to set.
SceneNode	Scene node	The scene node to reference under that name. Comes from a node like **Get Scene Node** or a previous step that produced one.

Outputs

Port	Type	What you get
Execute	Trigger	Fires after this node finishes.
JsonObject	JSON object	The updated object with the scene node reference attached.
Name	Text	The same name you passed in.
SceneNode	Scene node	The same scene node you passed in.

Example

JsonObject input	`{"label": "Robot Arm", "active": true}`
Name input	`"target"`
SceneNode input	<Robot> — a scene-node reference
JsonObject output	`{"label": "Robot Arm", "active": true, "target": <Robot>}`

Set Json Object Field (User)

Sets a field whose value is a User — a participant in a VR/AR session.

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What it does

Stores a reference to a User under a named field. The reference points to the live participant; other nodes that read this field later receive the actual User.

Inputs

Port	Type	What to connect
Execute	Trigger	Wire this from the previous node's **Execute** output.
JsonObject	JSON object	The object to update.
Name	Text	The name of the field to set.
User	User	The User to reference under that name.

Outputs

Port	Type	What you get
Execute	Trigger	Fires after this node finishes.
JsonObject	JSON object	The updated object with the User reference attached.
Name	Text	The same name you passed in.
User	User	The same User you passed in.

Example

JsonObject input	`{"project": "Atlas", "role": "admin"}`
Name input	`"owner"`
User input	<alice> — a User reference
JsonObject output	`{"project": "Atlas", "role": "admin", "owner": <alice>}`

Read a field

These five nodes all pull the value of a single field back out of a JSON object. You pick the field by its name. Each variant returns the value as a specific type — pick the one that

matches what you stored.

The object isn't modified — the value is read out, the object stays the same.

Get Json Object Field (String)

Reads one field from a JSON object as text.

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What it does

Returns the value of the field with the given name. Use this when that field's value is a piece of text.

Inputs

Port	Type	What to connect
Execute	Trigger	Wire this from the previous node's **Execute** output.
JsonObject	JSON object	The object to read from. Must not be empty.
Name	Text	Which field to read. Names are case-sensitive.

Outputs

Port	Type	What you get
Execute	Trigger	Fires after this node finishes.
JsonObject	JSON object	The same object you passed in.
Name	Text	The same name you asked for.
Value	Text	The value stored under that name.

Example

JsonObject input	`{"name": "Sam", "age": 42, "city": "Portland"}`
Name input	`"city"`

Value output	`"Portland"`

Get Json Object Field (Number)

Reads one field from a JSON object as a number.

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What it does

Returns the value of the field with the given name. Use this when that field's value is a number.

Inputs

Port	Type	What to connect
Execute	Trigger	Wire this from the previous node's **Execute** output.
JsonObject	JSON object	The object to read from. Must not be empty.
Name	Text	Which field to read.

Outputs

Port	Type	What you get
Execute	Trigger	Fires after this node finishes.
JsonObject	JSON object	The same object you passed in.
Name	Text	The same name you asked for.
Value	Number	The number stored under that name.

Example

JsonObject input	`{"width": 1920, "height": 1080, "fps": 60}`
Name input	`"height"`
Value output	`1080`

Get Json Object Field (Boolean)

Reads one field from a JSON object as a true/false value.

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What it does

Returns the value of the field with the given name. Use this when that field's value is a true/false.

Inputs

Port	Type	What to connect
Execute	Trigger	Wire this from the previous node's **Execute** output.
JsonObject	JSON object	The object to read from. Must not be empty.
Name	Text	Which field to read.

Outputs

Port	Type	What you get
Execute	Trigger	Fires after this node finishes.
JsonObject	JSON object	The same object you passed in.
Name	Text	The same name you asked for.
Value	Boolean	The true/false value stored under that name.

Example

JsonObject input	`{"visible": true, "locked": false, "active": true}`
Name input	`"locked"`
Value output	`false`

Get Json Object Field (JsonObject)

Reads one field from a JSON object as another JSON object (a nested object).

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What it does

Returns the value of the field with the given name. Use this when that field's value is itself a JSON object — for example a sub-section like `"config"` or `"user"`. Once you have the nested object, the other Read-a-field nodes can read its individual fields.

Inputs

Port	Type	What to connect
Execute	Trigger	Wire this from the previous node's **Execute** output.
JsonObject	JSON object	The outer object to read from. Must not be empty.
Name	Text	Which field to read.

Outputs

Port	Type	What you get
Execute	Trigger	Fires after this node finishes.
JsonObject	JSON object	The same outer object you passed in.
Name	Text	The same name you asked for.
Value	JSON object	The inner object stored under that name.

Example

JsonObject input	`{"user": {"id": 7}, "config": {"dark": true}}`
Name input	`"config"`
Value output	`{"dark": true}`

Get Json Object Field (JsonArray)

Reads one field from a JSON object as a JSON array (a list).

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What it does

Returns the value of the field with the given name. Use this when that field's value is a JSON array.

Inputs

Port	Type	What to connect
Execute	Trigger	Wire this from the previous node's **Execute** output.
JsonObject	JSON object	The object to read from. Must not be empty.
Name	Text	Which field to read.

Outputs

Port	Type	What you get
Execute	Trigger	Fires after this node finishes.
JsonObject	JSON object	The same object you passed in.
Name	Text	The same name you asked for.
Value	JSON array	The array stored under that name.

Example

JsonObject input	`{"sizes": [10, 20], "colors": ["red", "blue"]}`
Name input	`"colors"`
Value output	`["red", "blue"]`

Inspect

These two nodes don't read a specific field — they tell you *about* the object's structure. Use them when you don't know in advance what fields the object contains, or when you need to find out what type of value a field holds before reading it.

 Get Json Object Names

Gives you the list of field names in the object.

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What it does

Returns each field name in the object, one after another. Handy when you want to step through every field using a loop construct or for-each pattern, or when you don't know what's in the object up front.

Inputs

Port	Type	What to connect
Execute	Trigger	Wire this from the previous node's **Execute** output.
JsonObject	JSON object	The object whose field names you want.

Outputs

Port	Type	What you get
Execute	Trigger	Fires after this node finishes.
JsonObject	JSON object	The same object you passed in.
Names	Text	Each field name in turn.

Example

JsonObject input	`{"name": "Sam", "age": 42, "city": "Portland"}`

Names output	`"name", "age", "city"`

Tips

- **Use with Get.** Pair this with one of the **Get Json Object Field** nodes (or with **Get Json Field Type**) to inspect every field in turn.
- **Empty objects.** If the object has no fields, no names are produced.

Get Json Field Type

Tells you what kind of value a named field holds.

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What it does

Returns the type of the field's value as a short piece of text: `"String"`, `"Number"`, `"Boolean"`, `"JsonObject"`, or `"JsonArray"`. Use this when an object's fields can hold different kinds of values and you need to decide which **Get** node to use.

Inputs

Port	Type	What to connect
Execute	Trigger	Wire this from the previous node's **Execute** output.
JsonObject	JSON object	The object containing the field. Must not be empty.
Name	Text	Which field to check.

Outputs

Port	Type	What you get
Execute	Trigger	Fires after this node finishes.
JsonObject	JSON object	The same object you passed in.
Name	Text	The same name you asked for.
Type	Text	The type of the field's value, as a short name.

Example

JsonObject input	`{"name": "Sam", "age": 42, "active": true}`
Name input	`"age"`
Type output	`"Number"`

Convert

Json Object To String

Turns the entire object into a single piece of text.

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What it does

Produces a text representation of the whole object, written in JSON form. Useful when you need to save the object to a file, send it to another system, or put it somewhere that only accepts text.

The original object isn't modified — you get the same object back plus a text version.

Inputs

Port	Type	What to connect
Execute	Trigger	Wire this from the previous node's **Execute** output.
JsonObject	JSON object	The object to convert.

Outputs

Port	Type	What you get
Execute	Trigger	Fires after this node finishes.
JsonObject	JSON object	The same object you passed in.

Port	Type	What you get
Result	Text	The text version of the object.

Example

JsonObject input	`{"name": "Alice", "score": 95}`
Result output	`'{"name": "Alice", "score": 95}'`

Tips

- **Reverse direction.** To go back from text to an object, use **Create Json Object From String** at the top of this page.

Related

- **JSON Arrays** — the matching page for working with ordered lists of items.

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