# json

## Reading and Writing JSON

## 2.0.0

8 June 2018

**Christopher Jefferson**

**Christopher Jefferson**
Email: caj21@st-andrews.ac.uk
Homepage: http://caj.host.cs.st-andrews.ac.uk/
Address: St Andrews
Scotland
UK

# Contents

# Chapter 1

# GAP-JSON mapping

This package defines a mapping between the JSON markup language and GAP. The built-in datatypes of GAP provide an easy mapping to and from JSON. This package uses the following mapping between GAP and JSON.

- JSON lists are mapped to GAP lists

- JSON dictionaries are mapped to GAP records

- JSON strings are mapped to GAP strings

- Integers are mapped to GAP integers, non-integer numbers are mapped to Floats

- true, false and null are mapped to true, false and fail respectively

Note that this library is *NOT* intended to provide a general purpose library for transmitting any GAP object. If you wish to do this, look at the openmath package, or IO_Pickle in the IO package.

## 1.1 Methods

### 1.1.1 GapToJsonStream

▷ GapToJsonStream(*stream, value*)                                                (function)

Converts the `value` to JSON, and outputs it to `stream`. This function disables GAP's usual line splitting while JSON is being outputted.

### 1.1.2 GapToJsonString

▷ GapToJsonString(*value*)                                                (function)
   **Returns:** string
Converts a GAP `value` to a JSON string.

### 1.1.3 JsonStringToGap

▷ JsonStringToGap(*string*)                                                (function)
   **Returns:** value
Converts a JSON `string` into a GAP value.

### 1.1.4 JsonStreamToGap

▷ JsonStreamToGap(*stream*) (function)

**Returns:** value

Reads a single JSON object from a *stream* and converts it to a GAP value.

# Index