sd-json

- Description
- See Also

systemd

sd-json

3

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APIs for Dealing with JSON Objects

#include <systemd/sd-json.h>

pkg-config --cflags --libs libsystemd

Description

`sd-json.h` is part of `libsystemd(3)` and provides APIs to parse, generate, format and otherwise operate with JSON objects.

The API's central data structure is `JsonVariant` which encapsulates a JSON object, array, string, boolean, number or null value. These data structures are mostly considered immutable after construction (i.e. their contents will not change, but some meta-data might, such as reference counters).

The APIs broadly fall into five categories:

- APIs to directly operate with `JsonVariant` objects, in the `sd_json_variant*` namespace.
- APIs to construct complex JSON objects, in the `sd_json_build*` namespace.
- APIs to map `JsonVariant` objects and their fields to matching fields in C structures, in the `sd_json_dispatch*` namespace.
- APIs to convert a string representation of a JSON object into a `JsonVariant` object, in the `sd_json_parse*` namespace.

- APIs to convert an `JsonVariant` object into its string representation, in the `sd_json_format*` namespace.

This JSON library will internally encode JSON integer numbers in the range `INT64_MIN`…`UINT64_MAX` into native 64bit signed or unsigned integers, and will reproduce them without loss of precision. Non-integer numbers are stored in 64bit IEEE floating point numbers.

If the functions return string arrays, these are generally `NULL` terminated and need to be freed by the caller with the libc `free(3)` call after use, including the strings referenced therein. Similarly, individual strings returned need to be freed, as well.

As a special exception, instead of an empty string array `NULL` may be returned, which should be treated equivalent to an empty string array.

See Also

`systemd(1)`, `sd-varlink(3)`, `pkg-config(1)`

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