

# REDIS

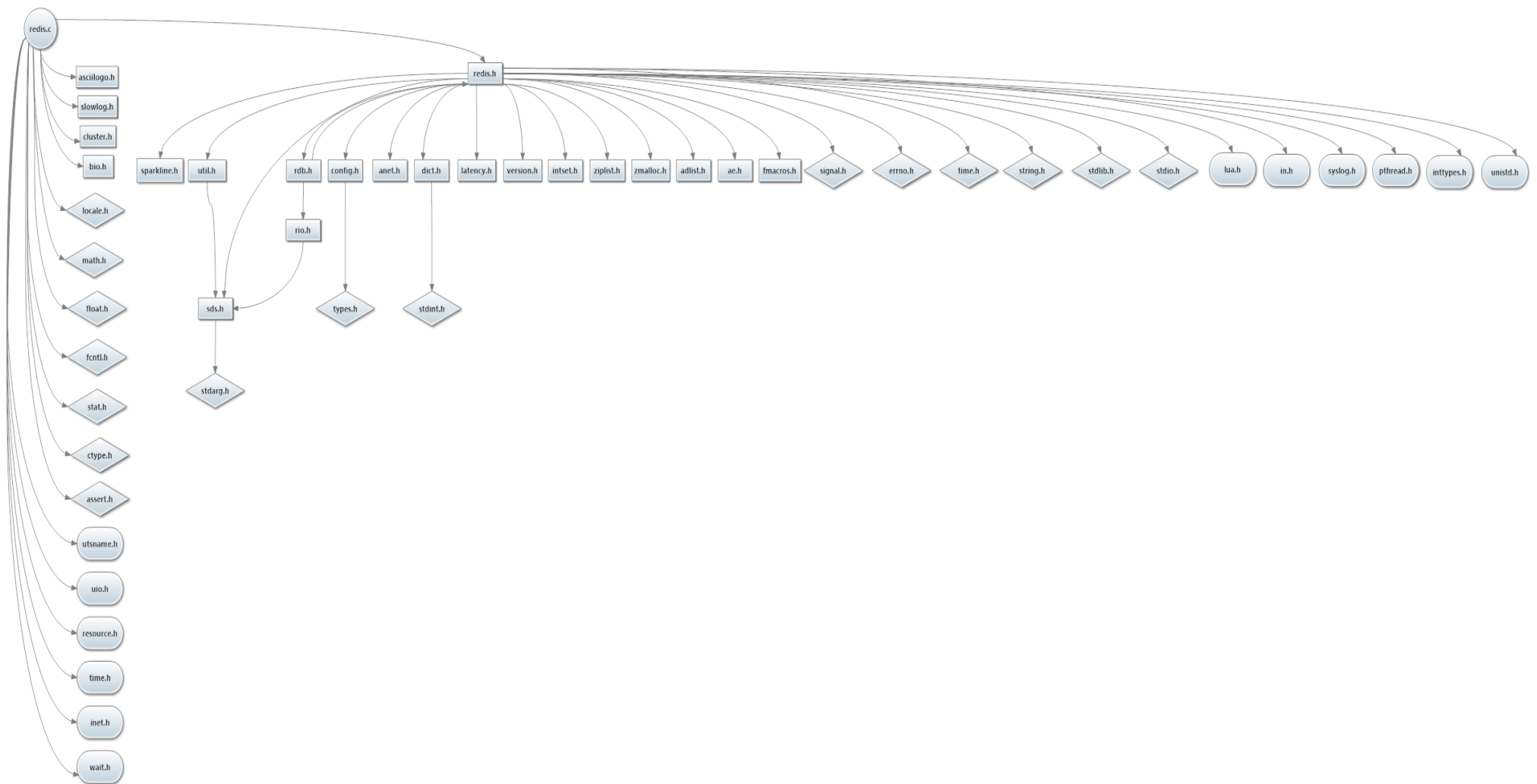


Fig. Dependency Diagram

# REDIS

Redis is an open source data structure server written in ANSI C. "Data structure server" is another way of saying really, really neat key-value store. Not only can you store simple values like strings against keys but also hashes (or maps, or dicts even), lists, sets and sorted sets.

## THE DATABASE

Redis has the same basic concept of a database that we are already familiar with. A database contains a set of data.

## KEY-VALUE STORE CONCEPT

Keys are how you identify pieces of data. A key might look like users: leto. One could reasonably expect such a key to contain information about a user named leto. The colon doesn't have any special meaning, as far as Redis is concerned, but using a separator is a common approach people use to organize their keys. Values represent the actual data associated with the key. Redis treats values as a byte array and doesn't care what they are.

## DATA STRUCTURE

Strings: Strings are implemented using a C dynamic string library so that we don't pay (asymptotically speaking) for allocations in append operations.

Lists: Lists are implemented with linked lists.

Sets: Sets are used to store unique values and provide a number of set-based operations, like unions.

Hashes: Hashes are implemented with hash tables.

Sorted Sets: Sorted sets are implemented with skip list, a peculiar type of balanced trees.

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