RedisGraph 2.8 release notes

Requirements

RedisGraph v2.8.13 requires:

- Minimum Redis compatibility version (database): 6.2.0
- Minimum Redis Enterprise Software version (cluster): 6.2.8

v2.8.13 (May 2022)

This is a maintenance release for RedisGraph 2.8.

Update urgency: HIGH: There is a critical bug that may affect a subset of users. Upgrade!

Details:

- Bug fixes:
  - #2351 Potential memory leak on query timeout
  - #2348 Crash when converting certain Cypher queries to RediSearch queries
  - #2331 Two memory leaks (one on failed RDB loading, one on certain invalid queries)
  - #2328, #2306, #2307, #2326 Disallow redeclaration of variables; fixed false redeclaration errors
  - #2363 Nodes were sometimes created with more labels than those specified

v2.8.12 (May 2022)

This is a maintenance release for RedisGraph 2.8.

Update urgency: HIGH: There is a critical bug that may affect a subset of users. Upgrade!

Details:

- Bug fixes:
  - #2278, #2301 Potential crash on bulk update
  - #2262, #2271, #2272, #2273, #2282, #2288, #2299, #2312, #2321, #2325, #2323 Potential crash on certain queries
  - #1441 Query returns wrong result: projection before Cartesian product causes only one result to be returned
  - #2298 Query returns wrong result: wrong value when fetching a string property from a map
  - #2318 Memory leak

v2.8.11 (March 2022)

This is a maintenance release for RedisGraph 2.8.

Update urgency: HIGH: There is a critical bug that may affect a subset of users. Upgrade!

Details:

- Bug fixes:
  - #2259, #2258 Fix memory leak and potential crash on RDB saving

v2.8.10 (March 2022)
This is a maintenance release for RedisGraph 2.8.

Update urgency: HIGH: There is a critical bug that may affect a subset of users. Upgrade!

Details:

- Features:
  - #2245 Support graphs eviction

- Bug fixes:
  - #1493, #2240 Fixed crash on certain queries
  - #2229, #2222 Fixed crash on certain queries
  - #2209, #2228 Fixed crash on certain invalid DELETE queries
  - #2237, #2242 Fixed crash on certain PROFILE queries
  - #2230, #2232 Fixed wrong number of reported deleted relationships on certain queries
  - #2233 Certain valid queries were reported invalid
  - #2246 Fixed memory leaks

- Improvements:
  - #2235 Improved RDB loading performance

v2.8.9 (March 2022)

This is a maintenance release for RedisGraph 2.8.

Update urgency: MODERATE: Program an upgrade of the server, but it’s not urgent.

Details:

- Features:
  - #2181, #2182 Full support for ARM builds

- Bug fixes:
  - #2167 Fixed a potential crash: filter placement in OPTIONAL subtrees
  - #2176 Fixed a potential crash: invalid memory access in nested DISTINCT functions
  - #2217 Fixed a potential crash: memory access after free on FLUSHALL
  - #2207 Fixed memory leak when MAX_QUEUED_QUERIES is used
  - #2220 WITH * WHERE - the WHERE filters were ignored
  - #2151 Return correct results for aggregations with no inputs
  - #2163 Emit error correctly on multi-query inputs

- Improvements:
  - #2173 Improve performance of breadth-first search

v2.8.8 (February 2022)

This is the General Availability release of RedisGraph 2.8.

Highlights

RedisGraph 2.8 introduces multi-labeled nodes, indexes over relationship properties, additional expressivity (construct, functions, and operators), major performance enhancements, and many bug fixes.

What's new in 2.8

- Multi-labeled nodes
Indexes over relationship properties

Enhanced full-text search

Delta matrices: node and relationships additions and deletions are much faster, as they are first updated in small delta matrices. The main matrices are then bulk-updated.

Additional Cypher construct, functions, and operators

RediSearch 2.2.7

SuiteSparse (GraphBLAS) 6.0.0

Details

Features (since 2.8-M02):

- #2109 Introduce allShortestPaths BFS function
- #2099 Introduce keys function
- #2047 Introduce reduce function
- #2076 Introduce XOR operation in filter trees
- #2088 Introduce pattern comprehensions
- #2051 Allow copying of entity attribute sets in SET clauses
- #2067 Allow modification of virtual key entity count (VKEY_MAX_ENTITY_COUNT) at runtime
- #2102 New load time configuration option NODE_CREATION_BUFFER - see documentation (MOD-2348)
- #2049 RediSearch supports field definitions

Performance improvements (since 2.8-M02):

- #2097 Locks favor writers to prevent write exhaustion
- #1945 Track node count per label in graph statistics
- #1872 Delta matrices are always hypersparse
- #1871 Matrix sync policies reduce the number of syncs required
- #1869 Transposed matrices are always boolean
- #2101 Entity annotation has been replaced with an AST toString function
- #1878 Slowlog queries no longer create graphs
- #2067 Index graph entities incrementally on restore
- Faster AOF recovery (PM-1252)

Bug fixes (since 2.8-M02):

- #2016 Implement new BFS algorithm
- #2105 Creating a node with multiple properties using the same key only accepts the last value
- #2055 Avoid arithmetic overflow in avg function
- #2048 Modulo by zero emits division by zero error
- #2020 Fix evaluation of variable-length edges in expression ordering
- #2028 Fix utilization of record offset in procedure calls, refactor outputs
- #2014 Update label for every node in the AST
- #2002 Fix crash in index utilization using wrong query_graph
- #1976 Use operand matrix when available
- #1973 Emit error on a query that only contains parameters
- #1950 Print ExecutionPlan in GRAPH.EXPLAIN only if no errors are encountered in the construction
- #1933 Free thread-local data on graph deletion
- #1942 Fix dimensions of transposed delta matrices
- #1940 Do not use block client if deny blocking is specified

Note: The labels function’s signature has changed. The function now returns a list of labels instead of a single label.

If you are using this function and upgrading to RedisGraph 2.8, a simple fix is to replace any call to labels(x) with labels(x)[0]. This returns the first label associated with node x. For uni-labeled nodes, the result in RedisGraph 2.8 is similar to the results of labels(x) in RedisGraph 2.4.
- #1898 Error when setting a property to an array containing an invalid type
- #1931 Sync matrices on parent process before serialization fork
- #1897 Aliases in WITH... ORDER BY must be valid references
- #1913 Update thread-local AST for every cloned operation
- #1915 Validate function references in parameters
- #1911 Refactor cron task for managing query timeouts
- #1902 Fix incorrect behavior on NULL values in CASE...WHEN expressions
- #1904 Allow reconfiguring query timeout to 0
- #1888 Synchronize matrices on creation in RDB load
- #1892 Validate values specified in SET clauses
- #1889 Tuple iterator now updates properly when changing matrix to serialize
- #1870 Fix crash in range function
- #2125 Fix crash on UNION ... RETURN * queries (MOD-2524)
- #2043 Avoid serialization of duplicate graph keys
- #2067 Numeric indices no longer lose precision on very large values
- #2072, #2081 CRLF sequences embedded in strings no longer trigger a protocol error when being emitted
- #2139 Fix crash when trying to retrieve an out-of-bounds item
- #2149 Fix crash when matching a node engages an index to search for a value that is a RedisSearch stop word

**Note:**

- This is the first GA version of 2.8. The version inside Redis will be 2.8.8 in semantic versioning. Since the version of a module in Redis is numeric, we could not add a GA flag.
- Minimum Redis version: 6.2

**Updated:** May 24, 2022