## Funktionen der Javascript Bibliothek 'async.js'

## Funktionen zur Nutzung von Kollektionen

- each, eachSeries, eachLimit
  - · Applies the function iteratee to each item in coll, in parallel
- forEachOf, forEachOfSeries, forEachOfLimit
  - Like each, except that it passes the key (or index) as the second argument to the iteratee.
- map, mapSeries, mapLimit
  - Produces a new collection of values by mapping each value in coll through the iteratee function.
- filter, filterSeries, filterLimit
  - Returns a new array of all the values in coll which pass an async truth test.
- reject, rejectSeries, rejectLimit
  - The opposite of filter. Removes values that pass an async truth test.
- reduce
  - Reduces coll into a single value using an async iteratee to return each successive step.
- reduceRight
  - Same as reduce, only operates on coll in reverse order.
- detect, detectSeries, detectLimit
  - Returns the first value in coll that passes an async truth test.
- sortBy
  - Sorts a list by the results of running each coll value through an async iteratee.
- some, someLimit, someSeries
  - Returns true if at least one element in the coll satisfies an async test.
- every, everyLimit, everySeries
  - Returns true if every element in coll satisfies an async test.
- concat, concatSeries
  - · Applies iteratee to each item in coll, concatenating the results.

## Kontrolle der Steuerung

- series
  - · Run the functions in the tasks collection in series, each one running once the previous function has completed.
- parallel, parallelLimit
  - $\circ \ \ \text{Run the tasks collection of functions in parallel, without waiting until the previous function has completed.}$
- whilst
  - Repeatedly call fn, while test returns true.
- doWhilst
  - The post-check version of whilst. To reflect the difference in the order of operations, the arguments test and fn are switched.
- until
  - Repeatedly call fn until test returns true.
- doUntil
  - · Like doWhilst, except the test is inverted.
- during
  - Like whilst, except the test is an asynchronous function that is passed a callback in the form of function (err, truth)
- doDuring
  - The post-check version of during.
- forever
  - · Calls the asynchronous function fn with a callback parameter that allows it to call itself again, in series, indefinitely.
- waterfall
  - Runs the tasks array of functions in series, each passing their results to the next in the array.
- compose
  - Creates a function which is a composition of the passed asynchronous functions.
- sec
  - Version of the compose function that is more natural to read.
- applyEach, applyEachSeries

- · Applies the provided arguments to each function in the array, calling callback after all functions have completed.
- queue
  - Creates a queue object with the specified concurrency.
- priorityQueue
  - The same as queue only tasks are assigned a priority and completed in ascending priority order.
- cargo
  - Creates a cargo object with the specified payload.
- auto
  - · Determines the best order for running the functions in tasks, based on their requirements.
- autoInject
  - A dependency-injected version of the auto function.
- retry
  - Attempts to get a successful response from task no more than times times before returning an error.
- retryable
  - · A close relative of retry.
- iterator
  - Creates an iterator function which calls the next function in the tasks
- times, timesSeries, timesLimit
  - · Calls the iteratee function n times, and accumulates results in the same manner you would use with map.
- race
  - · Runs the tasks array of functions in parallel, without waiting until the previous function has completed.

## Werkzeuge

- apply
  - Creates a continuation function with some arguments already applied.
- nextTick
  - Calls callback on a later loop around the event loop.
- memoize
  - · Caches the results of an async function.
- unmemoize
  - · Undoes a memoized function, reverting it to the original, unmemoized form.
- ensureAsync
  - Wrap an async function and ensure it calls its callback on a later tick of the event loop.
- constant
  - Returns a function that when called, calls-back with the values provided.
- asyncify
  - Take a sync function and make it async, passing its return value to a callback.
- wrapSync
- log
  - Logs the result of an async function to the console.
- dir
  - · Logs the result of an async function to the console using console.dir to display the properties of the resulting object.
- noConflict
  - · Changes the value of async back to its original value, returning a reference to the async object.
- timeout
  - Sets a time limit on an asynchronous function.