EncodeString

This function encodes a string using the specified algorithm. The counterpart of this function is decodeString.

> **Tip:** If it doesn't matter which algorithm you use for the encoding, keep in mind that *aes128* uses hardware acceleration so it may outperform the *tea* algorithm on most processors.

Syntax

```
string encodeString ( string algorithm, string input, [table options, function callback] )
```

Required Arguments

- **algorithm:** The algorithm to use.
- **input:** The input to encode.
- **options:** A table with options and other necessary data for the algorithm, as detailed below.

Options for each algorithm

- *tea* (Tiny Encryption Algorithm)
    - **key**: a key to encode the input with.

- *aes128* (Advanced Encryption Standard in CTR mode)
    - **key**: a key to encode the input with (must be 16 characters long).

- *rsa* (Rivest-Shamir-Adleman in OAEP with SHA-1 mode)
    - **key**: a public key to encode the input. (use generateKeyPair to create a new private and public key)

BETA: NEW FEATURE (BUILD: 1.6.1 r22408)

- *base64* (Base64 Encoding Algorithm)
    - **variant**: a string that defines the encoding variant. (Currently only "URL" is available)

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- *base32* (Base32 Encoding Algorithm)
    - **variant**: a string that defines the encoding variant. (Currently only "Hex" is available)

Optional Arguments

- **callback:** providing a callback will run this function asynchronously, the arguments to the callback are the same as the returned values below.

Returns for each algorithm

- *tea*
    - **encodedString**: the encoded string if successful, *false* otherwise. If a callback was provided, *true* is returned immediately, and the encoded string is passed as an argument to the callback.

- *aes128*
    - **encodedString**: the encoded string if successful, *false* otherwise. If a callback was provided, *true* is returned immediately, and the encoded string is passed as an argument to the callback.
    - **iv** (Initialization vector): this is a string generated by the encryption algorithm that is needed to decrypt the message by decodeString. If a callback was provided, *true* is returned immediately, and the *iv* is passed as an argument to the callback.

- *rsa*
    - **encodedString**: the encoded string if successful, *false* otherwise. If a callback was provided, *true* is returned immediately, and the encoded string is passed as an argument to the callback.

- *base64*
    - **encodedString**: the encoded string if successful, *false* otherwise. If a callback was provided, *true* is returned immediately, and the encoded string is passed as an argument to the callback.

- *base32*
  - **encodedString**: the encoded string if successful, *false* otherwise. If a callback was provided, *true* is returned immediately, and the encoded string is passed as an argument to the callback.