

BLOCKCHAIN TUTORIAL 14

Checksum

```
802A82582D70FEA0899AA069A3D3BB37B5A4E  
B8680A4ADDO331056856C61BE22A09EB419E6
```

```
Checksum → 9EB419E6
```

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Checksum

CHECKSUM

- Some identification numbers such as bank account numbers have some digits embedded in these numbers.
- These digits, which can be numbers or characters, are called *checksum digits* and are used for error detection when you mistype the identification number.
- For example this is a Dutch bank account number: NL**91** ABNA 0417 1643 00
In this example the 2 digit checksum value is “91”. A special algorithm is applied to this bank account number to calculate this checksum value. If you mistype this bank account number NL**91** ABNA 0417 1**46**3 00, any Dutch bank application will notice this error because the checksum value of this number does not corresponds to the expected checksum digit “91”.

CHECKSUM

- Cryptocurrency addresses such as Bitcoin are also using checksum digits.
- I am not sure if all Blockchain implementations are using checksum digits in their addresses.
- Checksum vs hash:
 - A checksum is generally designed to detect accidental errors in small blocks of data (such as Social Security numbers, bank account numbers, cryptocurrency addresses, etc) and often to be fast to compute.
 - A hash reduces large data to a small number, in a way that minimizes the chance of collisions. More information about hash, watch part 3 of the Blockchain video series.