Bitcoin and Smileycoin basics
crypto251.0 Cryptocurrency and the Smileycoin

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Operating a wallet

A **wallet** is a computer program (or app) which handles the user's funds. From the user's side, the basics of operating a wallet are made extremely simple.

With a click of a button the user can
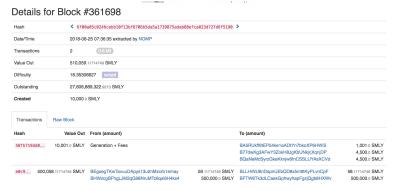
- Request funds
- Send funds

Transmissions of funds are sent out as **transactions**.

If Alice wants to send a transaction to Bob, her wallet needs information on where to send the transaction.

If Alice requests funds from Bob then Alice's wallet will typically show a QR-code which Bob's wallet can scan to set up the required transaction.

A short video introduction is available.

The block and block explorers

A simple block (SMLY block 361698)

Details for Block #361698

Hash	‹ 6f00a05c0246cebb10f13bf6706b5da5a1739875adab88efca023d727d6f5190 ›
Date/Time	2018-06-25 07:36:35 extracted by NOMP
Transactions	2 0.6 kB
Value Out	510,059.11714749 SMLY
Difficulty	18.35306627 scrypt
Outstanding	27,606,889,322.9213 SMLY
Created	10,000.0 SMLY

Transactions   Raw Block

Hash	Value Out	From (amount)		To (amount)	
58fb719dd0...	10,001.0 SMLY	Generation + Fees		BA5RUkff6tEP54ke1aADtYn7bkoXP6HWiS	1,001.0 SMLY
				B77dwKg3AFwY3ZokH8JgKbUNkjrjXqnjDP	4,500.0 SMLY
				BQaNeMcSyrzGkeKknjw6fnCSSLUYAsXCVd	4,500.0 SMLY
e0c9...	500,058.11714749 SMLY	BEgxegTKwTavuuDApys13u2nMzcrb1emay	59.11714749 SMLY	BLLHrNU6nDspnUEbQD8x5mtttKyPLvnCpF	58.11714749 SMLY
		BHWzcgBFhgLJM2qG98NruMTc6qsi6H4ks4	500,000.0 SMLY	BFTW8Tk3dLCaekGphwyhapFgzjQgb8HXWv	500,000.0 SMLY

Contains two transactions.
See https://chainz.cryptoid.info/smly/
and https://blocks.smileyco.in/
Video demonstration:
https://www.youtube.com/watch?v=a7EhHvWCrU4&index=4&list=PLzT0

The transaction

The transactions

Transactions	Raw Block			

Hash	Value Out	From (amount)	Miner gets 1000+1 SMLY	To (amount)	
			Reward: 1000		
58fb719dd0... **Coinbase transaction**	10,001.0 SMLY	Generation + Fees	**Fees: 1**	BA5RUkff6tEP54ke1aADtYn7bkoXP6HWiS	1,001.0 SMLY
				B77dwKg3AFwY3ZokH8JgKbUNkjrjXqnjDP	4,500.0 SMLY
				BQaNeMcSyrzGkeKknjw6fnCSSLUYAsXCVd	4,500.0 SMLY
			Input 500,059.1	**Output 500,058.1**	
e0c9... **"Ordinary" transaction**	500,058.11714749 SMLY	BEgxegTKwTavuuDApys13u2nMzcrb1emay	59.11714749 SMLY	BLLHrNU6nDspnUEbQD8x5mtttKyPLvnCpF	58.11714749 SMLY
		BHWzcgBFhgLJM2qG98NruMTc6qsi6H4ks4	500,000.0 SMLY	BFTW8Tk3dLCaekGphwyhapFgzjQgb8HXWv	500,000.0 SMLY

Where we come from (a): the tutor-web

The tutor-web is an educational resource, mainly developed at the University of Iceland.

The SmileyCoin was originally developed to experiment with rewards in the tutor-web.

A short video introduction is available, giving an overview of the tutor-web

Where we come from (b): Education in a Suitcase

eias

Non-profit organisation, registered in Iceland as **Styrktarfélagið Broskallar**

Purpose: Raise funds to donate educational tech to low-income regions

Where we come from (c): SMLY

smly

Primary purpose: Rewarding students in the tutor-web system
Long term goal: Provide $1/day for low-income students

Overview

The handout lists homework.
Your instructor will give more detail.