

## Dex DEEX

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## General description

Dex DEX – a new exchange, based on the blockchain technology BitShares 2.0 (Graphene), representing decentralized platform for highly effective financial operations based on Smart contracts.

Dex DEX is a decentralized trading platform, which has all the pros of standard centralized exchanges excluding their inherent drawbacks, the main ones being vulnerability to direct hacking and practically full control over clients' funds by a third party (exchange representatives and government officials).

Structure and functionality of Dex DEX is standard for the exchanges built on Bitshares:

The main functionalities include:

- Registration/Authentication of users;
- Trading;
- Transfer of funds;
- Voting;
- Token creation;
- Observer.

The main distinctions of Dex DEX are:

- Personal gateways for deposit/withdrawal of 10 cryptocurrencies;
- Possibility of customizing UI (User Interface configuration)

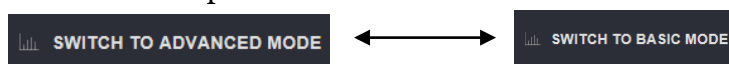
### 1. Accounts

Authorization and registration are done directly in the BitShares blockchain. There are two types of supported accounts: Regular and Multi-sign. All the balances of each account could be used on Dex DEX as well as in the whole Bitshares network.

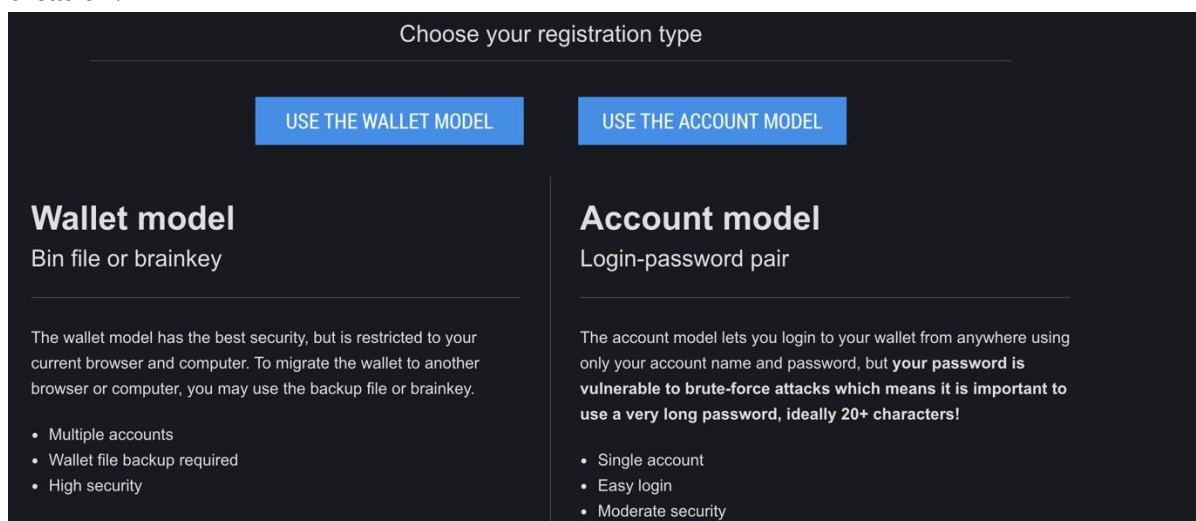
View of the initial page of Dex DEX is as follows. The view of upper panel menu for unauthorized user:



Switching between ADVANCED/BASIC modes is carried out by clicking on corresponding element of the panel.



The view of central part of the initial web page with choice of account model for subsequent creation.



## 2. Main page

The view of upper menu for authorized user is as follows:



The view of main page for authorized user in Advanced mode:

Highest Volume DEEX / BTS 0.41010 BTS -0.50%	New coin ARTEX / DEEX %	New coin CVCOIN / DEEX 5.02514078 BTS 0.00%	New coin DEEX.BTC / DEEX 131,010.13705000 BTS 0.00%
New coin DEEX.ETH / DEEX 6,810.00699573 BTS -0.37%	New coin DEEX.BCH / DEEX 66,666.66300157 BTS 0.00%	New coin DEEX.DASH / DEEX 4,266.66750000 BTS 0.00%	New coin DEEX.EOS / DEEX 0.00%
New coin FIRELOTTO / DEEX 0.55000000 BTS 37.50%	New coin LORDMANCER / DEEX 0.00%	New coin DEEX.DOGЕ / DEEX 0.05900000 BTS 0.00%	New coin DEEX.LTC / DEEX 500.01000020 BTS 0.00%
New coin ICEROCK / DEEX 0.00%	New coin DEEX.KRM / DEEX 0.03400000 BTS 2.00%	New coin DEEX.PRIZM / DEEX 24.99996987 BTS 0.00%	New coin A2ASTEX / DEEX 0.00%

The main page includes information about given currency pairs and consists of following elements:

- Currency icon;
- Name of currency;
- Price;
- Volume;
- Growth rate change in %.

After authorization on the main page, a user is additionally displayed: a table with list of accounts in a wallet, a table with history of recent activity (on every account in a wallet) and also advanced upper menu.

The table with a list of accounts in a wallet:

- Name;
- Open orders;
- Collateral;
- Total value.

Accounts					
Filter accounts...					
★	ACCOUNT	OPEN ORDERS	COLLATERAL	DEBT	TOTAL VALUE
★	test12test	0 BTS	0 BTS	0 BTS	0 BTS

The recent activity table (sorted from new to old):

- Operations;
- Information.

Recent activity (export to .csv)			Show all
OPERATION	INFO		
CREATE ACCOUNT	openedger registered the account test12test		39 minutes ago

The upper menu includes following elements:

- Logo (transition to main page);
- Account (only for authorized users);
- Send (only for authorized users);
- Exchange;
- Deposit/Withdraw funds;
- Balance (only for authorized users);
- Name of account (only for authorized users);

- Language of interface;
- Settings;
- Lock down icon (only for authorized users);
- Create an account (only for authorized users).



### 3. Exchange and its functionalities

Functionality of the exchange will include all the functionality of the BitShares. Separately created gateway allows to deposit and withdraw funds only in the chosen currency. On the exchange itself all sorts of tokens can be used that are available in the BitShares network. There is a possibility of market analysis for a given trading pair on a trading graph of the exchange and buy/sell trade execution. Also lending of necessary quantity of tokens are possible for short positions.

#### 3.1. The Main market indicators

On the corresponding panel, current main indicators of the chosen trading pair are shown:

- Current price;
- Change tendency;
- Percentage growth in the last 24 hours;
- Volume for the last 24 hours on each trading pair;
- Current market price.

DEEX  BTS		
LATEST	24HR CHANGE	24HR VOLUME
0.41500 <small>BTS</small>	-0.50 %	98.88k <small>DEEX</small>

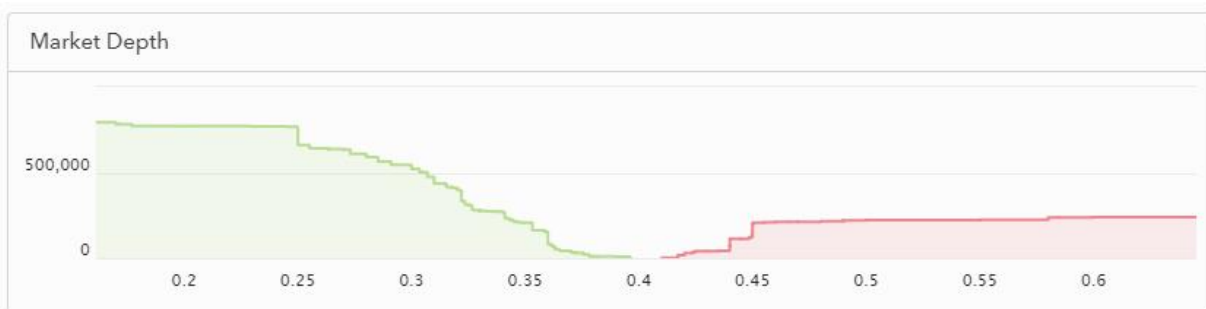
#### 3.2. Price Chart

Graph of market price change of chosen trading pair. Graphs include possibility to choose displayed time interval (6 h, 2 days, 4 days, 1 week, 2 weeks, 1 month, 3 months, all) with adjustments to every value (5 minutes, 1 hour, 1 day). Also options of manual adjustments are present.



### 3.3. Market Depth graph

Graph of purchase/sell price and volume change from market price. Maximum prices of purchase and sell are displayed. Identification of current estimated market price is installed.



### 3.4. Blocks for conducting trades

There are two trading blocks for executing sale and purchase trades for given currency. In each block current balance of currency available for trade and current price (the highest for sale and the lowest for purchase) are shown.

Trade

BUY DEEX

SELL DEEX

PRICE

0.0

BTS / DEEX

QUANTITY

0.0

DEEX

TOTAL

0.0

BTS

FEE

0.0289

DEEX

BALANCE

0.00000

BTS

LOWEST ASK:

0.41011

BTS/DEEX

EXPIRATION:

1 YEAR

BUY DEEX

Trade

BUY DEEX

SELL DEEX

PRICE

0.0

BTS / DEEX

QUANTITY

0.0

DEEX

TOTAL

0.0

BTS

FEE

0.0289

DEEX

BALANCE

488.0170

DEEX

HIGHEST BID:

0.39640

BTS/DEEX

EXPIRATION:

1 YEAR

SELL DEEX

It is possible to lend necessary currency for execution of quick trades. In each trading block, data entry section, desired amount of a trade and coefficient of debt's coverage by personal funds (collateral ratio) are displayed on the basis of current balance. Validation (confirmation) regarding optimal coefficient of 1,75 or 175% is accessible «below» coefficient.

Two blocks with a list of existing requests to trade in chosen currency pair:

- Open trades for purchase;
- Open trades for sale.

When an existing sale trade is chosen, the purchase trade block is auto filled with the same parameters and vice versa.

Price sorting is available in descending order for purchase and in ascending order for sale. Scrolling and options «Fold/Unfold» can be helpful in extending overview of all possible trades if there are too many of them to fit in the block.

A block with completed trades on chosen trading pair separated on my and market exchange trades presented in form of tabs consists of following options:

- Price;
- Trade volume on each currency;
- Date and time of execution.

A block with open requests on trade in chosen trading pair (waiting to get filled) is presented by following parameters:

- Price;
- Trade volume on each currency;
- Expiration date of a trade.

All prices are highlighted with green (for purchase) and red (for sale).

### 3.5. Block with market information

A block with current market rate is displayed for each currency pairs with search and filter options. There also possibility to choose trading pair by market and name of currency along with opportunity to add currency to favorites. Overview in table of current volume, price and price change is available for period of last 24 hours.



All tables and graphs change dynamically without necessity to press on any button for updating information and indicators.



## 4. Balance management

### 4.1. Account balance

On «Account» tab disposable balance on each currency is displayed. Also for each currency following buttons may be used: «Deposit», «Buy», «Trade».

FILTER		Active   Hidden   Visual				
ASSET	QTY	PRICE (DEEX)	24HR	VALUE (DEEX)	SEND	BUY
DEEX.KRM	2,500.00000	0.0340	2.00%	85	➤	-
DEEX	488.0170	1.00	0.00%	488	➤	-
DEEX.LTC	5.00000	--	0.00%	--	➤	-
DEEX.ETH	500.000000	--	0.00%	--	➤	-
BTS	1000	-	-	-	-	Ⓢ

### 4.2. Dispatch of money

This option allows send money on every other network account. The box «From» automatically fills with account data of user, in the box «To» receiver-account has to be indicated. In the box «MEMO» desired sum of transfer has to be stated. In the box «FEE» commission on a transfer is written. To the right a block with information about last transfers is situated. Button «SEND» becomes inactive in case when desired sum and commission exceed disposable balance of user.

**DEEX**

### Send from deex-account

Transfers are used for sending funds to other DEEX Account Holders

TO BASIC MEMBER #440304

deex

QUANTITY AVAILABLE: 488.0170DEEX

100 DEEX

MEMO / MESSAGE 9

deex-test

FEE

0.547 DEEX

**SEND** **CANCEL**

## Recent activity

INFO

No recent transactions

### 4.3. Money deposit/withdrawal

Option of deposit is available in any currency accepted on the exchange with indication of wallet address of chosen currency. The list of available currencies contains 10 positions. Also any deposit operation always goes with indication of intermediate Dex DEX account.

For withdrawal, it is necessary to specify wallet address of chosen currency. (below in section «currency listing» will be showed a more detailed description of the matter)  
For receiving funds, it is necessary to send name of your account to a sender.

Gateway

Fiat

PLEASE SELECT THE COIN YOU WOULD LIKE TO DEPOSIT:

ETH

Deposit

Withdrawal

Deposit summary

Asset to deposit: ETH

You will receive: DEEX.ETH

Intermediate account: deex-eth

Your account: deex-account

Current balance: 100 DEEX.ETH


Deposit instructions

PLEASE SEND YOUR ETH TO THE ADDRESS BELOW:

MINIMUM AMOUNT: 0.01 ETH

ADDRESS: 0xf5b3954c3b9261f49ada02b7c388dbde4b45bba

MEMO: dex:deex-account



COPY ADDRESS

COPY MEMO

GET NEW ADDRESS

## 5. Account settings

When working with the exchange, it is obligatory to backup and configure passwords. Option of password change is carried out with the help of automated password generator (with choice of password type: active, owner, memo).

Overview of recent account activity with filter on following operation types:

- All

- Transfer
- Place order
- Cancel order
- Fill order
- Create account
- Update account
- Create asset
- Witness pay withdrawal
- Withdrawal vesting balance
- Feed publication

Type of operation, description, name of account and date are displayed.

An Option of adding an account to «white» or «black list». For that, it is necessary to enter account name and confirm a transaction. Validation of decent quantity of funds for fee payment is on the «Ok» button. Overview of an account being added to black or white list.

## 6. Token creation

BitShares allows certain individuals and companies create and issue personal tokens based on BTS for wide variety of distinct purposes. Potential scenarios for use of so called User Issued Assets (UIA) is quite diverse.

For creation, one has to go to section «Account» - «Issued assets» - «Create an asset».

- Main settings (Symbol, maximum quantity, precision, SmartCoin option, sum of confirmation from user balance);
- Description (general description, concise and limited to 32 symbols, desired market currency pair);
- Allowance (strict obligation of being in the white list of owner, possibility to self-send tokens, turn off confidential transactions);
- Flags (connection of market commission with indication % and maximum sum)

## 7. Voting

### 7.1. Proxy

With Proxy turned on, user cannot vote for Witnesses, Committee members, Working Proposals. Only account that is registered as Proxy can participate in a voting which means the weight of his vote will be taken into account. Add list of users for voting and field for search by the name of an account. If account is proxy registered then voting buttons will be inaccessible.

### 7.2. Witnesses

Voting for list of users who will serve as Witnesses - To be clear, users who become a part of the blockchain ecosystem by being able to produce blocks and verify transactions.

### 7.3. Committee members

Voting for list of users who will be responsible for taking decisions on any ecosystem developments.

### 7.4. Proposals

Proposals of offering valuable for system services for payment from Bitshares. Every candidate has to score decent amount of votes for their proposal confirmation. Add possibility to create your own worker and fill out details of a proposal.

## 8. Settings

Markets
Dashboard
Exchange
Settings

deex-account

Settings

General

Accounts

Restore/Import

Nodes

Faucet

Reset settings

General

Adjust the basic settings.

SWITCH LANGUAGE

English

PREFERRED UNIT OF ACCOUNT

DEEX

BROWSER NOTIFICATIONS

☒ Enable notifications
☒ Notify about transfers to my account

Your browser disabled notifications. Click to learn how enable browser notifications

SHOW SETTLE ORDERS IN DEPTH CHART

No

WALLET AUTO-LOCK TIME (SECONDS, 0 TO DISABLE)

600

## 8.1. Language

Option of switching between languages in the form of flags of corresponding countries in the upper control panel.

## 8.2. Access configuration

Configuration of faucet and API access. On the screen of connection access settings, it is necessary to enter new connection link to faucet (faucet server is a server which pays registration fees for new coming users) or choose from list of available ones. When entering new link after pressing «Add» button, link has to be in drop-down menu of available links.

Settings

Access

General

Accounts

Restore/Import

Access

Faucet

Choose closest automatically

Yes

Active Node

Singapore - BitShares Infrastructure Program

wss://sg.nodes.bitshares.ws

UP

Low latency (394ms)

Available Nodes

Add Node

### 8.3. Wallet recovery

For accounts of wallet or multi-sign type, wallet recovery is carried out with help of:

- .bin file format
- Private key
- Brain key
- JSON file with key

### 8.4. Main wallet settings

As main settings following can be added and used:

- Choice of main currency
- Setup of time limit for account blockage
- Choice of type of account for authorization
- Choice of type of decentralization of the exchange (simple and advanced)
- Option to display assets in % on the screen of the exchange
- Option to display settlement transactions on Market Depth graph

Accounts	SWITCH LANGUAGE
Password	English ▼
Backup	
Restore/Import	PREFERRED UNIT OF ACCOUNT
Access	BTS ▼
	SHOW SETTLE ORDERS IN DEPTH CHART
	No ▼
	WALLET AUTO-LOCK TIME (SECONDS, 0 TO DISABLE)
	600
	THEME
	Openledger dark ▼
	DISABLE CHAT
	No ▼
	SHOW ASSET PERCENTAGES ON THE ACCOUNT PAGE
	Yes ▼
	LOGIN USING THE ACCOUNT MODEL
	No ▼
	RESET SETTINGS
	SWITCH TO BASIC MODE

## 9. Connection of currencies

The exchange allows to trade (BTC, ETH, LTC, BTS, DASH, STEEM, ZEC, XRP, BCH, ETC).

As was mentioned above, there exist two options of depositing funds on a balance: with fiat and with cryptocurrency.

In example №1, USD/btc is used and corresponding pair btc/Dex.btc and in example №2, eth/Dex.eth is utilized.

Account deposit is carried out by following scheme.

1. An account's user initiates process of receiving cryptocurrency, a form where desired amount of chosen currency and corresponding bank's account of exchange have to be stated is sent to him. An exchange's operator manually checks amount received as it can vary from stated amount in deposit order. An operator inputs to the blockchain actually received sum. On the exchange exists already issued token – Dex.usd in decent for future deposits amounts. That's why on one real dollar received through bank account, an operator gives out virtual Dex.usd. On top of that deposit commission stated by account's owner is substracted. A deposit operation is done manually. This option is not heavily demanded that's why an operator wont be loaded with work.
2. Because we deal with the Bitshares blockchain, there are no other currency except its own currency and existing tokens. Thus, it is necessary to have par btc/Dex.btc and they have to be in decent amounts. Later once real btc have been received on user's account, issued Dex.btc are sent, however in this case the deposit process is automated and certainly with intervention of an operator when needed.

For each chosen currency gateway has to be written for connection to the exchange. A gateway works through embedded private keys and immediately deposits with Dex.btc accounts once Dex token is received which is used for trading on the exchange and has to be in advance registered as being tied to Dex DEX.

With the help of a gateway currency will be transferred to internal token address of a currency (unique for each user) in 1 to 1 ratio (there is also possibility to take fees). Then with the help of functional as in bitshares through the exchange a user can exchange Dex .okens on every other available Dex.currencies which will be received on an internal address of chosen Dex.currency (unique for every user).

If user desires to transfer chosen currency from Dex DEX account on a personal wallet, he has to enter all the specific details for each currency. With the help of a gateway from an internal address sum equivalent to chosen currency will be transferred. For each user and currency unique address will be created. This operation may also include a fee for user. For each gateway, logic of deposit and withdrawal may vary depending



on specifics of a currency. For example, for BTS MEMO box is used instead of Amount. For maintenance of work of each gateway, there will be separate dedicated node.

## 10. Centralization\Decentralization and security of the exchange

Mechanism of the exchange implies only centralization of gateways which is linking element between different blockchains. This linking element cannot be decentralized and be under owner's security.

Arrangement of a model of the exchange has to be in following manner:

- Server on which engine of the exchange is stored,
- Gateways with hot wallets for deposit and withdrawal of funds.

Only one risk of funds theft follows from this – a theft from hot wallet that holds all private keys. They (keys) cannot be hidden in some other place as there wouldn't be enough automation, thus these wallets have to be strictly online. Potential danger can come from «offended» admin/developer. If we talk about hacker attack, he needs to hack a server, find dat file of the exchange, figure out which key belongs to which wallet and transfer funds from wallet. This type of danger exists on every exchange with no exceptions. The limit of a hot wallet has to be minimized in order to excluded any leakages which leads to frequent maintenance. Moreover, hot wallets are paired with a cold storage (cold wallet) which is the main storage of the funds and this wallet shouldn't have online access. The connection has to be one-sided – once limit is exceeded on a hot wallet, all the excesses are automatically redirected to the cold storage. A deposit of hot wallet happens in manual mode. This type of pair is reasonable to create only for those hot wallets which store large amount of cryptocurrency. A Mechanism of transfer from hot to cold wallets has to be completed in gateway of a currency, CAP (limit). The necessity of the transfer mechanism is negotiated with each client separately on each currency.

Requirements for cold storages are stipulated separately with each client. There is possibility of storing directly on blockchain or by saving private keys. How they will be stored and on which carrier is determined independently. Perhaps it will be stored on external drive, USB flash, laptop or paper.

As all the trades happen directly through blockchain and as each token is a real substance, deception and hacker «injections» in any trades are practically ruled out. Significant protection is gained by decentralization.

## 11. Observer

A blockchain observer with main data on blocks, markets, accounts. Tabs enable to create following blocks:

- Chain of blocks
- Assets
- Accounts
- Witnesses
- Members of the committee
- Markets
- Price list of transaction fees

### 11.1. Chain of blocks

The main statistics of the blockchain is displayed on top of the screen. There are indicated a number of the last block, generation time of the last block, quantity of active witnesses, quantity of active members of the committee, transactions per second, transactions per block, mean time of confirmations, quantity of recently missed blocks, current volume of the main currency BTS, the graph of block generation, transaction per block graph, quantity of stealth transactions.

It is necessary to add below block «Recent activity» where a list with types of activity, details of activity and time of activity. The newest ones are the first to be displayed.

In the block «Recent blocks», it is obligatory to include Block ID, date-time generation, name of observer and quantity of transactions.

Every block is a link which leads to a screen of a block's details. In a block's details, date, time, name of observer with a link, quantity of transactions, links to preceding and subsequent block also details of trades included in that block are all should be stated.

### 11.2. Assets

The main lists of assets existing on the exchange. There exist 3 main sections in the form of tabs:

☐ SmartCoin

- User issued assets
- Assets of prediction market

In the section SmartCoin, it is necessary to display the list of assets available on the exchange, state their name with a link, name of issuer with a link to an account, current supply and link on the exchange. On the top there has to be available place for input box for name of a filter.

In the section “User issued assets”, assets that issued by authorize users are displayed. In case user is not authorized, show all available assets.

In the section Prediction market assets, assets that predict one or the other event. Every asset contains name with a link to the market, description and links to the exchange.

### 11.3. Accounts

In this section account search is carried out by name in the input box. The search functionality works dynamically after every entered symbol. Results of the search are displayed in a table:

- Identification
- Account name
- Current residual on account
- Percent from total

Each name of account is a link to the page of an account.

### 11.4. Witnesses

In the section «Witnesses», following statistics is displayed:

- Current witness (who validated the last block)
- Active witnesses (quantity)
- Level of participation
- Payment for a block (in BTS)
- Remaining budget (in BTS)
- Next update of votes (countdown)

There are also options to filter a list of witnesses by manual entry. The search functionality works dynamically after every entered symbol.

Option of switching between a table of list and a table of cards.

In the list of witnesses following columns are displayed:

- Name
- The last block (who much time passed since it was created)
- The last validated (a number of the last validated block)
- Blocks missed (quantity is to be highlighted: blue if quantity is under 1000, orange – under 2000 and red – over 2000)
- Votes (in BTS)

Current witness	btspw-witness	Rank	Name	Last block	Last confirmed	Blocks missed	Votes
Active Witnesses	21	1	inabit	12 seconds ago	37491854	436	1 003 222 976 BTS
Participation rate	99.21875%	2	witness.hiblockchain	24 seconds ago	37491850	1295	938 553 576 BTS
Pay-per-block	1.000000 BTS	3	btspw-witness	now	37491858	492	933 762 854 BTS
Remaining budget	785.000000 BTS	4	fox	2 minutes ago	37491826	4506	888 602 570 BTS
Next vote update	2 hours ago	5	bhuz	6 seconds ago	37491856	2360	868 750 273 BTS
		6	clockwork	9 seconds ago	37491855	763	868 262 097 BTS
		7	bangzi	1 minute ago	37491836	130	864 213 921 BTS
		8	delegate-zhaomu	1 minute ago	37491832	2277	862 090 169 BTS
		9	zapata42-witness	1 minute ago	37491831	398	861 499 435 BTS
		10	roelandp	33 seconds ago	37491847	709	855 662 234 BTS
		11	gdex-witness	3 seconds ago	37491857	759	764 247 848 BTS
		12	verbaltech2	27 seconds ago	37491849	4046	758 250 767 BTS
		13	xn-delegate	1 minute ago	37491830	4113	756 897 185 BTS
		14	sahkan-bitshares	18 seconds ago	37491852	2094	744 193 959 BTS
		15	xekdal	1 minute ago	37491828	3395	739 799 487 BTS
		16	delegate-1lafona	21 seconds ago	37491851	4665	655 135 994 BTS
		17	delegate.freedom	42 seconds ago	37491844	4697	646 695 559 BTS
		18	openledger-dc	15 seconds ago	37491853	561	595 415 240 BTS
		19	blckchnd	1 minute ago	37491838	1122	559 633 940 BTS
		20	witness.yao	30 seconds ago	37491848	4025	503 251 635 BTS
		21	magicwallet-witness	1 minute ago	37491829	527	500 971 670 BTS

## 11.5. Members of the committee

In the block «Committee members», current number of committee members is depicted as well as a list which includes rang, name, votes (in BTS) and link on corresponding web-site.

There is also a possibility to filter a list of committee members by names in the corresponding box for entry. The search functionality works dynamically after every entered symbol.

Option of switching between a table of list and a table of cards.

## 11.6. Markets

In the section «Markets» a table with all available markets is displayed. It is separated on tabs «My markets» and «Find markets». On each tab following columns are available:

- Market
- Appoint reserve
- Volume
- Price
- Change (price changes are in % for the last 24 hours displayed in following colors: red for decrease, green for increase)

On the tab «Find Markets» two filters are used: «Base currency» and «Name of an asset». Market search for currency pair is conducted by these two filters.

On the tab «My Markets» there is possibility to see favorites and also adjust filtration by main markets and their name.

### 11.7. Price list of transaction fees

Presented as a grouped list of fees

## 12. The token of the exchange

This token is created as a substance (UIA) on the Bitshares (needed amount is not hard to issue).

It is needed to agree upon the name and initial settings. Dividend accruals are manually distributed according to agreement with token holders. Rules of payment and commission percentage from each trade is determined separately.

## 13. Optimal requirements for the system

Hardware: two servers minimum. Intel® Xeon® E5-1650 v3 Hexa-Core 128 GB DDR4 ECC RAM 2 x 2 TB SATA 6 Gb/s Enterprise HDD; 7200 rpm (Software-RAID 1)

Пропускная способность - 1 Gbit/s bandwidth

OS: Linux Ubuntu 16 / Debian 8

DBMS: for gateways Postgres 9.4.5

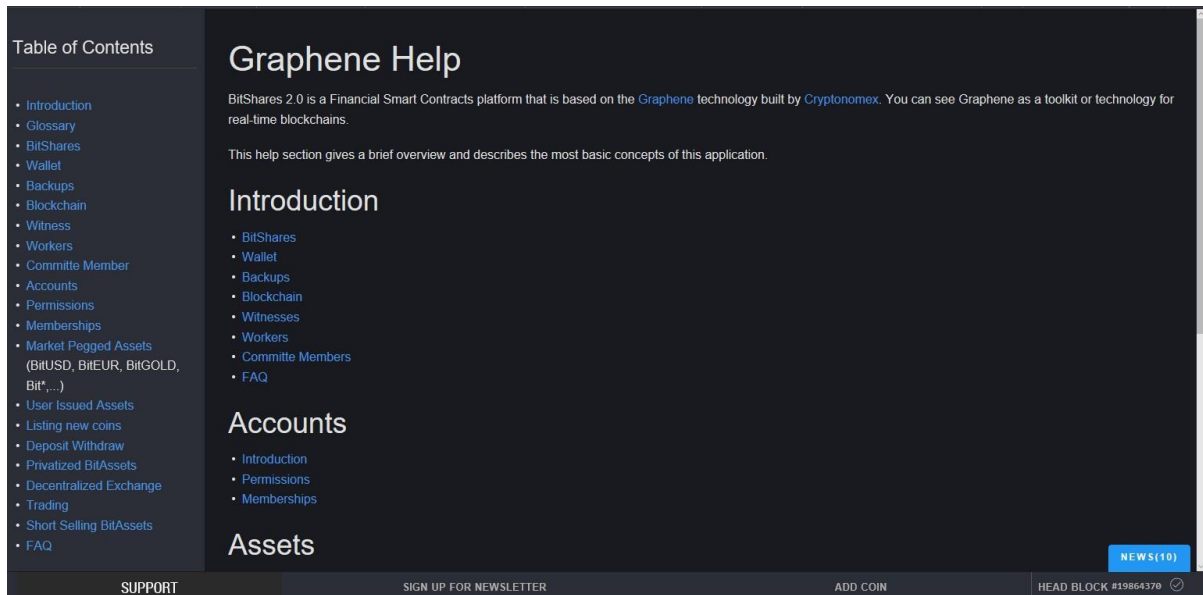
## 14. Glossary

- Dex – the name of the exchange

- BitShares 2.0 - a financial smart-contract platform built on blockchain technology Graphene created by Cryptonomex.
- UI – User interface.
- UIA – User Issue Assets, tokens created on the Bitshares platform.
- Bts – cryptocurrency of the Bitshares platform.
- BTC, ETH, LTC, BTS, DASH, STEEM, ZEC, XRP, BCH, ETC – cryptocurrencies.
- Workers (работники) - Workers who complete proposed work and in exchange for their service get paid from the BitShares blockchain.
- Witness (delegate) - an analog of a miner who works for the BitShares blockchain by creating new blocks. Every delegate is chosen by token holders; he creates and verifies blocks with current transactions. Each complete transaction in the network, eventually, has to be verified by every delegate.
- Committee Members – delegates chosen by token holders who determine certain blockchain processes and how they should be carried out.
- Proposals – propositions to advance the Bitshares.
- DEX - decentralized exchange.
- Faucet – server used for registration payment for newcomers.
- API server – node providing full functions of API.
- Аккаунты Regular/Multi-sign – types of accounts/wallets:
  - Regular - fully administered by one user
  - Multi-sign – multi-user (administered by many users)
- JSON - JavaScript Object Notation, textual format of data exchange, built on JavaScript. As many other textual formats, people can easily comprehend JSON.
- Gateway – gate-link of cryptocurrencies between blockchains.
- CAP – upper limit, used in the context of hot wallet.

## 15. Help section

In order for this section to work, a page with general explanations, instructions and links adjustments to needed points of main operations. Also pop-up hints for each market with their general description are added.



Section is presented as a small tree with section branches with 4 base blocks of brief reference information. The 4 blocks contains all the key definitions and terminology of the Bitshares blockchain.

## Introduction

- ☐ BitShares
- ☐ Wallet
- ☐ Backups
- ☐ Blockchain
- ☐ Witnesses
- ☐ Workers
- ☐ Committe Members
- ☐ FAQ

## Accounts

- ☐ Introduction
- ☐ Permissions
- ☐ Memberships

## Assets

- ☐ Market Pegged Assets (BitUSD, BitEUR, BitGOLD, Bit\*,...)
- ☐ User Issued Assets
- ☐ Privatized BitAssets

## Decentralized Exchange

- ☐ Introduction
- ☐ Trading
- ☐ Short Selling BitAssets

## 16. Additional changes of system functionality

In the process of system development, it is possible to add further functionalities which can facilitate work of a user and advance perception of the exchange in general.

Creation of flexible and user-friendly interface. This objective is carried out through increase of color schemes for depiction of interface elements.

Addition of rotating element of «hourglass», when there is delay in the processing of data while working with the system. IIWhen connection is weak or when there are other problems with depiction of data, this functionality will be able to show a user that the system is in the processing mode and certain actin will be carried out after certain period of time will pass. This will secure a user from spontaneously clicking on the elements of the interface.

Addition of possibility to change width and height of windows (analogous to adjustment of height and width of windows in an operational system). This will also bring more flexibility to the interface for individual user.

Addition of documentation materials with description of functionality of the exchange for easier and faster introduction with all the options and possibilities available. It is possible to turn on demonstrable visual elements, textual blocks and pop-up windows.