

Alchemint User Manual

Version 1.7

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1. Term Explanation

Alchemint Platform: Alchemint is a mixed mode stablecoin issuance platform based on NEO through smart contracts and inter-chain technology. Individuals and institutions are enabled to issue any stablecoin by different protocols. Its vision is to become a cross-protocol stablecoin management center.

Keystore: it refers to a file format (JSON) to store the private key. It allows users to customize password. Logging in wallet requires Keystore file and password.

SAR: namely "Smart Asset Reserve". It is a very important technology component within the system. It is a smart contract based on Neo.

SAR-B: Mainly for business users. Stablecoin is issued through the means of the 100% off-chain currency reserves and on-chain SDS locked as a security deposit by smart contract. Each SAR will lock SDS. The market value and the minimum margin ratio of SDS determine the number of stablecoin that can be released. The current minimum deposit ratio of 50%.

SAR-C: Mainly for individual users and business users. Stablecoin is issued by over-collateralizing digital assets. The stablecoin name is SDUSD.

SAR Status: In the SAR-C, when " $0 < \text{SAR mortgage rates} < 150\%$ ", the status of SAR is displayed as "Critical"; when " $150\% \leq \text{SAR mortgage rates} < 200\%$ ", SAR status is shown as "Unsafe"; when " $\text{SAR mortgage rate} \geq 200\%$, SAR", status is displayed as "Safe".

SDUSD: its price anchors at dollars. It is the standard stablecoin issued on the Alchemint platform by institutions and individuals through collateralizing digital assets. During liquidation and returning, the worth of one SDUSD is always accounted as 1 dollar and is irrelevant to the market prices.

Total SDUSD Issued: it refers to the total amount of all issued SDUSD in the whole SAR-C system.

Overall Issuing Ceiling (SDUSD): The upper limit of the total amount of the SDUSD can be issued in SAR-C system.

SNEO: due to the fact that the minimum unit of NEO is 1. Its segmentation is not allowed. Thus SNEO is needed for calculation purpose. The minimum unit of SNEO is 0.00000001. The exchange ratio between NEO and SNEO is constantly 1: 1. At any time, user can freely convert SNEO to NEO and vice versa in Alchemint platform.

Total SNEO Collateralized: it refers to all the SNEO collateralized in the whole SAR-C system.

SDS: it refers to Alchemint platform token. In the SAR-C, it acts as a mean to pay for service charge; in the SAR-B, it acts as a margin.

Issuing Fee (Yearly): Start charging since the moment of issuing SDUSD on the first block of time. Fee is charged in proportion of returned stablecoin. For example, with the condition of 2% yearly issuing fee, one year after the issuance of 100 SDUSD worth of \$ 100 requires \$ 2 fee. It will be paid through SDS.

Overall Mortgage Rate = Total Value of SNEO Collateralized / Total Value of SDUSD Issued

Liquidation Trigger Rate: When mortgage rates reach below this rate, SAR state is "Critical" which allows this SAR to be liquidated.

Liquidation: When any one of mortgage rates of the SAR in SAR-C reaches below 150%, it can be improved by liquidation. Any user holding SDUSD could participate in liquidation and obtain the corresponding collateral with a discount. But when mortgage rates rise to 160% after liquidation, further liquidation of the SAR is not allowed. If a SAR mortgage rate reaches below 100%, it is still allowed to perform the liquidation, but not only will there be no discount, it results a loss. During liquidation, no service fee is required.

Liquidation Trigger Price (SNEO): Under the condition that the amount of collateral and stablecoin remain unchanged, the price drop of SNEO will cause

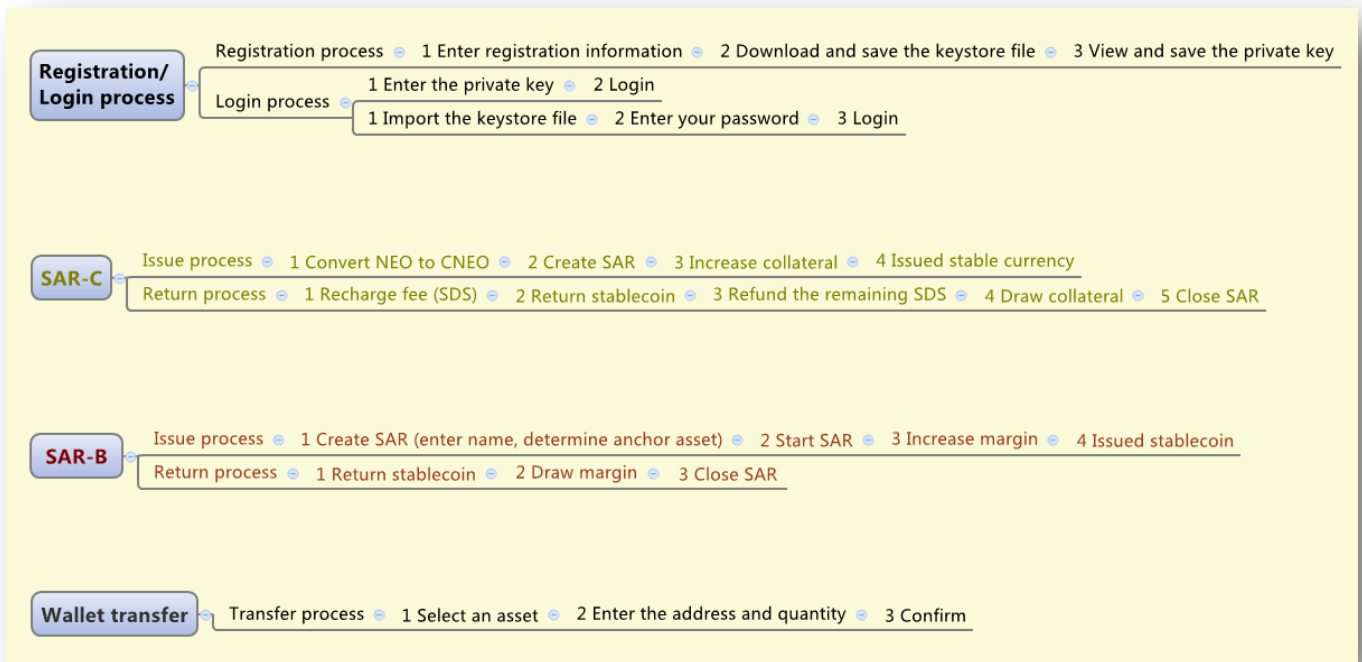
the SAR mortgage rates reach 150%. The price of SNEO that leads to the liquidation threshold is called SAR Liquidation Price.

Liquidation Discount: A 10% discount is available when liquidating someone else's SAR. For example, with 0.9 SDUSD worthy \$ 0.9 you can exchange for the amount of SNEO worthy \$ 1 during liquidation.

TxID : TxID is the abbreviation of Transaction ID, which is also called transaction hash. TxID is the character field required for the marking of transfers during the transactions of blockchain assets. TxID is normally formed by the combination of several dozens of numbers and English letters.

2. Flowchart

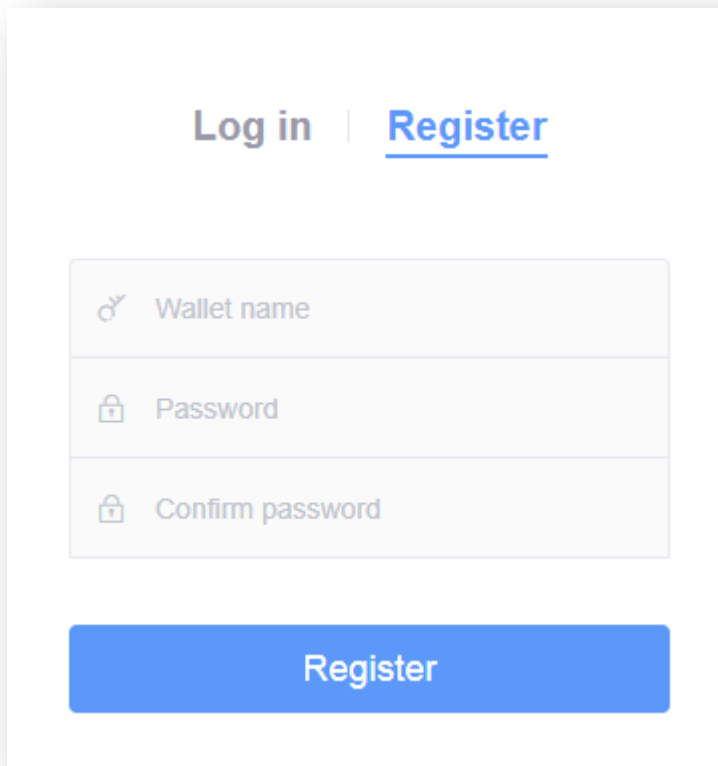
Platform consists of 4 parts: Personal (SAR-C) means (SAR-B), the wallet and tools. The basic procedure is as follows:



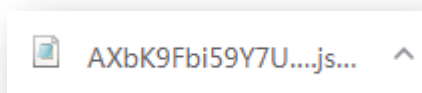
3. Specific Steps of Each Flowchart

3.1 Registration

The first step is to enter the wallet name, password and click on Register.

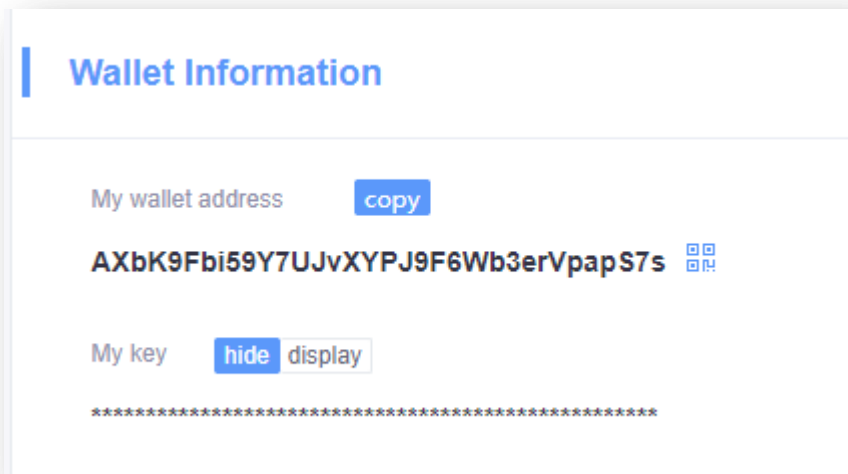
A registration form with a white background and a subtle shadow. At the top, it has two links: "Log in" and "Register", with "Register" being underlined in blue. Below the links are three input fields stacked vertically. The first field is labeled "Wallet name" with a key icon. The second field is labeled "Password" with a lock icon. The third field is labeled "Confirm password" with a lock icon. At the bottom of the form is a large blue button with the text "Register" in white.

The second step is to download the keystore file. Keystore file + login password \approx private key, so be sure to keep the keystore file.



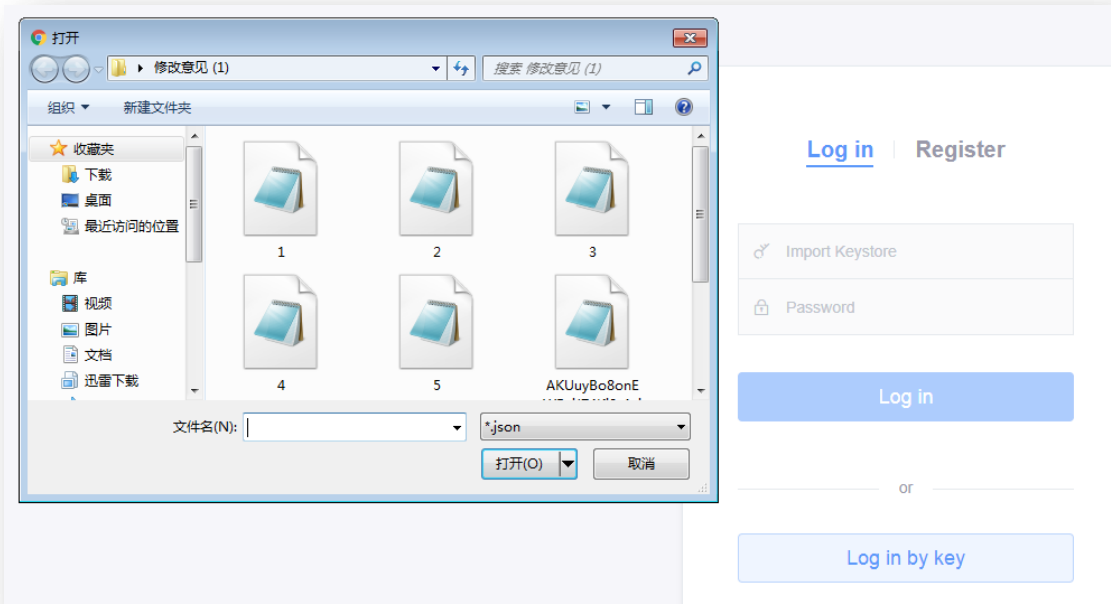
The downloaded file will be named after your wallet address.

The third step is to save the private key.



3.2 Login


There are 2 ways to log in. In the first way, click to upload the keystore file, then enter the password and click Login.



In the second way, enter the private key directly and click Login. If you

originally hold the NEO wallet, you may enter the wallet private key directly and need not to register a new wallet on this website.

[Log in](#) | [Register](#)

 Please input your private key

Log in

3.3 SAR-C stablecoin Issuance

First step, convert NEO into SNEO

NEO ⇌ SNEO ?

Amount to input			Amount to get	
NEO	<input type="text" value="5"/>	ALL	▶ SNEO	<input type="text" value="5"/>
				<input type="button" value="Confirm"/>
SNEO	<input type="text" value="0"/>	ALL	▶ NEO	<input type="text" value="0"/>
				<input type="button" value="Confirm"/>

After entering the number for the conversion, click Confirm. Here you can

only enter an integer. Decimal type is not allowed.

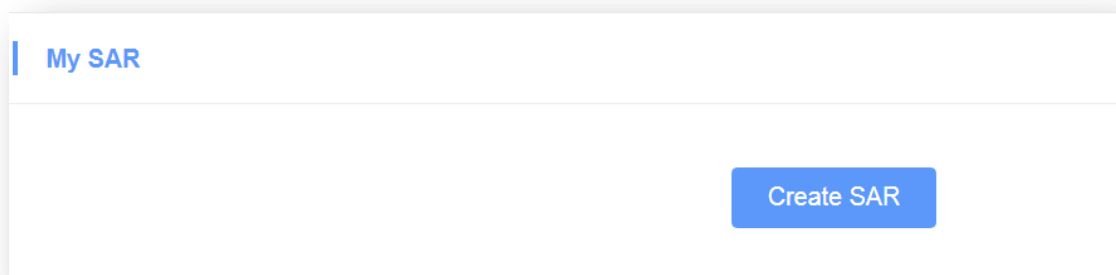


Afterwards a 30-second countdown will pop up. You need to wait for the block to be confirmed. Since each step on the Alchemint platform is done on the blockchain, every operation requires waiting for confirmation on NEO public chain before further operation. Thus you need to be patient wait for a while. After the countdown, the page will automatically refresh.

Relevant Assets			
Type	Quantity	Price	Value
SNEO	5.000	\$6.685	\$33.426

After the refresh, SNEO amount is shown.

Second step, click on "Creating SAR"



Likewise, wait 30 seconds. After refreshing, the SAR Panel will emerge.

Third step, increase collateral

My SAR

0x1...2ed TXID	0.00 SDUSD Issuable	0.00 SNEO Drawable	-- SAR Mortgage Rate	0.00 SDS Balance	<div>Add SNEO</div> <div>Draw SNEO</div> <div>Issue SDUSD</div> <div>Return SDUSD ?</div> <div>Add SDS</div> <div>Draw SDS</div> <div>History</div> <div>Close SAR</div>
-- SAR Status ?	0.00 SDUSD Issued	0.00 SNEO Collateralized	-- Liquidation Trigger Price(SNEO)	0.00000000 Fee To Be Paid (SDS)	

Click "Increase Collateral" , enter and confirm the number.

Note: Due to the execution condition is not satisfied, some buttons are in a non-clickable state, such as "Draw SNEO" in this moment.

Add Collateral

SNEO

Mortgage Rate

--

Status ?

--

Cancel

Confirm

The initial default number is the maximum number allowed in your account. You can edit the number in the box or drag the percentage bar if you want to change the number.

Fourth step, issue stablecoin

My SAR					
0x8...d13 TXID	22.28 SDUSD Issuable	5.00 SNEO Drawable	-- SAR Mortgage Rate	0.00 SDS Balance	<div>Add SNEO</div> <div>Draw SNEO</div> <div>Issue SDUSD</div> <div>Return SDUSD ?</div>
-- SAR Status ?	0.00 SDUSD Issued	5.00 SNEO Collateralized	0.00 Liquidation Trigger Price(SNEO)	0.00000000 Fee To Be Paid (SDS)	<div>Add SDS</div> <div>Draw SDS</div> <div>History</div> <div>Close SAR</div>

The corresponding value in "My SAR" and "Relevant Assets" will occurs. Since this SAR has been collateralized, you now may issue stablecoin.

Issue Stablecoin

SDUSD

10.92652773

^
v



Mortgage Rate 305.92%

Status ? **Safe**

Cancel

Confirm

The formula: the maximum number of stablecoins issued= total value of the collateral / mortgage rates. Let's say you issue a maximum amount of stablecoin in your SAR which will lead your SAR mortgage rates to a critical value of liquidation, namely 150%. In order to avoid the risk of being liquidated, it is recommended to keep the mortgage rates relative higher, such as 300%.

My SAR

0x8...d13 TXID	11.35 SDUSD Issuable	2.54 SNEO Drawable	305.92% SAR Mortgage Rate
Safe SAR Status ?	10.92 SDUSD Issued	5.00 SNEO Collateralized	3.27 Liquidation Trigger Price(SNEO)

After issuing, the status is safe and rate is around 300%

In this testing case, SNEO price is \$ 6.6. Only when SNEO falls to \$ 3.27, will the liquidation be triggered.

Relevant Assets

Type	Quantity	Price	Value
SDUSD	10.926	\$1.000	\$10.926

Meanwhile, the number of SDUSD can be viewed in "Relevant assets" .

Add SNEO

Draw SNEO

Issue SDUSD

Return SDUSD ?

Add SDS

Draw SDS

History

Close SAR

At this point, you can perform other operations, such as drawing collateral. As long as the SAR mortgage rate is no less than 150%, the system allows drawing. The amount extractable = {(SAR mortgage rates -150%) / SAR mortgage rates} * total SNEO collateralized.

In "Operation History" , you can view all the operation records.

At this point, since you have not recharged service fee (SDS), the system also does not allow you to perform returning stablecoin.

3.4 SAR-C Return Process

First step, recharge fee (SDS)

Add SDS (For Deducting Service Fee)

SDS

Cancel
Confirm

Enter the number and click OK. After refreshing, you are allowed to return stablecoin.

My SAR				
0x8...d13 TXID	11.35 SDUSD Issuable	2.54 SNEO Drawable	305.92% SAR Mortgage Rate	10.00 SDS Balance
Safe SAR Status ?	10.92 SDUSD Issued	5.00 SNEO Collateralized	3.27 Liquidation Trigger Price(SNEO)	0.00221482 Fee To Be Paid (SDS)

The system begins calculating fee since the moment of issuance.

Second step, return stablecoin

Return Stablecoin

SDUSD

^
v



Fee 0.00278639 SDS

Mortgage Rate --

Status ? --

Cancel

Confirm

In this testing case, we choose to return all stablecoin.

| **My SAR**

0x8...d13 TXID	22.28 SDUSD Issuable	5.00 SNEO Drawable	-- SAR Mortgage Rate	9.99 SDS Balance
-- SAR Status ?	0.00 SDUSD Issued	5.00 SNEO Collateralized	0.00 Liquidation Trigger Price(SNEO)	0.00000000 Fee To Be Paid (SDS)

At this point, you can see "SDUSD Issued " is zero and the fee has been deducted.

Third step, refund the remaining SDS

Draw SDS

SDS

^
v



Cancel

Confirm

At this point, if we wish to close this SAR, we can extract the remaining SDS.

Fourth step, Draw SNEO

Draw Collateral

SNEO

↑
↓

Mortgage Rate

--

Status ?

--

Cancel

Confirm

Let's further drawing all the collateral. The order of the third step and fourth step may be reversed.

Fifth step, close SAR

My SAR					
0x8...d13 TXID	0.00 SDUSD Issuable	0.00 SNEO Drawable	-- SAR Mortgage Rate	0.00 SDS Balance	<div>Add SNEO</div> <div>Draw SNEO</div> <div>Issue SDUSD</div> <div>Return SDUSD ?</div> <div>Add SDS</div> <div>Draw SDS</div> <div>History</div> <div>Close SAR</div>
-- SAR Status ?	0.00 SDUSD Issued	0.00 SNEO Collateralized	-- Liquidation Trigger Price(SNEO)	0.00000000 Fee To Be Paid (SDS)	

Only when all values on the panel are zero, will you be able to close the SAR. After closing, SAR Panel will close.

Close SAR

History will disappear after closing and you will no longer be able to view it.

Are you sure to close ?

Cancel

Confirm

When you create the next SAR, you cannot view the pervious SAR operation.

At this point, you can convert the SNEO into NEO. But if SNEO is not an integer, the remaining part after the decimal point cannot be converted to NEO.

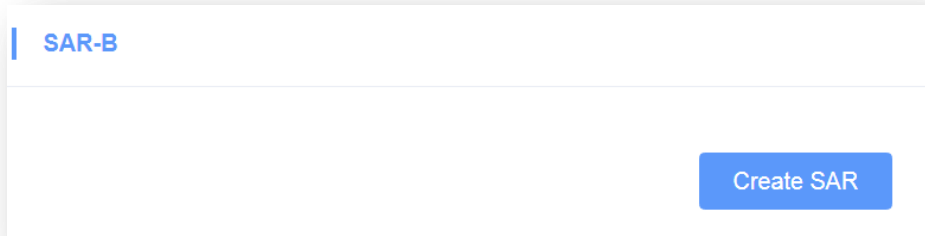
ATTENTION

- Do not manually turn off or refresh this page!
- Otherwise the conversion may fail and the quantity might be wrong!
- Please wait patiently till two 30s countdown on the right is over.

It should be noted here that due to some limitations of the current NEO network, it is technically necessary to use 2-step blockchain confirmation to complete the conversion. Never turn off or refresh the page during this conversion process. Wait patiently for the page to automatically refresh.

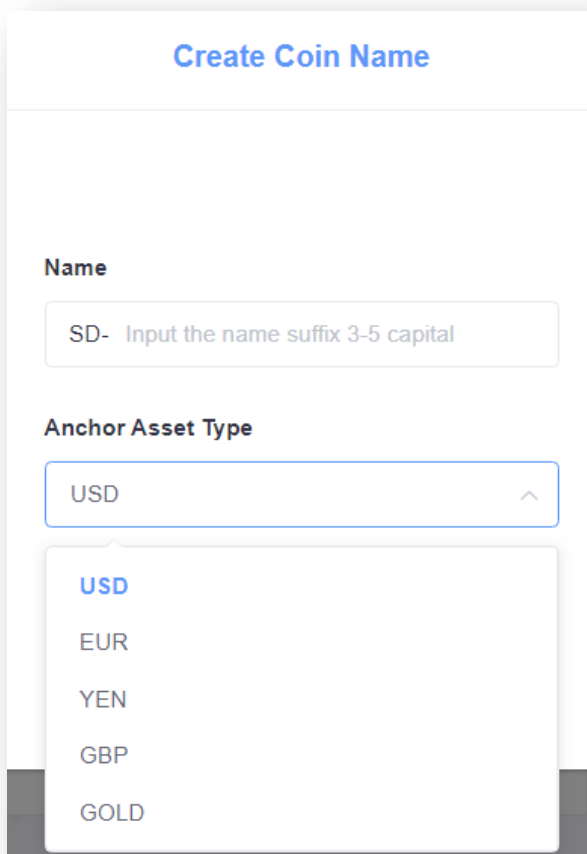
3.5 SAR-B stablecoin issue

First step, Creating SAR



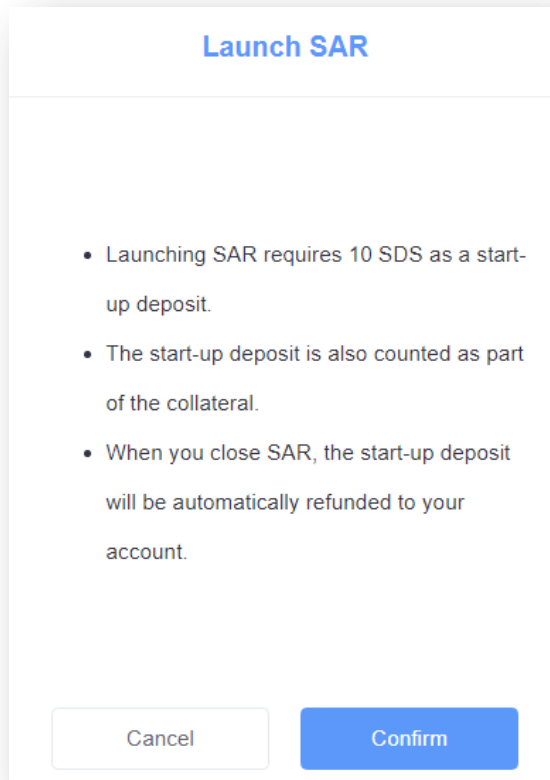
A screenshot of a web interface for creating a SAR-B stablecoin. At the top left, there is a blue vertical bar followed by the text "SAR-B". In the bottom right corner, there is a blue button with the text "Create SAR".

Click "Create SAR" , enter the name of your stablecoin, and select the anchor type of asset. Afterwards, you will not able to change it.



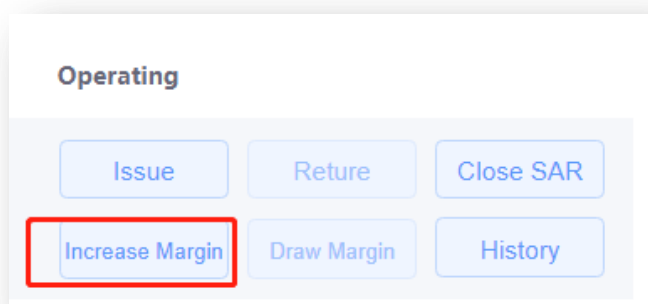
A screenshot of a web form titled "Create Coin Name". The form has two main sections. The first section is labeled "Name" and contains a text input field with the placeholder text "SD- Input the name suffix 3-5 capital". The second section is labeled "Anchor Asset Type" and contains a dropdown menu. The dropdown menu is currently open, showing a list of options: "USD" (highlighted in blue), "EUR", "YEN", "GBP", and "GOLD".

Second step, start SAR



Note: If there are less than 10 SDS in the account, you cannot start your SAR.

Third step, increased margin



Fourth step, issue stablecoin

Issue

SD-WOW

141.8504

^
v

Cancel

Confirm

The maximum issuable number = (total value of the deposit / 50%) / unit price of the anchored stablecoin

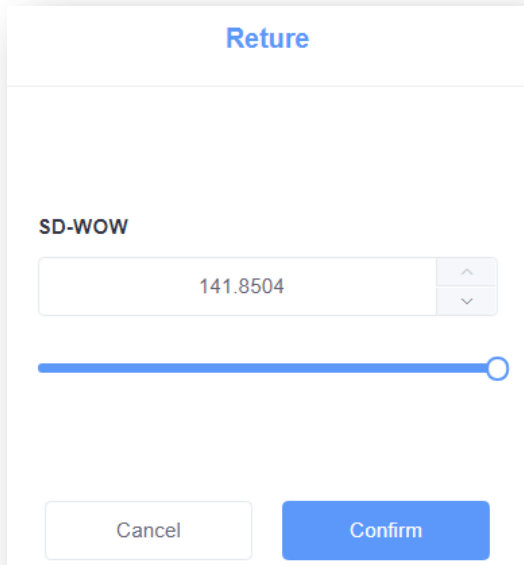
SAR-B					
Name	Type	Circulation	SDS Margin	Margin Rate	Status
SD-WOW	USD	141.850 (\$141.850)	10000.000 (\$70.925)	50.00%	Safe

Relevant Assets	
SDS:	0.00 (\$0.00)
SD-WOW:	141.85 (\$141.85)

After confirmation, you can view it in the "Relevant assets" .

3.6 SAR-B Stablecoin Return

First step, return stablecoin



爱

Second step, draw margin

Draw Margin

SDS

9990

^
v

- There are 10 SDS start-up deposit in the margin which cannot be directly withdrawal.
- The start-up deposit will be automatically refunded to your account when you close SAR.

Cancel

Confirm

Third step, close SAR

SAR-B								
Name	Type	Circulation	SDS Margin	Margin Rate	Status	Operating		
SD-WOW	USD	0.000 (\$0.000)	10.000 (\$0.070)	--	Safe	Issue	Return	Close SAR
						Increase Margin	Draw Margin	History

When the circulation is zero and the margin is just 10, this SAR can be closed.

Close SAR

- History will disappear after closing and you will no longer be able to view it.
- The coin name will be available on the market.
- The start-up deposit will be automatically refunded to your account.
- Precondition for closing : The circulation is 0; The amount of margin is exactly 10.

CancelConfirm

After closing, you cannot view the history.

3.7 Liquidation

The first step is to find the SAR with a mortgage rate below 150% in the Overall SAR-C list. Click the “Liq.” button (if the SAR is not created, it cannot be displayed)

Overall SAR-C List

ID	SDUSD Issued	SDUSD Issuable	SNEO Collateralized	SNEO Drawable	SAR Mortgage Rate	Liquidation Trigger Price(SNEO)	SAR Status	History	Liquidate ?
1	16,867.41142500	5,622.47047500	5,000.00000000	1,250.00000000	200.00%	5.06022342	Safe	History	
2	0.00000000	0.00000000	0.00000000	0.00000000	--	--	--	History	
3	20.54037904	-2.19092951	4.07948997	-0.48709226	134.00%	7.55255406	Critical	History	Liq.
4	0.00000000	0.00000000	0.00000000	0.00000000	--	--	--	History	

The second step is to select the number of SDUSDs to be put into liquidation and click OK.

Liquidation

×

* SDUSD Qty to Input

SNEO Qty to Get

10.92351126

▶

1.79891781

Value : \$10.92

Value : \$12.13

Mortgage rate after liquidation

159.99%

Status after liquidation ?

Unsafe

Cancel

Confirm

- You can use SDUSD to participate in the liquidation for some of the collateral.

- If one single liquidation causes the mortgage rate to rise to 150%-160%, the liquidation cannot be continued. That is, once the mortgage rate has risen to 150%, it is not allowed to continue liquidation, even if the mortgage rate is between 150-160%.
- When the mortgage rate is between 110% and 150%, the liquidation discount is 10%. When the mortgage rate is between 101% and 110%, the settlement discount is relatively small. When the mortgage rate is between 100% and 101%, there is no discount. When the mortgage rate is below 100%, the discount is negative.

The third step, after the liquidation is successful, the obtained SNEO will be sent into your SAR.

My SAR					
0xe...c05 TXID	8.09148981 SDUSD Issuable	1.79891781 SNEO Drawable	-- SAR Mortgage Rate	100.00000000 SDS Balance	Add SNEO Draw SNEO
-- SAR Status ?	0.00000000 SDUSD Issued	1.79891781 SNEO Collateralized	0.00000000 Liquidation Trigger Price(SNEO)	0.00000000 Fee To Be Paid (SDS)	Issue SDUSD Return SDUSD ?
					Add SDS Draw SDS
					History Close SAR

3.8 Wallet Transfer

First step, select an asset

Transfer

Asset

NEO (2)

GAS	0
NEO	2
SDS	9990
CNEO	16.32683956
SDUSD	218.19314124

Second step, the number of input address

Transfer

Asset

NEO (2)

Address

Abi8x8z1ArEgUbMEXUmr78XVkiwhwXJZFV

Quantity

100| ALL

Confirm

Then confirm.

4. Tips

- Test URL: testnet.alchemint.io
- This product is released on the NEO main network, test network and private network. The main network product is suitable for users who wish to issue tradable stablecoin, and needs to use NEO that can be traded on the exchange. The test network product is suitable for users who want to test and try to issue stable currency (not circulated on the exchange) and need to use testing NEO. The private chain network is used for internal testing by the Alchemint team.
- If you cannot open the page, try VPN or 4g network.
- White paper offers a detailed discussion on the mechanism. It can be downloaded through the official website. <https://alchemint.io/#/home>
- If you encounter problems or have doubts, please contact us by telegram. <https://t.me/alchemint>.