

YAM (You and Me), RealT Exchange: How it works...

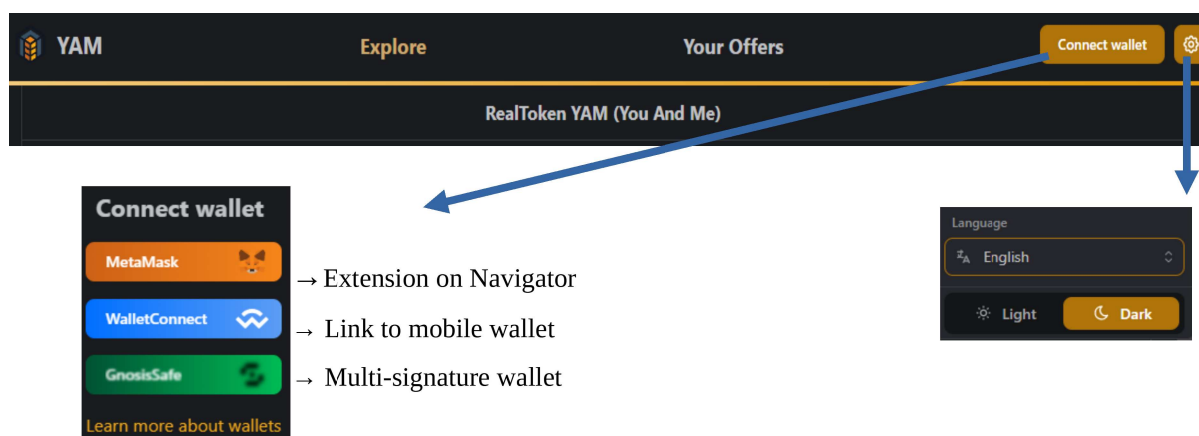
Prior : You can only buy RealTokens for which you are whitelisted.

The whitelist procedure is on the RealT application ('My account' tab, then Portfolio)



It takes a few days and is limited to 10 RealToken per week.

1 - Connect your wallet to load application, choose language, dark or light mode:



2 – Discover the available offers:



In the **New version**, offers are processed by type:

- offers to **sell** RealToken, paid with "currency",
- offers to **buy** RealToken, paid with "currency",
- offers to **exchange** RealToken or "currency".

Offer type	Token	
	Sell	Buy
Sell	RealToken	Currency
Buy	Currency	RealToken
Exchange	RealToken	RealToken
	Currency	Currency

“Currencies” available are:

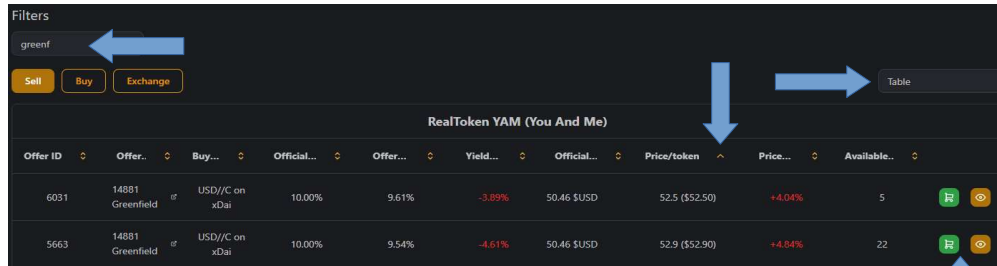
- USDC: stablecoin pegged to the \$,
- wXDAI: stablecoin \$ from Gnosis chain,
- armmwXDAI: proof of deposit of XDAI on the RMM (which receives interest),
- MAI: stablecoin \$ managed by Mai Finance (<https://docs.mai.finance/>),
- other tokens will be added later (like wETH).

This **New version** has significantly enriched the presentation of offers:

- At the bottom of the list, you can select the display mode, refresh mode and the page to display:



- At the top of the list, you can: filter, sort each column and switch to "grid mode"



- On the right is the shopping cart (to buy the offer) and the detail of the offer
Note: the shopping cart does not appear on your own offers.
- By clicking on a RealToken, you access the property sheet on the RealT site.

3 – Sell offer steps (explore, buy, create, update, and delete)

3.1 Explore :

A screenshot of the 'RealToken YAM (You And Me)' interface. The table shows one offer with ID 89. The columns are: Offer ID, Offer Token (19201 Westphalia), Buyer Token (USDC RealT), Official Yield (10.47%), Offer Yield (10.12%), Yield delta (-3.38%), Official price (52.17 \$USDC), Price/token (54 (\$53.99)), Price delta (+3.50%), and Available (2). Blue arrows point from the text below to the Offer ID, Offer Token, Official Yield, Offer Yield, Yield delta, Official price, Price/token, and Available columns.

Are recalled, for the RealToken:

- its RealT price (revaluation included),
- its current performance.

Are mentioned, for the Sales Offer:

- the price per RealToken: Expressed in purchase token (here 54 USDC) and converted to \$ (here \$53.99),
- the new yield, calculated from the bid price (here $10.12\% = 10.47\% * 52.17 / 53.99$).

Price and yield differences are displayed:

- in green when they are in favor of the buyer (less expensive),
- in red, when they are against it (more expensive).

The amount(max) of RealToken in sale displayed, correspond to the smallest of the following three values:

- the number of tokens available in the seller's wallet,
- the number of tokens (max) mentioned when the offer was created, reduced by those already sold,
- the spending authorization (allowance) given to the YAM contract for this token.

Note: If, for example, you make two sell offers for the same RealToken, one in USDC and other in xDAI: the allowance will be the sum of the quantities of the two offers.

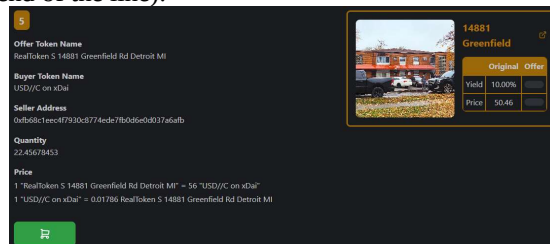
If you want to limit the overall number token for sale, regardless of the number of YAM offers made: you can reduce the allowance with an application like <https://revoke.cash/>

A screenshot of the 'revoke.cash' application. It shows a table with columns: Asset, Type, Allowance, Authorized Spender, Last Updated, and Actions. Two rows are visible. The first row is for 'REALTOKEN-S-19201-WESTPHALIA-ST-DETROIT-MI' with a 'Token' type and 'No allowances'. The second row is for 'REALTOKEN-S-19201-WESTPHALIA-ST-DETROIT-MI' with a 'Token' type, an allowance of '1 REALTOKEN-S-1...', and an authorized spender of '0xBA2E37248804...'. A blue arrow points to the 'Allowance' column.

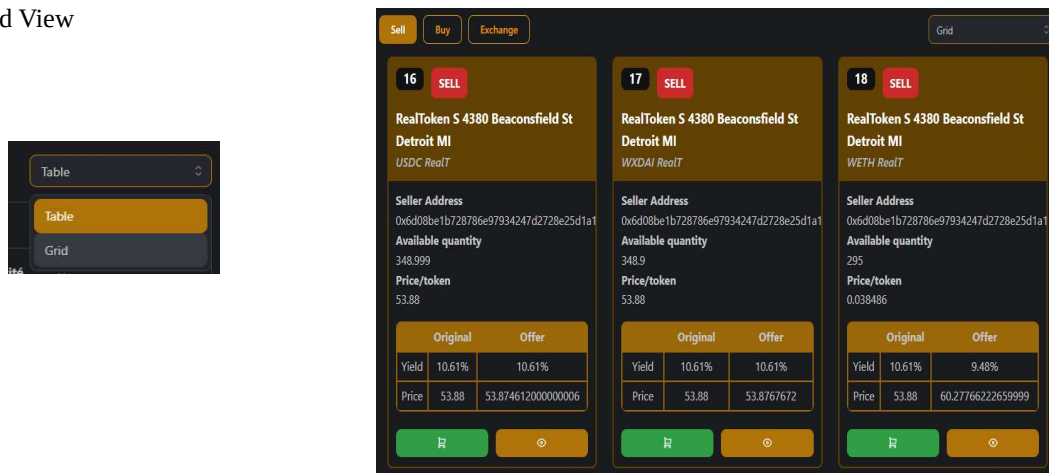
If you revoke the entire allowance of a token (for the YAM contract), the quantity for sale will change to 0.

If the quantity of your offer is 0, it will no longer appear in the list of offers. However (if you haven't deleted it), as soon as the quantity will become positive again the offer will reappear automatically. (Feature useful for liquidators or an urgent need for liquidity on RealTokens offered for sale. In the latter case: the RealTokens offered for sale can be placed as collateral on the RMM, to obtain urgent liquidity : it will be then withdrawn from sale..but comes back automatically as soon as its will leave the RMM).

The detailed offer (the eye at the end of the line):



Grid View



3.2 Buy (Sell offer)

Purchase by clicking on the shopping cart at the end of the line offer.

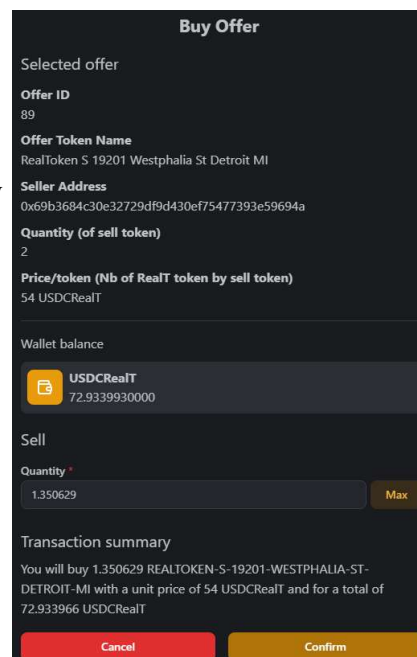
You just need to mention the amount of RealToken you want to buy or click Max.

Before purchase, the app checks your wallet balance on the purchase token (here USDC) and displays it.

The maximum purchasable is the smallest amount between:

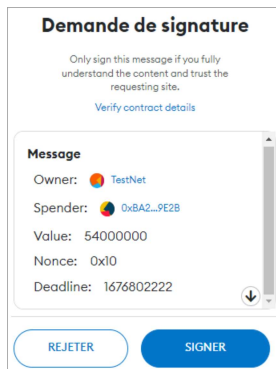
- the quantity of RealToken for sale (displayed),
- your wallet balance:
see image example : having only 72.93 USDC, I can only buy 1.35 RealToken (at 54 USDC / RealToken).

At the bottom, a summary allows you to check (in plain language) the purchase you are about to make.

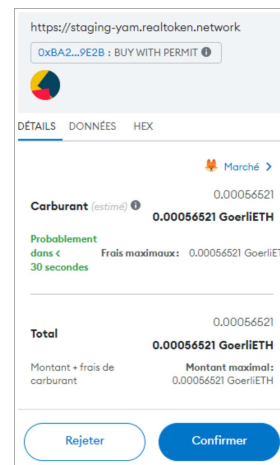


For the record, during a transaction (here a purchase) you must give two agreements in MetaMask:

1 -Authorize that the YAM contract (Spender) can take USDC into your wallet within the limit of 54 USDC (here purchase of 1 Realtoken)..



2-then you authorize the purchase (“Buy with Allow ») with mention of the costs recording on Gnosis

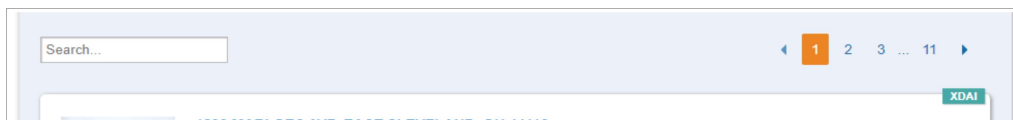


After confirmation, the validation steps appear at the bottom right of the screen:

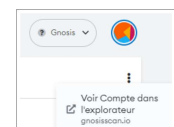


The transaction may not be completed for multiple reasons. Some reasons are presented in the error message, but there are many more... ;-)

The update of your portfolio in the RealT application is immediate, so you can check (with the search):



If needed, you can check your transaction on the explorer <https://gnosisscan.io/> or by clicking on the top right of your MetaMask



where you find your purchase transaction (the most recent, “buy with permit”)

Transactions									
Token Transfers (ERC-20)									
Latest 25 from a total of 154 transactions									
Transaction Hash	Method	Block	Age	From	To	Value	Txn Fee		
0x6748cbf9aaa729732...	Buy With Permit	8518333	2 mins ago	0x001cb8...ab609c08	0xBA2E37...8ab49E2B	0 ETH	0.00052723		

by clicking on the transaction number (“Transaction Hash”) you will be able to see the details:
in the example:

- transfer of 54 USDC from your wallet to the YAM contract
- transfer of 1 RealToken from the Yam contract to your wallet

ERC-20 Tokens Transferred: 2		From 0x001cb8...ab609c08	To 0x69B368...3e59694a	For 54	USDC RealT... (USDCRe...)
		From 0x69B368...3e59694a	To 0x001cb8...ab609c08	For 1	RealToken S ... (REALTO...)

3.3 Create (Sell offer):



SELL Create your offer 5%

Offer Token *
19201 Westphalia

Buyer Token *
WXDAIRealT

Buy price in \$ *
47.997120

Buy price in WXDAIRealT
48.000000

Price difference is -7.99% but limit fixed by shield is +/-5% ("shield" setting on top right corner, for more informations)

The official property has been sold for 52.17 \$USDC. But you are free to choose the price.

Wallet balance
19201 Westphalia
89.8652498870

Quantity *
200

☐ I want to create a private offer

You wish to sell up to 200 "19201 Westphalia" with a unit price of 48 "WXDAIRealT" and for a total of 9600.000000 "WXDAIRealT".

You must indicate:

→ the Realtoken you wish to sell,

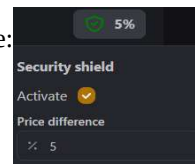
→ the currency (purchase token) you wish to receive,

→ Indicate the amount in \$ or in Buyer Token by RealToken

In this **New version**, an additional protection has been added: the “**security shield**” (icon top right). It limits the price difference between your offer and the RealT price (which is recalled under your selling price).

In the example opposite at 48 WXDAI / Realtoken, your selling price is -7.99% of the RealT price, higher than 5% and therefore blocked.

The shield is configurable:



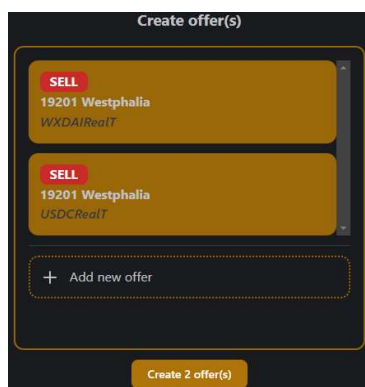
Below, an **offer summary** again allows you to check that there is no error.

To make an offer to a particular person (without anyone else being able to buy it) : you can check the "private" mode and specify the address of the person with whom you made this transaction. This offer will then only be visible and purchasable by him. To buy it, he will have to go to the "Your Offers" tab, then select "Private Offers".

Note:

- Unlike Swapcat, the addresses of Tokenson YAM are selected and validated, which avoids a source of false token fraud.
- You can set up a quantity of RealToken far greater than what you have in portfolio (case in the image above).

Adding is done with two steps, in order to limit the number of approvals in the case of mass creations (batch):



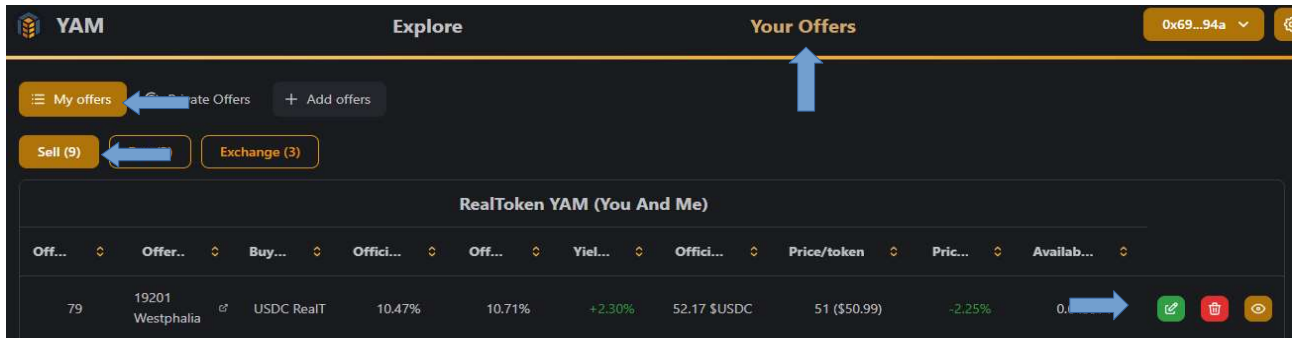
For image example : Create 2 Sell offers for the sale of the same RealToken but with 2 different currencies USDC, WXDAI,

For each of the offers, a first approval (of access to the RealToken) must be approved.

Then by clicking, at the bottom, on “Create x offer(s)”, the offers are all created, with this time only one approval.

3.4 Update (Sell offer)

In the "Your Offers" tab, choose "My Offers", then "Sell" and update the offer selected :



You must specify:

- the new price in purchase token (“currency”),
- the new quantity (max) on sale.

Be careful, the "shield" does not work at this level.

(see example opposite of a price by mistake at 5 USDC..)

At the bottom, a summary allows you to check if you are not making any mistakes.

Update Offer

Selected offer

Offer ID

79

Price/token

51

Quantity

0.649371

Price/token *

51.500000

Quantity *

1.000000

Summary

You will sell 1 REALTOKEN-5-18201-WESTPALMA-ST-DTROIHT-M6 with a unit price of 51.5 USD/RealT and for a total of 51.5 USD/RealT

Cancel

Confirm

3.5 Delete (Sell offer):

Next to the update button is the delete button.

This deletion costs transaction fees (low on Gnosis), but makes sure that the sale offer will not automatically reappear if the balance of the corresponding RealToken in your wallet becomes positive again (following purchase, transfer, etc.) .

Deleting an offer does not revoke the corresponding allowance.

Delete Offer

Selected offer to delete

79

Cancel **Confirm**

RealT could also, on his side, delete offers:

- in case of corrupted address,
- unfair offer,
- when the balance in the wallet and the allowance are at 0 for x days, in order to reduce the loading time.

4 – Buy offer steps (explore, buy, create, update, and delete)

4.1 Explore

Buy offers are offers by which a "seller" says he is looking for a RealToken and gives the amount he is willing to pay as well as the maximum quantity.

There is therefore an inversion in the tokens compared to a sell offer:

- the token to sell is therefore that of the currency (USDC, XDAI,...),
- the token to buy is the RealToken,
- and the price/token (number of buyer tokens per offer token) is the number of RealTokens per currency unit
- the quantity available (of tokens for sale) is the quantity of currency

Offer type	Token	
	Sell	Buy
Sell	RealToken	Currency
Buy	Currency	RealToken
Exchange	RealToken	RealToken
	Currency	Currency

Offer ID	Offer Token	Buyer Token	Official Yield	Official price	Price/token	Price delta	Available quantity
3919	USD/C on xDai	8065 Lost Shaker	5.67%	50.55 \$USD	0.021 (\$1.06)	+6.16%	20.878098
6310	USD/C on xDai	14825 Wilfred	10.67%	52.75 \$USD	0.018064 (\$0.95)	-4.71%	1079.52

Note: The conversion of the price/token into \$ and the Price delta are calculated as follows:

Initially, the price/token is a RealToken number per USDC (in the example above),

This number of RealToken is valued in \$, by multiplying it by the price (RealT) of the RealToken:

Or for offer 3919 above: $0.021 \text{ token/usdc} * 50.55\$/\text{token} = \$1.06/\text{USDC}$

The current exchange rate, used by the application, was: $0.99991921 \$ / \text{USDC}$

The 3919 offer amounts to buying 1.06 which costs 0.99, ie an additional cost (in red) of 6.16%.

Conversely, for offer 6310 : $0.018 * 52.75 = \$0.95$ compared to 0.99, i.e. a saving (in green) of 4,71 %.

4.2 Buy (Buy offer)

This amounts to buying USDC (image example) in exchange for RealToken: you will therefore sell a RealToken!

The price is 0.021 RealToken per USDC or conversely $1/0.021 = 47.61$ USDC per RealToken.

In the detail of the offer (the eye in the end), you see these two amounts

Price
1 "USDC RealT" = 0.021 "RealToken S 19201 Westphalia St Detroit MI"
1 "RealToken S 19201 Westphalia St Detroit MI" = 47.61905 USDC RealT

Before the purchase, the application checks how many RealTokens you have in your wallet (here 0.96). And take it into account for the maximum purchasable (here 0,96 RealToken is 45.7 USDC, so this is the maximum that can be purchased).

The quantity purchased is the quantity of token on sale, here USDC.

To avoid any error, a sentence clearly summarizes your transaction.

Buy Offer

Selected offer

Offer ID
113

Offer Token Name
USDC RealT

Seller Address
0x001cb842959329d4df037d4d49241528ab609c08

Quantity (of buy token)
110

Price/token (Nb of buy token by RealT token)
0.021 REALTOKEN-S-19201-WESTPHALIA-ST-DETROIT-MI

Wallet balance

REALTOKEN-S-19201-WESTPHALIA-ST-DETROIT-MI
0.9597501000

Sell

Quantity
45.702385

Transaction summary

You will buy 45.702385 USDCRealT with a unit price of 0.021 REALTOKEN-S-19201-WESTPHALIA-ST-DETROIT-MI and for a total of 0.959750085 REALTOKEN-S-19201-WESTPHALIA-ST-DETROIT-MI

4.3 Create (Buy Offer)

Which type of offer do you want to create ?

Sell Buy Exchange

Choose "Buy" offer's type when you want to buy a RealT property token with other non RealT tokens (WXDAI, WETH, USDC etc...)

Which type of offer do you want to create ?

Sell Buy Exchange

Next

You must indicate:

→ the Realtoken that you search (which will serve as a "Buyer token"),

→ the currency you offer in exchange ("Offer token"),

→ the desired amount per Realtokens (in \$ or "Offer token"),

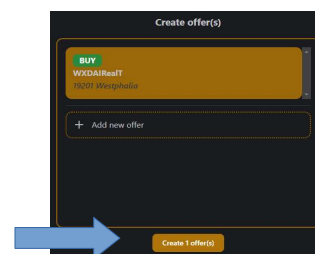
The "security shield" controlling the price difference per RealToken between your offer and the reference at RealT.

→ the quantity of RealToken sought.

(Tick if this offer is private)

And finally, a summary of the transaction you wish to make. To be sure there are no errors.

Confirm adding the offer



4.4 Update and Delete (Buy offer)

Similar to the Sell offer, detailed in the previous chapter.

5 – Exchange offer steps (explore, buy, create, update, and delete)

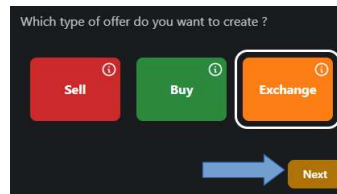
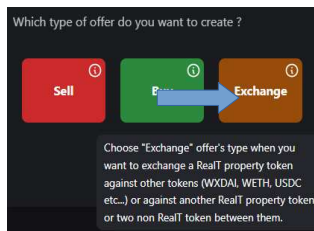
5.1 Explore

The presentation of this type of offer is much simpler : Offer Token, Buyer Token, exchange parity (Nb of Buyer token to buy one Offer token or "Price/token") and quantity of Offer Token.

RealToken YAM (You And Me)				
Offer ID	Offer Token	Buyer Token	Price/token	Available...
67	USDC RealT	WXDAI RealT	1	0.00001
77	RealToken S 14319 Rosemary St Detroit MI	RealToken S 15796 Hartwell St Detroit MI	1	1

The detail of the offer (the eye in the end), gives the characteristics of the RealToken exchanged.
No conversion to \$.

5.2 Create (exchange offer)



EXCHANGE Create your offer

Choose exchange token type
RealT token

Offer Token * 19201 Westphalia Buyer Token * 9717 Everts

Exchange rate computing
Enter how many "9717 Everts" token(s) you want to receive in exchange of 1 "19201 Westphalia" token.

19201 Westphalia 9717 Everts
1.000000 → 0.500000
1 "9717 Everts" = 2.000 "19201 Westphalia"

Wallet balance
19201 Westphalia 0.9597501000

Quantity of sold tokens to exchange * 5.000000

☒ I want to create a private offer

Buyer Address (only for private offers) *
0x00

You wish to exchange up to 5 "9717 Everts" with a unit price of 2 "19201 Westphalia" and for a total of 10.000000 "19201 Westphalia".

You must indicate:

→ The type of exchange desired : Realtoken or others ("currency")

→ tokens exchanged,

→ exchange ratio,

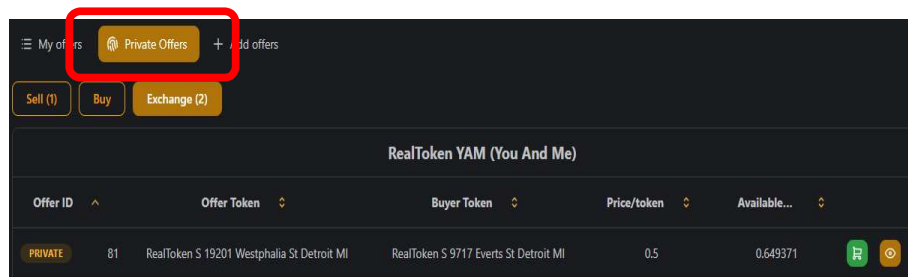
In this type of offer, the security shield is not active.

→ the amount of Offer token to trade

(in the example, the exchange will be done in private mode by indicating the wallet of the one with whom you wish to make the exchange, the buyer of your offer)

And finally, a summary of the transaction you wish to make, to be sure there are no errors.

For memory, to buy this "private" offer your buyer will have to go to the corresponding tab



5.3 Buy, Update and Delete (exchange offer)

Similar to other type of offers, detailed in the previous chapters.

Test and Development Environment :

This application was developed on initiative of RealT, in collaboration with user community, then put in Open Source for its future developments.

For this purpose, RealT set up a test environment in October 2022 with:

- a test version of YAM : <https://staging-yam.realtoken.network/>
- Some RealToken and currency on the Goerli test blockchain,
- a specific Telegram channel: <https://t.me/+ENPNiuYajY00ZjQ0>
- a test notice : <https://docs.google.com/document/d/12TKvLMzkD8QB7yqvJx46y3XfjjsCmSoxaWTdAmXaFoI/edit>

If you want to access the test environment : just fill out the form (link in the Notice) for RealT to whitelist your test address and transfers you some RealToken and currency (test!..)

A few actions, to get started quickly:

- On MetaMask:
 - Create a new testing account(it is this new address that you will indicate in the form for RealT): position yourself on this account.
 - Access the TestNet Goerli network: Settings > Advanced settings: activate "show test networks". TestNet Goerli must appear in the list of Metamask networks: Position yourself on this network,
 - Import the RealToken and currency tokens, by copying the addresses provided in the Notice (and reducing the token symbol to 11 characters).
- Go to one of the Goerli faucets, mentioned in the Notice, to obtain GoerliETH in order to pay transaction fees. (personally I use this one <https://goerli-faucet.pk910.de/>: put your address, captcha, start mining, then after a while stop and claim an amount which will be a little higher than what the other faucet gives)
- Go to the Yam test application, connect YOU with MetaMask on Goerli and your test account,
- and There you go ,you can test for free without any risk!

With the second release of YAM, RealT has put the YAM code in Open Source on the following Github : <https://github.com/real-token>.