
MatryxExplorer Documentation

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1.1 Activity

1.1.1 /activity/

```
curl -X GET http://explorer.matryx.ai/activity
```

Response:

```
{
  "activity": [
    {
      "news": "<publicAddress> created a new Tournament named 'Triton X-9000'"
    },
    {
      "news": "<publicAddress> opened their Tournament named 'Triton X-9000'"
    }
  ]
}
```

The activity is generated by looking at events fired from the Matryx Platform on the blockchain.

1.2 Platform

1.2.1 /platform/getInfo/:version?

```
curl -X GET http://explorer.matryx.ai/platform/getInfo
```

Response:

```
{
  "abi": []
}
```

Where the optional param `:version` is the branch of the Matryx Platform you want to use ie: master, QA, develop. It grabs it directly from the /build folder of <http://github.com/matryx/MatryxPlatform>. If no branch is specified, it will return the latest version.

`abi` is a large ABI response in JSON parsed format for that version of the Matryx Platform.

1.2.2 /platform/getAddress/:version?

```
curl -X GET http://explorer.matryx.ai/platform/getAddress
```

Response:

```
{
  "address": "<EthereumAddressOfPlatform>"
}
```

Where the optional param `:version` is the branch of the Matryx Platform you want to use ie: master, QA, develop. It grabs it directly from the /build folder of <http://github.com/matryx/MatryxPlatform>. If no branch is specified, it will return the latest version.

1.2.3 /platform/getAbi/:version?

```
curl -X GET http://explorer.matryx.ai/platform/getAbi
```

Response:

```
{
  "abi": []
}
```

Where the optional param `:version` is the branch of the Matryx Platform you want to use ie: master, QA, develop. It grabs it directly from the /build folder of <http://github.com/matryx/MatryxPlatform>. If no branch is specified, it will return the latest version.

1.3 Tournament

1.3.1 /tournaments/getAbi/:version?

```
curl -X GET http://explorer.matryx.ai/tournaments/getAbi
```

Response:

```
{
  "abi": []
}
```

Where the optional param `:version` is the branch of the Matryx Platform you want to use ie: master, QA, develop. It grabs it directly from the /build folder of <http://github.com/matryx/MatryxPlatform>. If no branch is specified, it will return the latest version.

1.3.2 /tournaments/

```
curl -X GET http://explorer.matryx.ai/tournaments/
```

Response:

```
{
  "tournaments": [
    {
      "address": "0xC4C718469c03cc4e0bd4C7De60A7776C4Ce6532F",
      "owner": "0xdaa0E2ef627bFb864Ed19eFd546542F47E5Ad6A7",
      "title": "Example Tournament title",
      "description": "Example Tournament description",
      "fileHash": "QmUtR6gEeBRzsGpVquqQZQK8sVUC3h4jHxvK8UbkutLjHL",
      "category": "math",
      "state": "isClosed",
      "bounty": 10,
      "ipType": "",
      "currentRound": 1,
      "numberOfParticipants": 1
    }
  ]
}
```

Returns the list of tournaments currently on the platform. Can optionally be filtered by owner address by adding `?owner=<address>` to the end.

1.3.3 /tournaments/count

```
curl -X GET http://explorer.matryx.ai/tournaments/count
```

Response:

```
{
  "count": 1
}
```

Returns the count of all tournaments on the platform.

1.3.4 /tournaments/address/:tournamentAddress

```
curl -X GET http://explorer.matryx.ai/tournaments/address/
0xC4C718469c03cc4e0bd4C7De60A7776C4Ce6532F
```

Response:

```
{
  "tournament": {
    "address": "0xC4C718469c03cc4e0bd4C7De60A7776C4Ce6532F",
    "owner": "0xdaa0E2ef627bFb864Ed19eFd546542F47E5Ad6A7",
    "title": "Example Tournament title",
    "description": "Example Tournament description",
    "fileHash": "QmUtR6gEeBRzsGpVquqQZQK8sVUC3h4jHxvK8UbkutLjHL",
    "category": "math",
    "ipType": "",
    "state": "isClosed",
```

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```
    "bounty": 10,  
    "remainingMtx": 0,  
    "currentRound": 1,  
    "currentRoundAddress": "0x840Bad637faAA6B603757de95Eb5B11DA0E23f43",  
    "currentRoundState": "isClosed",  
    "roundEndTime": 1534460653000,  
    "numberOfParticipants": 1,  
    "entryFee": 2  
  }  
}
```

Returns more details for the specified tournament.

1.3.5 /tournaments/address/:tournamentAddress/owner

```
curl -X GET http://explorer.matryx.ai/tournaments/address/  
0xC4C718469c03cc4e0bd4C7De60A7776C4Ce6532F/owner
```

Response:

```
{  
  "owner": "0xdaa0E2ef627bFb864Ed19eFd546542F47E5Ad6A7"  
}
```

Returns the owner address of the specified tournament.

1.3.6 /tournaments/address/:tournamentAddress/submissionCount

```
curl -X GET http://explorer.matryx.ai/tournaments/address/  
0xC4C718469c03cc4e0bd4C7De60A7776C4Ce6532F/submissionCount
```

Response:

```
{  
  "submissionCount": 1  
}
```

Returns the number of submissions to the specified tournament.

1.3.7 /tournaments/address/:tournamentAddress/currentRound

```
curl -X GET http://explorer.matryx.ai/tournaments/address/  
0xC4C718469c03cc4e0bd4C7De60A7776C4Ce6532F/currentRound
```

Response:

```
{  
  "currentRound": 1  
}
```

Returns the current round number of the specified tournament.

1.3.8 /tournaments/address/:tournamentAddress/round/:roundId

```
curl -X GET http://explorer.matryx.ai/tournaments/address/  
0xC4C718469c03cc4e0bd4C7De60A7776C4Ce6532F/round/1
```

Response:

```
{  
  "round": {  
    "tournamentAddress": "0xC4C718469c03cc4e0bd4C7De60A7776C4Ce6532F",  
    "tournamentTitle": "Example Tournament title",  
    "tournamentDescription": "Example Tournament description",  
    "start": 1534460648000,  
    "end": 1534460653000,  
    "reviewPeriodDuration": 5000,  
    "bounty": 3,  
    "closed": true,  
    "roundStatus": "isClosed",  
    "submissions": [  
      {  
        "address": "0xF93F3B5fB680A7658479b5b1119ff599c6115F54",  
        "title": "Example Submission title",  
        "owner": "0xEcc4DE8F2846F3038C11a9e457634Ad1a3C703dF",  
        "timeSubmitted": 1534460650000,  
        "winner": true,  
        "reward": 10  
      }  
    ]  
  }  
}
```

Returns round details for the specified round index of the tournament. If the tournament status is either `isClosed` or `isAbandoned`, all submissions to the round are returned under the `submissions` property.

1.3.9 /tournaments/address/:tournamentAddress/isEntrant/:address

```
curl -X GET http://explorer.matryx.ai/tournaments/address/  
0xC4C718469c03cc4e0bd4C7De60A7776C4Ce6532F/isEntrant/0xEcc4DE8F2846F3038C11a9e457634Ad1a3C703dF
```

Response:

```
{  
  "isEntrant": true  
}
```

Returns if `:address` is an entrant of the specified tournament.

1.3.10 /tournaments/address/:tournamentAddress/rounds

```
curl -X GET http://explorer.matryx.ai/tournaments/address/  
0xC4C718469c03cc4e0bd4C7De60A7776C4Ce6532F/rounds
```

Response:

```
{
  "rounds": [
    "0x840Bad637faAA6B603757de95Eb5B11DA0E23f43"
  ]
}
```

Returns all round addresses of the specified tournament.

1.3.11 /tournaments/category/:category

```
curl -X GET http://explorer.matryx.ai/tournaments/category/math
```

Response:

```
{
  "tournaments": [
    "0xC4C718469c03cc4e0bd4C7De60A7776C4Ce6532F"
  ]
}
```

Returns all tournament addresses that belong to the category :category.

1.4 Round

1.4.1 /rounds/getAbi/:version?

```
curl -X GET http://explorer.matryx.ai/rounds/getAbi
```

Response:

```
{
  "abi": []
}
```

Where the optional param :version is the branch of the Matryx Platform you want to use ie: master, QA, develop. It grabs it directly from the /build folder of <http://github.com/matryx/MatryxPlatform>. If no branch is specified, it will return the latest version.

1.4.2 /rounds/address/:roundAddress

```
curl -X GET http://explorer.matryx.ai/rounds/address/0x840Bad637faAA6B603757de95Eb5B11DA0E23f43
```

Response:

```
{
  "round": {
    "tournamentAddress": "0xC4C718469c03cc4e0bd4C7De60A7776C4Ce6532F",
    "tournamentTitle": "Example Tournament title",
    "tournamentDescription": "Example Tournament description",
    "start": 1534460648000,
    "end": 1534460653000,
    "reviewPeriodDuration": 5000,
    "bounty": 3,
  }
}
```

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```

    "closed": true,
    "roundStatus": "isClosed",
    "submissions": [
      {
        "address": "0xF93F3B5fB680A7658479b5b1119ff599c6115F54",
        "title": "Example Submission title",
        "owner": "0xEcc4DE8F2846F3038C11a9e457634Ad1a3C703dF",
        "timeSubmitted": 1534460650000,
        "winner": true,
        "reward": 10
      }
    ]
  }
}

```

1.5 Submission

1.5.1 /submissions/getAbi/:version?

```
curl -X GET http://explorer.matryx.ai/submissions/getAbi
```

Response:

```

{
  "abi": []
}

```

Where the optional param :version is the branch of the Matryx Platform you want to use ie: master, QA, develop. It grabs it directly from the /build folder of <http://github.com/matryx/MatryxPlatform>. If no branch is specified, it will return the latest version.

1.5.2 /submissions/address/:submissionAddress

```
curl -X GET http://explorer.matryx.ai/submissions/address/
0xF93F3B5fB680A7658479b5b1119ff599c6115F54
```

Response:

```

{
  "submission": {
    "address": "0xF93F3B5fB680A7658479b5b1119ff599c6115F54",
    "title": "Example Submission title",
    "owner": "0xEcc4DE8F2846F3038C11a9e457634Ad1a3C703dF",
    "reward": 10,
    "description": "Example Submission description",
    "contributors": [
      "0xFa50807D297F07C6900C7b2809a335189634c7a8",
      "0x90E0393786a53D0E1a63a3BB90A92FDc58fd835f",
      "0xCB70d29966D4F5dC039B5B50a681dbeACa1B6565"
    ],
    "references": [
      "0xf23616e010e1cB7c7B12dd7C2c63997a00063c2F",
      "0x6838E2ed5F59166423d33e38b8880e08DF34accd",
    ]
  }
}

```

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```
        "0x49819cD33c95f583F7B945C02b6895C19C75b981"
      ],
      "fileHash": "QmUtR6gEeBRzsGpVquqQZQK8sVUC3h4jHxvK8UbkutLjHL",
      "timeSubmitted": 1534460650000
    }
  }
```

1.5.3 /submissions/address/:submissionAddress/owner

```
curl -X GET http://explorer.matryx.ai/submissions/address/
0xF93F3B5fB680A7658479b5b1119ff599c6115F54/owner
```

Response:

```
{
  "owner": "0xEcc4DE8F2846F3038C11a9e457634Ad1a3C703dF"
}
```

1.6 Interplanetary File System (IPFS)

IPFS

1.6.1 /ipfs/upload

```
curl -X POST http://explorer.matryx.ai/ipfs/upload \
-F 'description=This is a description'
-F 'jsonContent={"json":"some json content"}'
-F filesContent=@/path/to/file
```

Response:

```
{
  "descriptionHash": "QmSVphNHX8uV2mjbvJaXLZEwguqpmw4rZ6BpRU8rrhaBy5H",
  "folderHash": "QmeV753pFr8U5klafXLTXuYAF2wX4pev7Jcjnd8Yf7q4eu"
}
```

Uploads content to IPFS for use on a Tournament or Submission. `description`, `jsonContent`, and `filesContent` are all optional. Uploaded description will be returned as `descriptionHash`, and `jsonContent` and `filesContent` will be contained in a folder at `folderHash`.

1.7 Token

1.7.1 /token/getInfo/:version?

```
curl -X GET http://explorer.matryx.ai/token/getInfo
```

Response:

```
{
  "abi": []
}
```

Where the optional param `:version` is the branch of the Matryx Platform you want to use ie: master, QA, develop. It grabs it directly from the /build folder of <http://github.com/matryx/MatryxPlatform>. If no branch is specified, it will return the latest version.

`abi` is a large ABI response in JSON parsed format for that version of the Matryx Platform.

1.7.2 /token/getAddress/:version?

```
curl -X GET http://explorer.matryx.ai/token/getAddress
```

Response:

```
{
  "address": "<EthereumAddressOfPlatform>"
}
```

Where the optional param `:version` is the branch of the Matryx Platform you want to use ie: master, QA, develop. It grabs it directly from the /build folder of <http://github.com/matryx/MatryxPlatform>. If no branch is specified, it will return the latest version.

1.7.3 /token/getAbi/:version?

```
curl -X GET http://explorer.matryx.ai/token/getAbi
```

Response:

```
{
  "abi": []
}
```

Where the optional param `:version` is the branch of the Matryx Platform you want to use ie: master, QA, develop. It grabs it directly from the /build folder of <http://github.com/matryx/MatryxPlatform>. If no branch is specified, it will return the latest version.

CHAPTER 2

Interacting with Ipfs

The big part of the Ethereum Blockchain is that lots of data being written to the blockchain is a bad idea. It is very costly and could run into errors in the future. As part of the shift towards WEB3.0, decentralized and distributed storage will be a huge part of the internet stack going forward. As per most decentralized applications (DAPPS), because the landscape for tokenized decentralized and distributed storage networks are not complete, everyone uses IPFS or Interplanetary File System.

IPFS in this application works in the following ways:

When you decide to create a tournament or make a contribution/submission, you will attach data to your transaction, whether it is a Tournament Description or a Submission containing large custom files. Storing them on IPFS in order for our platform to access them needs to be done a certain way in order to parse the files. It comes down to 3 main request body keys. The API accepts multipart/form-data and can handle multiple files using a POST call.

text: *description*, text: *jsonContent*, file: *filesContent*

When the API accepts the POST call, it will take that data and stores it to local storage. It then extracts the description and jsonContent key is available into a .txt file and is saved to the temp file along with any other files tagged with the key *filesContent*. It then provides the PATH of the directory to the IPFS node in order to get back a hash of the data which can be accessed by other IPFS nodes.

A major restriction in the development of the Matryx Explorer is that the IPFS-JS module does not support Peer Discovery at this time. . . A critical part of IPFS. Thus we are required to run an IPFS node right next to MatryxExplorer to get it to connect. You will need to adjust a few things such as setting the Web Socket in the IPFS Daemon to be activated and so the MatryxExplorer API can reach it.

In order to set the IPFS daemon 1. Download IPFS

2. Run IPFS init *ipfs init*

3. Show your config *ipfs config show*

4. Run the following command in order to add the web-socket listener to port 9999 for the application. *ipfs config --json Addresses '{ "API": "/ip4/127.0.0.1/tcp/5001", "Announce": [], "Gateway": "/ip4/127.0.0.1/tcp/8080", "NoAnnounce": [], "Swarm": ["/ip4/0.0.0.0/tcp/4001", "/ip6:::/tcp/4001", "/ip4/127.0.0.1/tcp/9999/ws"]}'*

5. Run the ipfs Daemon *ipfs daemon*

In order to run it in the background and keep it up type: *nohup ipfs daemon &*

You can check if that worked by searching for the process and see the Process ID (PID) `ps -A | grep "ipfs"`

In the event you want to stop the IPFS node, you may kill the PID `kill <PID>`

CHAPTER 3

FAQ

Need help? Message us at help@nanome.ai

CHAPTER 4

Matryx License Agreement

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