Mock-up WALRUC

How have we carried out the mock-up for our building block 'Walruc'?

The following document is designed to show the process through which Inokufu created the mock-up for the Building Block 'Web Analytics Learning Records Universal Connector (Walruc).'

The data push related to this mock-up aims to simulate the transfer of data from this Matomo plugin, Walruc, to the learning record store of an organization that has acquired the plugin.

To elaborate, Walruc is a plugin that enables the transfer of navigation traces collected by a Matomo account to the organization's learning record store in an interoperable format xAPI. From a strictly technical perspective, the plugin sends xAPI statements related to navigation traces generated by users of an LMS or visitors to a website linked to a Matomo account. From a pedagogical perspective, it is a powerful tool that transforms a website into a source of learning records, providing the opportunity to more deeply understand the learning processes occurring on our platform or website.

First of all, it should be clarified that the intention of the mock-up is to establish a data exchange between the Building Block itself and a Learning Record Store (LRS). The data sent to the LRS serves solely to demonstrate the data flow between the BB and the LRS. In other words, there is no analysis or pedagogical monitoring process in progress yet; the xAPI statements sent to the LRS are test statements.

How to configurate the Learning Records Store?

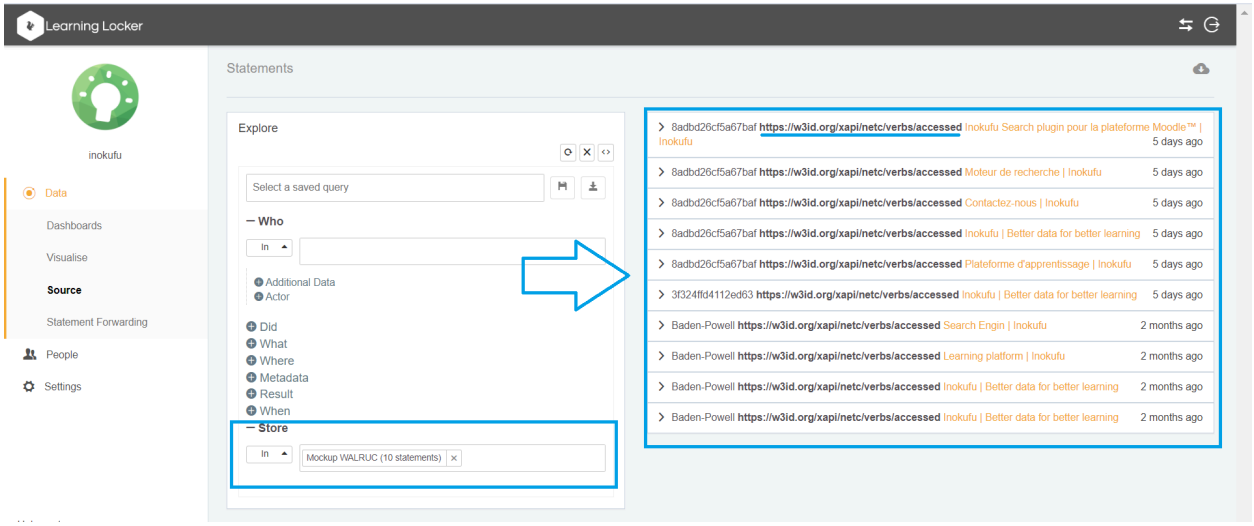
To execute the mock-up, a store was created in the Learning Records Store "Learning Locker," named "Mockup Walruc," with two clients: one to receive data from the BB in question - Mockup Walruc Read - and another to send data - Mockup Walruc Write.

In terms of configuring both clients, as seen in the following screenshot, we set up the client “Mockup Walruc read” to be able to receive xAPI statements, so we configured it to 'Read all' and linked it with the store “Mockup Walruc”

Once that client was configured, we proceeded to set up the other one—'Mockup Walruc Write'—through which we will send xAPI statements. We then clicked on 'Write statements (must be used with a read scope).'

It should be noted that the 'key' and the 'secret' are necessary credentials to connect the clients of a store with the endpoint it will communicate with, which in this case would be the Walruc plugin. To find the credentials for each client, you need to go to the settings section, then to clients, and finally select the client for which you want to find out the key and the secret. Furthermore, if they require our read or write keys, they should contact us.

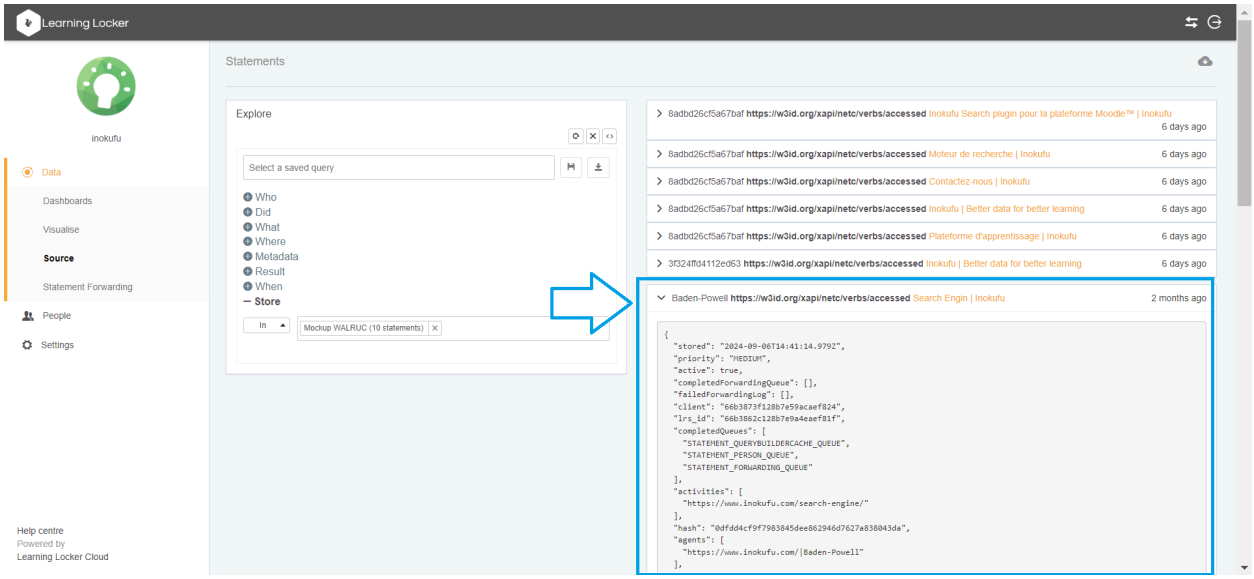
Nature/ characteristics of data sent



The data push has already been triggered, and we received 10 xAPI DASES statements from our Matomo account. These records are related to login events, which is why they all share the same xAPI verb -Dases profile-, 'accessed.'

Example Of a particular xAPI statements received by the Mockup Walruc store

We will use the following xAPI statements received in the store corresponding to the Walruc mockup as an example to demonstrate how this mockup addresses educational needs.



The following two statements correspond to the record of a user accessing a website monitored by our Matomo account.

- The first statement reflects the visit made by the user "Baden-Powell" to the page [https://www.inokufu.com/search-engine/]
- The second statement pertains to the visit made by the same user to the page [https://www.inokufu.com/learning-platform/]

It is important to highlight that a mapping process has been carried out to convert Matomo format data to xAPI DASES format. In Matomo, a user's various visits to a website are organized into subsections within a single statement, reflecting the user's entire navigation path. This means that one Matomo statement summarizes and contains the web pages visited by a particular user within the monitored website.
To translate this into xAPI DASES statements, we split the comprehensive Matomo statement based on the specific web pages the user has visited. Consequently, for each individual web page visit ('accessed'), an xAPI DASES statement is generated. This means that for each Matomo statement we can deduce several xAPI statements.
For example, the following xAPI DASES statements illustrate the navigation path of the user 'Baden-Powell'. What was originally a single Matomo statement has been divided into multiple xAPI statements, with each one representing a different web page visit by the user.
We can show you two examples:

The statements its self:

- Baden-Powell https://w3id.org/xapi/netc/verbs/accessed Search Engin | Inokufu


```
{
"actor": {
  "account": {
  "name": "Baden-Powell",
  "homePage": "https://www.inokufu.com/"
}
},
"verb": {
  "id": "https://w3id.org/xapi/netc/verbs/accessed"
},
"object": {
  "objectType": "Activity",
  "id": "https://www.inokufu.com/search-engine/",
  "definition": {
    "type": "https://w3id.org/xapi/acrossx/activities/webpage",
    "name": {
      "en": "Search Engin | Inokufu"
    },
  "extensions": {
    "https://w3id.org/xapi/acrossx/extensions/type": "website"
    }
  }
},
"context": {
  "contextActivities": {
    "category": [
     {
     "id": "https://w3id.org/xapi/lms",
     "definition": {
      "type": "http://adlnet.gov/expapi/activities/profile"
     },
     "objectType": "Activity",
     }
   ]
},
"extensions": {
  "http://id.tincanapi.com/extension/duration": "0s",
  "http://id.tincanapi.com/extension/browser-info": "Chrome 126.0"
}
```

```
}
"version": "1.0.0",
"timestamp": "2024-07-04T18:43:37.887Z"
}
```


- Baden-Powell https://w3id.org/xapi/netc/verbs/accessed Learning platform | Inokufu


```
{
"actor": {
  "account": {
    "name": "Baden-Powell",
    "homePage": "https://www.inokufu.com/"
  }
},
"verb": {
  "id": "https://w3id.org/xapi/netc/verbs/accessed"
},
"object": {
  "objectType": "Activity",
  "id": "https://www.inokufu.com/learning-platform/",
  "definition": {
    "type": "https://w3id.org/xapi/acrossx/activities/webpage",
    "name": {
      "en": "Learning platform | Inokufu"
    },
    "extensions": {
      "https://w3id.org/xapi/acrossx/extensions/type": "website"
    }
  }
},
"context": {
  "contextActivities": {
    "category": [
    {
      "id": "https://w3id.org/xapi/lms",
      "definition": {
        "type": "http://adlnet.gov/expapi/activities/profile"
      },
      "objectType": "Activity",
    }
    ]
  },
"extensions": {
```

```
  "http://id.tincanapi.com/extension/duration": "24s",
  "http://id.tincanapi.com/extension/browser-info": "Chrome 126.0"
}
}
"version": "1.0.0",
"timestamp": "2024-07-04T18:43:13.887Z"
},
```


Use cases:

- A company wants to leverage the navigation traces generated by its users to better understand their learning journeys.
- An edtech company wants to obtain learning records to exchange within the dataspace.
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- …

Contact

If you are interested in obtaining a read or write key, contact us directly.
Send us your use case, the type of your data, the number of traces you want to send or receive, and what kind of trace you need.

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