



# User Guide

Administration tool – Kalima Explorer

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## 1 - Overview of the Kalima Explorer Administration Tool

The Kalima Explorer administration tool allows the management of data shared with authorized nodes of the blockchain. All its actions are historicalized to add security and traceability to the data. Data history cannot be modified or deleted.

This administration tool offers several features including sorting and searching functions in saved data and the management of permissions, users, configurations.

## 2 - Authentication

When you access Kalima Explorer, you must authenticate:



Entrez votre identifiant et votre mot de passe

Entrez votre identifiant et votre mot de passe

Un service a demandé à ce que vous vous authentifiez. Cela signifie que vous devez entrer votre identifiant et votre mot de passe dans le formulaire ci-dessous.

Identifiant  1- Insérer l'identifiant

Mot de passe  2- Insérer le mot de passe

3- Cliquer sur le bouton "S'identifier" pour accéder à l'outil d'administration

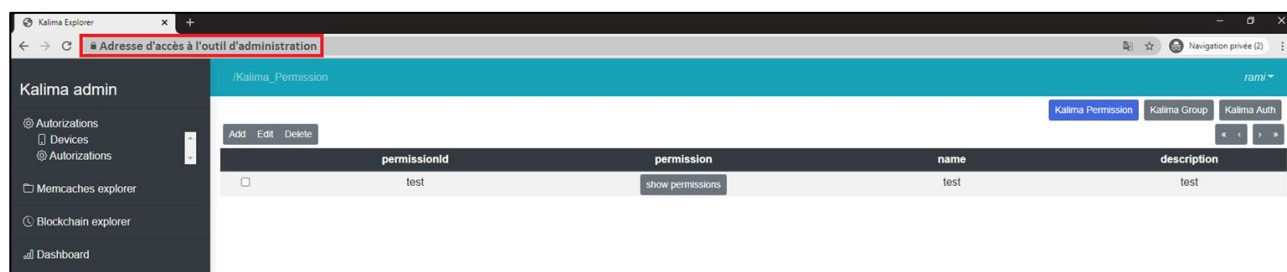
**À l'aide! Je ne me souviens plus de mon mot de passe.**

Pas de chance! Sans votre identifiant et votre mot de passe vous ne pouvez pas vous authentifier et accéder au service. Il y a peut-être quelqu'un pour vous aider. Contactez le help desk de votre université!

Kalima Systems  
Bridge the gap

Figure 1 – Authentication to the Kalima Explorer Administration Tool

Once authenticated you will have access to the following home page of the Kalima Explorer administration tool:



Kalima Explorer

Adresse d'accès à l'outil d'administration

Kalima admin

- Autorizations
- Devices
- Autorizations
- Memcaches explorer
- Blockchain explorer
- Dashboard

Kalima Permission

Add Edit Delete

permissionid	permission	name	description
<input type="checkbox"/> test	show permissions	test	test

Kalima Permission Kalima Group Kalima Auth

Figure 2 – Kalima Explorer Administration Tool Home Page

To log out of the Kalima Explorer administration tool, click on the username at the top right of the screen and make "Logout".

In the menu located on the left of the screen you have a list of tabs, each of these tabs integrates sub-tabs and / or a set of paths caches.

Remark:

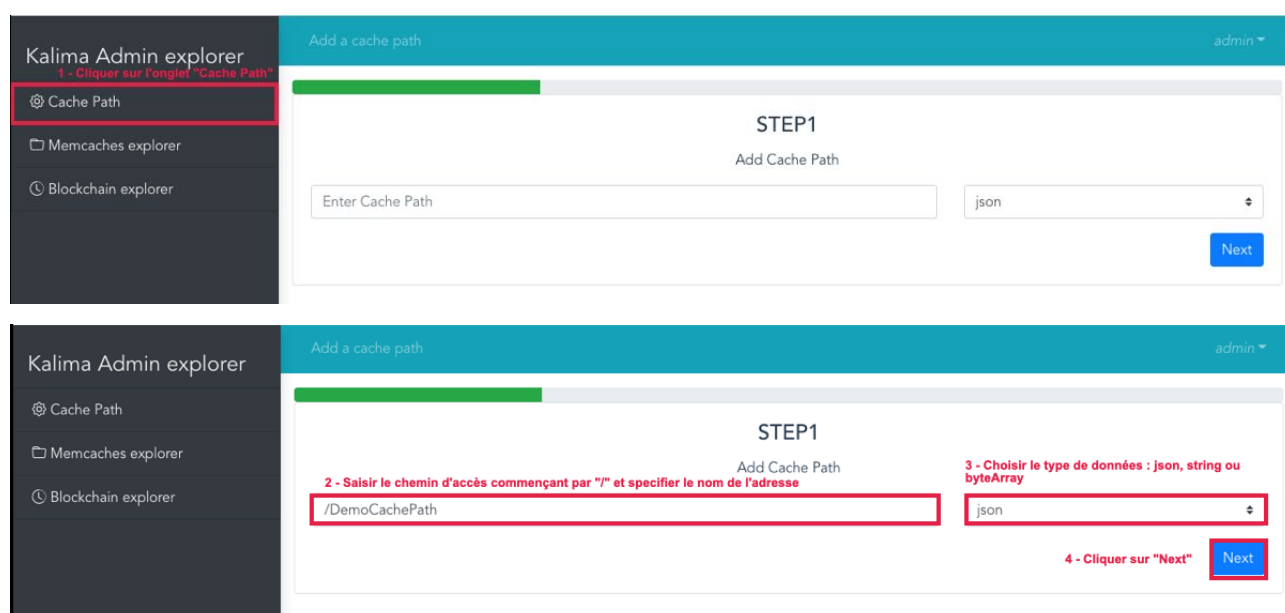
To organize the data in the Kalima blockchain, we use path caches. This can be seen as a file system with folders and files that will contain the data.

### 3 - Cache Path tab

To create a transaction in the Kalima blockchain it is necessary, in addition to useful data and identity data, to specify an address.

In fact, each transaction is placed in a database that can be seen as a file system. The Cache path / address simply corresponds to the path on which we want to store our transaction. The Notary govern the possible paths, it is not possible to create a transaction with an address that does not exist.

The creation of a new address in the Kalima blockchain is done in a dynamic way, it is possible thanks to the Kalima Explorer administration tool. To add a new address you can follow the steps below:



The image shows two screenshots of the Kalima Admin explorer interface, illustrating the steps to add a new cache path.

**Top Screenshot:** The interface shows the 'Add a cache path' form. The left sidebar has 'Cache Path' highlighted. The main area is titled 'STEP1 Add Cache Path'. It contains a text input field labeled 'Enter Cache Path' and a dropdown menu set to 'json'. A 'Next' button is at the bottom right.

**Bottom Screenshot:** This screenshot shows the form after some input. The text input field now contains '/DemoCachePath'. The dropdown menu is still set to 'json'. A 'Next' button is at the bottom right. Red annotations are present: '2 - Saisir le chemin d'accès commençant par "/" et spécifier le nom de l'adresse' points to the input field; '3 - Choisir le type de données : json, string ou byteArray' points to the dropdown menu; and '4 - Cliquer sur "Next"' points to the 'Next' button.

Kalima Admin explorer

Cache Path

Memcaches explorer

Blockchain explorer

Add a cache path

admin

STEP2

Define Fields

5 - Cliquez sur le bouton "Add more" pour ajouter des champs dans le cache path

Add More

Previous

6 - Cliquez sur le bouton "Next"

Next

Cliquez sur le bouton "Previous" pour revenir à l'étape précédente

Kalima Admin explorer

Cache Path

Memcaches explorer

Blockchain explorer

Add a cache path

admin

STEP2

Define Fields

7 - Saisir le nom des champs :

DemoField

SecondDemoField

8 - Sélectionner le type de données

Float

Boolean

Type de saisie de données

textarea

radio

Button pour supprimer les champs

Delete

Delete

9 - Cliquez sur le bouton "Next"

Next

Add More

Previous

Kalima Admin explorer

Cache Path

Memcaches explorer

Blockchain explorer

Add a cache path

admin

STEP3

Define Fields

10 - Cocher les cases pour les champs à afficher après la creation de cache path

☒

DemoField

☒

SecondDemoField

11 - Sélectionner le type d'alignement de texte dans le champs

Left

Justify

12 - Cliquez sur le bouton "Next"

Next

Previous

Kalima Admin explorer

Cache Path

Memcaches explorer

Blockchain explorer

Add a cache path

admin

Successfully Added /DemoCachPath

Votre nouvelle adresse a bien été créé

Start Over

Figure 3 – Steps to create a new address

## 4 - Memcaches explorer tab

Kalima "caches" contain all current data and are shared between all nodes of the Blockchain (according to permissions).

The data in caches can be modified, deleted, new ones can be added. However, each action corresponds to a new transaction, and is therefore registered in the blockchain. In addition, it is possible to perform search operations on the data of an address in the Memcaches explorer tab.

In the Memcaches explorer tab of the Kalima Explorer administration tool, the most recent data is displayed at the top and the least recent data is displayed at the bottom of each page.



	Key	Sequence	centerX	centerY	angle	width	height
<input type="checkbox"/>	Rame B	165	45.915966	59.80465	0	5.3524113	19.817987
<input type="checkbox"/>	Jonction B	58	40.435883	59.794884	0	5.190253	19.819994

*Figure 4 – Buttons to navigate through the data of an address*

### Buttons navigation between data pages:

There are 4 buttons (top right) that allow you to navigate through the data:

- Button to move to the next data page,
- Button to return to the previous data page,
- Button to return to the first page of data,
- Button to display the last page of data.

### Creating new data:

To create a new data you can follow the steps below:

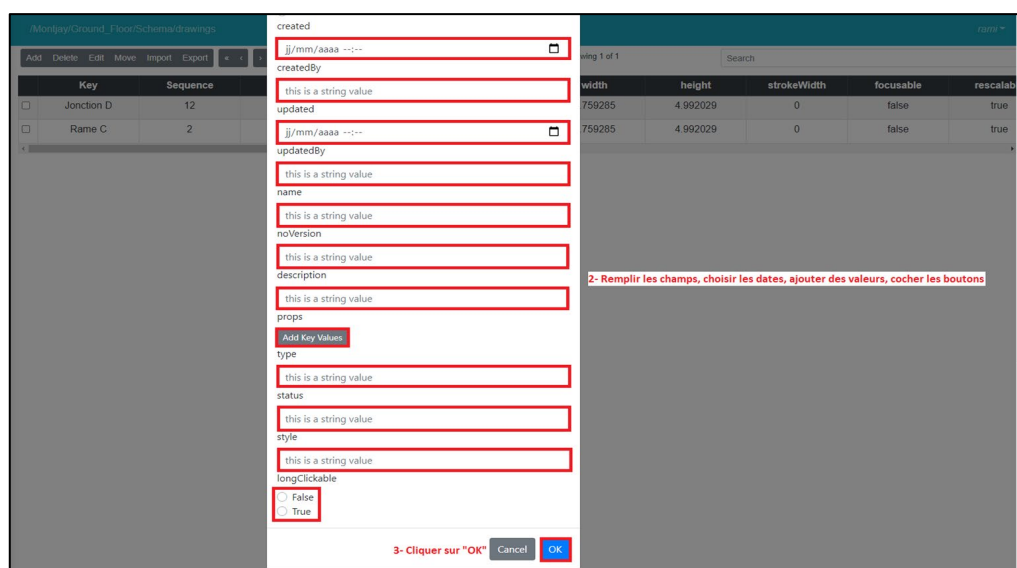
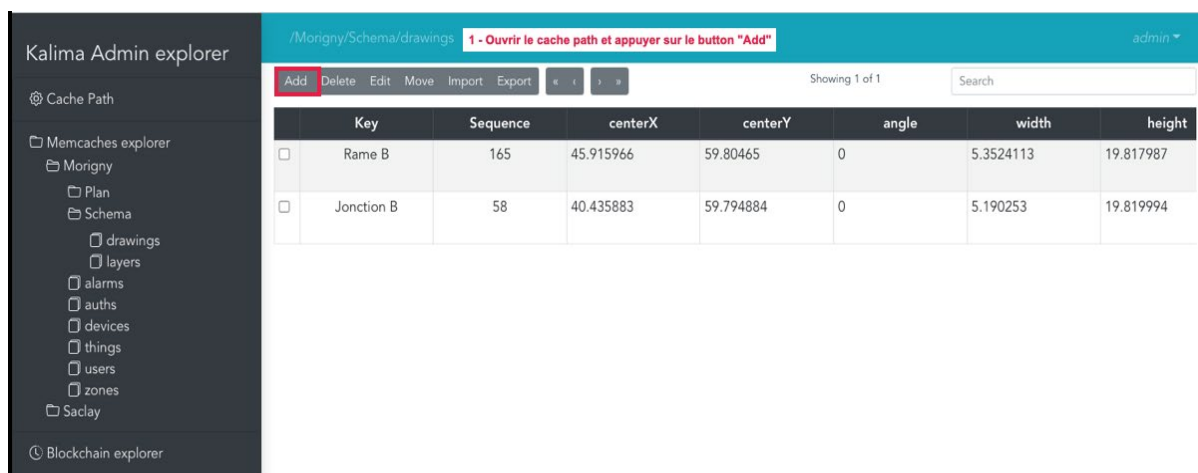


Figure 5 – Steps to add data within an address

Remark:

- Each path/address cache has its own fields, so for the creation of a new data in a specific address, you must fill in the fields displayed in the pop-up.

## Modification of a data

Once created, a data can be modified. To make this change you can follow these steps:

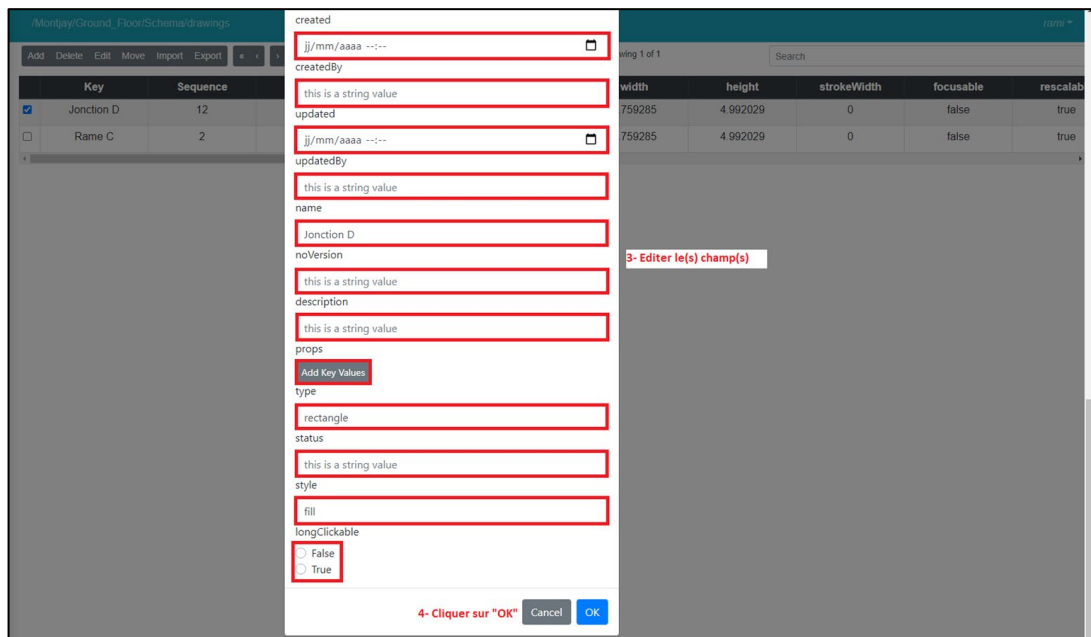
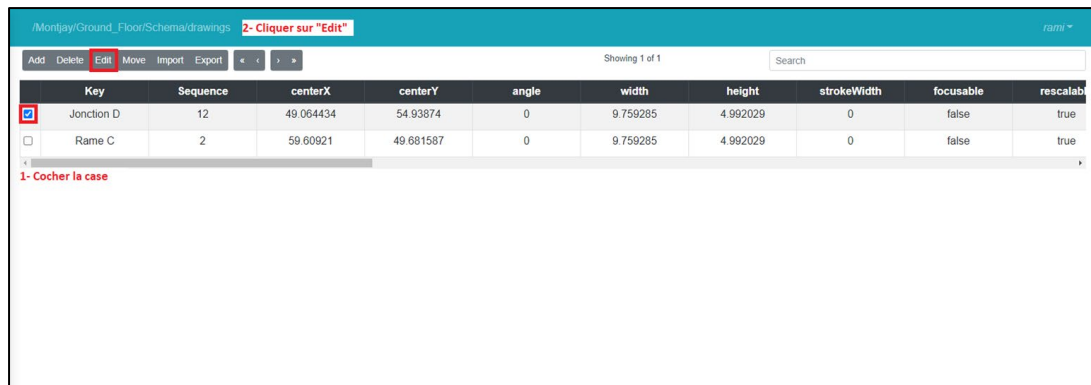
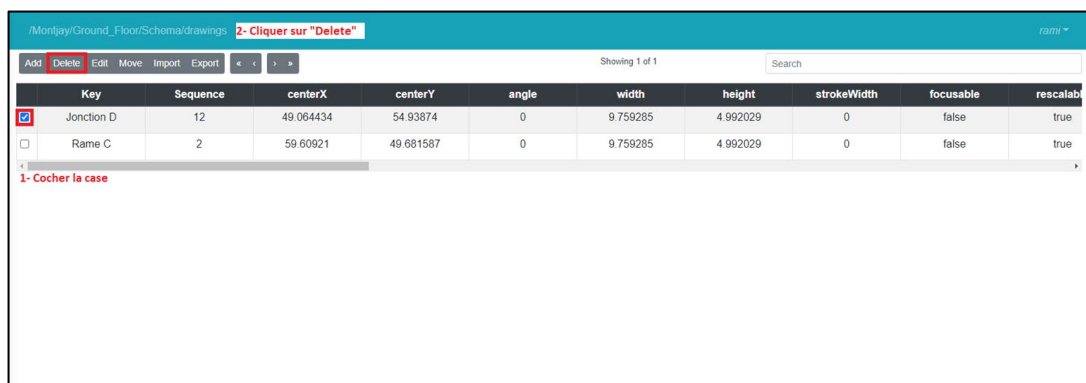


Figure 6 – Steps to change data in an address

## Delete data

To remove data from the Memcaches explorer tab you can follow these steps:





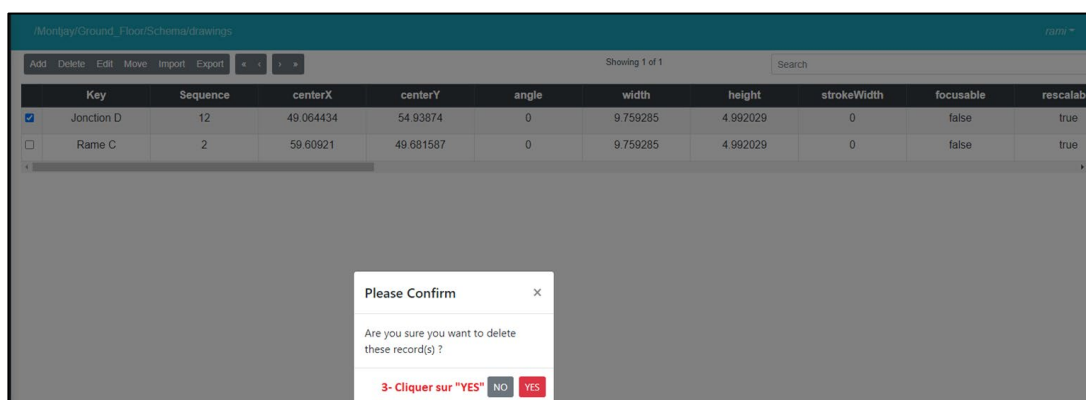


Figure 7 – Steps to delete data

## Searching for data

To search for data in an address, you can use the search bar and enter a keyword of the data to be searched. Here is an example of searching for a piece of data:

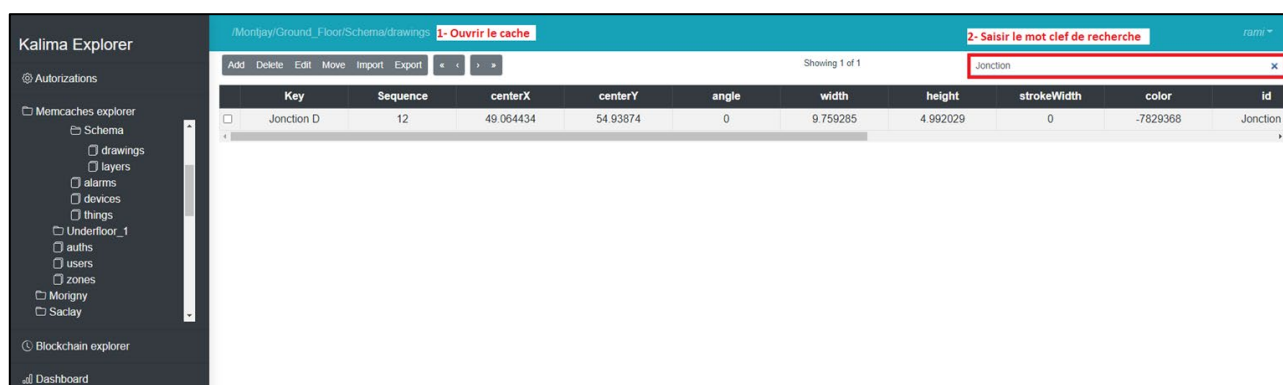


Figure 8 – Steps to search for data by keywords

## 5 - Blockchain explorer tab

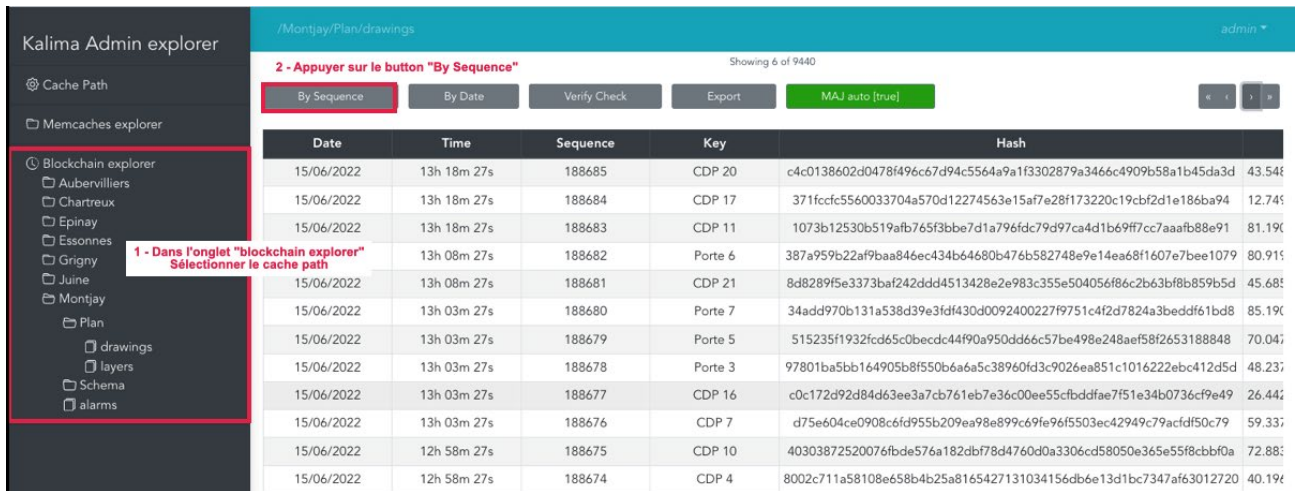
The "Blockchain explorer" tab contains absolutely all the data of the Kalima blockchain. One can see all the transactions that have taken place on the Blockchain, including data deletions.

This tab offers several features including sorting data by sequence, sorting by date, sorting by criteria. In the Blockchain explorer tab of the Kalima Explorer administration tool, the most recent data is displayed at the top and the most recent data is displayed at the bottom of each page.

### 5.1 - Sorting by sequence

Each transaction has a unique sequence number.

The Kalima Explorer administration tool offers the possibility to apply a data sorting filter between two precise sequences using the "By sequence" button. To sort by sequence you must follow the steps below:



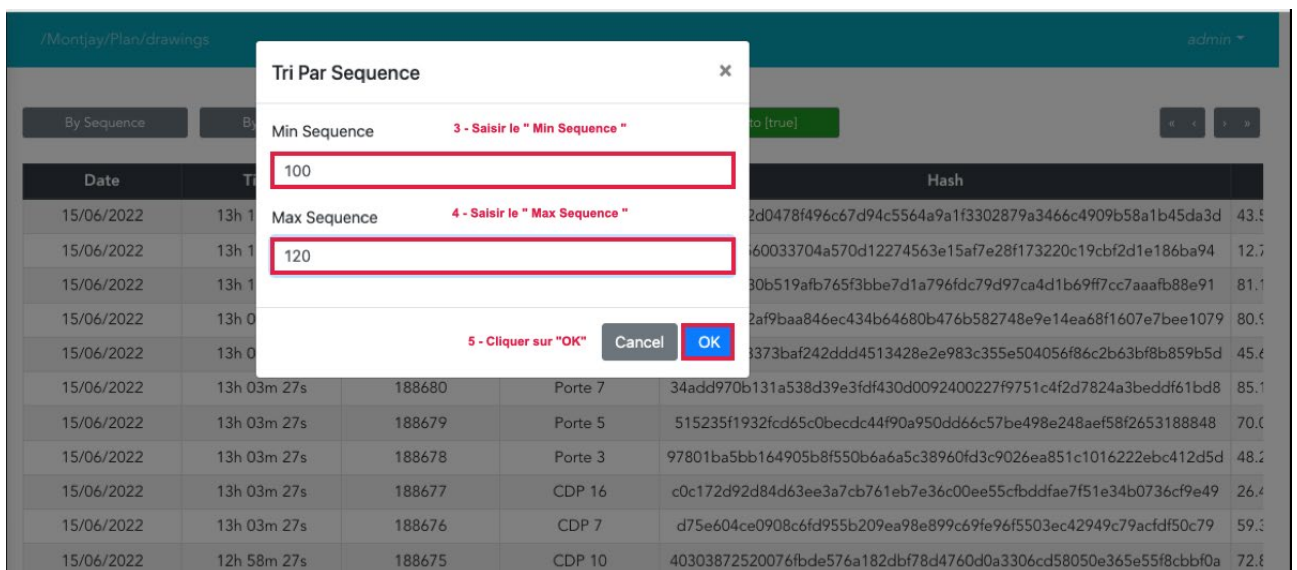
**1 - Dans l'onglet "blockchain explorer" Sélectionner le cache path**

**2 - Appuyer sur le bouton "By Sequence"**

Showing 6 of 9440

By Sequence By Date Verify Check Export MAJ auto [true]

Date	Time	Sequence	Key	Hash
15/06/2022	13h 18m 27s	188685	CDP 20	c4c0138602d04781496c67d94c5564a9a1f3302879a3466c4909b58a1b45da3d
15/06/2022	13h 18m 27s	188684	CDP 17	371fccf5560033704a570d12274563e15af7e28f173220c19cbf2d1e186ba94
15/06/2022	13h 18m 27s	188683	CDP 11	1073b12530b519afb765f3bbe7d1a796fdc79d97ca4d1b69ff7cc7aaafb88e91
15/06/2022	13h 08m 27s	188682	Porte 6	387a959b22af9baa846ec434b64680b476b582748e9e14ea68f1607e7bee1079
15/06/2022	13h 08m 27s	188681	CDP 21	8d8289f5e3373baf242ddd4513428e2e983c355e504056f86c2b63bf8b859b5d
15/06/2022	13h 03m 27s	188680	Porte 7	34add970b131a538d39e3fd430d0092400227f9751c4f2d7824a3beddf61bd8
15/06/2022	13h 03m 27s	188679	Porte 5	515235f1932fcd65c0becdc44f90a950dd66c57be498e248aef58f2653188848
15/06/2022	13h 03m 27s	188678	Porte 3	97801ba5bb164905b8f550b6a6a5c38960fd3c9026ea851c1016222ebc412d5d
15/06/2022	13h 03m 27s	188677	CDP 16	c0c172d92d84d63ee3a7cb761eb7e36c00ee55cfbdfae7f51e34b0736cf9e49
15/06/2022	13h 03m 27s	188676	CDP 7	d75e604ce0908c6fd955b209ea98e899c69fe96f5503ec42949c79acfd50c79
15/06/2022	12h 58m 27s	188675	CDP 10	40303872520076fbd576a182dbf78d476d0a3306cd58050e365e55f8cbbf0a
15/06/2022	12h 58m 27s	188674	CDP 4	8002c711a58108e658b4b25a8165427131034156db6e13d1bc7347af63012720



**Tri Par Sequence**

Min Sequence **3 - Saisir le "Min Sequence"**

100

Max Sequence **4 - Saisir le "Max Sequence"**

120

**5 - Cliquer sur "OK"** Cancel OK

/Montjay/Plan/drawings admin ▾

Showing 1 of 1

By Sequence By Date Verify Check Export

Reset Search

**Résultat de la recherche par sequence**

Date	Time	Sequence	Key	Hash
20/08/2021	10h 36m 44s	100	Porte 2	19a03e6017989487ad20fadca911a5019a3e41a2ee16278ea67c8b0542e8bbea 36.97
20/08/2021	10h 36m 44s	101	Porte 3	db7c41be75238b4c09ab774aba47ebd66073feabbfab240db763c9be53aef1a6 48.23
20/08/2021	10h 36m 44s	102	Porte 4	71706d2f416221f9f3de7300c96151d1eb48b7cf90ab6b3121986d1d9040fed6 59.10
20/08/2021	10h 36m 44s	103	Porte 5	c9f5b595391243a8d33cb0aa074ec337a630b3ed176ec05ee85676a0e30b371 70.04
20/08/2021	10h 36m 44s	104	Porte 6	0f72e1a6edbb7e48631ab8533e714e71b4db3a25f489c41d787238ea0d332fdb 80.91
20/08/2021	10h 36m 44s	105	Porte 7	5fd0cc1298f2f2293d75722155f90094f248082deb50ecd1621697fd4dc0f6e6 85.19

Figure 9 – Steps to sort data by sequence

To redisplay all the data present before the sequence sorting application, simply click on the "Reset Search" button:

/Montjay/Ground\_Floor/Schema/drawings admin ▾

Cliquez sur le bouton "Reset Search"

By Sequence By Date By Criteria Export Reset Search

Date	Time	Sequence	Key	centerX	centerY	angle	width	height	strokeWidth
19/10/2020	15h 48m 37s	2	Rame C	59.60921	49.681587	0	9.759285	4.992029	0
19/10/2020	15h 48m 37s	3	Rame D	49.064434	49.681587	0	9.759285	4.992029	0
19/10/2020	15h 48m 37s	4	Rame G	49.064434	66.57068	0	9.759285	4.992029	0
19/10/2020	15h 48m 37s	5	Rame H	59.60921	66.57068	0	9.759285	4.992029	0
19/10/2020	15h 48m 37s	6	Rame I	17.407345	66.47327	0	9.915111	4.8180084	0
19/10/2020	15h 48m 37s	7	Rame 300	78.81537	48.81493	0	14.107175	4.8180084	0

Figure 10 – "Reset Search" button

## 5.2 - Sorting by date

Each transaction has a specific date and time.

The "By Date" button is used to display the data between two dates. These dates can be selected thanks to a calendar that is displayed at the press of the button. The calendar also gives the possibility to choose time slots for the data to be displayed:

Kalima Admin explorer

Cache Path

Memcaches explorer

Blockchain explorer

Aubervilliers

Chartreux

Epinay

Essonnes

Grigny

Juine

Montjay

Plan

Schema

drawings

layers

alarms

/Montjay/Plan/drawings

admin

Showing 1 of 9440

2 - Appuyer sur le bouton "By Date"

By Sequence

By Date

Verify Check

Export

MAJ auto [true]

Date	Time	Sequence	Key	Hash
15/06/2022	16h 43m 28s	188799	Porte 9	96f6760a8582d8fd5fddcb09c97774a6dde3539b6ae8f8a00844b93929dead8d
15/06/2022	16h 43m 28s	188798	Porte 8	15c74366f44d82b590aa07209790de84762af6ba2a5ad36657361e3b162a1074
15/06/2022	16h 43m 28s	188797	CDP 19	e2d7d1ab33928cb9b593e926ff8a6230ef98bfc4e78ffdc1c5c637fdd4e594f
15/06/2022	16h 43m 28s	188796	CDP 5	a00c0b893eb0685a1c683dfa5e570a965d4a4a96a73be781a58d0445b9fa72c0
15/06/2022	16h 38m 28s	188795	CDP 6	b7abafe49002e1e2e5b73736bce641a5659bf9af13a7886848e8d78eeec44de
15/06/2022	16h 33m 28s	188794	CDP 2	dbef5e49dd0256c63fdafecf0de26adf5a40e707f9825b07c3b6958041f2a9d
15/06/2022	16h 28m 28s	188793	Porte 2	d1eed5c6d6b63b09b93071df7e34ec8b33aabe616e5ddd48991946fc02751828
15/06/2022	16h 28m 28s	188792	CDP 18	0de40b0120dd1a02652033cd17bcfeb2ddbd1cf0c6f3992305fb6104472e23ea
15/06/2022	16h 28m 28s	188791	CDP 9	490170202b7121b1f98443a213925f95eb196579e937bcdca64d08e36b8eeaa0
15/06/2022	16h 28m 28s	188790	CDP 8	e08c400f92c748e5cc3751ddc9c65162b60a3fa754775c97b380145e425db7cc
15/06/2022	16h 28m 28s	188789	CDP 15	7ba14f1851448bcd3cf2ec69f46dbe6eb3252a84b9b80d29b5f1f2528993589
15/06/2022	16h 28m 28s	188788	CDP 23	c7fc34284e4d270ee085f8bb4f010b60abf9026df8f247404c0c8195e59ff7

Kalima Admin explorer

Cache Path

Memcaches explorer

Blockchain explorer

Aubervilliers

Chartreux

Epinay

Essonnes

Plan

Schema

alarms

devices

things

users

zones

/Essonnes/devices

admin

By Sequence

Reset Search

Tri Par Date

2022-06-08 00:00:00 - 2022-07-27 00:00:00

Cancel

OK

Date	Time	Sequence	Key	Hash
07/06/2022				48439306c91368e6fa720d5fb7
07/06/2022				1f67d84888e4c2e2476db8a1
07/06/2022				82c0c35c628d0d8cd4fc0e1d9a
07/06/2022				91a6db0044a34460964ec838a9
07/06/2022				01ae6f08c1ef8e7ba009b8f0c1t
07/06/2022	12h 17m 20s	321287	000425191801DBAA	017c65350d69215a151756f248439306c91368e6fa720d5fb7
07/06/2022	12h 22m 20s	321288	000425191801DBA4	e0610beb863472bba985e6c2cc4cd31fad89eb249e817bccdb

Kalima Admin explorer

Cache Path

Memcaches explorer

Blockchain explorer

Aubervilliers

Chartreux

Epinay

Essonnes

Plan

Schema

alarms

auths

devices

/Essonnes/devices

admin

By Sequence

Reset Search

Tri Par Date

2022-06-08 00:00:00 - 2022-07-27 00:00:00

Cancel

OK

Date	Time	Sequence	Key	Hash
07/06/2022	12h 17m 20s	321287	000425191801DBA4	017c65350d69215a151756f248439306c91368e6fa720d5fb7
07/06/2022	12h 17m 20s	321283	000425191801DBA5	eeb4cc4bc6473b47c02b07f42f1f67d84888e4c2e2476db8a1
07/06/2022	12h 17m 20s	321284	000425191801DBA6	78bf3272c970c03792d2894282c0c35c628d0d8cd4fc0e1d9a

Figure 11 – Steps to sort data by date

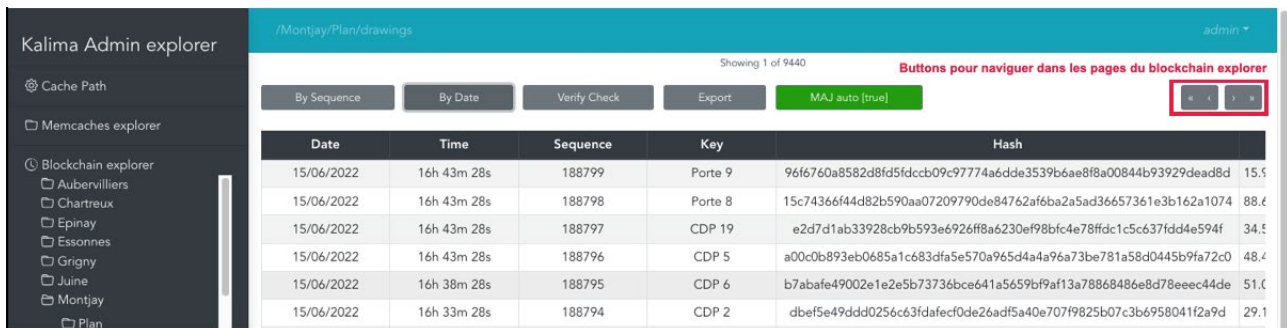
Similarly for the sorting function by date, to redisplay all the data present before the date sorting application, simply click on the "Reset Search" button.

Remark:

It is possible to choose the same date to mark the beginning and end of the data search while specifying the start and end times.

## 5.3 - Navigating between pages in a path cache

As is the case for the other tabs, the "Blockchain explorer" tab contains buttons allowing navigation between data pages. These buttons have the same functioning as other tabs.



The screenshot shows the Kalima Admin explorer interface. The sidebar on the left lists navigation options: Cache Path, Memcaches explorer, and Blockchain explorer. The Blockchain explorer tab is selected, showing a table of data. The table has columns: Date, Time, Sequence, Key, and Hash. The data is sorted by Date. The top bar shows the current page path: /Montjay/Plan/drawings. There are buttons for navigation: By Sequence, By Date, Verify Check, Export, and MAJ auto [true]. A red box highlights the navigation buttons in the top right corner.

Date	Time	Sequence	Key	Hash
15/06/2022	16h 43m 28s	188799	Porte 9	96f6760a8582d8fd5fdccb09c97774a6dde3539b6ae8f8a00844b93929dead8d
15/06/2022	16h 43m 28s	188798	Porte 8	15c74366f44d82b590aa07209790de84762af6ba2a5ad36657361e3b162a1074
15/06/2022	16h 43m 28s	188797	CDP 19	e2d7d1ab33928cb9b593e6926ff8a6230ef98bfc4e78ffdc1c5c637fdd4e594f
15/06/2022	16h 43m 28s	188796	CDP 5	a00c0b893eb0685a1c683dfa5e570a965d4a4a96a73be781a58d0445b9fa72c0
15/06/2022	16h 38m 28s	188795	CDP 6	b7abafe49002e1e2e5b73736bce641a5659bf9af13a78868486e8d78eeec44de
15/06/2022	16h 33m 28s	188794	CDP 2	dbef5e49ddd0256c63fdafecf0de26adf5a40e707f9825b07c3b6958041f2a9d

Figure 12 – Navigation buttons between Blockchain Explorer pages

# Contacts Kalima Systems

## Address

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## Thank you