DigitalTechne documentation

Release 0.2

the Digital Techne Team

May 07, 2024

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Chapter 1

Dossier

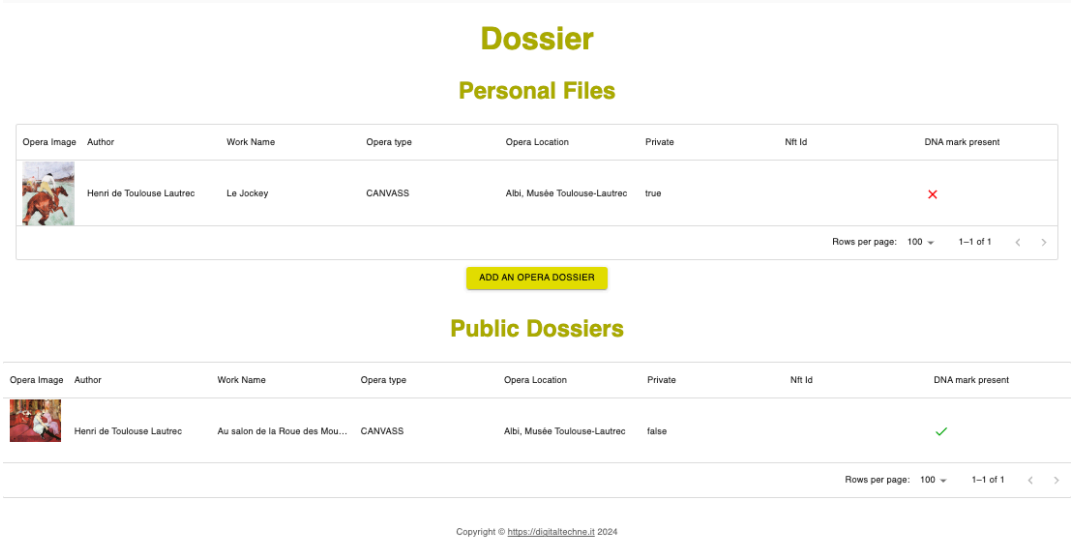
This page will show you the artworks hosted on DigitalTechne. They are divided in two sections:

- Artworks that you own
- Publicly available artworks

For both sections the data shown is the same: the main information about the opera (title, author and so on), along with a picture

Clicking on a picture will lead you to the detailed information Chapter 2

A green check icon will indicate that the DNA ink has already been placed on the opera and the genomic record has been recorded in BlockChain



Dossier Detail

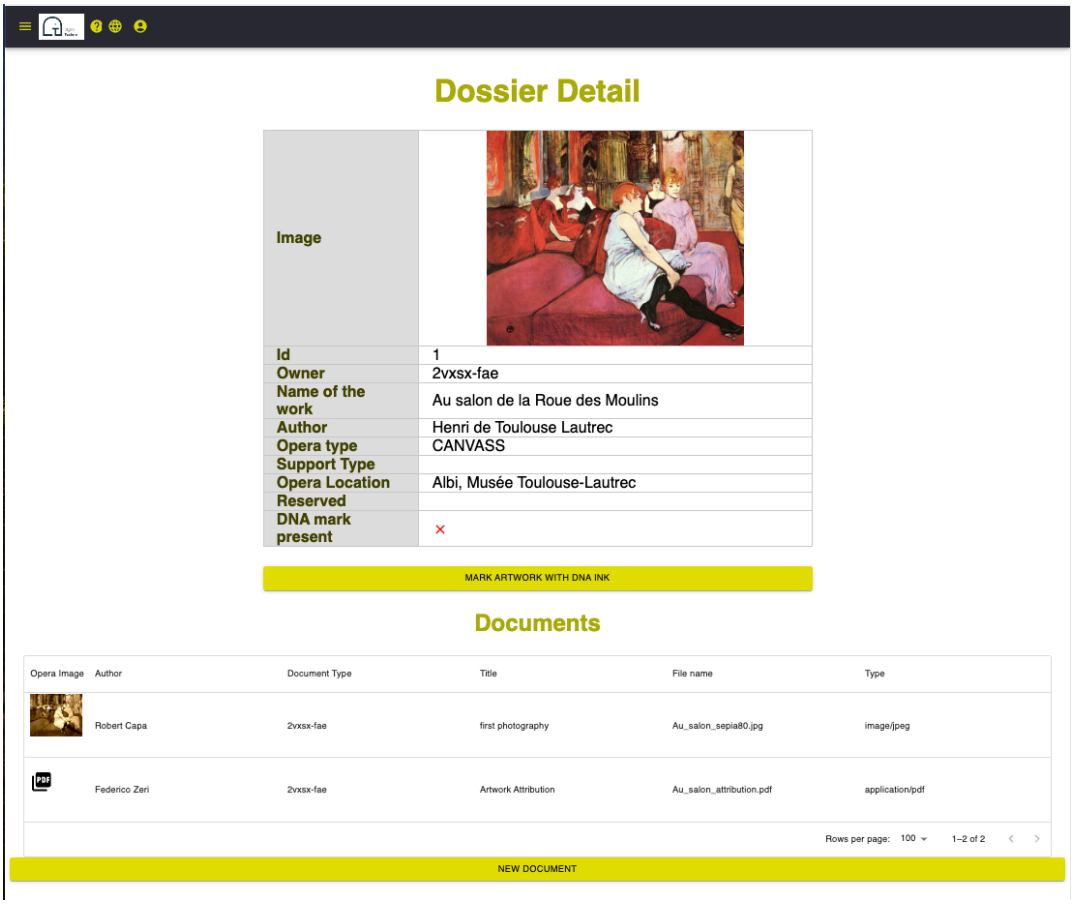
This page will show you all the information about the artwork:

- detailed information
- a collection of documents

Clicking on each document icon you can download the file, or show the image in full resolution

The button **Mark Artwork with DNA Ink** will allow you to register the association among the ink on the physical artowork and its digital representation (the information shown in this page). See details there: Chapter 3

When the Dna mark is already registered, a different button will appear: **Verify DNA mark**. It will allow you to verify the authenticity of the mark. The descriptive page is here Chapter 4



Artwork Mark

Initially you have to put the ink on the artwork. The position is important, you have to specify it while you insert data in blockchain.

After usage the cartridge will be useless, the DNA material will be destroyed by a chemical reaction, in order to avoid unwanted further usage

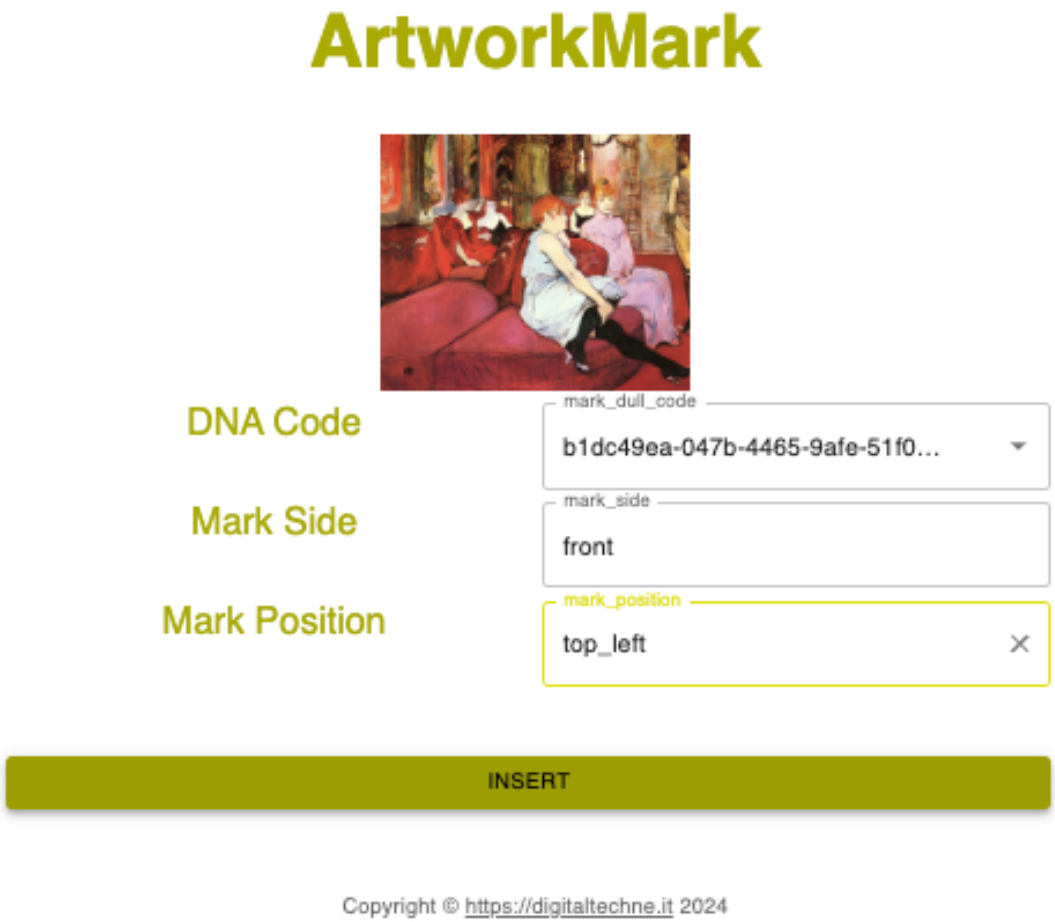
Please note that the ink is completely transparent at the naked eye, and, obviously has been engineered for a long lasting stability

Using an ultra violet lamp, the ink spot will be visible

3.1 Insert in BlockChain

And then the blockchain operation:

- select from the first pull down menu the identifier of the ink cartridge
- select from the second pull down menu the artwork side (front, back or frame)
- select from the third pull down menu the drop position



At the end of this blockchain operation a green check mark will appear in the opera documentation

Verify

An important feature of the system is the ability to verify the correctness of the association. In any moment you can prove that the physical artwork is correctly tied to the information in blockchain.

The control, altough not real time, can be easily done:

- using a swab you collect a small amount of the DNA material from the physical artwork
- let a laboratory analyze the specimen
- load the laboratory results on DigitalTechne
- have a look ad the differences

Verify operation on DigitalTechne is shown here:

- upload the file with the laboratory results
- select from the first pull down menu the artwork side (front, back or frame)
- select from the second pull down menu the drop position

The result is a page that will show the genomic details, where the differences will be highlighted.

Moreover, the system will show also the possible differences of the ink position on the artwork

```
62      Locus: "D18S51",
63      Alleli: "7, 9, 10, 10.2, 11, 12, 13, 13.2, 14, 14.2, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27",
64      Esempio di un profilo DNA: 9.25
65    },
66    {
67      Locus: "Amelogenin",
68      Alleli: "X, Y",
69      Esempio di un profilo DNA: "X,Y"
70    },
71    {
72      Locus: "D5S818",
73  -   Alleli: "7, 8, 9, 10, 11, 12, 13, 14, 15, 16",
74  +   Alleli: "7, 8, 9, 10, 11, 12, 13, 14, 15, 17",
75      Esempio di un profilo DNA: 12.15
76    },
77    {
78      Locus: "FGA",
79      Alleli: "17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 26.2, 27, 28, 29, 30, 30.2, 31.2, 32.2, 33.2, 42.2, 43.2, 44.2, 45.2, 46.2, 47.2, 48.2, 50.2, 51.2",
80      Esempio di un profilo DNA: "20,26.2"
81    },
82    {
83  -   mark_location: "front top_left",
84  +   mark_location: "front top_center"
```