

**nuiSense:  
user manual**

## Document information

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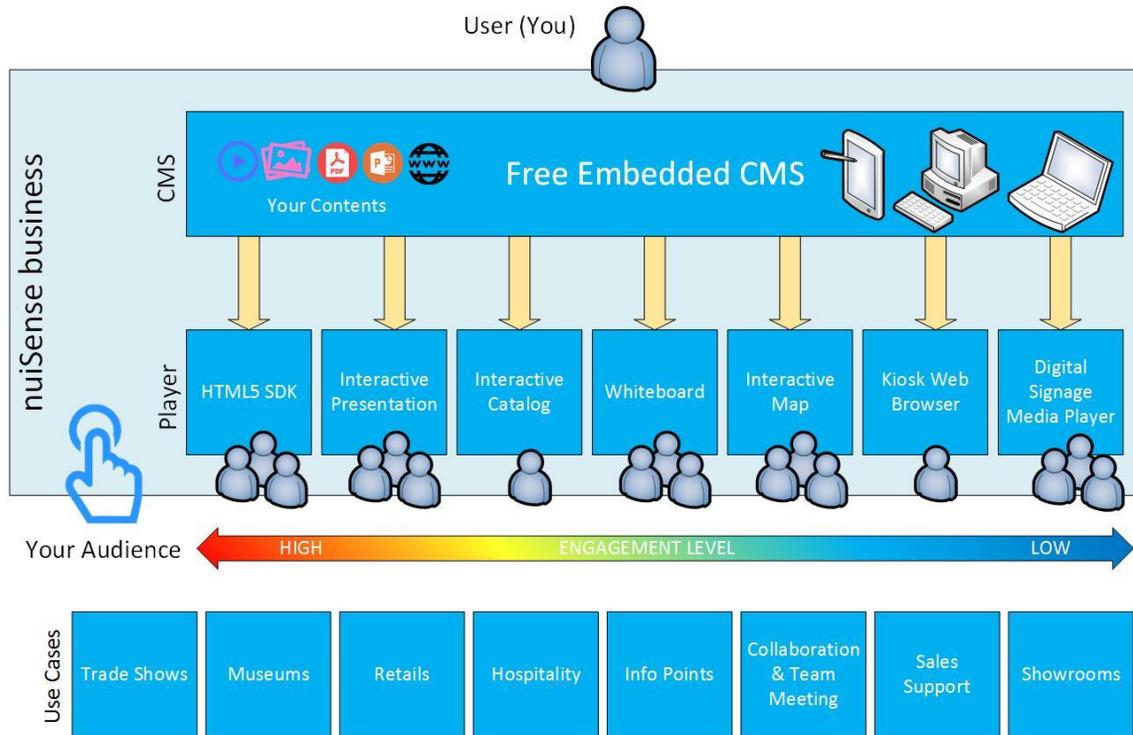
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# 1 Introduction

nuiSense business is the software suite to create engaging and amazing multi-touch, multi-user presentations and interactive experiences in a while without coding. To download and install nuiSense business please refer to “How to download and install” whitepaper.



## 1.1 Use cases

nuiSense business is very useful in these scenarios:

- Present information and media to your audience (no more passive slides!)
- Amazing interactive experiences in museums
- Tradeshow support
- Team collaboration & profitable meetings
- Digital signage
- Learning
- Showrooms
- Retails
- Info points
- Hospitality

## 1.2 Supported devices

nuiSense business works fine on:

- PCs, laptops, slates
- Tablets
- Multi touch tables
- Multi touch displays
- Multi touch kiosks
- Multi touch frames (e.g. PQ Labs, Samsung IR frame, Bantoo ShadowSense...)
- Multi touch foils (e.g. Displax, Zytronic...)
- Digital signage displays
- Microsoft Surface
- Microsoft Surface Hub 55" or 84"
- Any other Windows device

You need to have a Windows 8.1 or Windows 10 device (x64, x86, ARM). Windows 7 is not supported.

You can also use mouse and keyboard.

Check full system requirements here: <http://www.nuisense.com/multitouch-software-download.aspx>.

## 1.3 Terminology

Here some terms used in this document:

- Album: the experience created by CMS. You can create multiple types of album (App) depending on your needed
- App: is a type of album
- Workspace: the workspace is ideally a container of albums, often it is used as main page of the interactive experience
- Feature: is an add-in
- CMS (Content Management System): is the place where you will create your workspaces and albums
- Player: play the previously created workspaces.

## 1.4 Connectivity

You only need an internet connection to manage your license (e.g. device registration and deregistration). You could also need internet connection if you want to synchronize your workspaces through Microsoft Azure File Storage, Microsoft OneDrive or Dropbox.

You also need an active internet connection to browse web sites.

In any other cases the software can work disconnected.

## 1.5 Adaptive layout

nuiSense business use the so-called “adaptive layout” to support any screen resolution. Contents are automatically adapted to your resolution or display orientation (vertical or horizontal). In example, you do not need to create a workspace for Full HD resolution and one other for 4K resolution. The software will do automatically the upscaling and downscaling for you.

## 1.6 Apps

You can create different type of experiences:

- Interactive presentation
- Interactive catalog
- Media player for digital signage
- Interactive whiteboard
- Kiosk web browser
- Interactive maps
- Form
- App container for an album created using the nuiSense HTML5 SDK
- Navigation path

## 1.7 Supported media

nuiSense business content navigation is based on your file system. You can create a navigation path starting from different locations:

- Local folder on your PC
- Local area network (LAN) folder
- USB device
- Synchronized folder via Microsoft OneDrive or Dropbox, and any other providers integrated on your operating system

Depending on the App you are creating nuiSense business supports these file formats:

- Images
- Videos
- PDFs
- 3D Models (obj, glb, gltf)
- Offline HTML pages
- Web sites (internet connection required)
- Maps

## 1.8 Features

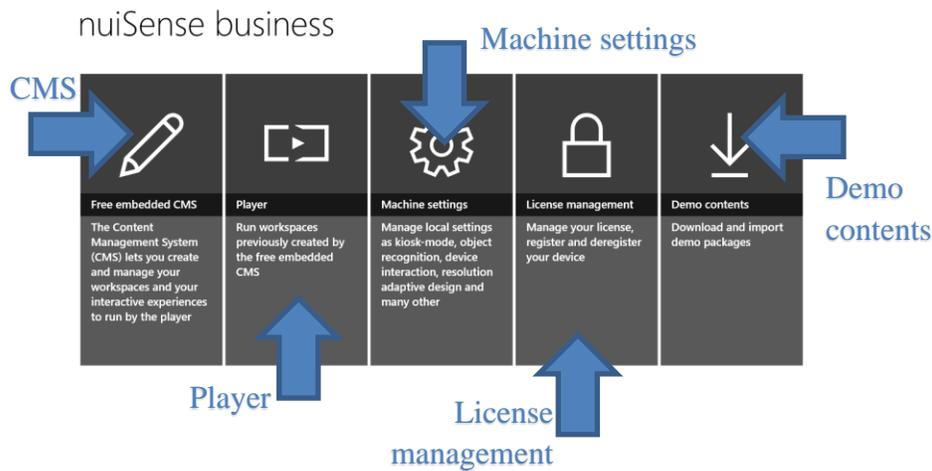
Apps may have additional features to improve the engaging of your audience.

- Physical object recognition using NFC tags

- Content sharing with other devices using a Wi-Fi area
- Flicks media on a secondary screen via DLNA, HDMI, DisplayPort, Wi-Di and Miracast
- Kiosk mode
- TruMedia camera
- Enterprise content synchronization
- Analytics
- API

## 2 Start using the software

In the main page you can manage the software.



**Figure 1** Main page

The **Free Embedded CMS** lets you create, edit and remove workspaces and albums. You do not need a registration code to use the Free Embedded CMS. It is free!

By the **Player** you can run a previously created workspace. To use the player you need a registration code. Without having it you can run an album for 5 minutes.

**Machine settings** tile lets you to configure environment parameters, as kiosk-mode, object recognition and many more.

By the **License management** tile you can register and unregister your device and upgrade the license with missing Apps & features. The license is per-device with unlimited transfers. You can buy a registration code here: <http://www.nuisense.com/shop/buy.aspx>.

Using **demo contents** you can download and import pre-configured workspaces to test some nuiSense business features. Consider these packages as a brief introduction to the most common used features. You can discover many other possibilities using Free Embedded CMS.

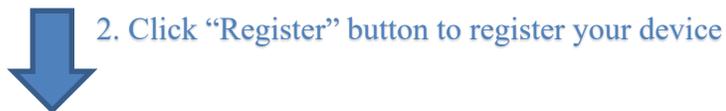
## 3 License management

In the license management page you can register, unregister and upgrade the license with missing Apps & features. You need an internet connection to use this page.

You can buy a registration code here: <http://www.nuisense.com/shop/buy.aspx>.

Before use the registration code please read the terms of use here: <http://www.nuisense.com/termsfuse.aspx>.

If the registration code is used the first time the terms of use is implicit accepted.



**Figure 2 How to register a device**

Once registered you cannot use your registration code for registering another device. If you need to move your license from a device to other one you need to unregister the first device before and then the registration code will be free for a new device registration. To do it simply click on **"Unregister"** button. Do not miss to do it!

You have unlimited transfers in your license.

If you do not have brought all Apps & features you can upgrade your license using **"Add missing features to your license"** button. You will be redirected to our shop where you can enrich your license.

You can also try missing App & Features for free switching the toggle button **"Try missing features"**. Automatically you will enter in try-mode and you can run your albums for 5 minutes.

If you have upgraded your license with missing App & features, you can synchronize your device to start using new features. To synchronize your device click on **"Sync"** button.

We suggest you to periodically synchronize your device for having new free features we decide to release to you.

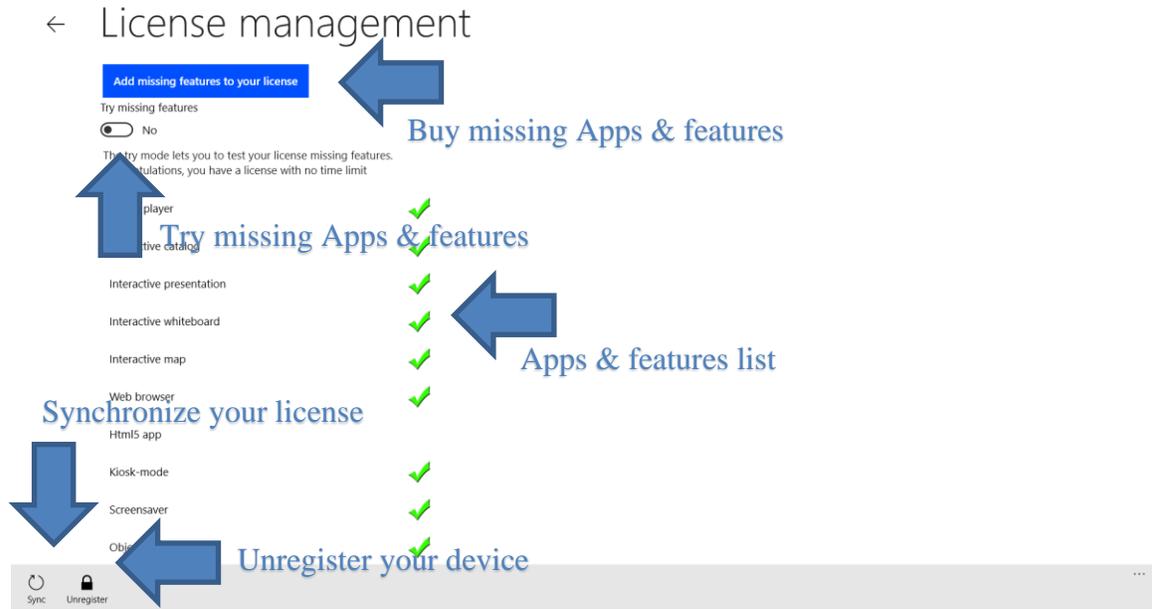


Figure 3 License management

## 4 Demo contents

If you want to have a quick tour or nuiSense business possibilities you can use the demo packages we have prepared for you. It is the best solution for quickly start using nuiSense business without spend your time. You need internet connection to use this page. These packages will show you the most used feature of nuiSense business, but we suggest you to start using the Free Embedded CMS to discover all the features and customization possibilities. Periodically check if new packages are available.

← Demo contents

The screenshot shows three demo packages with their respective descriptions and actions:

- Design Presentation**: An engaging interactive presentation to involve many users to interact with the contents. In this package we have used: interactive presentation, kiosk web browser, object recognition (NFC proximity device required). Size: 214 Mb. Actions: Download, Cancel, Import.
- Design Catalog**: An exciting digital catalog application. User can browse and naturally interact with contents. In this package we have used: interactive catalog, kiosk web browser. Size: 250 Mb. Actions: Download, Cancel, Import.
- Html5 SDK Babylon.js Sample**: A simple Html5 App using Babylon.js and nuiSense Javascript SDK. In this package we have used: Html5 SDK, PowerPoint. Size: 7 Mb. Actions: Download, Cancel, Import.

Annotations on the right side of the screenshot:

- 1. Download the package**: A large blue arrow pointing downwards towards the 'Download' buttons of the packages.
- 2. Import the package**: A large blue arrow pointing upwards towards the 'Import' buttons of the packages.

**Figure 4** How to download and import demo contents

Click **“Download”** button to download a demo package. When download started, you can cancel it clicking on **“Cancel”** button. During download you can use the software and do other tasks. If you close the software downloads will automatically stop. When you open again the software downloads will be resumed if you enter in the demo contents page.

You can download more packages simultaneously.

When download finished you can click on **“Import”** button to import the workspace. You will be redirected in the import page (see **“How to export and import workspaces”**).

# 5 Machine settings

Here you can configure your device.

## 5.1 About

In this tab you can find the version number of your software. Keep nuiSense business upgraded is important. Upgrades are free and Windows Store will automatically download and install them for you. If you have disabled automatic updated it is better that you check manually for a new version in Windows Store to keep your device upgraded.

## 5.2 Preferences

In this tab you can configure the content scaling based on your display size. You can also enable and disable the help tips.

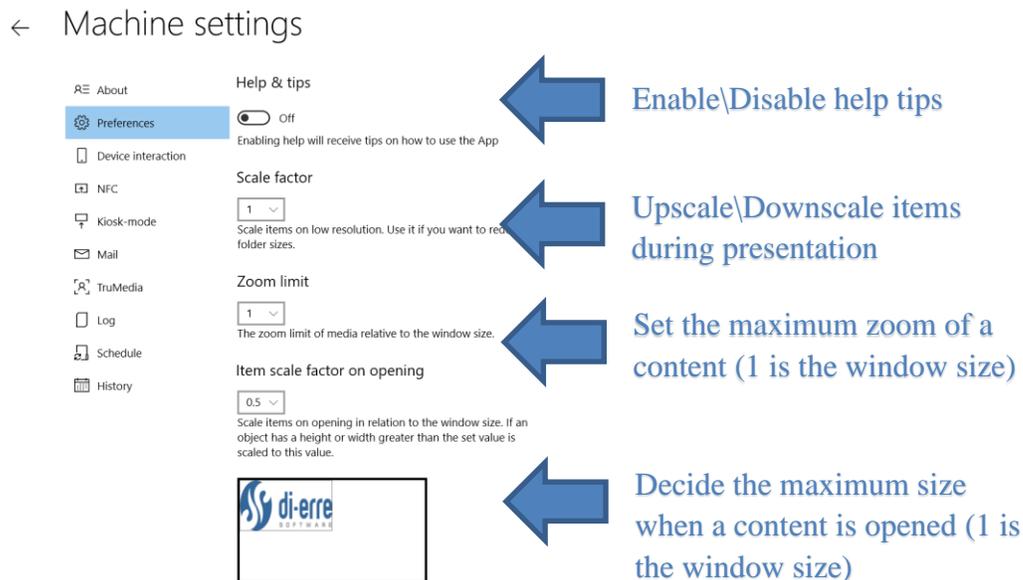


Figure 5 Preferences

## 5.3 Device interaction

In this tab, you can configure how to share contents between devices using your local Wi-Fi. All device must be on the same Wi-Fi. Check your firewall or antivirus to allow communication on the IP and Port you configured in this form.

← Machine settings

- ⌵ About
- ⚙️ Preferences
- 📱 Device interaction
- 📶 NFC
- 🖥️ Kiosk-mode
- ✉️ Mail
- 📺 TruMedia
- 🔒 Log
- 📅 Schedule
- 📄 History

### Choose how to connect

**Enable QRCode**  
 On  
Show the QR code on the screen to open automatically the site for sharing your media

**Enable NFC**  
 On  
Allow the connection of devices via NFC. Approaching the device to the NFC reader will automatically open the site for sharing your media

**Show instructions**  
 On  
Show the instructions on the screen to allow devices to connect to your Wi-Fi network

**IP address**  
  
Select the IP address of your network on which you want to make content available to other devices

**Port**

**Wi-Fi name**  
  
Enter the name of your Wi-Fi network to which users must connect

**Network security key**  
  
Enter the password for your Wi-Fi network to be displayed to users

**Manual device acceptance**  
 On  
Enable the manual devices acceptance

**QRCode size**

**Device inactivity period**

← Show a QRCode that device can read to browse provided contents

← Use Tap & Share (NFC) to browse provided contents

← Manually connect browsing the url on device

← Configure the IP address and the Port to use for serving devices

← Enter network credentials if you want to show when “Show instructions” toggle button is On

← If On devices will be accepted manually

← Disconnect device if inactive for this time

**Figure 6 Device interaction**

Enabling device interaction the software will startup an embedded web server to serve client requests. Contents are provided through an HTML5 website. No need to install Apps on your audience devices. People can connect and browse your contents simply using their browser, so they can use different operating systems (Android, iOS, Windows Mobile...) and different devices (Apple iPhone/iPad, Samsung phones and tablets, Windows Lumia, PC, Notebook, Windows tablets...).

## 5.4 NFC

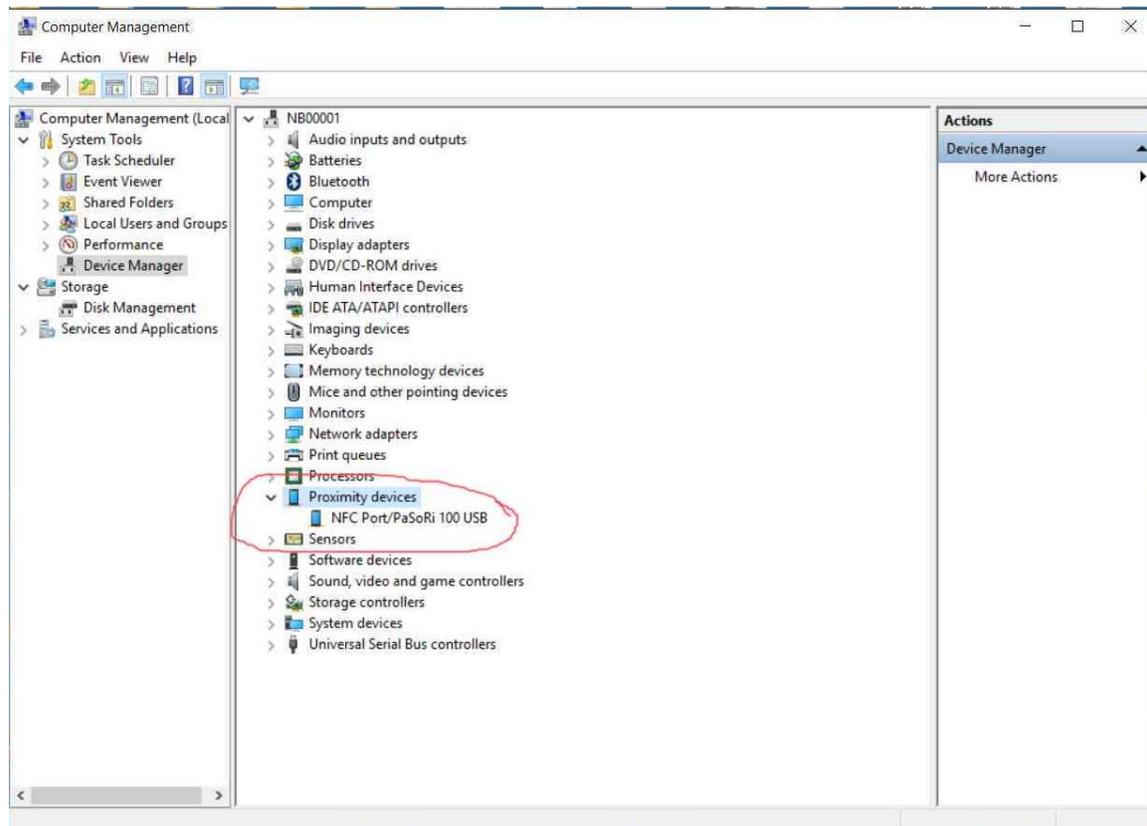
In this tab you can configure your NFC (Near Field Communication) devices. nuiSense business uses this technology to recognize physical objects.

All your NFC devices and readers are listed in “**device list**”. Clicking “+” button to enable a NFC device. Once you added the device you can move it to set the location of the NFC chip on your display. The location indicates where to open the contents associated with the tag.

To disable a NFC device simply click on “**X**” button.

Only the devices listed as “Proximity devices” in Computer Management will be shown in nuiSense “device list”.

Starting from version 2.10.41 the App is also compatible with device listed as “Smartcard readers”. Tags written using smartcard readers are not compatible with proximity devices.



**Figure 7 Proximity devices in Computer Management**

See object recognition in action here: <https://www.youtube.com/watch?v=9UW3c-brqAw>.

## 5.5 Kiosk-mode and watchdog

If you plans to use nuiSense business unattended in public spaces and you want that your audience cannot manage contents you will configure the kiosk-mode.

Here you can configure the workspace to run when App start. If you want, you can also configure a single Album to run.

Clicking on “Enable” button you have configured the kiosk-mode for the next run. You can use CTRL + SHIFT + K to exit from kiosk-mode.

You can also configure Windows Assigned Access to lock down your device: <https://technet.microsoft.com/en-us/itpro/windows/manage/set-up-a-device-for-anyone-to-use>.

Assigned Access prevent user to close the App and if something wrong, the App will be automatically restarted by native watchdog of Windows.

Using Assigned Access is the best choice to set up a kiosk using a Windows device and nuiSense business is designed to be fully compatible.

## 5.6 Mail

If you want send contents by email, you can configure an SMTP account to do it. Sending email requires an active internet connection. If you want to save sent email in your mailbox, you can also add IMAP information.

Please refers to your IT to propter configure nuiSense business for sending emails.

## 5.7 TruMedia

TruMedia is a special camera to recognize your audience. Camera can also works in disconnected mode, so you do not need internet connection to capture people information. Using a TruMedia camera, you can recognize people by gender and age groups and you can know if they are watching the display and if they are near.

nuiSense business uses it to propose contents targeted to the audience. By example, you may show jewels spot to woman, football spot to man and game spot to children. To configure targeted contents please refers to “The Content Management System” chapter of this document.

Discover more on TruMedia website: <http://www.tru-media.com>.

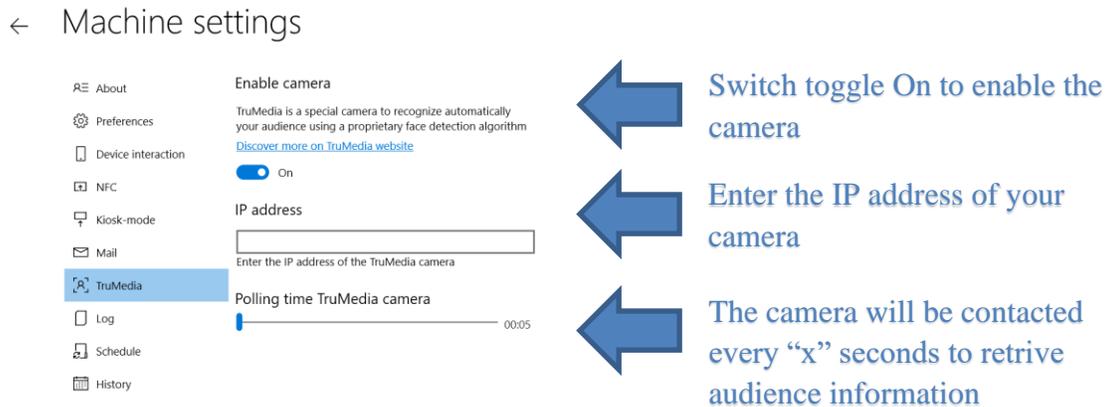


Figure 8 TruMedia camera

## 5.8 Log

The nuiSense business' log mechanism collects log in file system using a folder you can configure here. You can also use a network folder or choose to use synchronized folders as Microsoft OneDrive or Dropbox.

The rolling mechanism ensure that logs cannot grow more that you choose in “Max size in Kb” textbox. The application will create at maximum five files of that size.

In case of issues, it is important to change the log verbosity to “Verbose” and pack in a zip file and sends to our support team if you need assistance ([support@nuisense.com](mailto:support@nuisense.com)). It is important that you specify the date and time of your issue to have a faster analysis.

## 5.9 Workspace synchronization

Schedule and History tabs refers to workspace synchronization mechanism. You can configure a list of schedule to perform the workspace synchronization at chosen weekdays and time. You can configure more than one schedule to synchronize different workspaces at different timespan.

The content synchronization is automatic and will be performed in background. You can continue using the App during this process. If you will close the App, the synchronization will be cancelled and will restart next time based on your schedules configuration.

The workspace is transferred in a swap folder to guarantee user to use nuiSense business avoiding issues. When the transfer finish the process will copy all the contents in the destination folder and nuiSense business will block any user interaction showing a courtesy message.

Contents can be synchronized using:

- Microsoft Azure File Storage
- Local Area Network folder
- Synchronized folder (e.g. Microsoft OneDrive or Dropbox)

Some additional costs can depends on your internet provider or your cloud storage plan (e.g. Microsoft Azure billing).

Please refers to “**How to export and import workspaces**” and “**The content delivery**” chapters to perform workspace synchronization.

Click here to discover Microsoft Azure File Storage service: <https://azure.microsoft.com/en-us/services/storage/files/>

## 5.10 Analytics

Keep track of your users’ activities. nuiSense business can collects these events:

- SessionStarted
- SessionTerminated
- WorkspaceOpened
- WorkspaceClosed
- AlbumOpened
- AlbumClosed
- ContentOpened
- ContentClosed
- ContentShared (device interaction)
- TagRecognized (object recognition)

Data will be saved in a csv file inside the destination folder you have choose in this map. One file per-day is created. The table below shows the csv structure.

Field name	Description
TimeStamp	The timestamp of the event, based on the local time

AppId	The App instance, it changes every time the App is launched
SessionId	The user session
EventType	The type of the event according to the list above
Workspace	The name of the workspace
Album	The name of the album
Folder	The relative path of the folder of the content
Content	The name of the content
Id	The unique ID of the instance, you can use it to track the time of an action (time between opened event and its relative closed event)

## 5.11 Folders

Here you can configure the storage folder where data will be saved. The software will use this folder to store these data:

- Form data (subfolder “form”)
- Whiteboard (subfolder “whiteboards”)
- Ink & Annotation (subfolder “whiteboards”)

## 5.12 API

nuiSense exposes a set of APIs that you can call from a remote machine. If APIs successfully executed the http status code will be 200 or 204.

Url	Verb	Description
http://[ipaddress]:{port}/api/v1.0/workspaces/[workspaceid]/open	PUT	Open a workspace and, if kiosk mode is enabled, set it at default startup workspace.

**NOTE:** you cannot access to APIs from the same machine where nuiSense is running.

## 5.13 Camera

Here you can choose which camera will be used by nuiSense when it's needed in a Form.

## 6 The player

The player runs workspaces created by the Free Embedded Content Management System (CMS). Usually the player is used in production environment or for testing purposes.

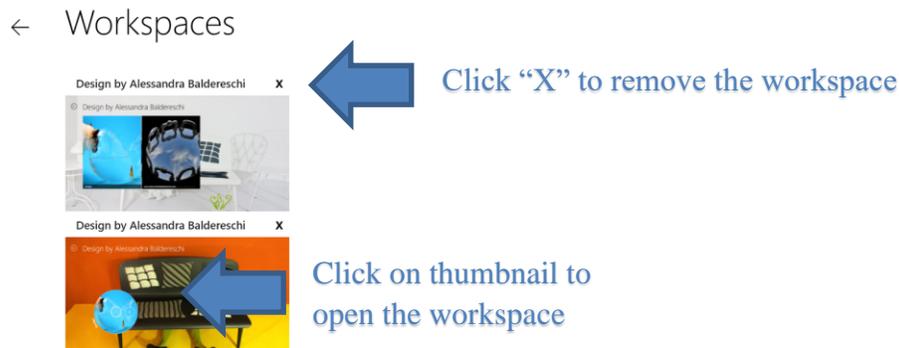


Figure 9 The player

### 6.1 Run from usb

You can run a workspace packed in a portable package from any usb drive. To create a portable package in nuiSense business please refer to “Create a portable package” paragraph in “How to export and import workspaces” chapter of this document.

To run a portable package you need to do follows steps:

- Choose your usb device in the list
- Click on the portable package file
- Click “**Run**” button

### 6.2 Import a workspace

You can import a workspace previously exported. To export and import workspaces please refer to “How to export and import workspaces” chapter of this document.

# 7 The Content Management System

The Free Embedded Content Management System (CMS) is the place where you can create and manage your workspaces and albums. You do not need a registration code to use it. It is free!

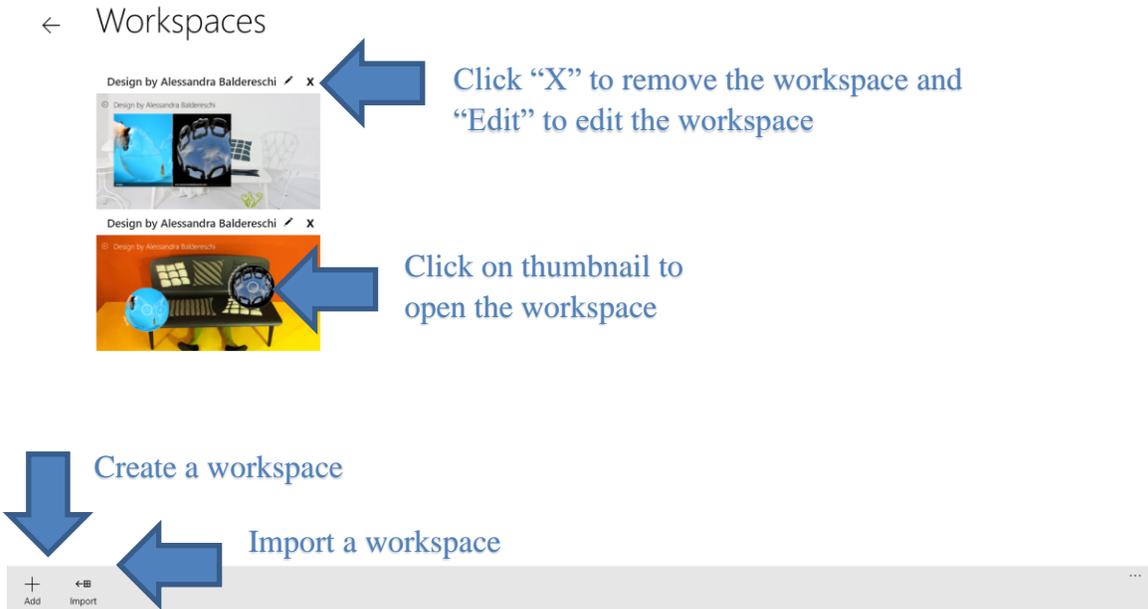


Figure 10 The Free Embedded Content Management System

## 7.1 Create and edit a workspace

Clicking on the **“Add”** button you will be drive to the workspace creation page. Here you can define the workspace look, localization (multi language support) and screen saver settings. You can also made the same settings editing an existing workspace. Click the **“Back”** button to save your workspace.

Tab	Description
General	Define the workspace look
Appearance	Define background and colors
Screensaver	Define what to show when inactive
Localization	Multi language support
Preview	Give a preview of your changes

### 7.1.1 General

Define the workspace look.

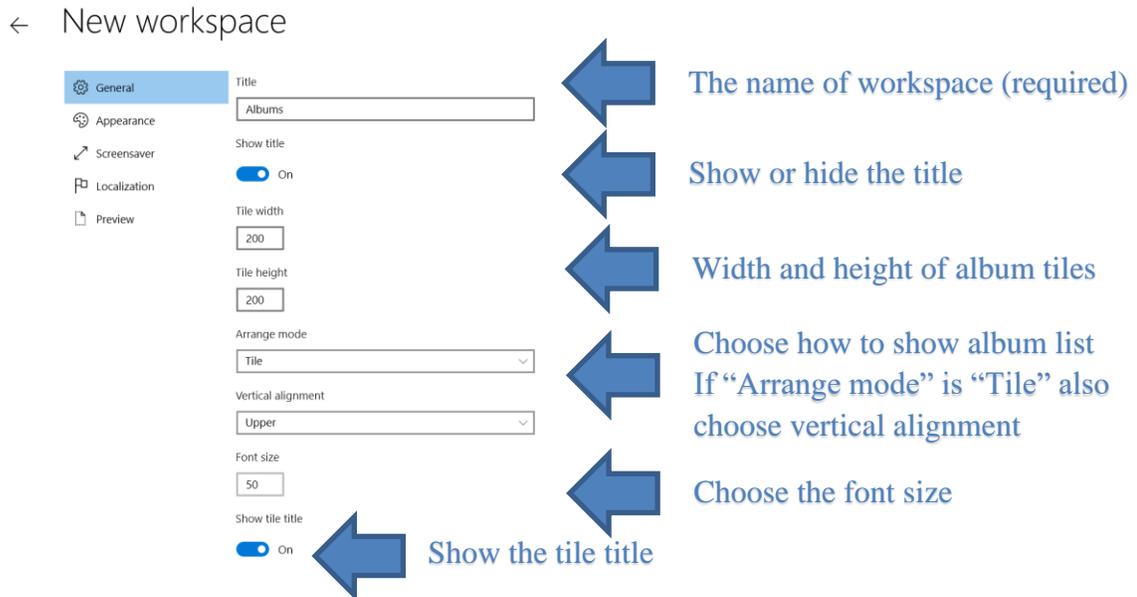


Figure 11 Workspace settings. Arrange mode examples in the table below.

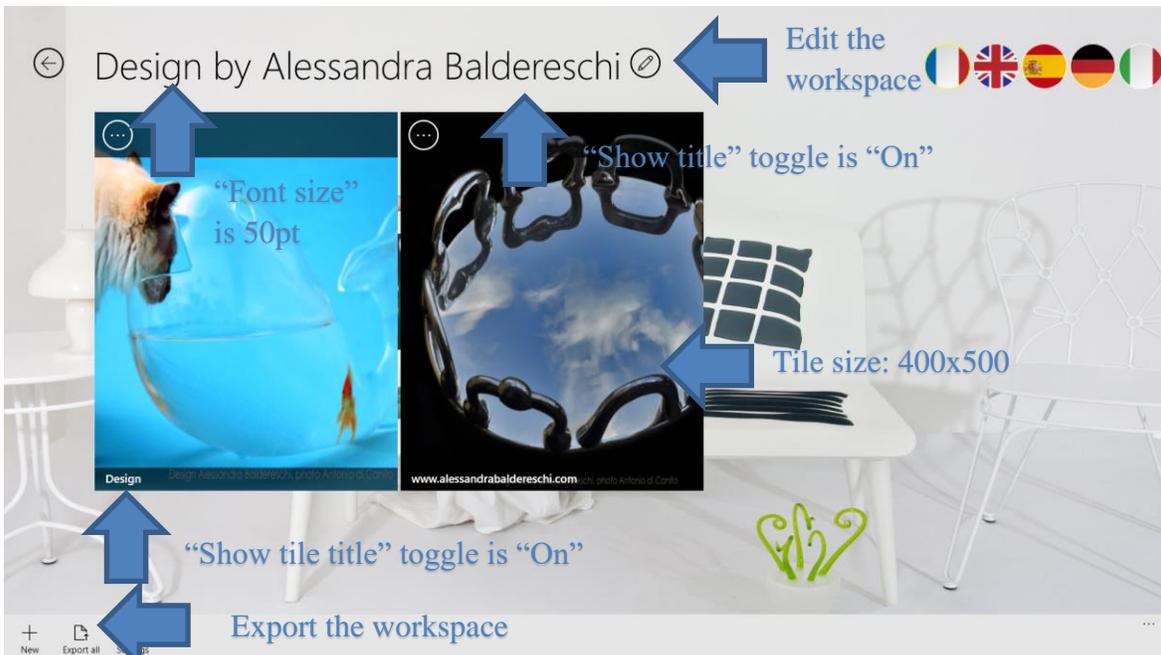


Figure 12 How “General” settings will change your workspace look

In the table below are showed how arrange mode will change the look of your albums.

Arrange mode	Example
Natural	
Tile	
Carousel	

### 7.1.2 Appearance

Define the appearance of workspace (e.g. background and colors).

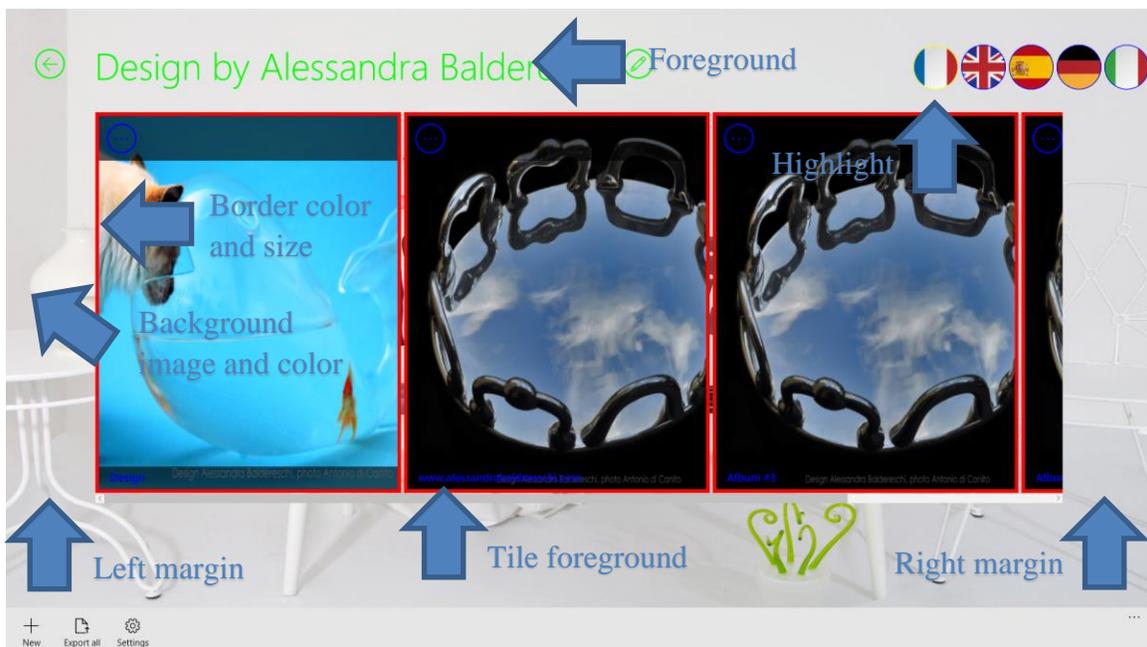
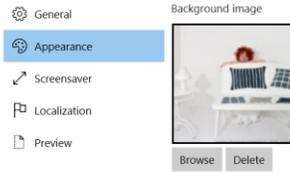


Figure 13 Appearance

← Workspace settings



Background image

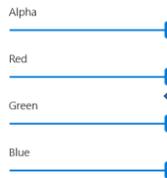


Browse Delete



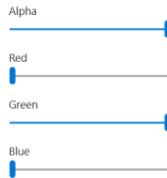
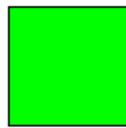
The background (image or video)

Background color



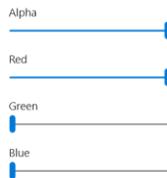
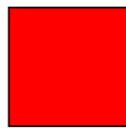
The background color, in case you have a transparent background image or if you haven't

Foreground color



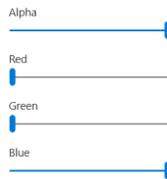
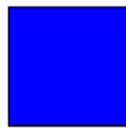
The title of title and buttons

Border color



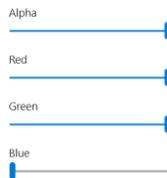
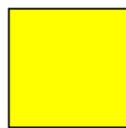
The color of the borders

Tile foreground color



The color of tile title and tile buttons

Highlight color



The color of the border of a selected element

Border thickness



The size of the border

Left margin

120

Right margin

120



The left and right margin

### 7.1.3 Screensaver

Show contents when the App is unused for a certain timespan.

The screenshot shows the 'Workspace settings' menu with the 'Screensaver' option selected. The settings include:

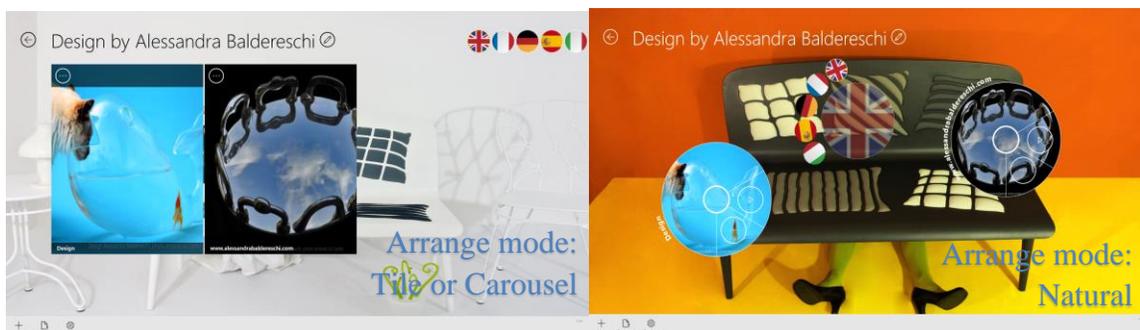
- Start if inactive for:** A slider set to 00:00. Annotation: "Choose the inactivity period".
- Time between contents:** A slider set to 00:05. Annotation: "Choose the duration of images".
- Folder with media to play:** A text input field with a file picker icon. Annotation: "The folder with the content to play during inactivity".
- Shuffle during screensaver:** A toggle switch set to 'Off'. Annotation: "Media shuffling".
- Close all media during the screen saver:** A toggle switch set to 'Off'. Annotation: "Close all opened media when inactive".
- Standby message:** A text input field. Annotation: "The message text and color to show when inactive".
- Message color:** A color selection interface with a red square and sliders for Alpha, Red, and Green.

### 7.1.4 Localization

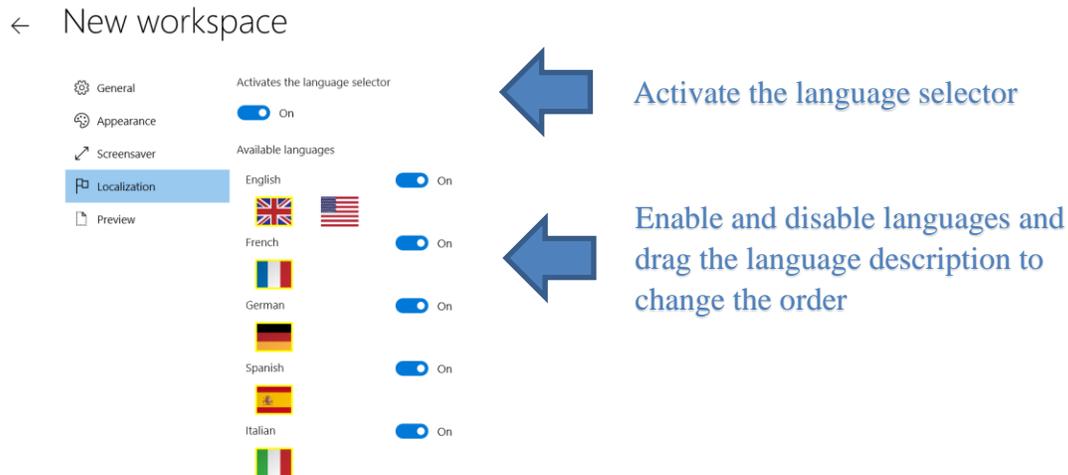
Here you can define if your workspace need multi-language support. For now, we support these languages:

- English
- French
- German
- Spanish
- Italian

The picture below show you two different styles for language selector depending on “General” -> “Arrange mode” configuration.



You can ask for a new language support filling the contact form on our website.  
 You can change the flags order simply dragging languages using your mouse or fingers.  
 The language selector will filter your albums by selected language. If the **“Activate the language selector”** toggle is switched to **“Off”** the application will filter your albums by **“System language”**.



**Figure 14 Localization**

### 7.1.5 Preview

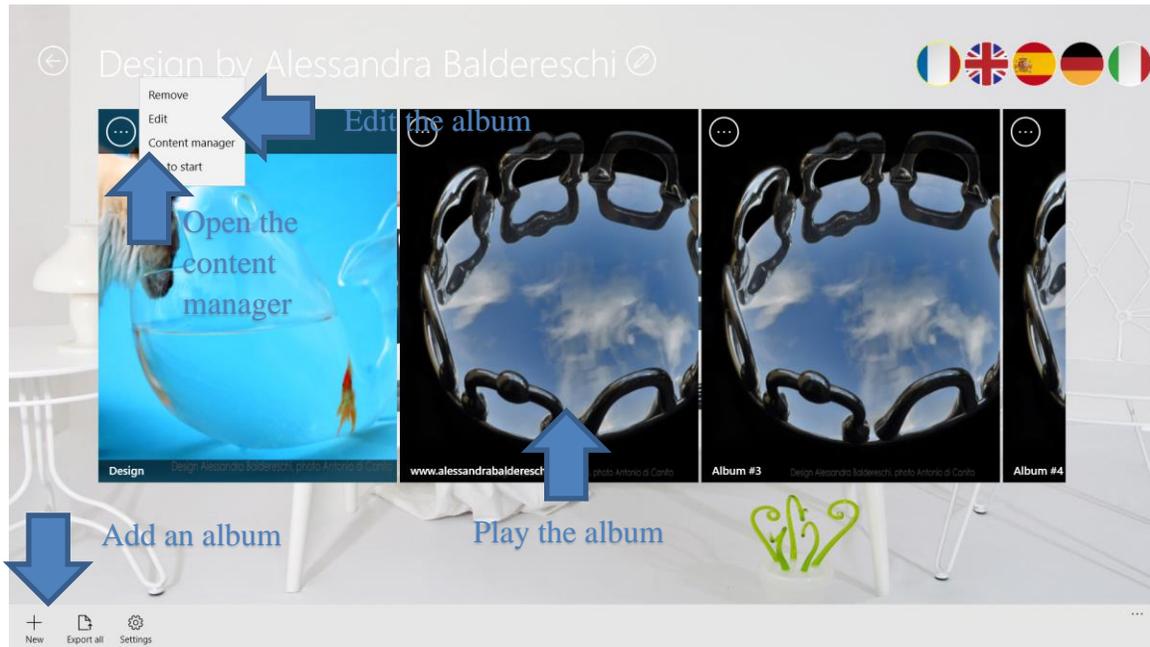
Give a preview of your changes. In case you have chosen in **“General”** -> **“Arrange mode”** as **“Natural”** you can drag your albums to setup the exactly start up position.  
 So create your new workspace and save your work, then add your albums and enter in edit mode to set up the start up position.

## 7.2 Export and import a workspace

You can import a workspace previously exported. To export and import workspaces please refer to **“How to export and import workspaces”** chapter of this document.

## 7.3 Manage your albums

In the albums page you can add, edit and remove your albums. You can change the album order simply drag & drop an album in desired position. You can do it only if **“Arrange mode”** is set to **“tile”**.



### 7.3.1 Create an album

Click **“New”** button to create an album. You can choose what App you want create.

← Create a new album



**Figure 15 Apps**

Table below show different Apps and their use cases.

App	Short description	Number of users	Use case
Interactive presentation	Present media in a natural user interface and collaborate each other	Many concurrent users	Multi touch tables and huge multi touch displays or video walls

Interactive catalog	Present media for one user interaction	Optimized for one user navigation	Multi touch displays, info points, kiosks and tablets
Kiosk web browser	Browse a web site in a safe manner	One user	Info points, kiosks and tablets
Digital signage media player	Show and schedule media playing	No interaction	Digital signage displays
Interactive whiteboard	Ink and draw using touch or stylus	Many concurrent users	Multi touch tables and huge multi touch displays or video walls, collaborative digital boards
Interactive map	Show geotagged media on a map	Many concurrent users	Multi touch tables and huge multi touch displays or video walls
Form	Create a form to store your visitors data	One user	Multi touch displays, info points, kiosks and tablets
Html5 SDK	Show custom Html5 App using nuiSense business JavaScript SDK	Depends on your App	Depends on your App
Navigation Path	Show contents in a multi-level navigation path	Optimized for one user navigation	Multi touch displays, info points, kiosks and tablets

### 7.3.2 The content manager

Click on “...” button to manage the contents of your album. The content manager page may differ by the App of your album and by its configuration.

## 7.4 Create an interactive presentation

Create an interactive presentation if you plans your App will be used by many concurrent users or on a huge screen. Interactive presentation is also a best choice if you plans team collaboration sessions. You can show following file types:

- Image
- Video
- PDF
- 3D Models

You can also made the same settings editing an existing album. Click the “**Back**” button to save your workspace.

Tab	Description
General	Define main album settings
Navigation	Define the user interface look

Menu	Define the menu
Command bar	Define interactions allowed on media files
Video	Some video settings
Contents	Choose the contents to present
Appearance	Define background and colors
Screensaver	Define what to show when inactive
Slideshow	Define the content slide show
Object recognition	Implement physical object recognition using NFC tags
Device interaction	Define how to share media with other devices on the Wi-Fi area
Secondary screen	Define how to flicks media to a secondary display (e.g. TVs, displays or tablets)
Whiteboard	Define whiteboard settings
Power Point	Download the Power Point conversion tool
Not supported files	Define if and how open unsupported file types
Note	Define annotation settings on media and documents
Preview	Give a preview of your changes

### 7.4.1 General

Define general settings of your album.

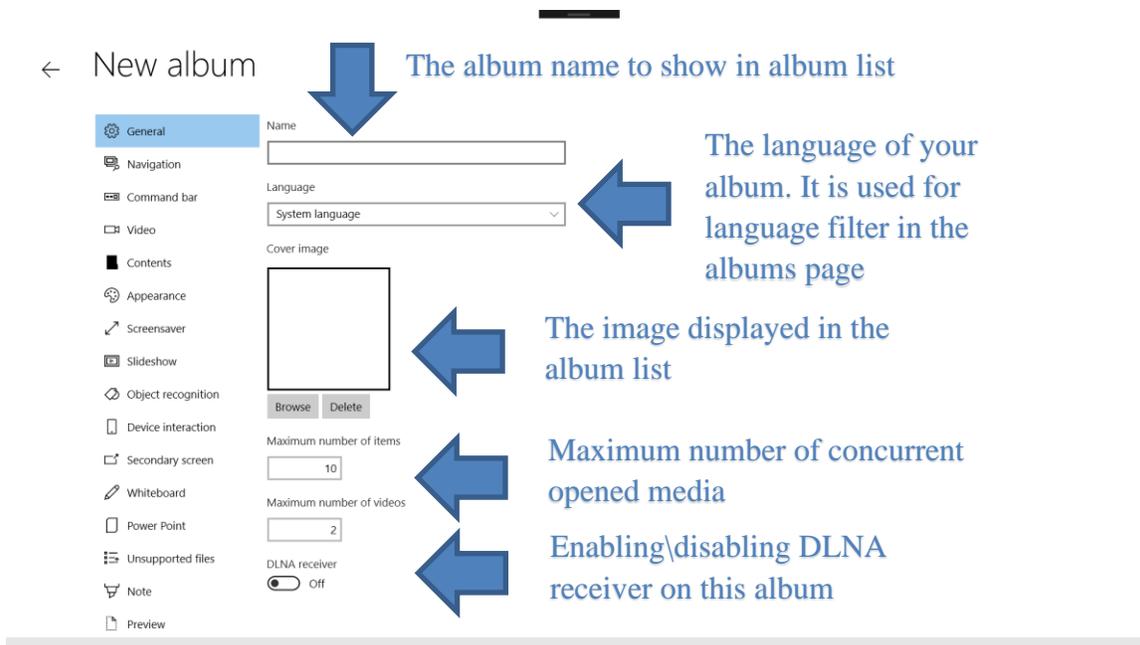
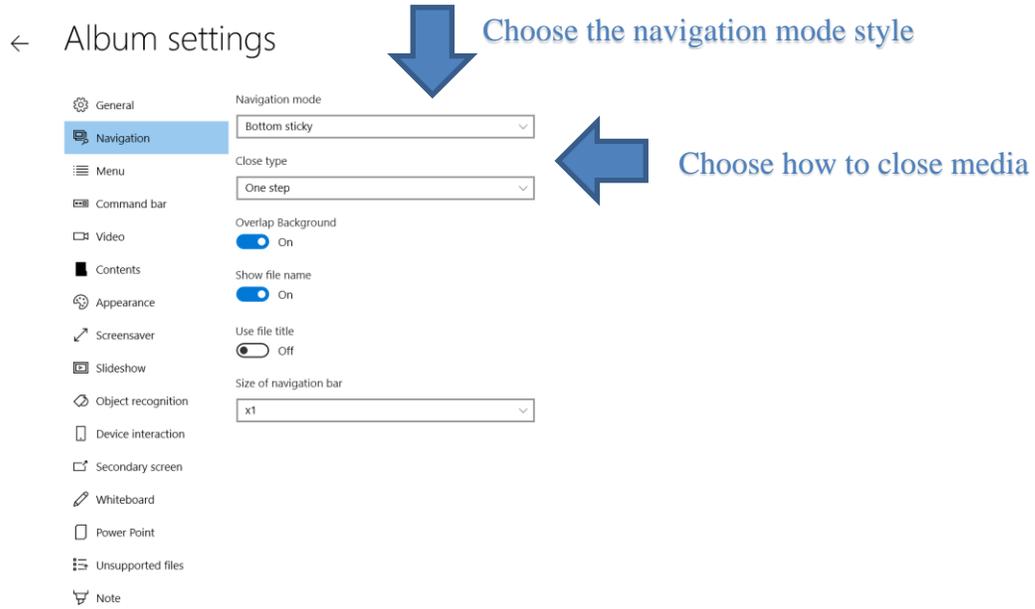


Figure 16 General

### 7.4.2 Navigation

Define the user interface look and how users will navigate the contents.  
 If you switch on the kiosk mode toggle, the users cannot leave the album and cannot return to the workspace.  
 Use this behavior if you have a single album presentation.  
 To close the album when in kiosk mode you can use the keyboard shortcut CTRL + SHIFT + H.



**Figure 17 Navigation mode**

The table below show you different navigation mode possibilities.

Navigation mode	Example
Natural	
Box	
Circular	

Bottom sticky (default)	
Bottom and top sticky	
None	Do not show any contents. It is be intended to use in physical object recognition scenarios where content are only show if a user put the object on the NFC reader.

The picture below show the additional settings for “**Bottom sticky**” and “**Bottom and top sticky**” navigation mode.

Overlap Background On ← Put the background behind the navigation bar, use it if your navigation bar color is transparent

Show file name On ← Show the file name or use file title you have setupp in Content Manager page. If Show file name is switched off no name will be shown

Use file title Off

Size of navigation bar:  ← Scale the navigation bar

**Figure 18** Additional setting for "Bottom sticky" and "Bottom and top sticky" navigation mode

The picture below show the additional settings for “**Circular**” navigation mode.

Show file name On

Use file title Off

Text alignment:

First level layout:

Close contents if inactive for:

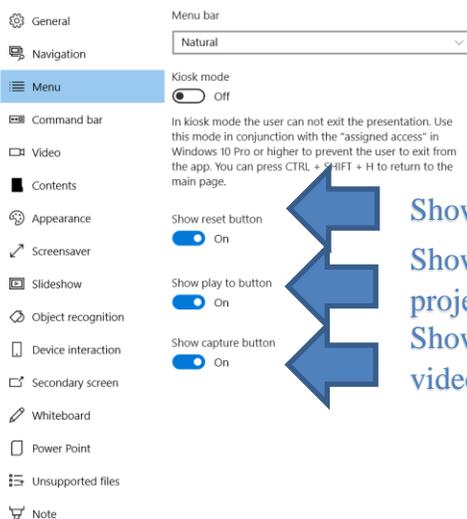
**Figure 19** Additional settings for "Circular" navigation mode

### 7.4.1 Menu

Choose the menu bar style and show or hides the buttons in the menu bar. The table below show you different menu possibilities.

Menu type	Example
Natural	
Application bar	
Sticky application bar	

#### ← Album settings



- ← Choose the menu bar style
- ← In kiosk mode users cannot return to workspace page
- ← Show the button to close all opened media
- ← Show the button for secondary screen projection
- ← Show the button to use the camera to take video or picture

**Figure 20 Menu**

### 7.4.2 Command bar

Show or hides the buttons in the command bar. The command bar appears over all your opened media. It could be always visible or activated on tap, depends on the “**style**” setup. You can also show an information box with title and description of your media. You can manage these media properties in the content manager page.



Figure 21 Command bar

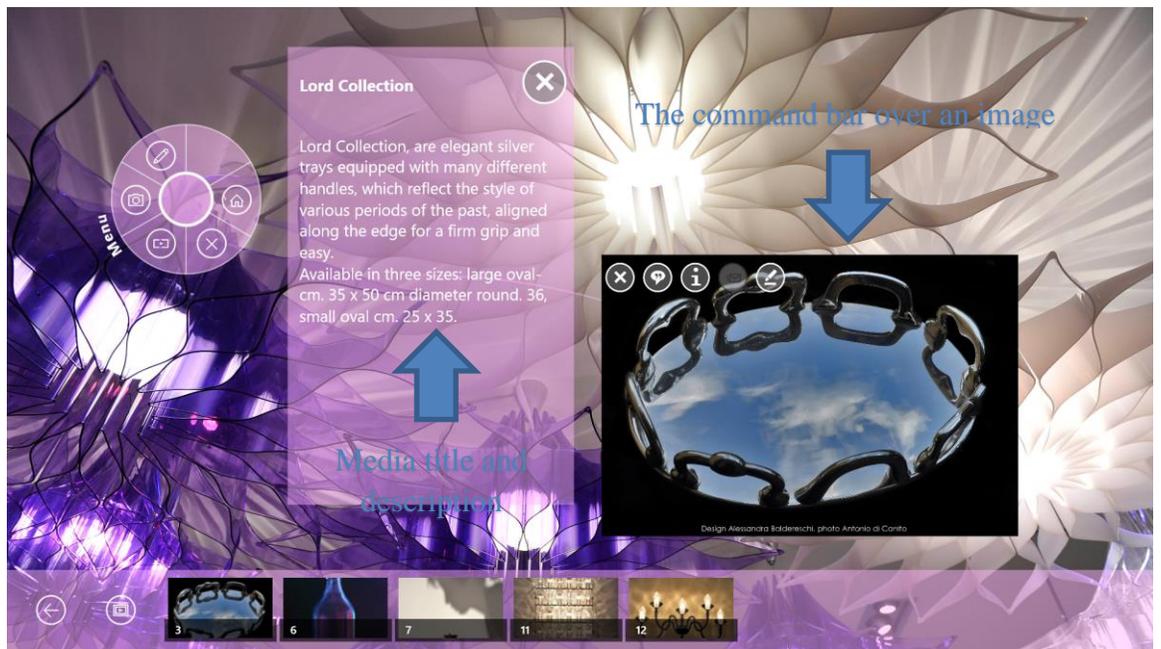
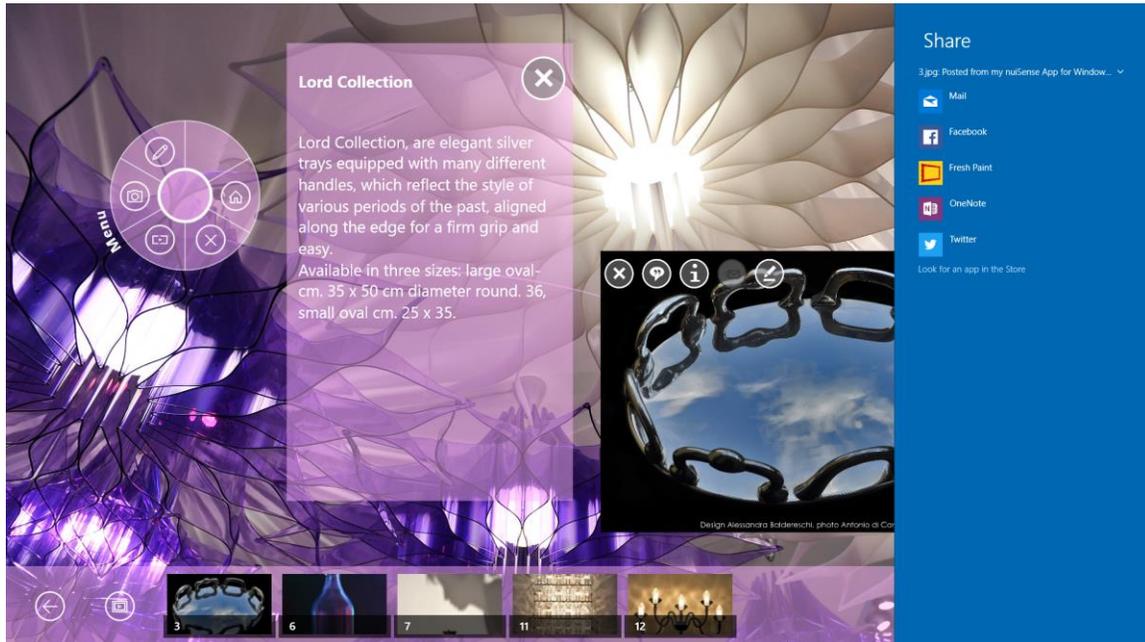


Figure 22 Command bar over an image



**Figure 23** The share button allows user to share media to external Apps installed on your device

### 7.4.3 Video

Define how users can interact with your video files.

### 7.4.4 Contents

Define the contents of your album. The navigation path is based on file system. You can simply organize your files in folders and subfolders. Once you have organized files you can add the folder to your album and decide how to show it.

In example, if you want to have a hierarchical navigation path you can organize your folders as below:

```

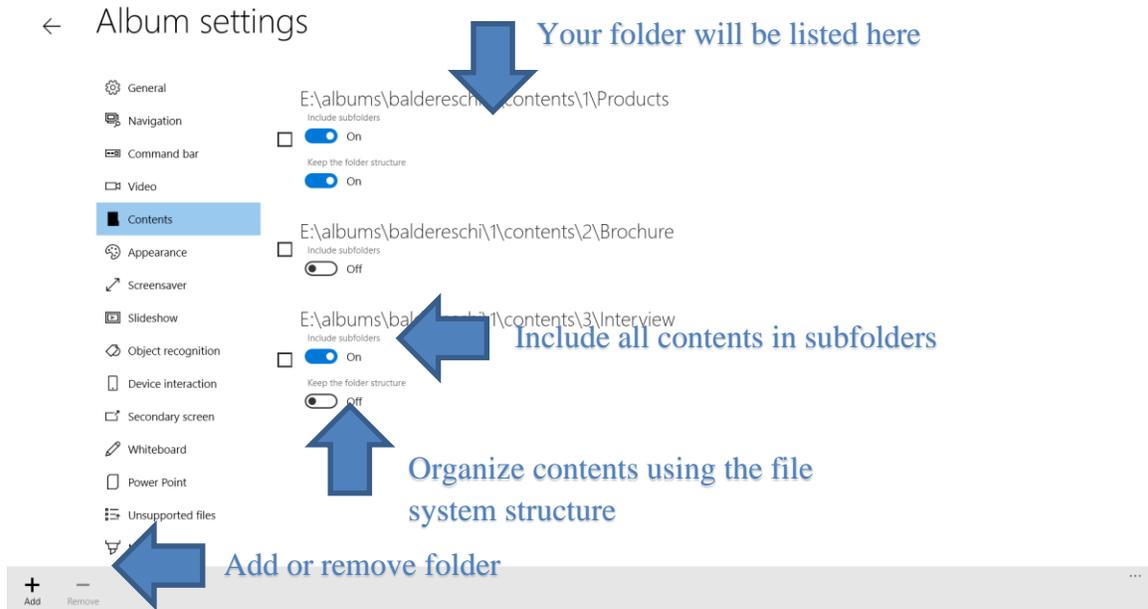
Products
+ Product 1
+ Product 2
++ Brochure
++ Media
+ Product 3
  
```

If you want to upgrade your structure, you can simply modify the file system. nuiSense business will automatically adapt the navigation path and contents to your changes.

By default nuiSense business will show contents inside your main folder, ignoring subfolders.

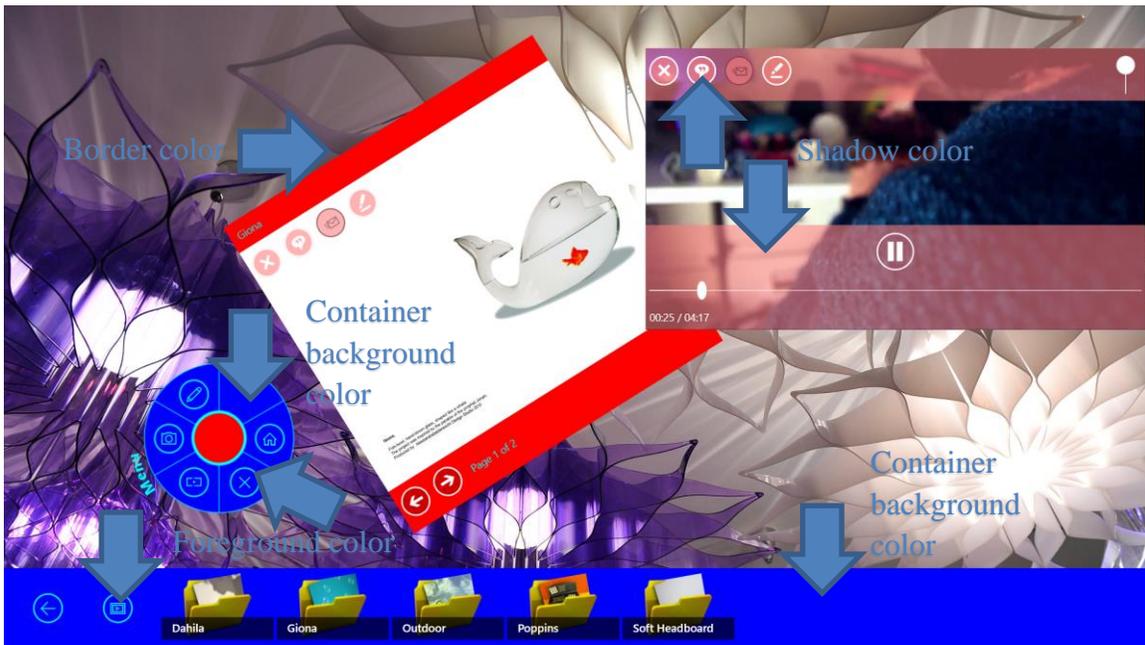
If you also want to show the contents inside subfolders you can switch on the "Include subfolders" toggle. In this case all contents will be shown in a flat hierarchy.

Switching on the "keep folder structure" toggle to have a full depth hierarchy.



### 7.4.5 Appearance

Define the background and colors.  
You can use the “Alpha” slider to have a transparent effect.



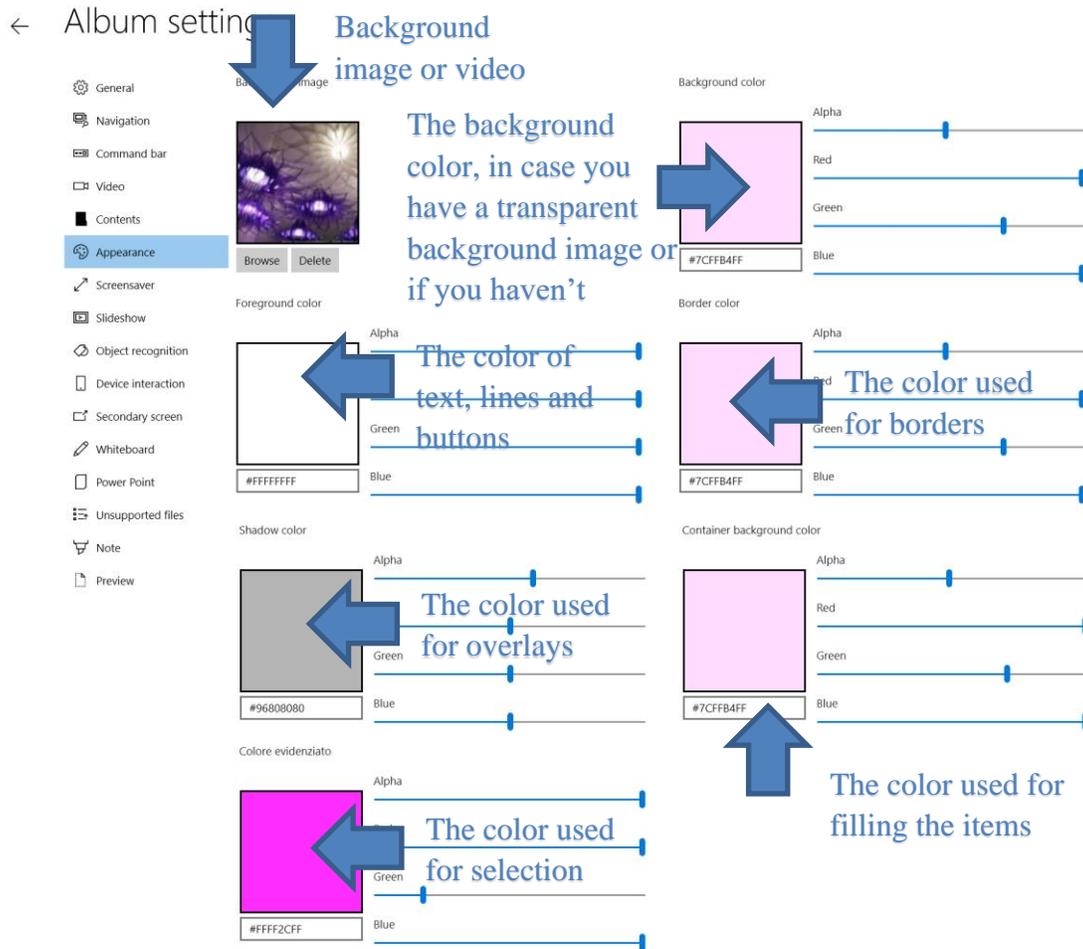


Figure 26 Appearance

### 7.4.6 Screensaver

You can override the workspace screensaver settings switching off the “**Use workspace settings**” toggle. Switching on “**Come back to workspace when active**” toggle will drive the user to the workspace page. Refer to “Create and edit a workspace -> Screensaver” paragraph of “The Content Management System” chapter for full explanations.

### 7.4.7 Slideshow

Enable and disable the slideshow of your contents.

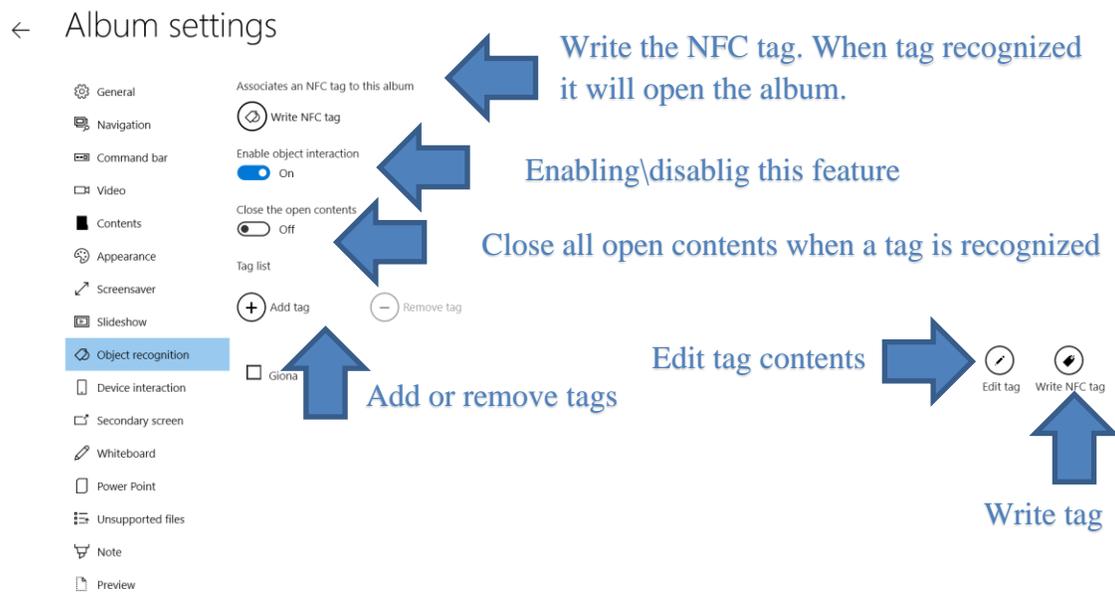
### 7.4.8 Object recognition

One interesting feature of nuiSense business is the possibility to recognize physical objects using NFC tags.

Supported tags are:

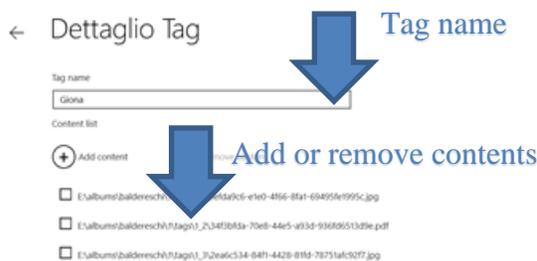
- NTAG21x

Placing tagged object near the NFC reader to open themed contents. You can configure these contents in the tag detail page and click **“Add content”** button to associate the content.



**Figure 27 Object recognition tab**

See object recognition in action here: <http://www.nuisense.com/blog/31/How-to-recognize-objects-using-NFC-tags-capacitive-touch-tables.ashx>



**Figure 28 Tag detail**

### 7.4.9 Device interaction

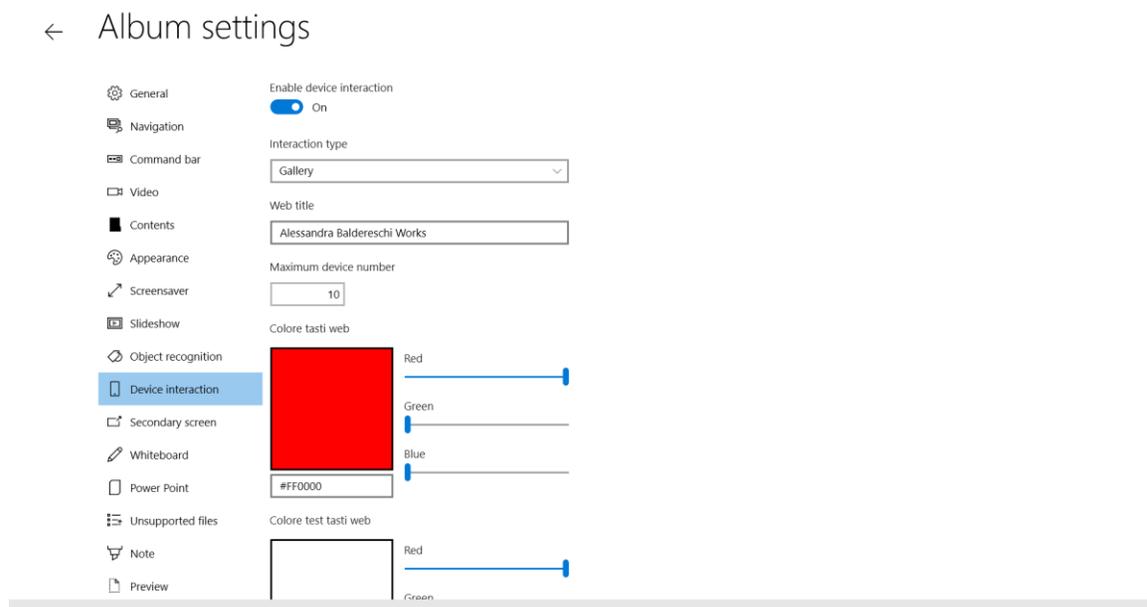
In this tab you can configure how to share contents between devices using your local Wi-Fi. Please refer to “Machine settings” chapter to configure your device.

There are two different interaction types:

- Gallery
- Collaboration

In collaboration mode devices, once connected, are displayed on the primary screen and can receive specific contents.

Instead in gallery mode the device can browse itself contents using the navigation path.



**Figure 29** Device interaction settings

### 7.4.10 Secondary screen

Allow users to flicks media (images and videos) on an external display (such TV or video wall...). nuiSense business supports these protocols:

- HDMI
- WiDi
- DLNA

You can also configure a media jukebox queuing your media. Users can reorder media. WiDi and DLNA are not supported in Assigned Access.

← Album settings

The screenshot shows the 'Album settings' interface with a sidebar on the left containing various settings categories. The 'Secondary screen' category is selected and highlighted in blue. The main content area displays settings for the secondary screen, with blue arrows pointing to specific options and their functions:

- Projection mode:** A dropdown menu set to 'WiDi / HDMI'. Annotation: 'Choose how to flicks media'.
- Secondary screen send mode:** A dropdown menu set to 'Flicks media out of the screen on right'. Annotation: 'Choose how to flicks media'.
- Automatically connect secondary screen on album open:** A toggle switch set to 'Off'. Annotation: 'Connect automatically at album startup'.
- Enqueue media to project:** A toggle switch set to 'On'. Annotation: 'Create a queue and choose its alignment'.
- Show media queued on primary screen:** A toggle switch set to 'On'. Annotation: 'Create a queue and choose its alignment'.
- Queue alignment:** A dropdown menu set to 'Right'. Annotation: 'Create a queue and choose its alignment'.
- Show the screen saver when the projection queue is empty:** A toggle switch set to 'Off'. Annotation: 'If the queue is empty you can project media from a folder'.
- Allows to arrange media on queue:** A toggle switch set to 'On'. Annotation: 'Users can reorder media'.
- Max number of media in the queue:** A text input field containing '50'. Annotation: 'Users can reorder media'.
- Video max duration:** A slider set to 02:00. Annotation: 'Users can reorder media'.
- Image max duration:** A slider set to 00:05. Annotation: 'Users can reorder media'.
- Show this image when no media on queue:** A section with a placeholder image box and 'Browse' and 'Delete' buttons. Annotation: 'Default picture to show if no media projected'.

Figure 30 Secondary screen



Figure 31 Projection queue

#### 7.4.11 Whiteboard

Please refer to “Create an interactive whiteboard” paragraph.

#### 7.4.12 Unsupported files

You can decide if you want to use external Apps to open unsupported files. In example if you have a Microsoft Visio file you can decide to show it open the Microsoft Office Visio App. If you switch on “**Show application picker**” users can choose the App to use, otherwise the system will use the predefined App depending on the file type.

#### 7.4.13 Note

Enables or disables the inking on your contents. Switch on the “**Ink allowed**” toggle button to take note on media. You can ink using mouse, touch or stylus. Depending on your hardware nuiSense business can recognize pressure, palm reaction or active stylus. Please refer to your hardware manufacturer.

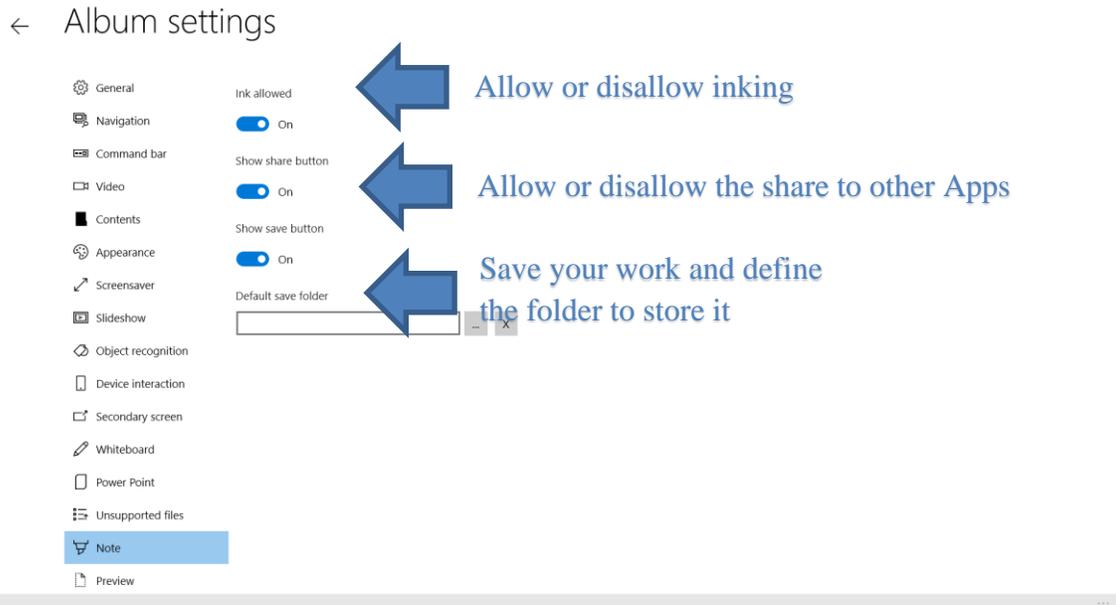


Figure 32 Note



Figure 33 Ink toolbar

#### 7.4.14 Preview

It gives you a preview of your album. If you have chosen to set the “**navigation mode**” of navigation tab as natural, box or circular here you can decide the exact start up position of your items.

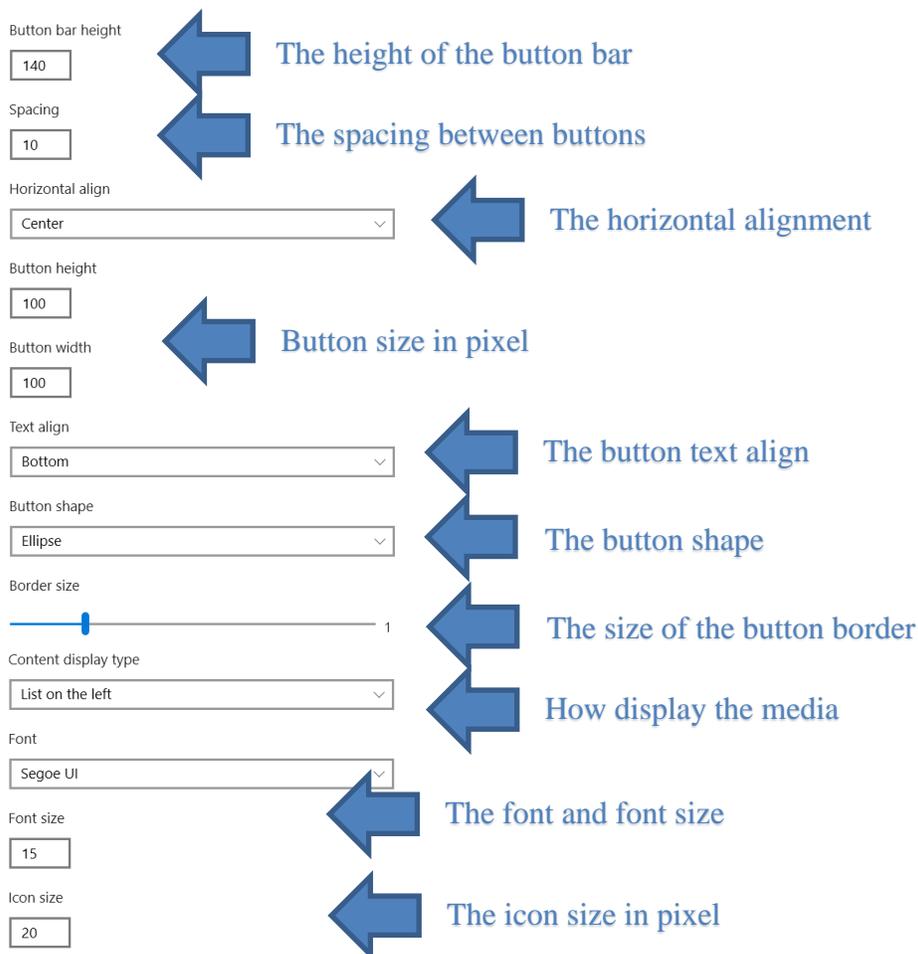
## 7.5 Create an interactive catalog

Create an interactive catalog if you plans to have only one user that interacts with your user interface. You can create the navigation path using a friendly file system structure. You can show following file types:

- Image
- Video
- PDF
- 3D Models

### 7.5.1 Navigation

Define the user interface look and how users will navigate the contents. The picture below show you the additional settings for “**Button bar**” navigation mode. Please refers to “Create an interactive presentation” paragraph for a full coverage of other possibilities. You can also override button bar settings in Content manager page.



**Figure 34 Additional settings for button bar navigation mode**

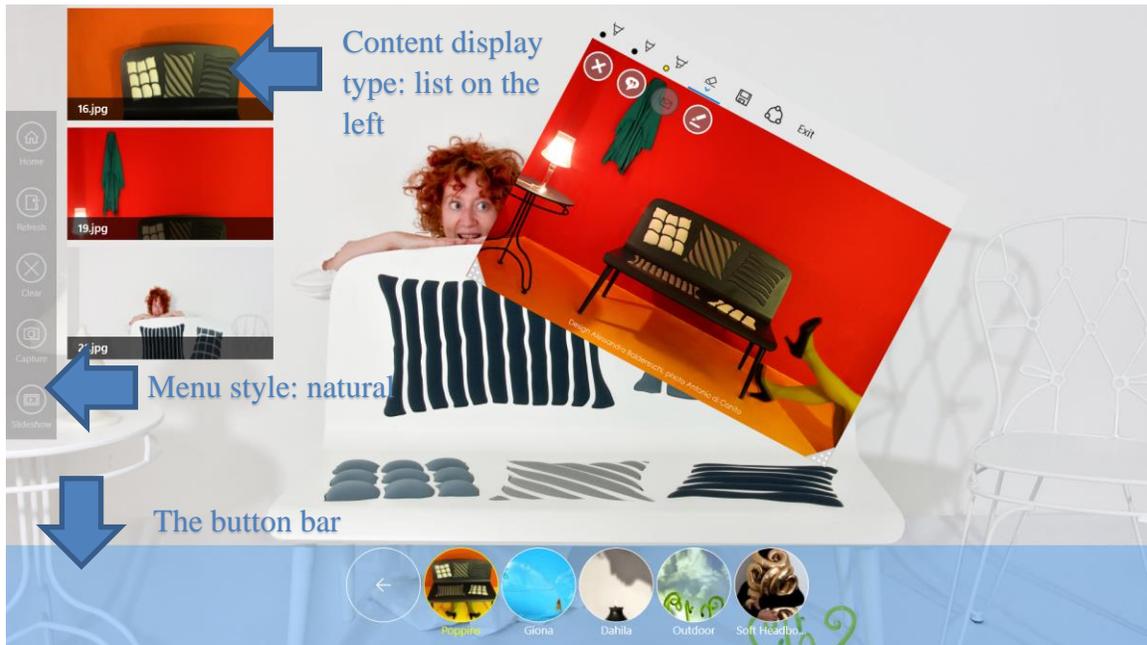


Figure 35 Button bar

### 7.5.1 Other tabs

Please refer to “Create an interactive presentation” for a full coverage of other tabs.

## 7.6 Create a kiosk web browser

If you need to show a web site in an info point or on a kiosk you can create a kiosk web browser app. Users will only browse sites you have allowed. It is a safe mode to display your corporate site or an ecommerce catalog. You need an active internet connection to use it.

In the Html tab you can configure the web site address to open at start up and a list of banned sites. You can also configure the browser to prevent browsing of other sites.

If a website have a link to a PDF file, the browser download it and show in the embedded PDF viewer.

### 7.6.1 Other tabs

Please refer to “Create an interactive presentation” for a full coverage of other tabs.

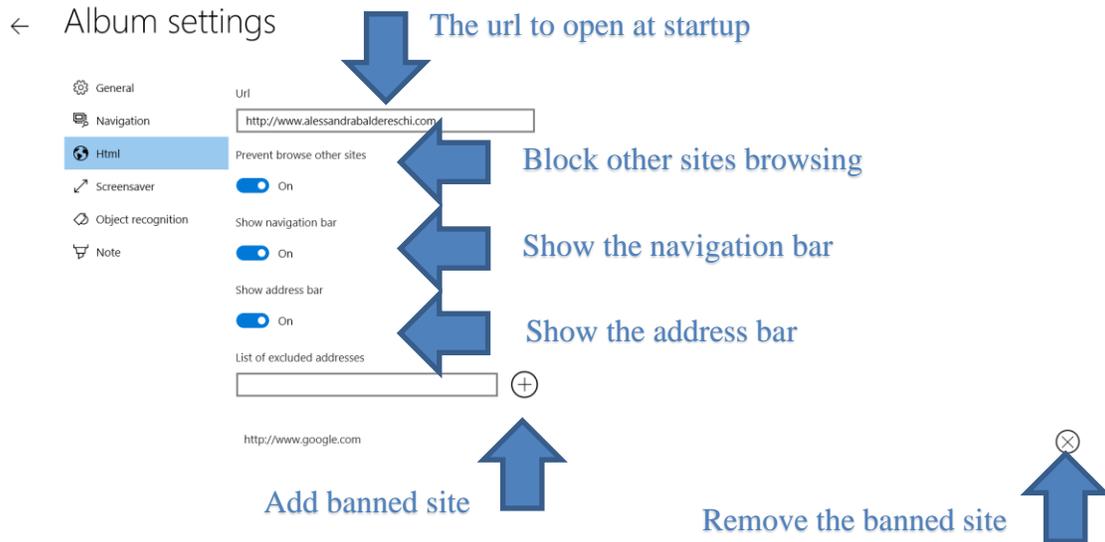


Figure 36 Kiosk web browser



Figure 37 Kiosk web browser

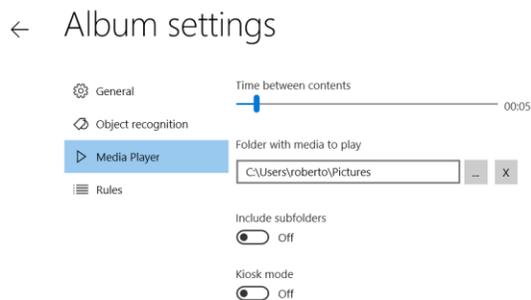
## 7.7 Create a digital signage media player

If you need to show video and images to people in digital signage displays, you can create a digital signage media player. Contents delivered according to your album configuration. You can target your audience using TruMedia camera or a simple scheduler. You can display following file types:

- Image
- Video

### 7.7.1 Media player

Please refer.



**Figure 38 Set up a media player**

### 7.7.2 Rules

The rule engine lets you to create rules to show different content if an event occurred. You can catch these events:

- TruMedia camera
- Time change

To use a TruMedia camera you should configure your device in “**Machine settings**”. TruMedia give you information of your audience to targeting contents.

You can also display contents based on the clock of your device.

Drag a rule to change the execution order. The rule engine will check all rules even one match. Any subsequent rule will be discarded even if the matched rule finished. In example if you have chosen to display some contents between 9:00 AM to 10:00 AM the rule will finished after the 10:00 AM. In case of a video content, the engine will wait the video ends.

To allow a rule switching on the “**Enable**” toggle in rule list.

← Rule settings

Rule name

Provider

Gender  
 man     woman

Age group  
 child     adult     senior

Only people who are watching the camera  
 On

Only people close to camera  
 Off

Folder with the contents to be played  
 ... X

**Figure 39 TruMedia rule**

← Rule settings

Rule name

Provider

From

To

Choose content to play  
 On

Choose the destination folder  
 ... X

**Figure 40 Schedule rule**

### 7.7.3 Other tabs

Please refer to “Create an interactive presentation” for a full coverage of other tabs.

## 7.8 Create an interactive whiteboard

The interactive whiteboard is the place where people can collaborate. You can use touch, stylus or mouse to draw and take notes. The whiteboard supports multi touch, multi pen and multi user.

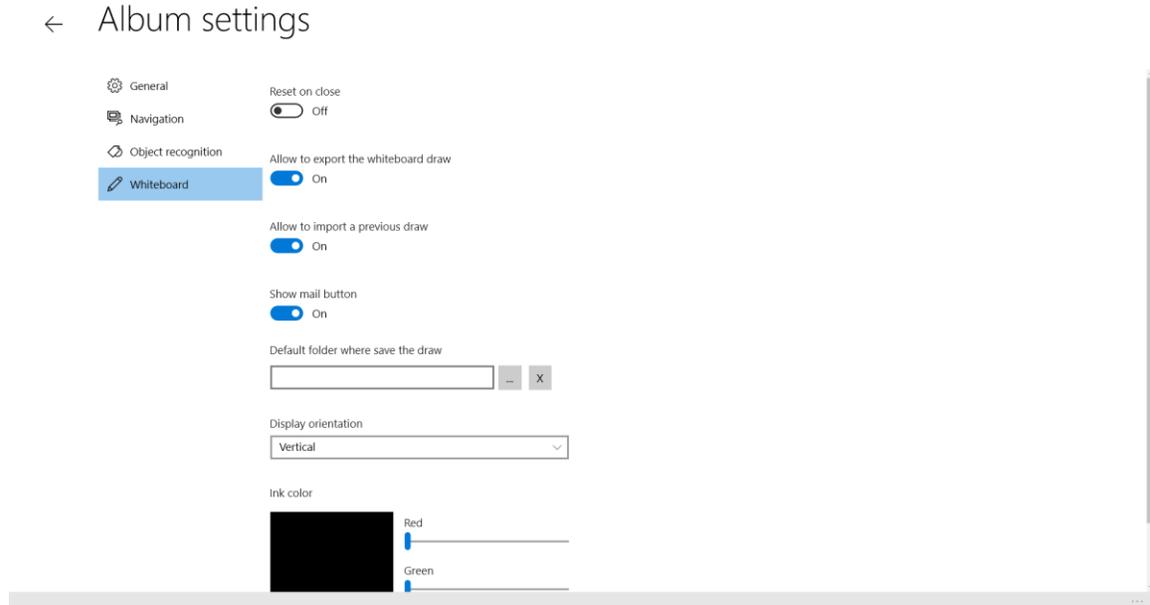


Figure 41 Ink whiteboard settings

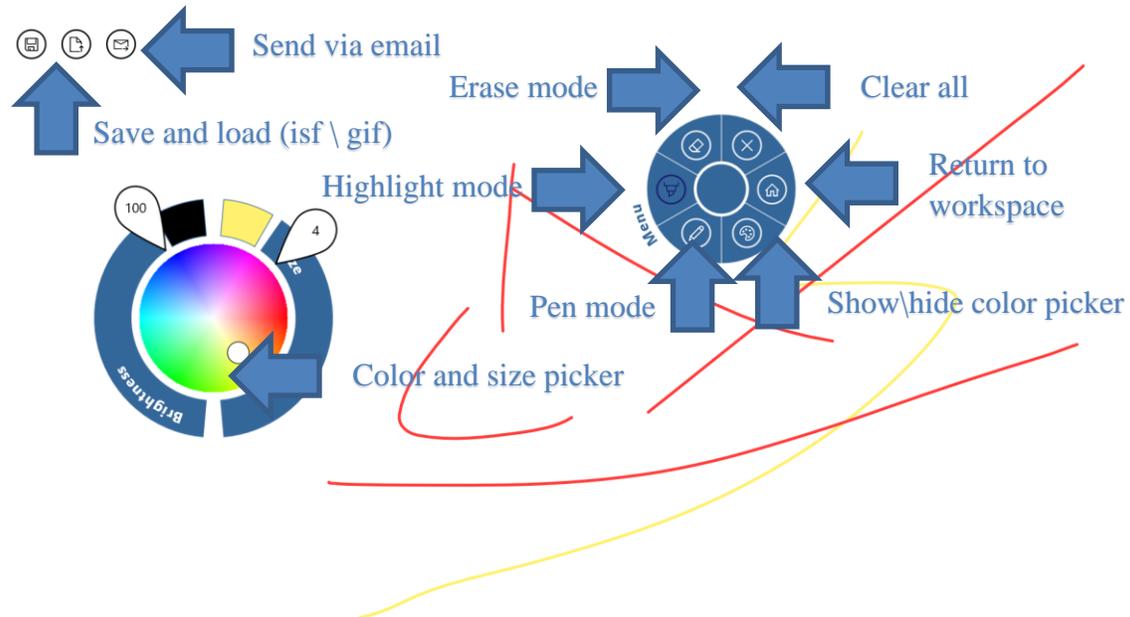


Figure 42 Ink whiteboard

### 7.8.1 Other tabs

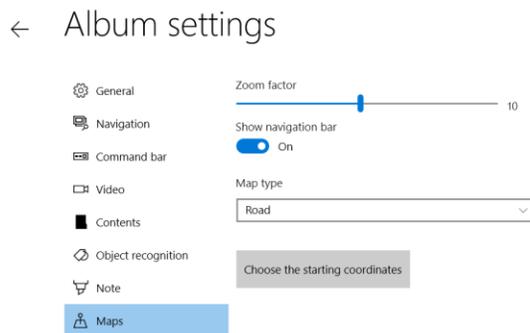
Please refer to “Create an interactive presentation” for a full coverage of other tabs.

## 7.9 Create an interactive map

If you need to show geotagged media, the interactive map is the best suitable solution for you. You can also download and store maps locally to use then offline. To use maps offline please refers to this link: <http://www.howtogeek.com/221988/how-to-get-offline-maps-in-windows-10%E2%80%99s-maps-app/>

You can display following file types:

- Image
- Video



**Figure 43 Interactive map settings**

### 7.9.1 Other tabs

Please refer to “Create an interactive presentation” for a full coverage of other tabs.

## 7.10 Create a Form

Create a single-step or multi-step form is very simple in nuiSense business. You can use this App to create a contact registration form, a survey and so on.

← Album settings

General

Menu

**Form**

Object recognition

Confirm title  
Subscription successfully sent

Confirm message  
Thank you for your subscriptions!

Privacy policy required  
 On

Choose an HTML file for your privacy policy  
D:\html

Choose a file:  
Privacy.htm

Take a picture using the camera  
 On

Send an email upon completion of the form  
 On

Email subject  
test

Email body  
test

Step list

+ Add - Remove

Personal data

Contacts

Interests

The title and message to display when user completes the form

Check this to ask users to accept the privacy, and select a folder containing HTML files to choose a privacy policy to display

Check this to make users take a picture of themselves as the first step of the Form

Check this if you want users to receive an email when they complete the Form  
If you choose to take a picture with the camera, the picture will be sent as an attachment

Add a new step

Remove a step

Edit a step

**Figure 44 Form detail**

A step is a logical container for fields (eg. Contact information).

← Step detail

Title  
Your personal data

Message  
Please compile the fields below to register

Field list

+ Add - Remove

Name

Surname

Birth Date

Gender

The title and message to display for the current step

Remove a field

Add a new field

Edit a field

**Figure 45 Step detail**

You can have zero-more fields in your step. A field can be of the following type:

- TextBox
- ComboBox
- RadioButton
- CheckBox
- Switch
- Date
- Time

← Field detail

Type

Name

Required  
 On

Value list

Description	Code
<input type="text" value="Male"/>	<input type="text" value="M"/>
<input type="text" value="Female"/>	<input type="text" value="F"/>

**Figure 46 Multi Value field detail**

Use the **“Import”** feature to import values from Excel (.xlsx). Your excel must have two columns (Code, Description).

← Field detail

Type

Name

Required  
 On

Min length

Max length

Is multiline  
 Off

Validation rule

**Figure 47 TextBox field detail**

The TextBox field can have a validation rule. You can choose between preconfigured rules or choose a custom rule. A custom rule is a custom regular expression. You need to be familiar with it if you need to create a custom regular expression.

### 7.10.1 Other tabs

Please refer to “Create an interactive presentation” for a full coverage of other tabs.

## 7.11 Create a custom App using the Html5 JavaScript SDK

If you need more, create an Html5 App and integrate with nuiSense business JavaScript SDK. You need to be familiar with Html5 and JavaScript development. All the methods must be called using “window.nuiSense” keyword (e.g. “window.nuiSense.goHome()”).

Command	Type	Description
.album	Property : object	You can have the album object
.album.name	Property : string	The name of the album
.album.cluture	Property : string	The culture of the album (g. en-us)
.album.isInKioskMode	Property : boolean	True if the album is in kiosk mode, otherwise false
.album.folders	Property : string[]	Get the list of configured folders
.goHome()	Method	Go to the home page
.updateUserIdleTime()	Method	Updates the last user interaction time to avoid screen saver start (if configured). You might call it every time a user made an interaction. When you call methods on "nuiSense" object automatically idle time is refreshed.

.openContent(uri)	Method (string)	Open a content for user interaction (e.g. image, video, pdf, dr-pptx) passing the relative uri of the content (e.g. "/images/myimage.png").
.openContent(uri, angle)	Method (string, double)	Open a content for user interaction (e.g. image, video, pdf, dr-pptx) passing the relative uri of the content (e.g. "/images/myimage.png") and the rotation angle in degrees.
.openContent(uri, angle, x, y)	Method (string, double, int, int)	Open a content for user interaction (e.g. image, video, pdf, dr-pptx) passing the relative uri of the content (e.g. "/images/myimage.png"), the rotation angle in degrees and position in DIP (Device Independent Pixel).
.openMenu()	Method	Open menu for user interaction
.openMenu(angle)	Method	Open menu for user interaction passing the rotation angle in degrees.
.openMenu(angle, x, y)	Method	Open menu for user interaction passing the rotation angle in degrees and position in DIP (Device Independent Pixel).
.closeMenu()	Method	Close menu if opened.

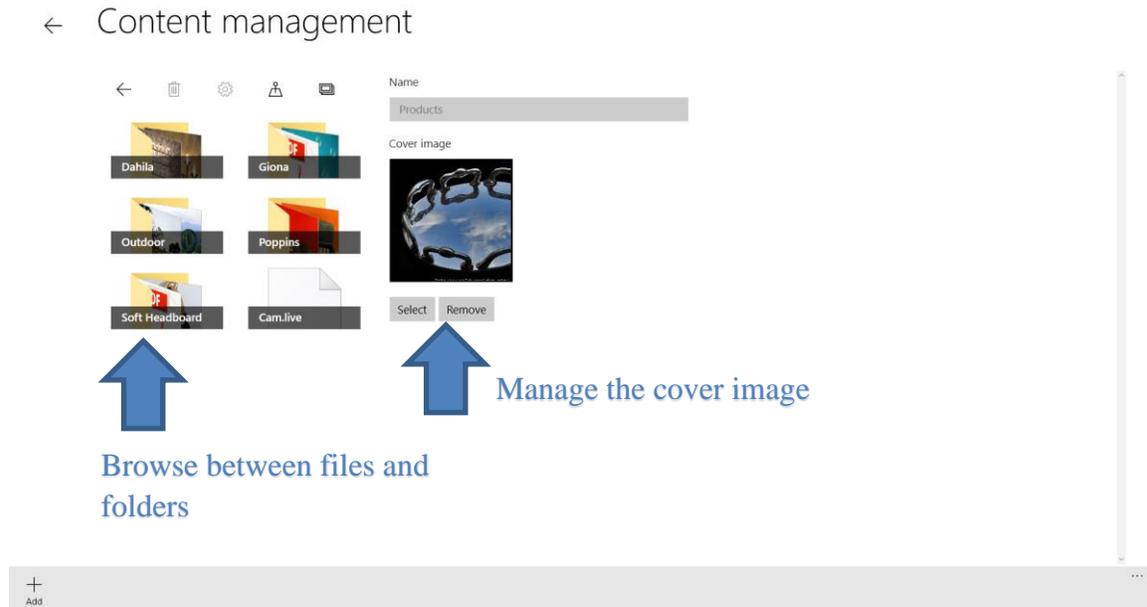
## 7.12 Create a navigation path

You can easily organize your contents in a multi-level manner.

## 7.13 Content manager

The content manager lets you to manage album contents. Content manager is enabled for these album types:

- Interactive presentation
- Interactive catalog



**Figure 48 Set up a cover image for a folder**

In the content manager you can choose the cover image for any folder. The cover image will appear instead of the standard folder image when you play the album.

Tapping or clicking on a content (file) you can change the file properties (title and description). These information will appear if you have enabled “show file properties” in the “command bar” tab of your album.

The title is also used instead the filename if you choose “show the file title” in the “navigation” tab of your album.

File properties are allowed for the following content types:

- jpg\jpeg
- mp4

Here you can also delete and geolocate files. To geolocate a file you can hold on an item or right click, than drag the item on the map.

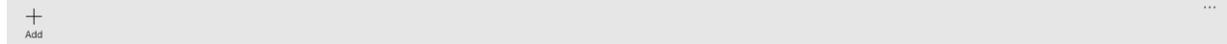
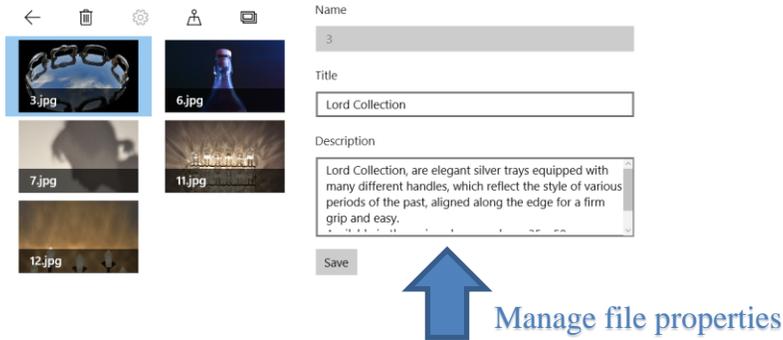
Tapping or clicking on “add” button you can add special contents:

- web site
- live stream

Live stream allows you to connect to live video stream (eg IP-TV) or real time ip cam.

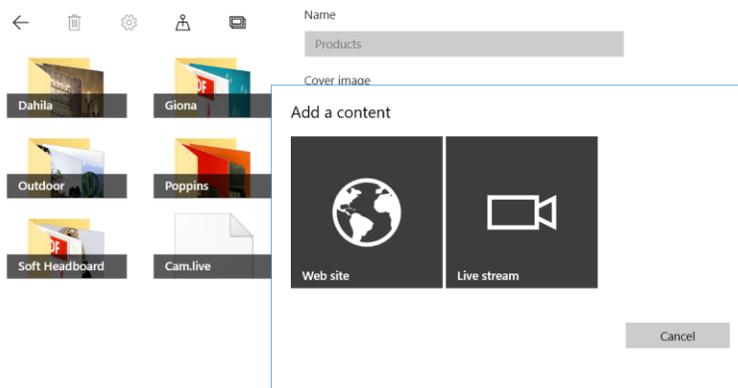
The “lock button” is always visible on the web site during the album play. You need to lock the web browser in order to browse the site.

← Content management



**Figure 49 Manage file properties**

← Content management



↓ Add a new content



**Figure 50 Add a new content**

← Content management

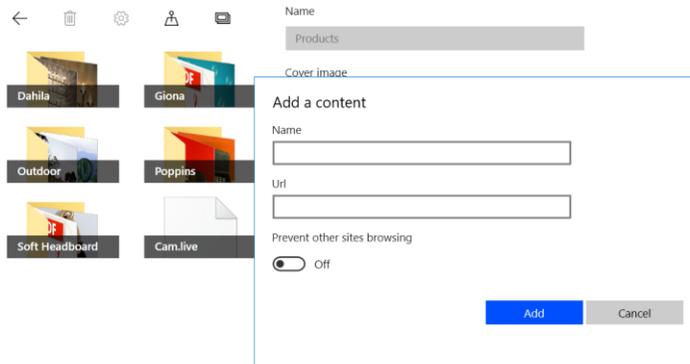


Figure 51 Add a web site

← Content management

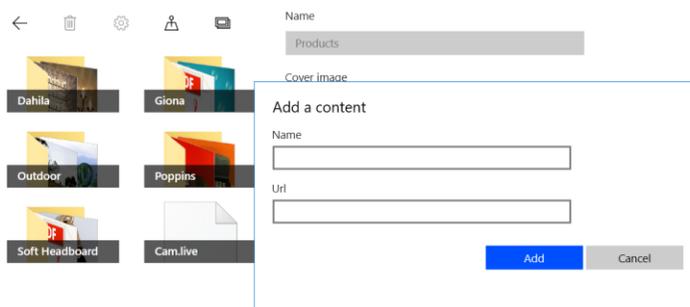


Figure 52 Add a live stream

## 8 How to export and import a workspace

nuiSense business let you to export and import workspaces in different mode, depends on your needs.

### 8.1 Export a workspace

Open a workspace by the Free Embedded CMS and click on **“Export all”** button. Select the **“Export mode”**, follow the specific instruction below, and then click on **“Export”** button in the app bar.

#### 8.1.1 Package

Export the workspace in a single compressed file with “.nuiSense” extension. Click on “...” to choose the filename and location using the file picker.

#### 8.1.2 Portable package

Export the workspace in a folder that you can copy to an USB device and run through the feature **“run from usb”**. Click on “...” to choose the destination folder and specify the filename.

#### 8.1.3 Microsoft Azure File Storage

Export the workspace in a Microsoft Azure File Storage share. You need to have a Microsoft Azure subscription and configure the File Storage service. You need an active internet connection.

If **“Save credentials on this computer”** is switched on, your credentials are stored securely in Windows Credential Manager. Next time you do not need to reenter credentials to connect to your Microsoft Azure File Storage account. You can click on **“Remove credentials”** to remove the credentials from Windows Credential Manager.

Click on **“Edit credentials”** to change your credentials.

Enter your credentials and then click on **“Login”** button. The shares of your File Storage account are listed. If you do not have any share you can create a new one with default quota 1GB. You can also create a share using the Microsoft Azure portal.

Export to Microsoft Azure could take some time depending on your internet connection speed.

To have more information on Microsoft Azure File Storage and the price of the service here: <https://azure.microsoft.com/en-us/services/storage/files/>

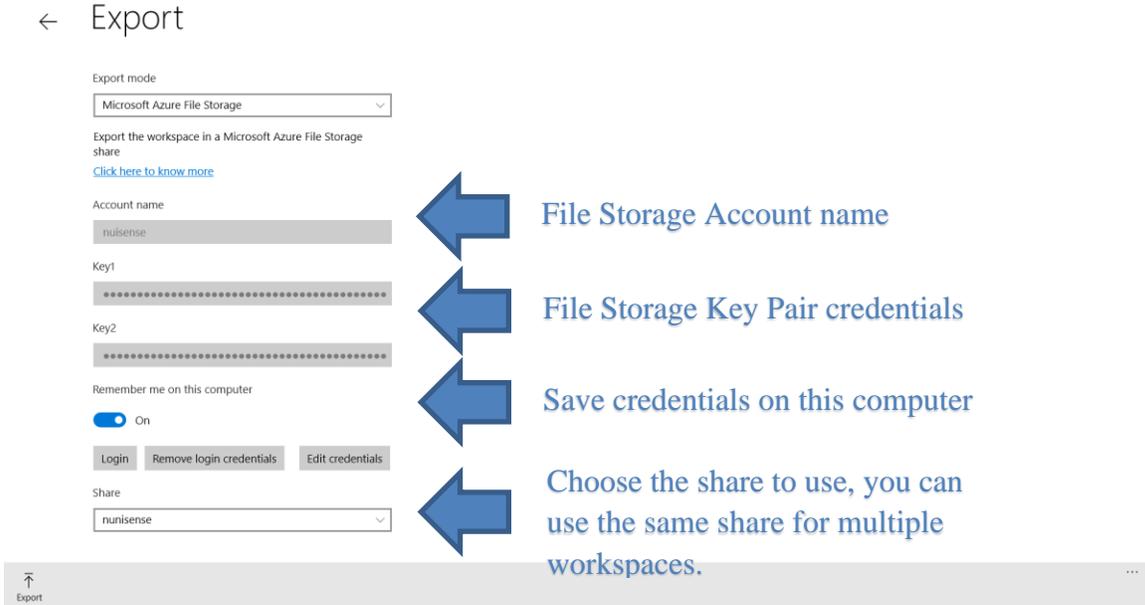


Figure 53 Export using a Microsoft Azure File Storage

### 8.1.4 Folder

Export the workspace in a local area network folder, a local folder or a synchronized folder (eg. Microsoft OneDrive or Dropbox).

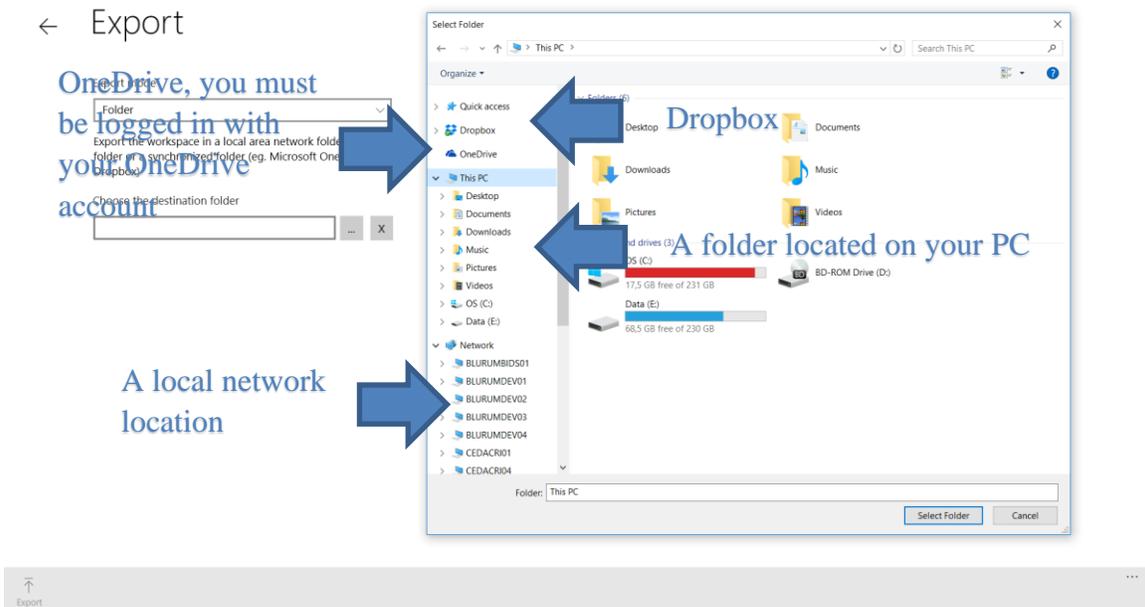


Figure 54 Export using the folder provider

## 8.2 Import a workspace

You can manually import a workspace using the Free Embedded CMS or the Player. Click on **“Import”** button.

### 8.2.1 Package

Import the workspace from a “.nuiSense” package. Choose the source file and the destination folder and then click the **“Import”** button.

### 8.2.2 Microsoft Azure File Storage

Import the workspace from a Microsoft Azure File Storage share. Choose the destination folder and then enter your azure credentials as shown in export to Microsoft Azure File Storage and select the share. Then choose one workspace from the list **“Available workspaces”**. Click the **“Import”** button.

### 8.2.3 Folder

Import the workspace from a local area network folder, a local folder or a synchronized folder (eg. Microsoft OneDrive or Dropbox). Choose the folder location to import, the destination folder and then click on the **“Import”** button.

## 9 The content delivery

nuiSense business content delivery is very flexible. We can support many delivery methods based on scheduled or manual workspace synchronization. For a full coverage of how to export and import a workspace please refer to “How to export and import a workspace” chapter.

Using the Free Embedded CMS you can create and manage workspaces. When you have finished your work you can manually export the workspace using an export provider. In the CMS, you may have many workspaces associated to many players.

Depending on export provider you choose, the contents are delivered in different ways.

When you will install the nuiSense business player on a target device you can schedule the content synchronization.

The content synchronization is performed in background. Therefore, you can use the App. If you close the App during a synchronization the operation will be cancelled.

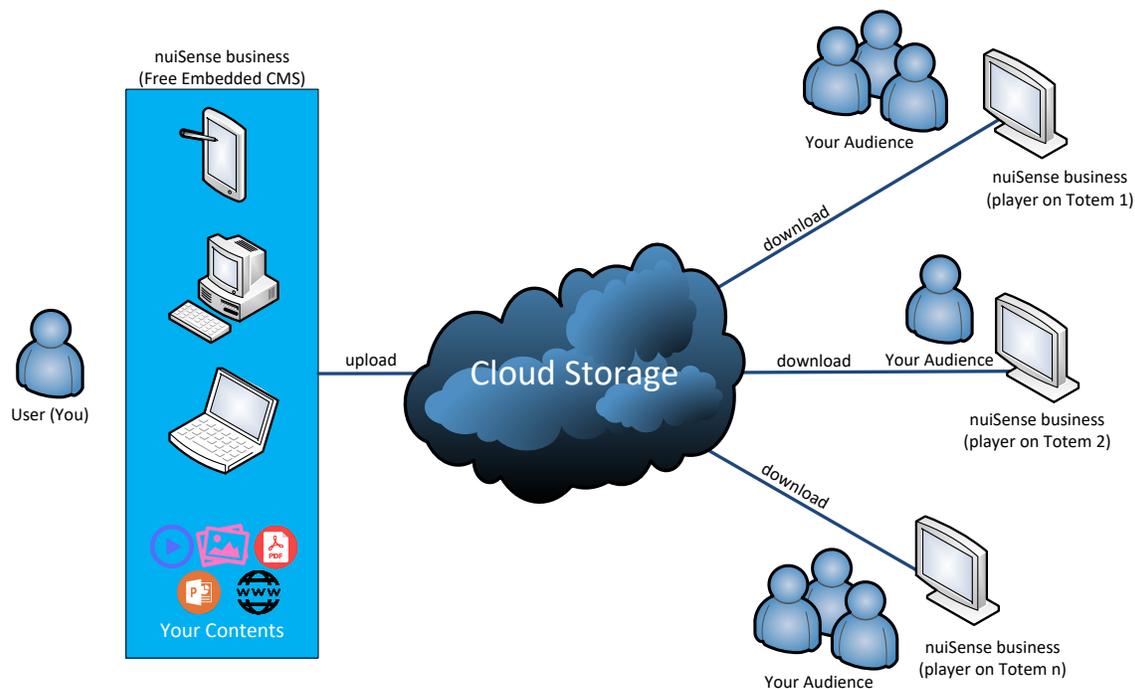


Figure 55 Cloud content delivery

### 9.1 Manage a schedule

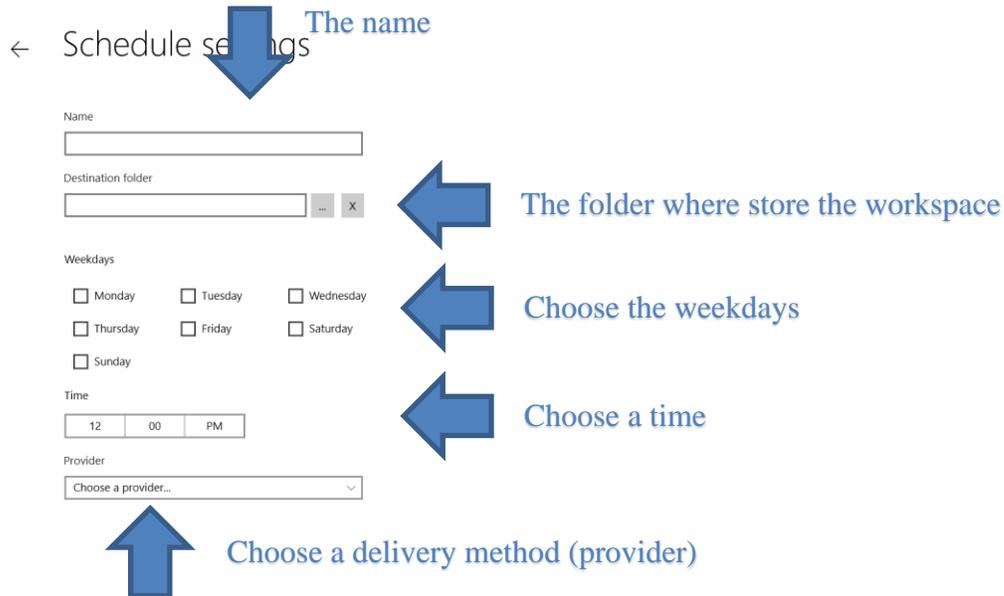
In “**Machine settings**” you can manage schedules.

Click on “**Add**” button to create and setup a new schedule on the player.

You can choose between two different delivery methods (so-called provider):

- Microsoft Azure File Storage
- Folder (Local Area Network, Microsoft OneDrive, Dropbox...)

For specific provider configuration please refer to “How to export and import a workspace”.



**Figure 56 Schedule settings**

## 9.2 Execution history

In **“Machine settings”** on **“History”** tab you can keep track of all executed synchronization. The data are stored locally on your player.

An execution could be in one of these statuses:

- Running
- Completed
- Cancelled
- Failed

If status is failed you can see the error occurred.