INTMEDIA

INTMEDIA – is a member of the non-commercial partnership "Automation directions in museums and information technologies" (ADIT).

The Sergiev-Posad State History and Art Museum-Preserve.
The exposition: "Relics and treasures of the Holy Trinity-St. Sergius Lavra of the XI-XVII centuries". Fragments of Andrei Rublev's riza of the "Trinity" and an electronic reproduction of the icon on a transparent screen.The projection appears when a special button is pressed, and a few minutes later it turns off automatically. A projector is hidden inside the showcase.

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INTMEDIA

Multimedia for museums

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About us

INTMEDIA has been working in the field of multimedia technologies since 1992.
During this time, more than 150 projects have been completed.

We develop:

· concept and artistic solution;
· audio and video content;
· project and engineering solution.

We also do:

· install and configure AV-complexes and light;
· provide warranty service and upgrade of the multimedia complex;
· provide technical consulting and trainings.

On the cover: The Sergiev-Posad State History and Art Museum-Preserve. The exposition: "Relics and treasures of the Holy Trinity-St. Sergius Lavra of the XI-XVII centuries". Electronic labels are placed on touch panels. A visitor observes the exhibits on the plan of the showcase and can easily display information about them on the monitor.

Pages of this catalogue include the following:

Our media studio

We are working on the creation of multimedia informational systems, interactive and gaming multimedia, audio and video materials, augmented reality (AR) systems.

We also:

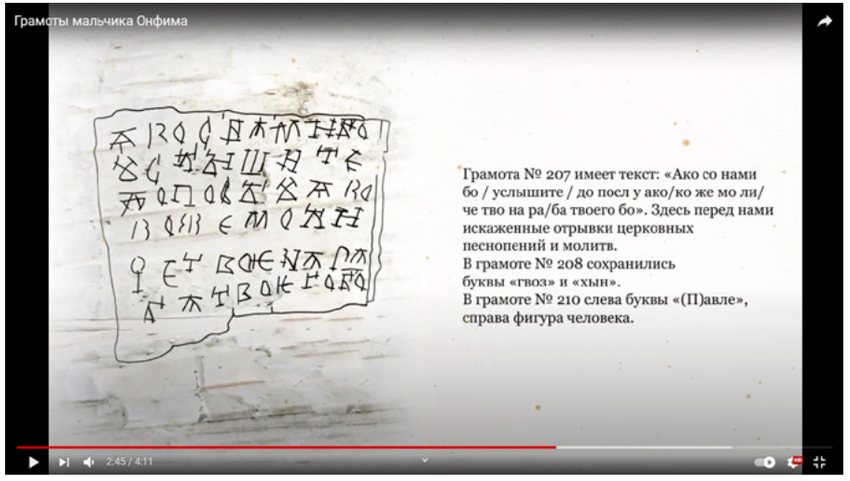
· prepare phonograms in any languages for audio guides;

· restore documents;

· carry out photo shoots, including panoramic 360-degree shoots, time-lapse filming, and aerial photography using drones.

Our media studio

Video and animation



The Museum of Writing of the Novgorod State United Museum.
The documentary "The Birth of Slavic Literature" and the animated film "Charts of Onfim the Boy".

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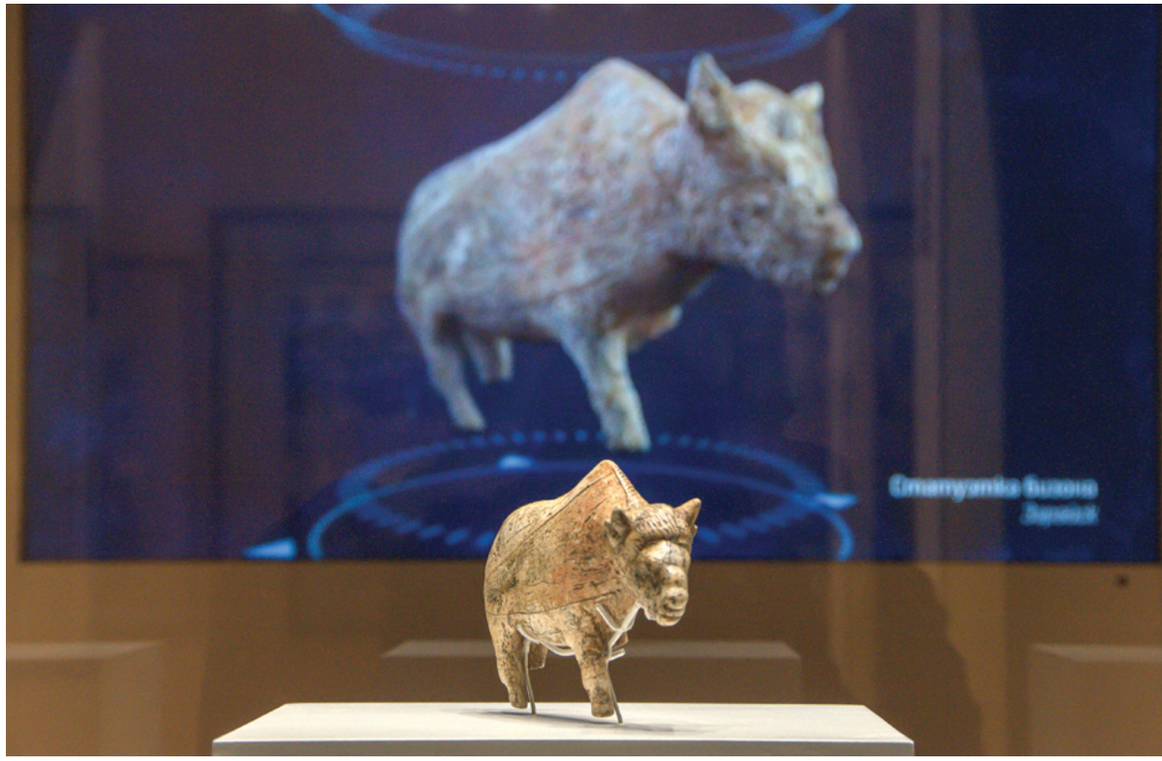
The Museum of Writing of the Novgorod State United Museum.
An animated video for the hall where the Andreichyna's Gospel is kept. The projection on decorative screens.

Our media studio

Video and animation

The Museum of the Patriotic War of 1812 (The State Historical Museum).
Documentaries, animated maps, games, AR e-labels.



"Zaraysk Kremlin" - historical, cultural, art and archeological museum.
The video about the finds on the territory of the Zaraysk site.

Video and animation

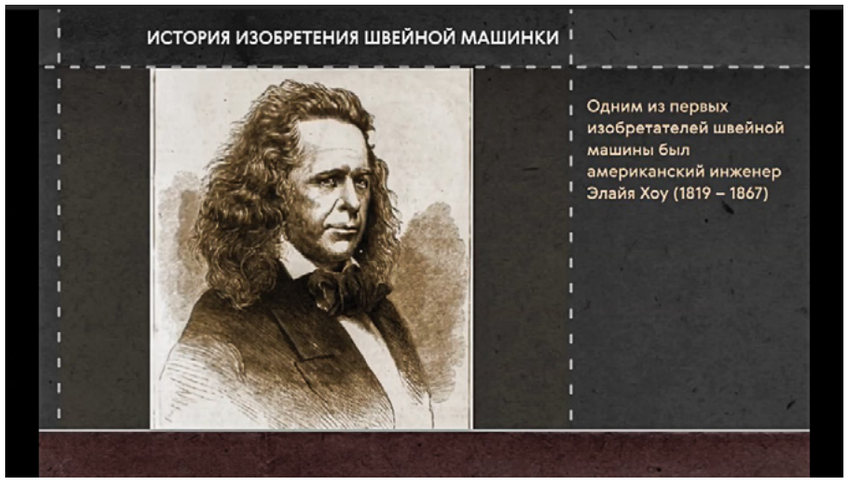
Sberbank Corporate Museum.
A video for a virtual ride on an electric scooter around the MRIYA resort. A copter was used for creating a footage for the screensaver.

Sberbank Corporate Museum.
An interactive video installation with micromapping on the model of Sberbank Corporate University. A copter was used for making video.

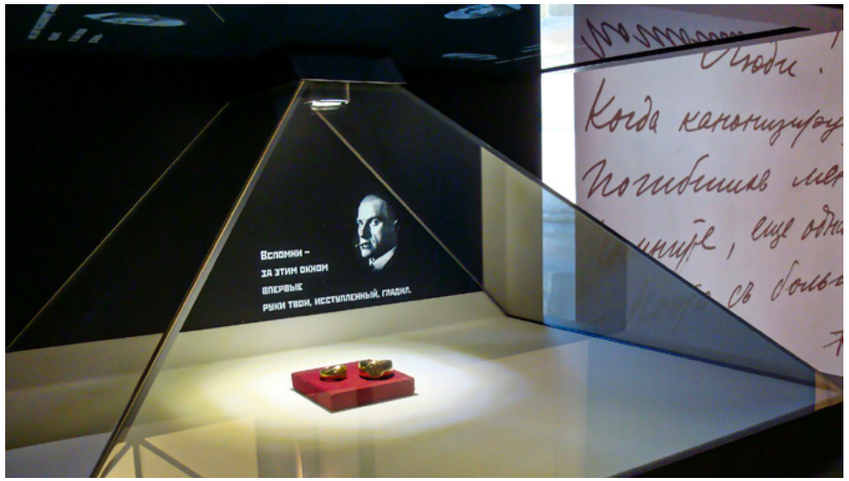
Tula State Museum of Weapons.
A multimedia volumetric composition "The workshop of the factory".

Our media studio

Video and animation

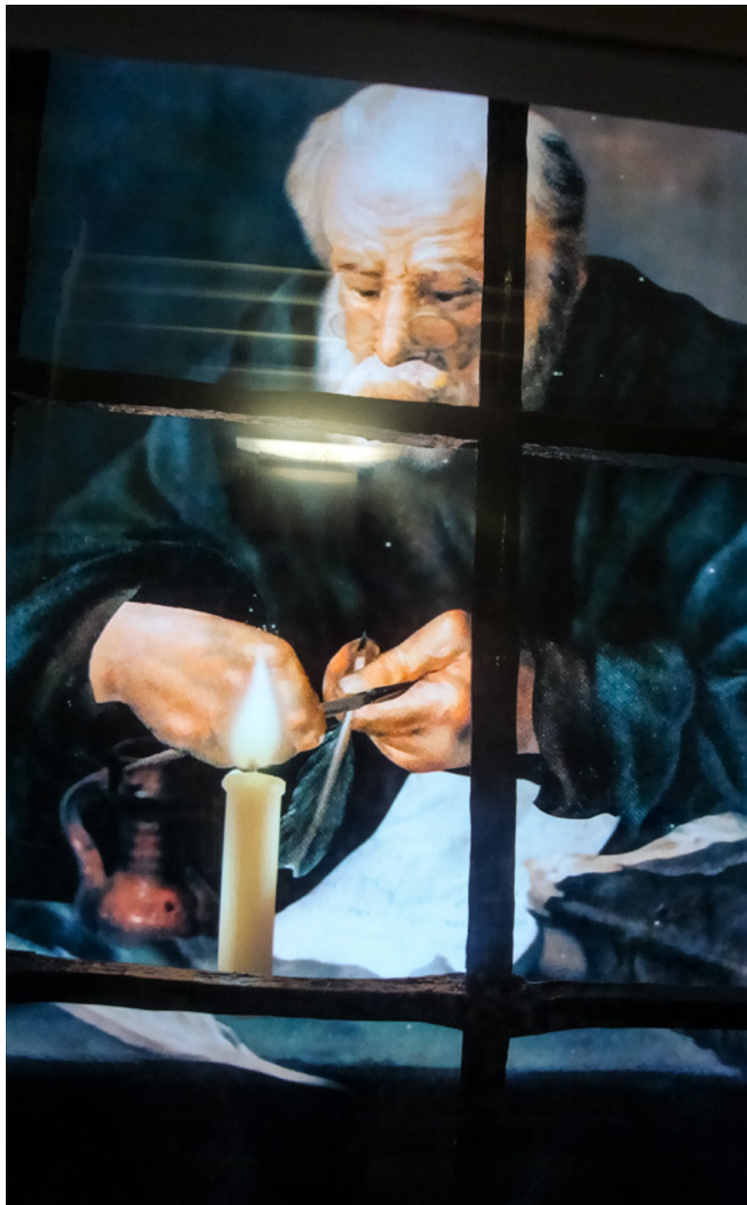


The Museum of Science and Technology in the Peter and Paul Fortress, St. Petersburg.
A video about the history of sewing machines.



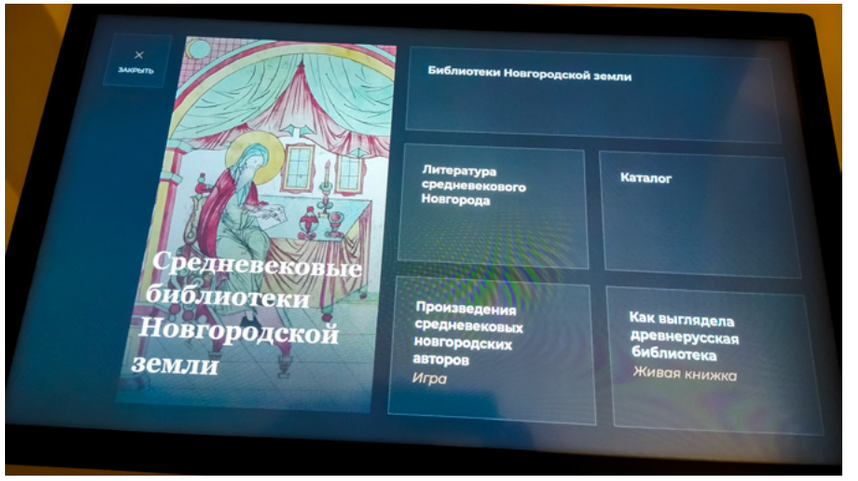
The State Literature Museum.
A video for a showcase display where we can see Mayakovsky and Lilya Brik's wedding rings.

The Sergiev-Posad State History and Art Museum-Preserve
An installation: "An Old Man Repairing a Quill". An animated graphic work of the 18th century (from the museum collection).



Informational systems

Tsarskoe Selo State Museum and Heritage Site (The museum "Russia in the Great War" in Martial Chamber).
INTMEDIA prepared media content for twelve informational kiosks and two interactive tables in the museum.

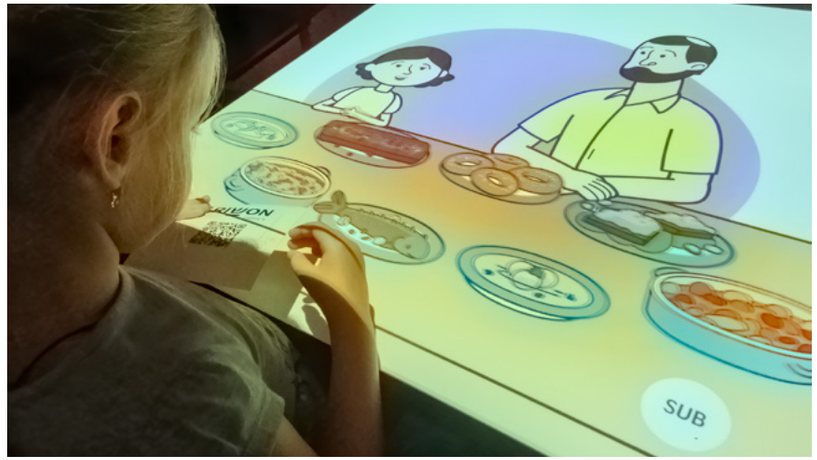


The Museum of Writing of the Novgorod State United Museum.
The informational interactive kiosk "Medieval libraries of the Novgorod land".

Russian National Museum of Music.
The encyclopedia-navigator of the museum collection.

Informational systems

The Jewish Museum and Tolerance Center. An interactive table in the museum restaurant. INTMEDIA specialists developed software for the installation, including a database administrator interface, a menu page template, and software for QR code recognition and synchronization with the menu database. All videos and images were provided by the museum.



Via an interactive projection, visitors can get acquainted with the rules of kashrut (presented in the video), recipes of national cuisine, and discover the restaurant menu. By applying QR code (on the check) to the scanner, people can find out the recipes of the dishes that they have just tried.

Electronic labels

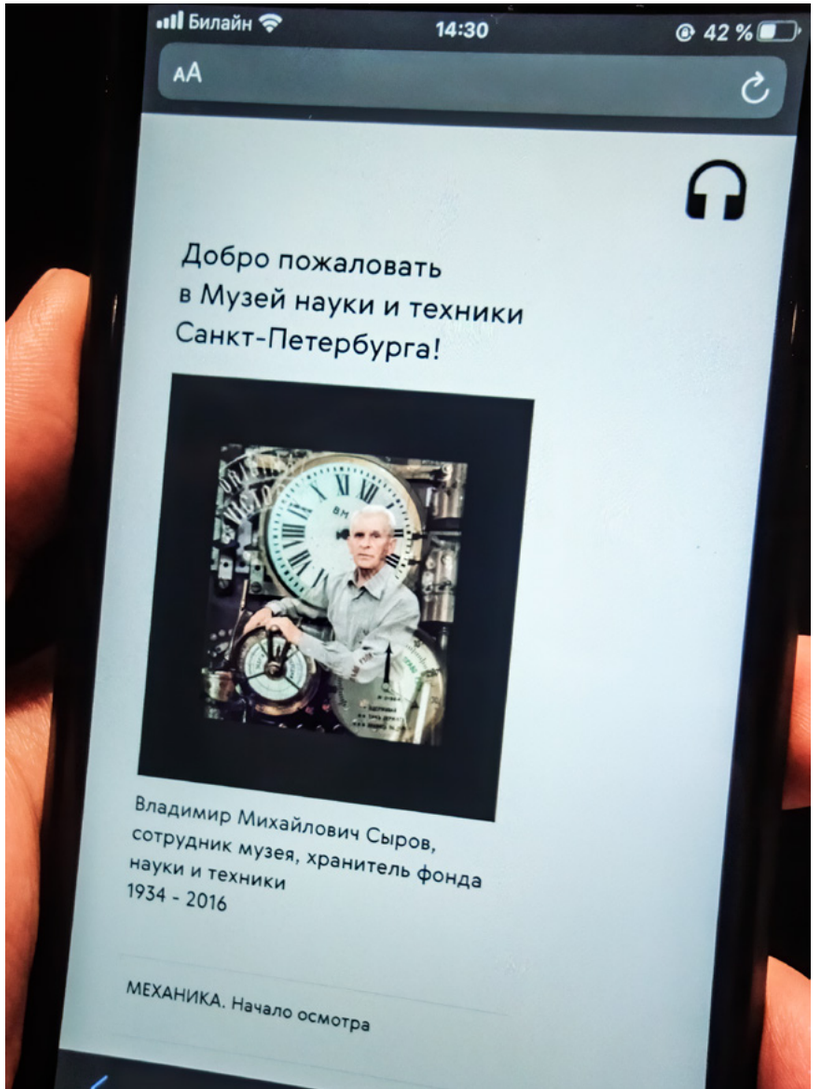
The State Historical Museum (The Museum of the Patriotic War of 1812). Enlarged images and description of both sides of the coins (presented in the showcase) are on the display of the touch informational kiosk.

The House-Museum of Leonid Sobinov in Yaroslavl. Information about the exhibit is provided by clicking on its number on the electronic panel.

The Sergiev-Posad State History and Art Museum-Preserve.
The exposition "Relics and treasures of the Holy Trinity-St. Sergius Lavra of the XI-XVII centuries". Touch panel with a floor plan. By pressing on a schematic image of the showcase on the plan, the visitor sees the exhibits inside and can display information about each of them on the monitor.

Audio and media guides

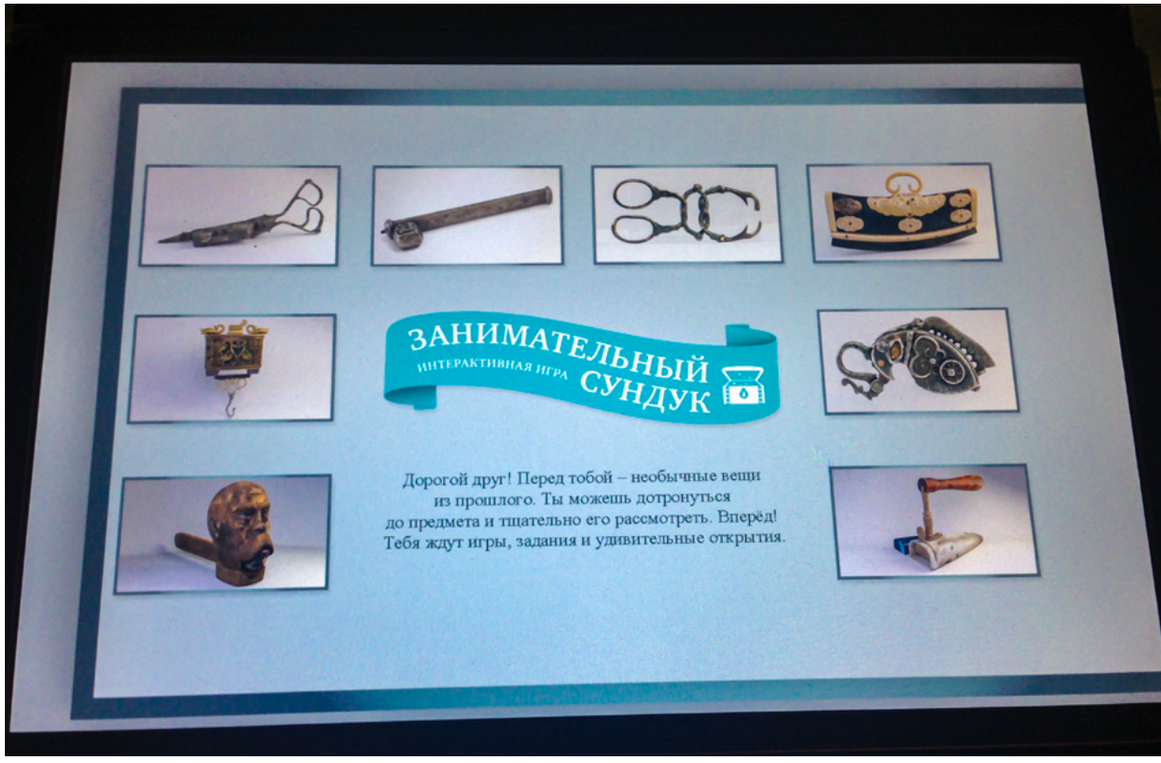
The Museum of Science and Technology in the Peter and Paul Fortress, St. Petersburg.
The audio guide (with images and text) works on visitors' smartphones. People don't need to download the app or even have an internet access.



Tula State Museum of Weapons.
The audio guide for the exposition "History of small arms and cold weapons from the 14th to the beginning of the 20th century."

Games and quizzes

Yegoryevsk History and Art Museum.
A visitor examines the contents of an old chest. The interactive installation "Entertaining chest".
People try to guess the purpose of things that have gone out of use.



Посетитель изучает содержимое старинного сундука.
Предлагается угадать назначение давно вышедших из обихода вещей.

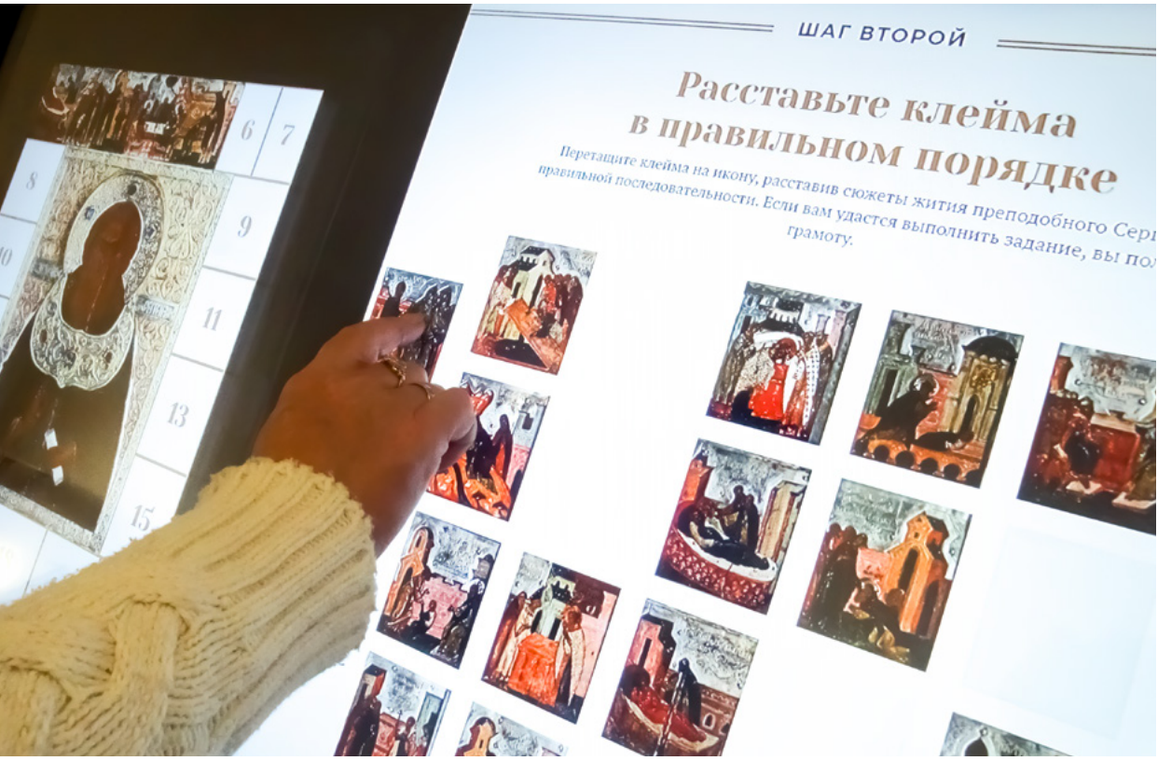
Games and quizzes

Tula State Museum of Weapons.
The interactive module "Imagine yourself..." gives an opportunity for the visitor to take a picture as a Russian warrior and send it by e-mail.

The Vernadsky State Geological Museum of Russian Academy of Sciences.
The installation "Space Weighing Scale" allows people to find out their weight on various planets of the Solar System.

Our media studio

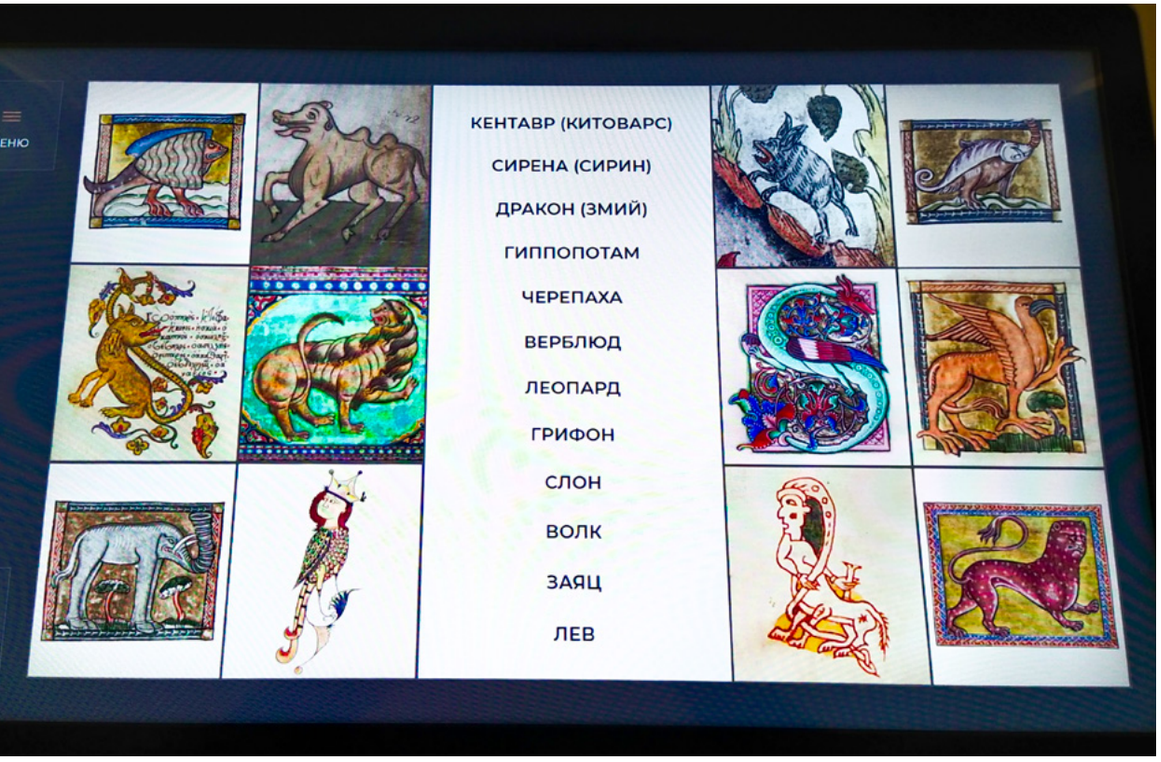
Games and quizzes



The Sergiev-Posad State History and Art Museum-Preserve.
There is a quiz in an interactive kiosk that is dedicated to the life of St. Sergius. The task is to compile the scenes of the icon "The Life of St. Sergius of Radonezh" in the correct order.

The exposition "Walk the path of evolution" of the State Darwin Museum.
Visitors answer questions about the origin and development of various species of animals and plants, trying to comprehend what happened on Earth 3.5 billion years ago.

Games and quizzes

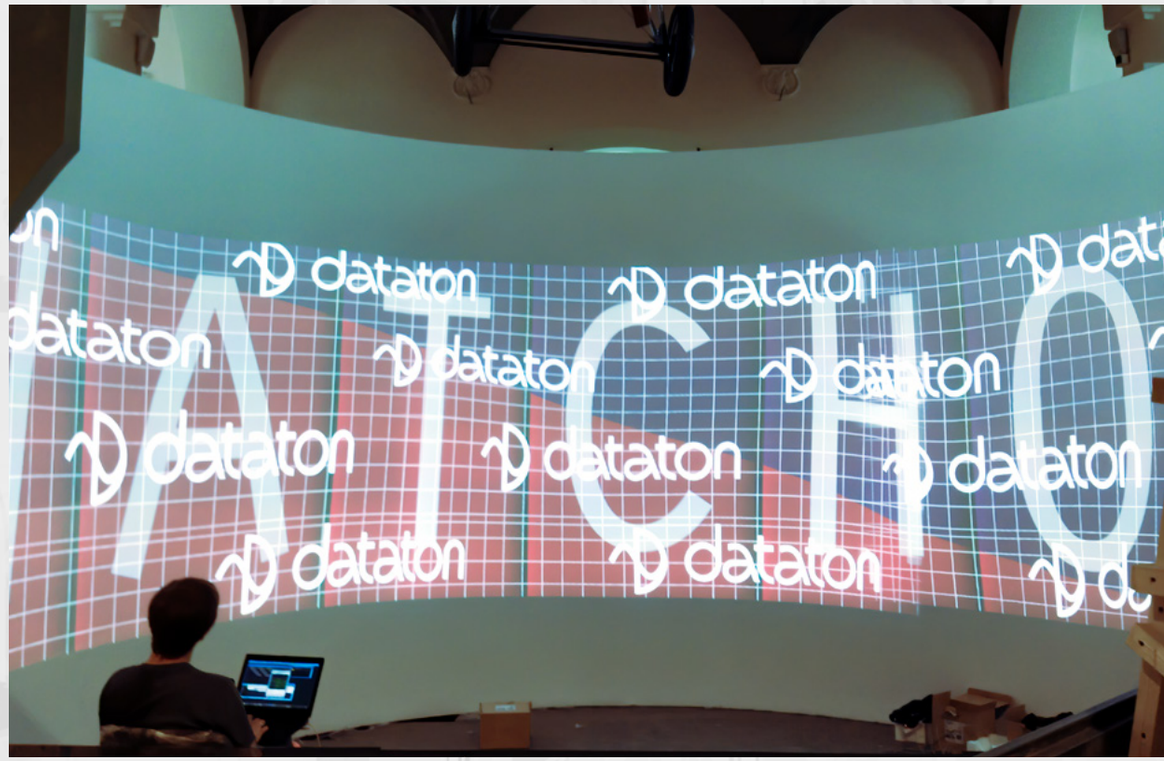


The Museum of Writing of the Novgorod State United Museum.
In the game, visitors try to match the animal on the picture with description by moving the name of the animal to its image.

The Museum of Writing of the Novgorod State United Museum.
Visitors can complete the text of the birch bark manuscript on their smartphone: they pick up and drag emoji pictures to the place of the missing words.

Engineering solutions

Projects in catalogue were carried out by INTMEDIA, except sections that are marked with (*) in the table of contents.



The museum "Russia in the Great War" in Tsarskoe Selo. The setting of panoramic projection..

PIXILAB BLOCKS system

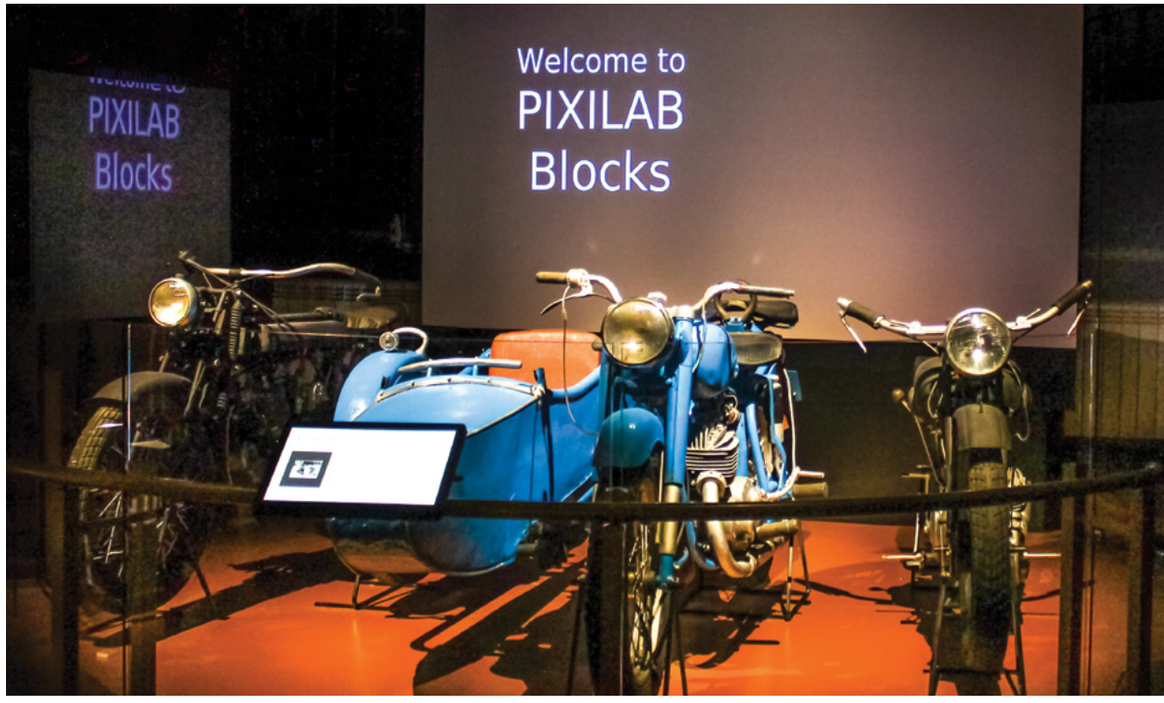
PIXILAB BLOCKS – is a combination of all functions necessary for organizing the museum multimedia space in the functionality of a single server, including automatic control of complex components, content layout, design of interfaces, and a media guide subsystem.

Optimization reduces costs, allows to maintain the complex remotely.

BLOCKS software can:

- combine content from the source material (audio files, pictures, videos, texts) for interactive kiosks and media guides, add elements of control (buttons, sliders, etc.);
- create interactive control interfaces for staff;
- turn on the power and light remotely, adjust the volume, switch video inputs or touch sensors, synchronize audio and video in selected languages;
- organize an audio and media guides system in different languages (for users of mobile devices);
- to program the script for the content appearance according to the schedule created in BLOCKS (by time, days of the week, dates) or by the museum guide "in the exact moment".

PIXILAB is a Swedish company that develops products and services for audiovisual shows and presentations.
INTMEDIA is an exclusive partner of PIXILAB in Russia.

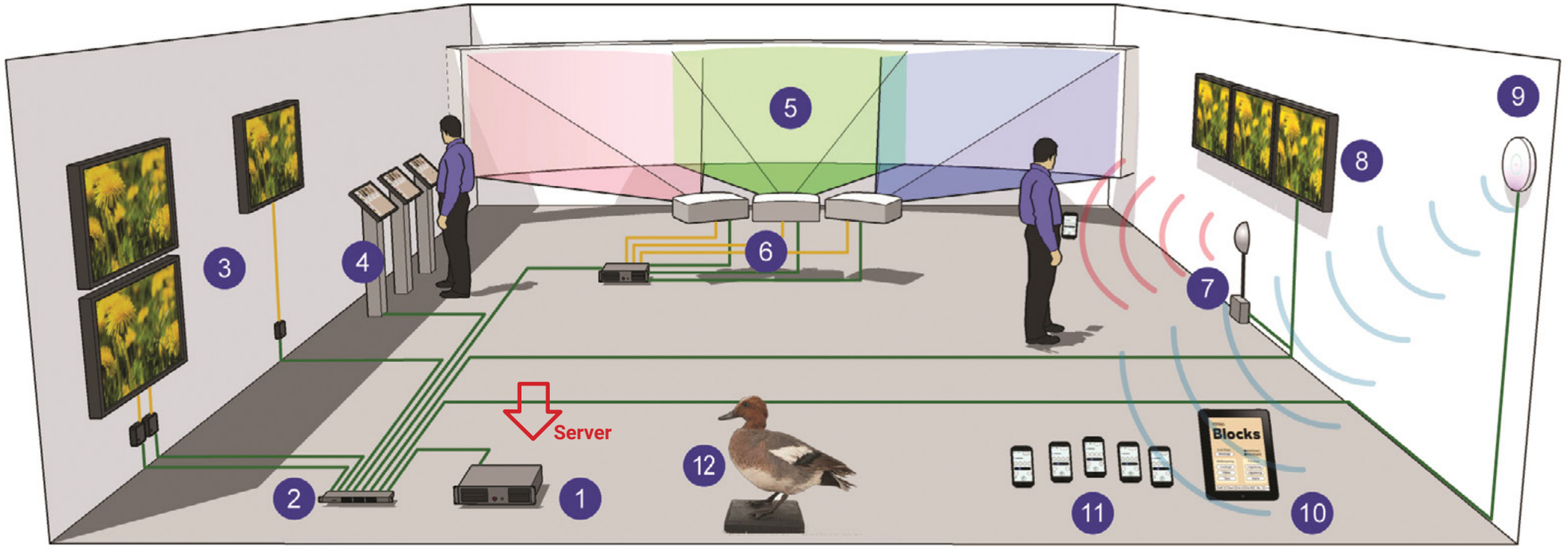


The Museum of Science and Technology in the Peter and Paul Fortress, St. Petersburg.
The multimedia system based on Pixilab BLOCKS allows to distribute video, sound and information materials from one server, change content on twelve projection screens quickly and remotely (via the Internet), change content on six information tablets and four acoustic systems. More information about the project is on our website..

PIXILAB BLOCKS system

The server with the BLOCKS software in the control room of a museum is the "brain", the local wired network and a wireless network with access points is the "nervous system". All hardware is connected to the server via a wired network. Mobile devices connect to the server via wi-fi.

All content is on the server. By connecting the server to the Internet, it is possible to manage both the hardware and the content remotely. In regulal mode, network connection is not required, the system is autonomous, which is important for places with limited access to the Internet.



1 – PIXILAB Blocks Server
2 – Wired Network
3 – Displays with separate players
4 – Interactive touch kiosks
5 – Dataton Watchout display sub-system on a curved screen
6 – Projectors and other devices controlled and monitored through the network
7 – Relays, switches and sensors (here an IR motion sensor) connect through standard interface boxes
8 – Smart displays with built-in players connect directly to the network
9 – Wifi network for internal management and/or public access
10 – Management panels for local staff use
11 – Visitors' phones or loaner devices for mobile guide applications
12 – Location spot (represents a physical location, or an object of interest (such as the duck in the illustration).

This is an example scheme. Real systems can consist of a single server and a variety of elements and subsystems: in any combination and in any quantity. Learn more about PIXILAB BLOCKS on our website.

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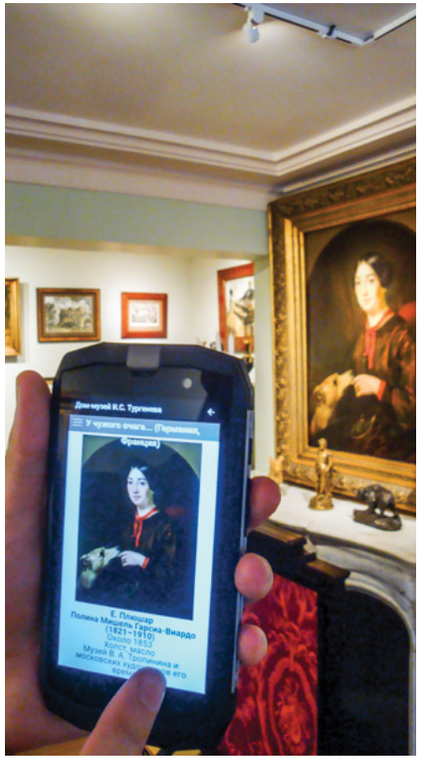
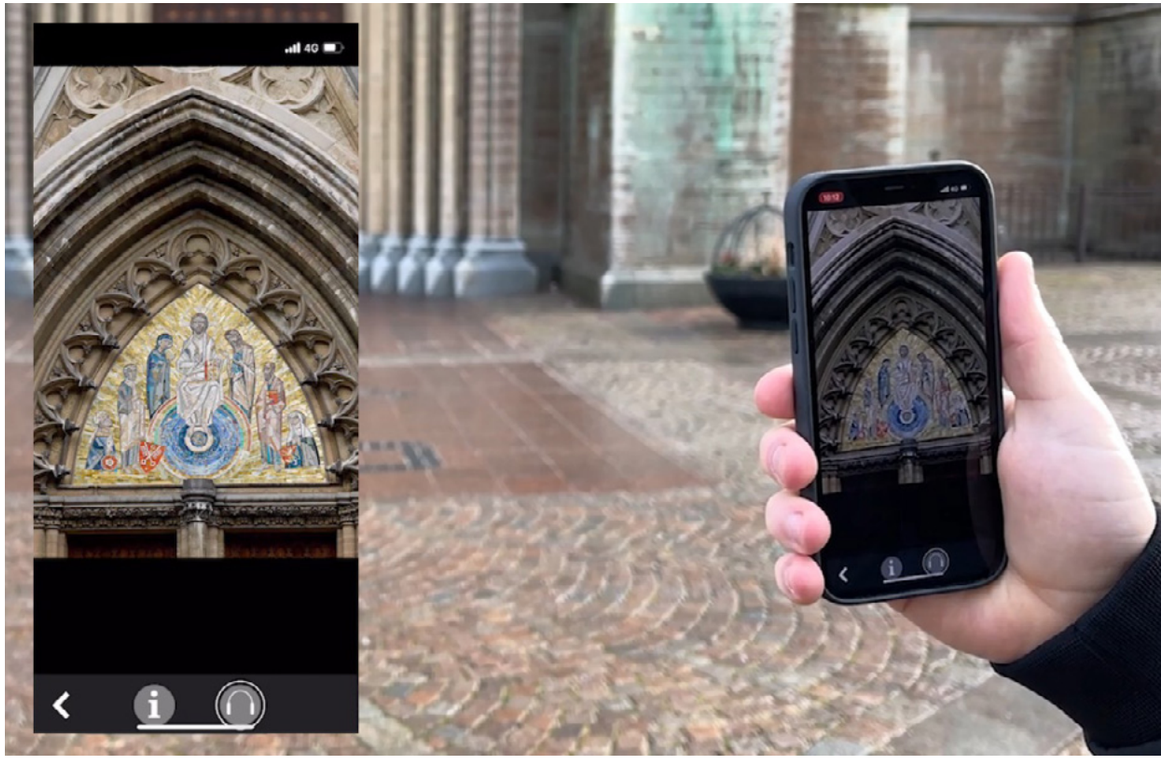
Audio and media guides on smartphones

It is a fundamentally new solution. No special devices needed. Visitors receive guide content on their smartphones through the wireless network from the server of a museum. There is no need to download the app. BLOCKS software helps to create and modify the user interface of the guide without the programmers' help. The server is physically located in the museum, so no internet connection is required.
More information about the media guide system based on BLOCKS can be found on our website.



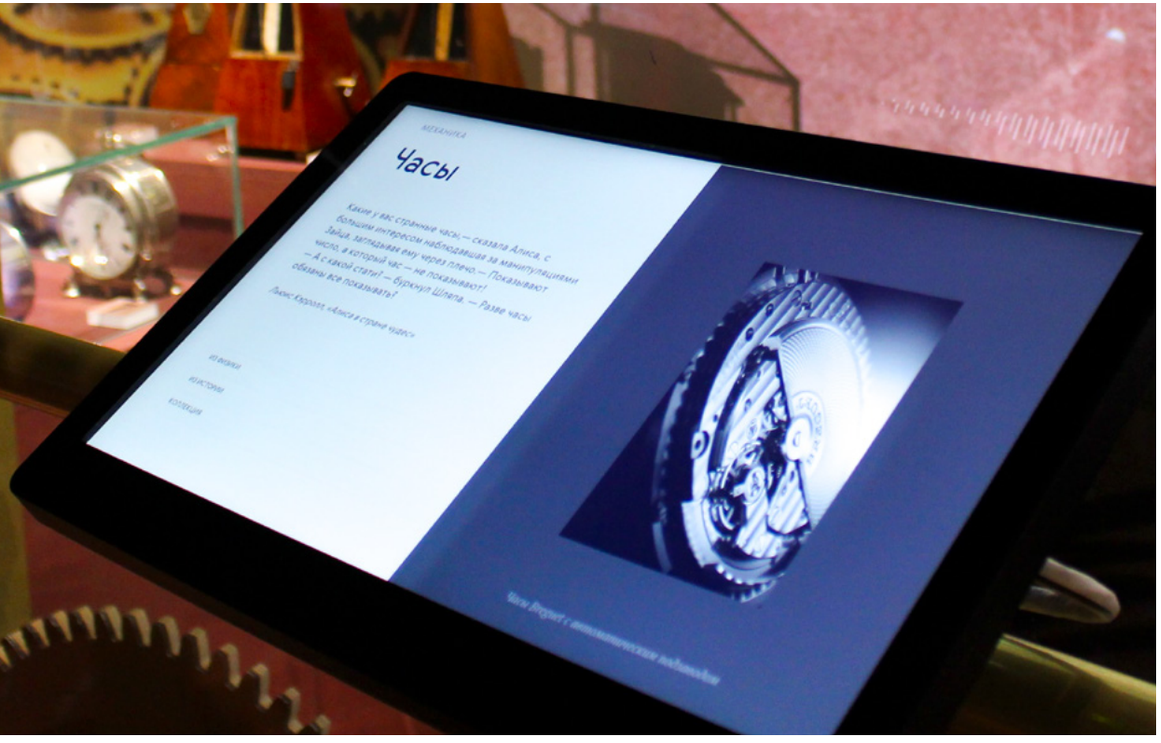
The House Museum of I.S. Turgenev on Ostozhenka St. (Moscow). Media guide system based on BLOCKS.
A circular panorama has been made for each of the halls, where all the exhibits are visible. The visitor can scroll the panorama of the hall on smartphone screen. To get information about an exhibit, it is enough to just click on its image.
More information about the project is on our website.



Media guide system based on BLOCKS with geolocation.
Here the internet connection is needed, but it works in browser without any application.
The site was built on BLOCKS and provides information about objects by menu, geolocation (GPS), QR codes and numbers.

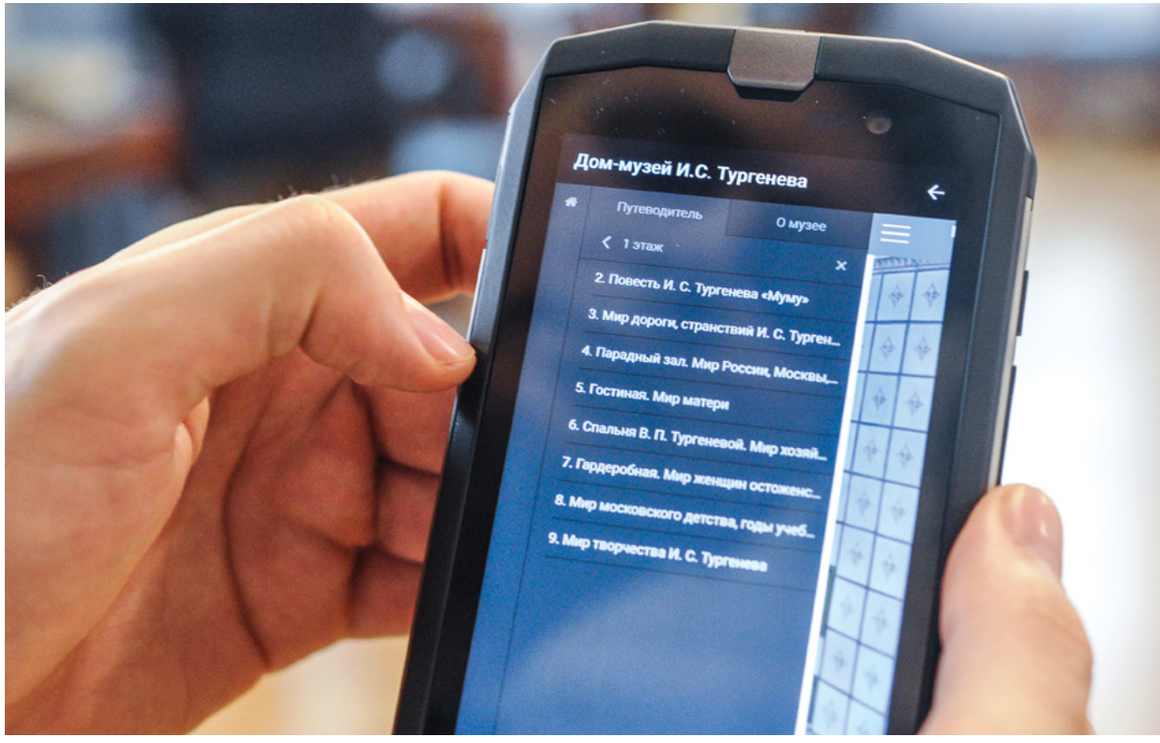
Labels on tablets and smartphones

Visitors use either personal smartphones or rented ones (from the museum). People need to open a browser and (without downloading applications) receive content from the museum server wirelessly. The server is physically located in the museum and no internet connection is required. The content on the server is organized by PIXILAB BLOCKS software.



The Museum of Science and Technology in the Peter and Paul Fortress, St. Petersburg.
Descriptions of the exhibits are on the tablets installed next to the exhibits, and on visitors' smartphones (via local wireless network).

It is easy to compose guide content with BLOCKS. BLOCKS software allows to create and modify the user interface of the guide without programmers' help. More information about the media guide system based on BLOCKS you can find on our website.



The mediaguide in The House Museum of I.S. Turgenev on Ostozhenka St. (Moscow).
IT specialists of the museum independently composed the content of the audio guide using BLOCKS software.
More information about the project you can find on our website.
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Showcase with projection

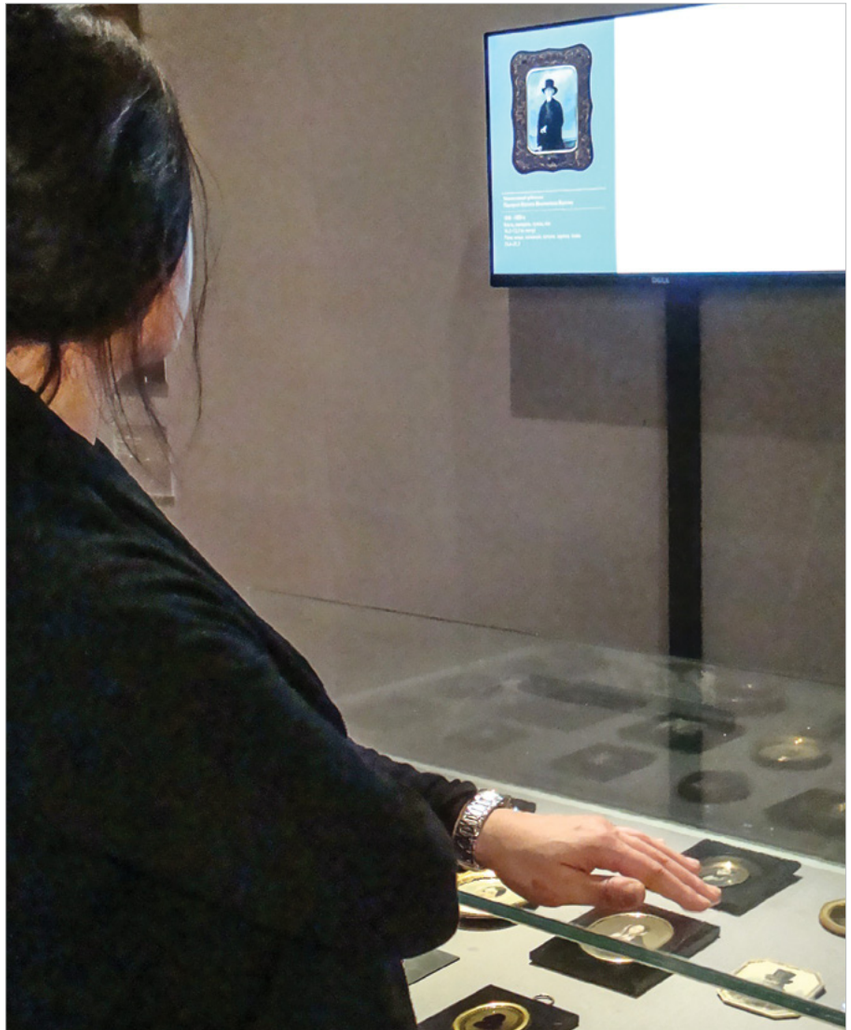
A video is right on the surface of the window glass, the sound comes from the audio guide. Miniature projectors are placed inside the showcase, the rear projection film is glued to the glass, the video and sound are synchronized.

Russian National Museum of Music.
By means of an audio guide, visitors can hear how the exhibits (musical instruments) sound and see them in action. More information about the project you can find on our website.

Touch showcase

The display glass responds to pressure via special transparent touch film: just select an exhibit and click on the glass above it. The display shows information about the exhibit.

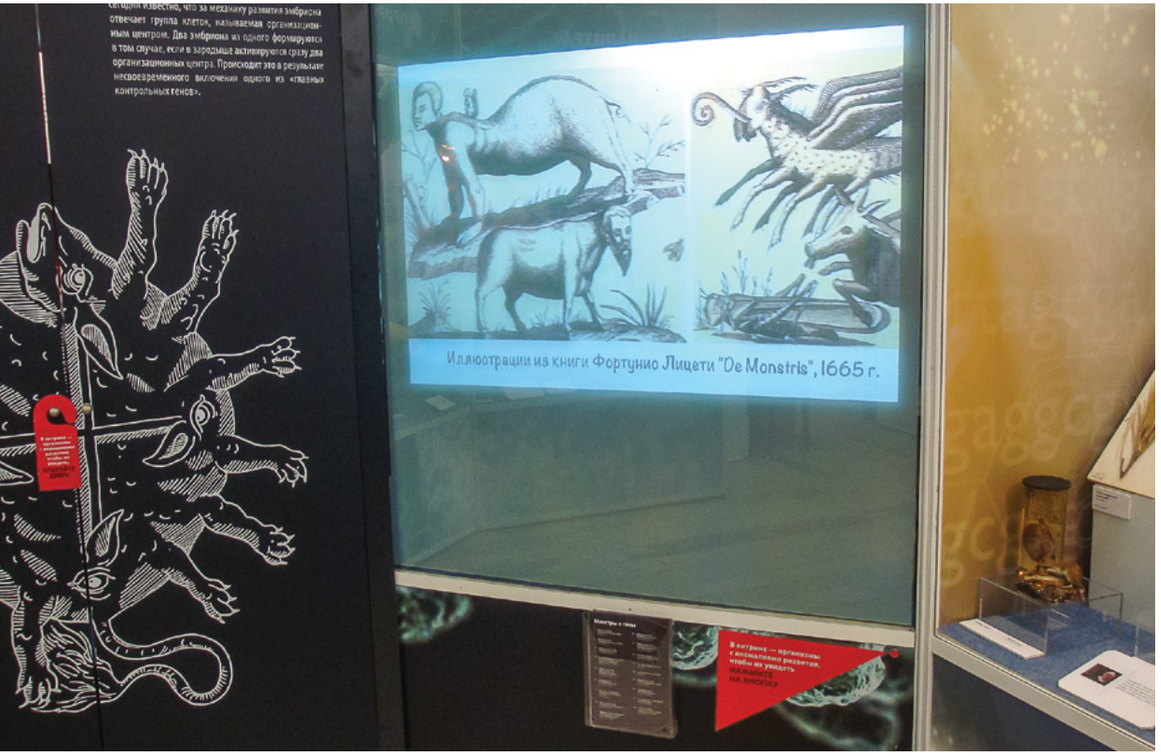
The State Literature Museum.
The display is located next to the showcase. More information about the project you can find on



The museum of the Patriotic War of 1812 (The State Historical Museum).
A visitor touches the showcase in the place where the exhibit is located, and information appears on the display. The display is inside the touch showcase. More information about the project is on our website.

Switchable smart projection film for showcase

The transparent glass of the showcase becomes opaque after a command (or automatically), then a video starts playing.
A mini projector is installed inside the showcase. The sound of the video is coming through directional sound speakers or audio guide.



The State Biology Museum named after K.A. Timiryazev.
A video is shown on the window glass. Organisms with developmental anomalies are inside the showcase. In order to see them, a visitor presses the button, and the opaque glass becomes transparent.

The opaque glass of the showcase becomes transparent (after pressing the button), exhibits are illuminated. A minute later, the frightening exhibits are again hidden behind the glass screen, and the video is playing again. More information about the project is on our website.

Make still objects come to life: Projection Mapping

We make projections on any objects. One of the best mapping solutions is Dataton WATCHOUT software.
Projection Mapping onto a 3D object.
A demonstration of WATCHOUT capabilities. The joint booth of Dataton and INTMEDIA at the Prolight + Sound (International Trade Fair of Technologies and Services for Entertainment, Integrated Systems and Musical Instruments) exhibition in 2017 in Sokolniki (Moscow).

Projection Mapping on a model

Corporate Museum of Sberbank.
An interactive video installation with micromapping on the model of the Corporate University. Visitors can find out about the infrastructure of the university by pushing a button on the menu (on the tablet). The projection highlights an object on the model, the video plays on the screen. Mapping and script were made via Dataton WATCHOUT software.
More information about the project is on our website.

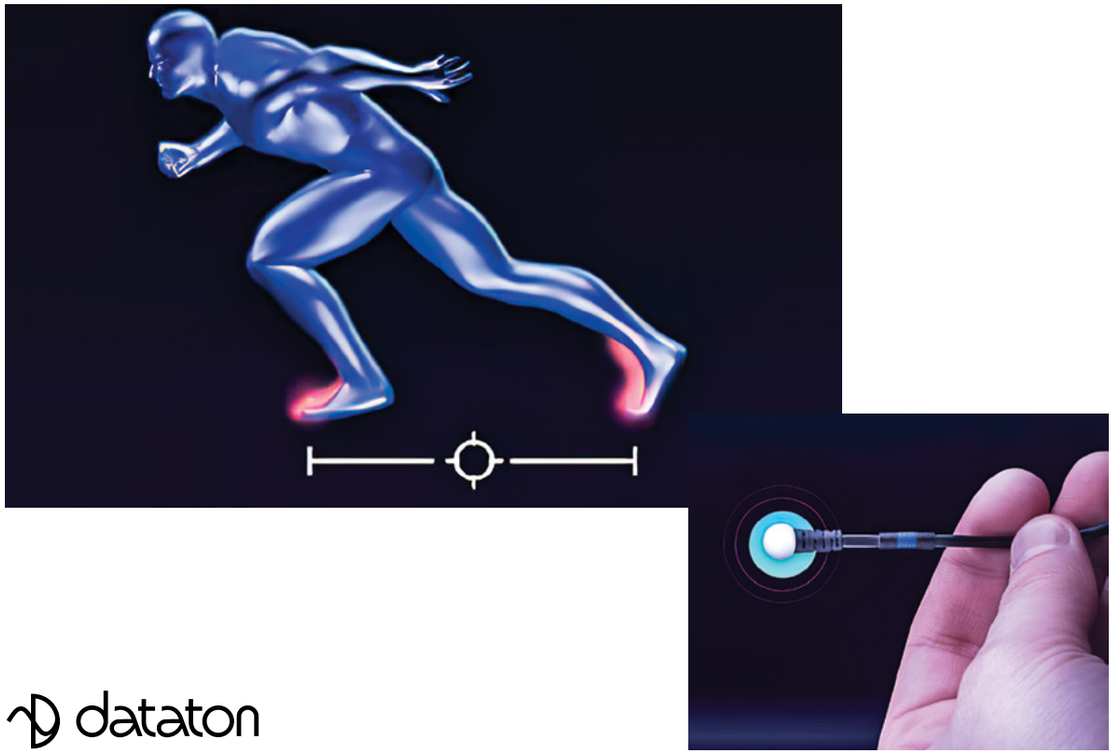
dataton

Dataton is a Swedish developer of products for creating and managing multi-display shows.
INTMEDIA is an exclusive partner of Dataton in Russia.

Projection Mapping onto mooving objects

WATCHOUT is complemented by the BlackTrax tracking system for projection onto moving objects.
The BlackTrax system uses trackers (tiny infrared LEDs) and tracking cameras.

Mapping onto a moving 3D object. A demonstration of WATCHOUT capabilities at the Dataton booth at Integrated Systems Europe in 2018. Visitors randomly rotate the platform, the projection moves synchronously. More information about the exhibition is on our website.



dataton

BlackTrax system tracks both the movement of still objects and the movement of objects that change shape. More information about the tracking system and its interaction with WATCHOUT is on our website.

Projection: any shape and size

Edge blending projection is made by special software. The most popular and recognized is Dataton WATCHOUT. Edge blending is one of many possibilities of WATCHOUT. It is a universal software for creating multi-display shows and scenarios.

The museum "Russia in the Great War" in Martial Chamber (Tsarskoe Selo State Museum and Heritage Site). A circular panoramic projection system (the size of the screen is 11 x 2.5 m).

Projection on dome

Domeprojection combines WATCHOUT software with ProjectionTools technology to automatically edge blending projection onto dome and complex screens.
Ip cameras are required for edge blending. Visit our website to find out more about automatic edge blending.

Interactive projection

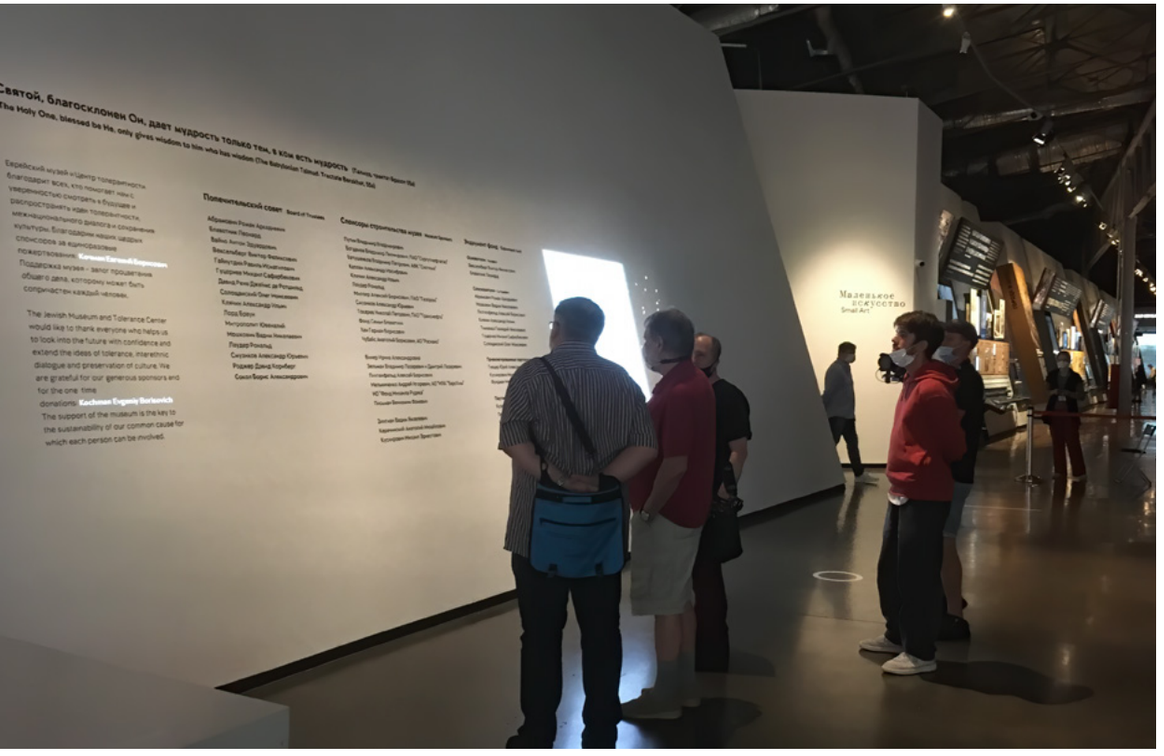
Interactive interaction with the projection is provided by Dataton WATCHOUT software.

Corporate museum of Sberbank. Virtual tour of the MRIYA resort.
A scooter with a treadmill is installed between two screens. Both screens broadcast video taken during a trip around the resort. The screens together provide a circular view. At an intersection, the direction of a ride can be selected by turning the wheel. The scenario and image adjustment were made on Dataton WATCHOUT software.

The camera above the screen automatically photographs the "traveler" against the backdrop of landscapes. A visitor finds these photos on an interactive screen and can send them by mail or share on social media. More information about the project is on our website.

Interactive projection

Projection images became interactive by sensors, cameras and software.



The Jewish Museum and Tolerance Center.
A projection of the information about sponsors on the wall at the entrance to the museum.
Volumetric letters are highlighted by the projection. When a camera sees a visitor, the projected letters suddenly crumble and reappear as new text. To add names of new sponsors to the projection, museum staff simply type them into the text editor built in the Dataton WATCHOUT software that controls the projection, no rendering is required.
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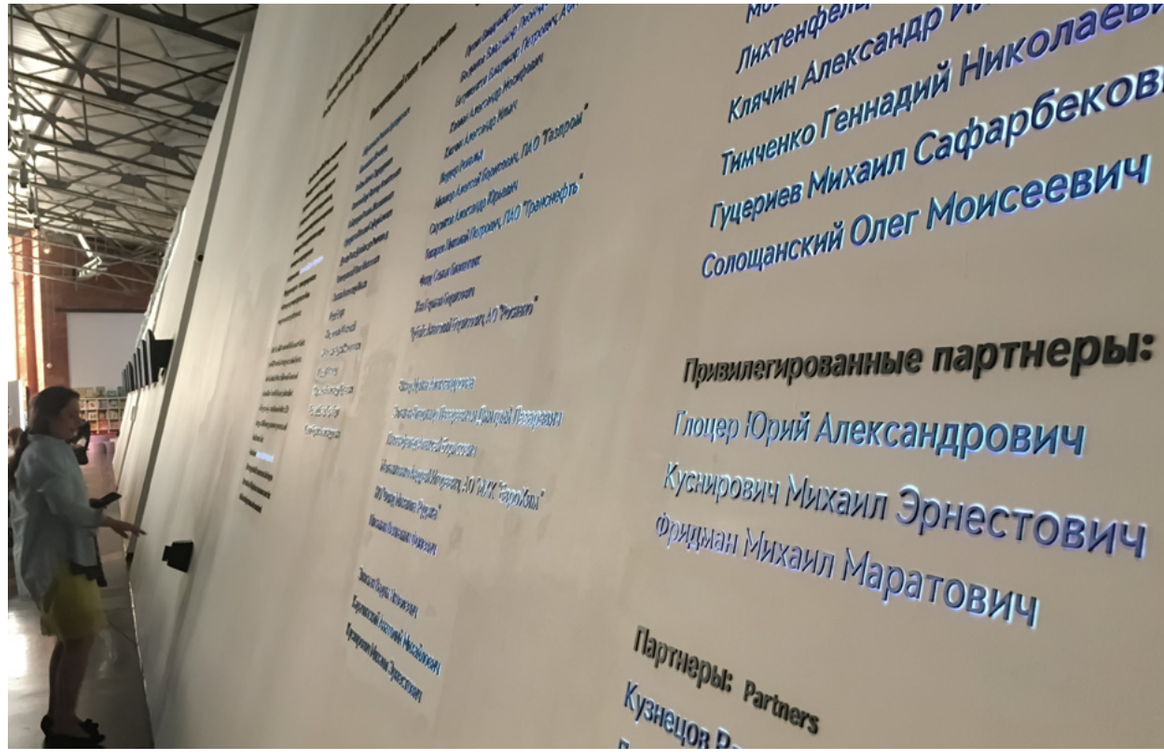
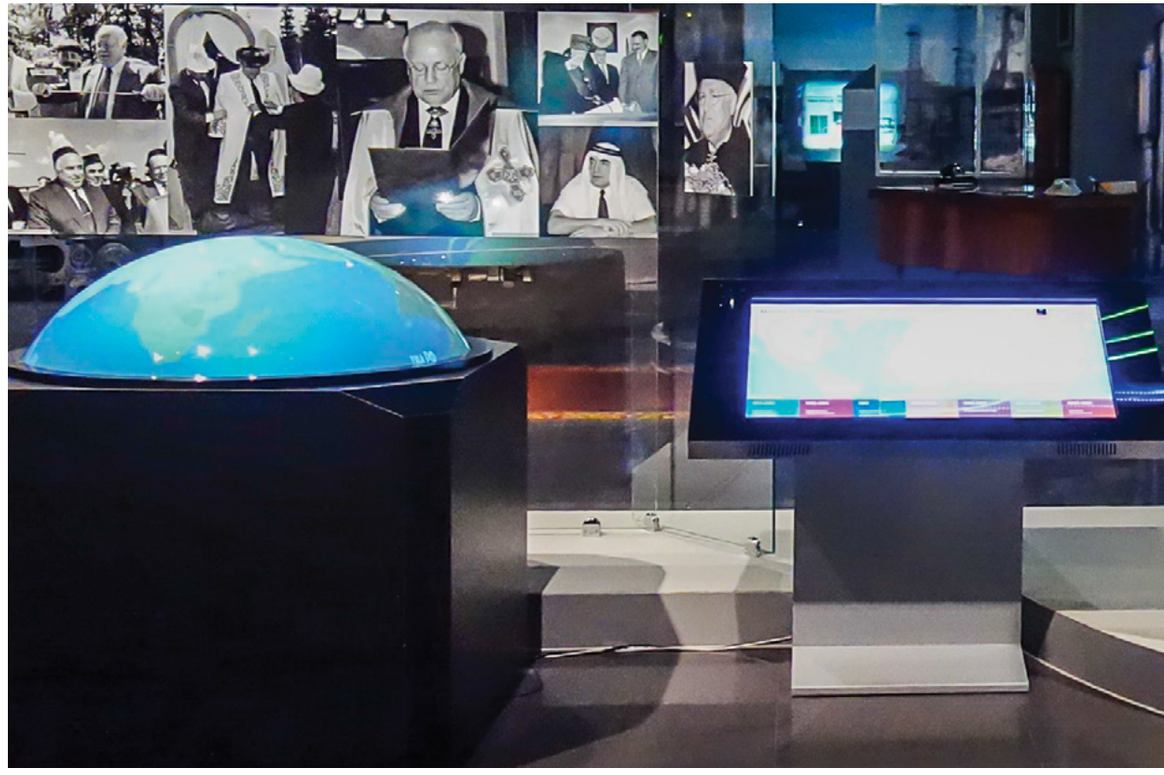


INTMEDIA engineers performed geometric distortion adjustments to match content with real letters. They also adjusted camera integration with a media server and Dataton WATCHOUT software.

Interactive Spherical Projection

The spherical interactive display PufferTouch® by PufferFish can be used for interactive visualization of various phenomena or events, for example, to simulate the surface of the earth.
Photos: https://pufferfishdisplays.com/

Spherical interactive projection system MEDIASPHERE MULTITOUCH by MediaScreen. It can show the movement of ships, planes, trains and other objects on the sphere, even in real time due to the help of GPS tracking. Multi-touch control allows the joint exploration of the content simultaneously by multiple users.



The Historical and Memorial Museum of Victor S. Chernomyrdin (Orenburg region).
The exposition: "The road to History". Interactive media sphere shows Chernomyrdin's routes.
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Interactive Virtual book

MonkeyBook – Interactive Virtual Book by MediaScreen is an elegant touch desk presentation system with a convex projection screen in an authentic book design.
An integrated Mini-PC and a high-precision camera tracking system enables the intuitive user interaction, such as scrolling through the virtual book pages, jumping direct to chapters and play

Tula State Museum of Weapons.
Virtual pages of the book are scans of pages of the book presented in the showcase. More information about the project is on our website.

The State Borodino War and History Museum and Reserve.
The interactive book contains textual and illustrative description about Russian and French army uniforms. More information about the project is on our website.

Extended Reality: on tablet

Extended reality (XR) is an introduction of virtual objects into the field of perception of the real world.

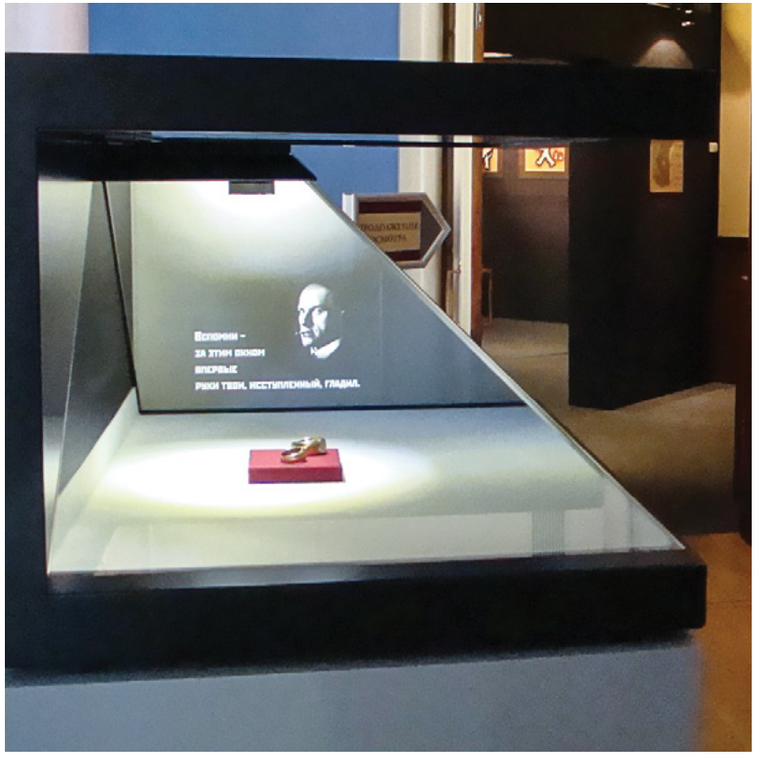
The exhibition «AR art, Mirages and Miracles» (2018, Groningen, the Netherlands).
Visitors get aquainted with work of artists Adrien Mondot and Claire Bardainne using an iPad. Through the tablet, a visitor observes how the little man is moving and jumping over the stones. On the screen, a computer image is attached to a real one. More details are in the «World Experience» section of our website..

A video camera of smartphone identifies the exhibit, and information (3D models, images, texts, sound) appears on the screen. Photos: CIMMIQuebec. More details are in the «World Experience» section of our website.

Extended Reality: showcase display

Dreamoc ™showcase display by Realfiction™. is a "holographic" image combined with real objects, sound and interactive features.

"Museum Tour" of the State Literature Museum in the "Tsaritsyno" Museum-Reserve.
Dreamoc display demonstrates Mayakovsky and Lilya Brik's rings. Virtual images and text move around them.
More information about the project is on our website..



Dreamoc display demonstrates Mayakovsky and Lilya Brik's rings from three sides.

The Dreamoc Play app allows to use Apple device like iPhone, iPad or iPod Touch to control playback on Dreamoc. The tablet gives an opportunity to select a content option.

Pseudoholography: Holocube displays

Due to the transparent background, it is possible to achieve a three-dimensional "holographic" effect. The image prepared in a special way “floats in the air”. Holocube displays are available from 10" to 75".

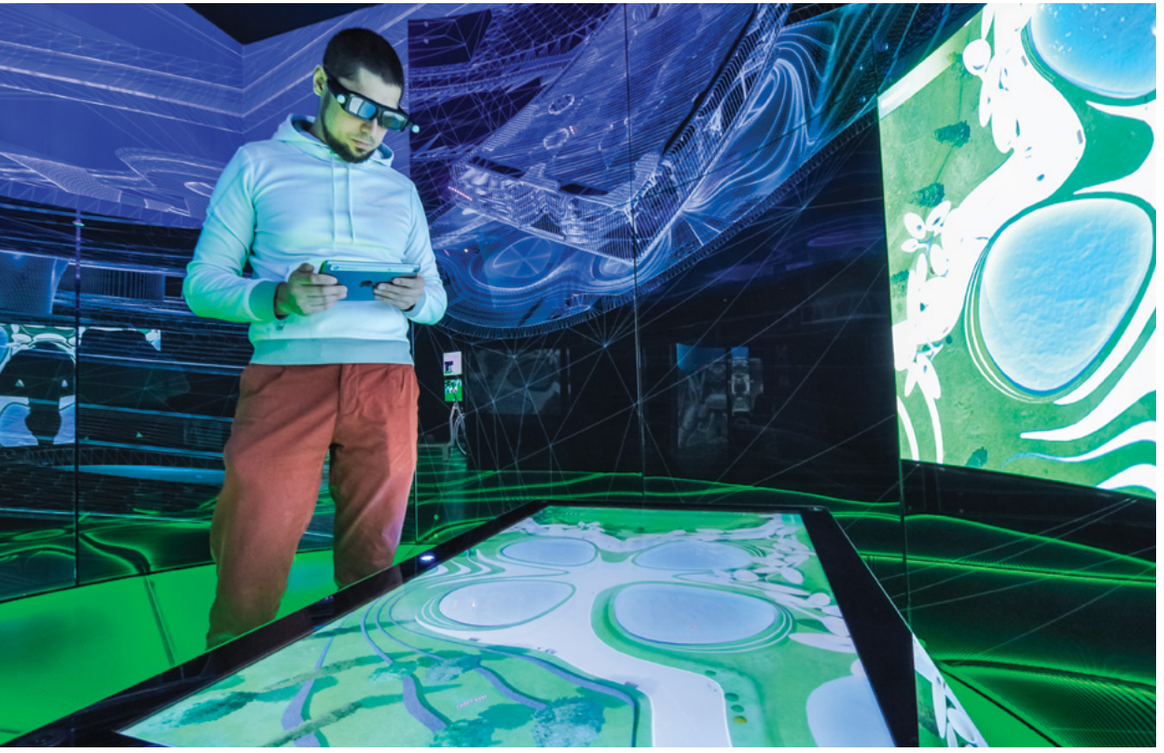
Tula State Museum of Weapons.
The Holocube display demonstrates the principal of operation and design of firearms using animated 3D models.
More information about the project is on our website.

The biggest Holocube is 75 inches.

The smallest Holocube is HC Tablet. It consists of a tablet and a transparent reflective screen with a special coating.
Photos: http://www.holocube.eu/

«Holographic» table

The technology allows creating an illusion of a three-dimensional model floating "above" the plasma panel. Moving around the table, a visitor can observe the virtual model from all sides: cameras of the table track the position of the glasses and give a signal to the computer, which "rotates" the model. It is easy to control the view using a tablet, for example, to select a route, scale details, select display scenarios.



Corporate museum of Sberbank.
A virtual three-dimensional interactive model of constructing Technopark is presented on an interactive table. Special glasses are used to see three-dimensional images. The duplicating two-dimensional image is broadcasting on the projection screen. More information about the project is on our website

Transparent displays

A transparent display allows to attach an image on any background. It can be an interior or a landscape, a picture or a map.

The House Museum of Vasiliy Pushkin.
There is an old map of Moscow in a picture frame behind a transparent display. On the screen there are images of Pushkin's time. Above the screen there is a directional sound speaker. More information about the project is on our website.
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Mirror Displays

Mirror is also a display. When visitors approach to it, a video starts showing in the mirror, as if it were a screen. As soon as the story ends, the images in the mirror disappear and visitors see their own reflection again. A motion sensor is responsible for turning on the display.
Mirror Display at The House Museum of I.S. Turgenev on Ostozhenka St. (Moscow).

Mirror Display at The House Museum of I.S. Turgenev on Ostozhenka St. (Moscow).
More information about the project is on our website
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Smart displays

MULTITACTION

MultiTaction interactive displays with MT Codice markers will help to remember your visit, save impressions and information.
Optical Codice markers can be attached to an item or to a ticket.
A marker is a kind of key to certain content, it can be both a description of the exhibit and information about the visitor (e-mail, phone, etc.).
Using the marker, a visitor can send the selected information to his/her e-mail, and find out the history of the item by attaching it with the marker to the display.

Glenfiddich used the MultiTaction interactive table with the Codice system to present their drinks. Codice markers were attached to the bottom of glasses. When the glass was on the table, information about its contents appeared.

The Codice marker resembles a QR code. It is simply necessary to touch the MultiTaction screen with the marker to read a code. The uniqueness of Codice markers is controlled by the MultiTouch DRM server. The potential of the MultiTouch DRM server is over four billion unique codes. Learn more about the technology on our website.

Sound: just where you need it

Directional sound systems in the Museum of the Patriotic War of 1812 (The State Historical Museum).
More information about the project is on our website.

Directional sound systems allow to create sound in the right place, eliminating the mutual influence of sound sources on each other and sound mixing. The volume level is adjusted automatically depending on external noise.
The system can be configured with wide-angle or narrow-angle motion sensors. The wide-angle sensor is triggered when the listener approaches the system, the narrow-angle sensor is triggered when the listener is in the system's coverage area.

With properly organized acoustic environment, several Panphonics speakers can be placed one and a half meters apart. In addition, each of them will transmit its own audio content.