

Xibo

Open Source Digital Signage

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srce

Sveučilište u Zagrebu
Sveučilišni računski centar



srce
otvoreni pristup

Sadržaj

- **Prvi dio (teorija):** infrastruktura / implementacija / konfiguracija
 - HW (poslužitelj, klijenti, mrežna infrastruktura...)
 - SW (Xibo server, .NET Xibo klijent, nadzorni / management i dodatni alati)
- **Drugi dio (praksa):** upravljanje *digital signage* sustavom:
 - Funkcionalnost Xibo sustava (terminologija, *user/resource/activity management*)
 - Keriranje i prikazivanje sadržaja

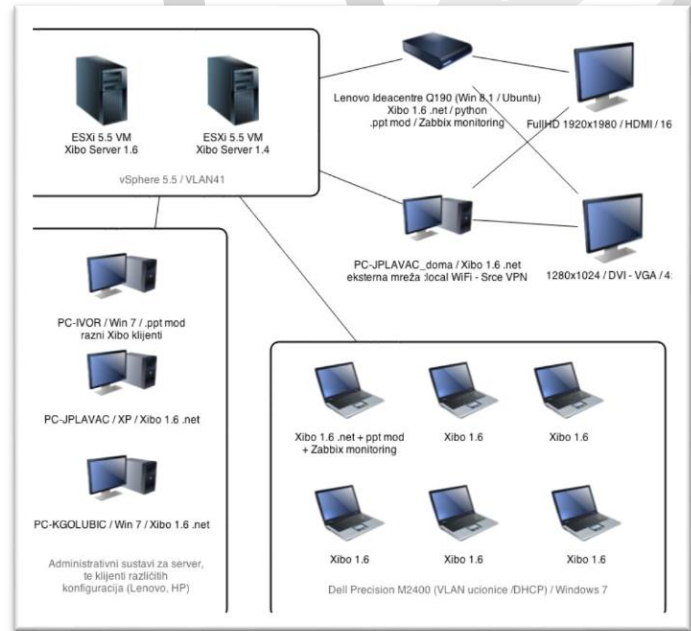
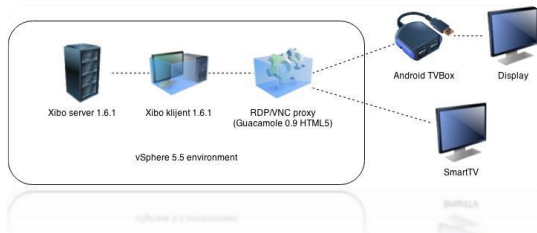
Srce – kratka povijest infosustava

• Scala Infochannel

- komercijalno rješenje,
- HW requirements,
- licenca (virtualizirana/USB key),
- converter/extender,
- podrška...

• Xibo open source (testiranje)

- centralizirani *management* i *content creator*
- fleksibilnost klijenata
- raznovrsnost podržanog sadržaja



Xibo – odabir klijenata (HW/SW)

- Client OS:

1. Win/.NET
2. Python
3. Android

Feature	.Net Client	Python	Xibo for Android
Schedule Layouts	Yes	Yes	Yes
Priority Schedules	Yes	Yes	Yes
Video	Yes	Yes	Yes
Flash	Yes	Some Support	No
Images	Yes	Yes	Yes
PowerPoint	Yes	No	No
Text	Yes	Yes	Yes
RSS	Yes	Yes	Yes
Web Page	Yes	Yes	Yes
—			
DataSets			
Background Image	Yes (jpg only)	Yes	Yes
Image Transparency	No	Yes	Yes

- Client HW:
- MicroPC/HTPC...
- Video: HDMI/DVI/VGA; Network: WiFi, LAN, external

DS Devices DSC-J18

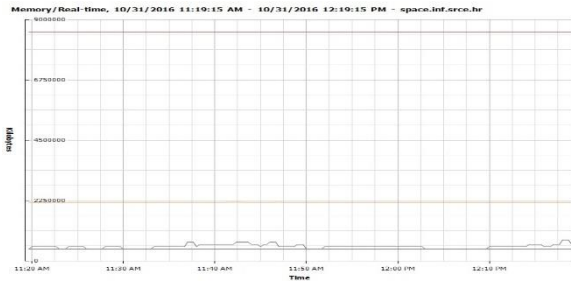
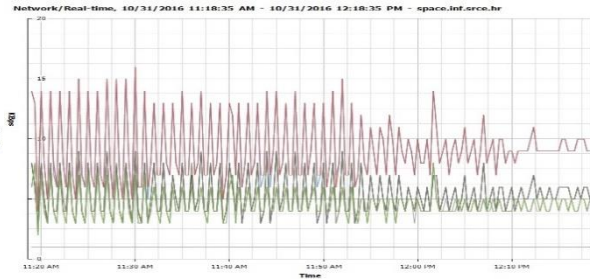
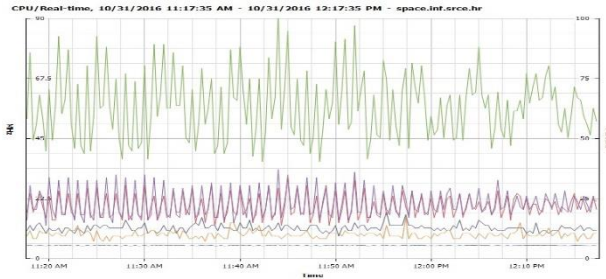
Minix Neo Z64



- <https://springsignage.freshdesk.com/support/solutions/articles/72658-recommended-android>

Xibo – kapacitiranje poslužitelja

vSphere6: Debian 8/VHW11/4vCPU (Xeon E7-4860 v2)/8GB MEM/60GB HDD



Xibo poslužitelj – CMS instalacija (Debian)

- #wget <https://github.com/xibosignage/xibo-cms/archive/1.7.9.tar.gz>
- #apt-get install apache2, mysql-server, php5, php5-mysql
- http://xibo.org.uk/manual/en/install_environment_linux.html (CentOS, SuSe, Win/WAMP)
- #cd /var/www
- #tar zxvf ~/X.X.X.tar.gz
- #mv xiboCMSXXXX xibo
- #chown www-data:www-data -R xibo
- #mkdir /xibo-library
- #chown www-data:www-data -R /xibo-library

Xibo poslužitelj – CMS instalacija (Debian)

Create a new database Use an existing database

needs to set-up a connection to your MySQL database.
you have not yet created an empty database and database user for Xibo to use. know the user name / password of a MySQL administrator stay on this tab, otherwise click "Use Existing".

Create a new database
Select to create a new database

Host
Please enter the hostname for the MySQL server. This is usually localhost.

Admin Username
Please enter the user name of an account that has administrator privileges on the MySQL server.

Admin Password
Please enter password for the Admin account.

Database Name
Please enter the name of the database that should be created.

Database Username
Please enter the name of the database user that should be created.

Database Password
Please enter a password for this user.

Postavke Xibo baze podataka i library lokacije.

Library Location
Xibo needs somewhere to store the things you upload to be shown. Ideally, this should be somewhere outside the root of your web server - that is such that is not accessible by a web browser. Please input the full path to this folder. If the folder does not already exist, we will attempt to create it for you.

Server Key
Xibo needs you to choose a "key". This will be required each time you set-up a new client. It should be complicated, and hard to remember. It is visible in the CMS interface, so it need not be written down separately.

Statistics
We'd love to know you're running Xibo. If you're happy for us to collect anonymous statistics (version number, number of displays) then please leave the box ticked. Please un tick the box if your server does not have direct access to the internet.

Xibo poslužitelj – CMS instalacija (Debian)

Item	Status	Advice
PHP Version	✓	PHP version 5.3.3 or later required. Detected 5.6.27-0+deb8u1
File System Permissions	✓	Write access required for settings.php and install.php
MySQL database (PHP MySQL)	✓	MySQL support must be enabled in PHP.
MySQL database (PDO MySQL)	✓	PDO support with MySQL drivers must be enabled in PHP.
JSON Extension	✓	PHP JSON extension required to function.
SOAP Extension	✓	PHP SOAP extension required to function.
GD Extension	✓	PHP GD extension to function.
Session	✓	PHP session support to function.
FileInfo	✓	Requires PHP FileInfo support to function. If you are on Windows you need to enable it.
PCRE	✓	PHP PCRE support to function.
Gettext	✓	PHP Gettext support to function.
Calendar Extension	✓	PHP Calendar extension to function.
DOM Extension	✓	PHP DOM core functionality enabled.
DOM XML Extension	✓	PHP DOM XML extension to function.
Mcrypt Extension	✓	PHP Mcrypt extension to function.
Allow PHP to open external URLs	✓	You must have allow_url_fopen = On in your PHP.ini file for RSS Feeds / Anonymous statistics gathering to function.
DateTimeZone	✓	This enables us to get a list of time zones supported by the hosting server.
ZIP	✓	This enables import / export of layouts.
Large File Uploads	✓	Support for uploading large files is recommended.
Internationalization	✓	International Support for formatting Dates, Numbers, etc.
cURL	✓	cURL is used to fetch data from the Internet or Local Network



The image shows a login form for Xibo. At the top is the Xibo logo, which consists of the word 'Xibo' in a blue sans-serif font with three small grey circles above the 'o'. Below the logo is the text 'Please provide your credentials'. There are two input fields: the first is labeled 'xibo_admin' and the second contains a series of dots representing a password. Below these fields is a blue 'Login' button. At the bottom of the form, there is a footer that reads 'Version 1.7.8 | Source | About'.

Xibo poslužitelj – CMS konfiguracija

CMS Administration: Settings

The image displays four screenshots of the Xibo CMS Administration Settings page, arranged in a 2x2 grid. Each screenshot shows a different section of the settings interface.

- Top Left Screenshot: Configuration**
 - Library Location:** /home/xibo-library/
 - Project Information:** Project-Id-Version: xibo-Report-MsgId-Bugs-To: FULL_NAME POT-Creation-Date: 2014-11-26 10:54+0000 PO-Revision-Date: 2015-02-26 18:41+0000 Last-Translator: Andi Chandler Language-Team: English (United Kingdom) MIME-Version: 1.0 Content-Type: text/plain; charset=UTF-8 Content-Transfer-Encoding: 8bit X-Launchpad-Export-Date: 2015-03-31 16:01+0000 X-Generator: Launchpad (built 17413)
 - Library Location Reference:** This setting is referred to as: LIBRARY_LOCATION
 - CMS Secret Key:** [Redacted]
 - Project Information:** Project-Id-Version: xibo-Report-MsgId-Bugs-To: FULL_NAME POT-Creation-Date: 2014-11-26 10:54+0000 PO-Revision-Date: 2015-02-26 18:41+0000 Last-Translator: Andi Chandler Language-Team: English (United Kingdom) MIME-Version: 1.0 Content-Type: text/plain; charset=UTF-8 Content-Transfer-Encoding: 8bit X-Launchpad-Export-Date: 2015-03-31 16:01+0000 X-Generator: Launchpad (built 17413)
 - Reference:** This setting is referred to as: SERVER_KEY
- Top Right Screenshot: Displays**
 - Default Latitude:** 51.504
 - Description:** The Latitude to apply for any Geo aware Previews. This setting is referred to as: DEFAULT_LAT
 - Default Longitude:** -0.104
 - Description:** The Longitude to apply for any Geo aware Previews. This setting is referred to as: DEFAULT_LONG
 - Display a VNC Link?:** http://%s:5800
 - Description:** Turn the display name in display management into a VNC link using the IP address last collected. The %s is replaced with the IP address. Leave blank to disable. This setting is referred to as: SHOW_DISPLAY_AS_VNCLINK
- Bottom Left Screenshot: Maintenance**
 - Enable Maintenance?:** Protected
 - Description:** Allow the maintenance script to run if it is called? This setting is referred to as: MAINTENANCE_ENABLED
 - Enable Email Alerts?:** Off
 - Description:** Global switch for email alerts to be sent. This setting is referred to as: MAINTENANCE_EMAIL_ALERTS
 - Admin email address:** [Redacted]
 - Description:** Errors will be mailed here. This setting is referred to as: mail_to
- Bottom Right Screenshot: Troubleshooting**
 - Log Level:** error
 - Description:** Set the level of logging the CMS should record. In production systems "error" is recommended. This setting is referred to as: audit
 - Server Mode:** Production
 - Description:** This should only be set if you want to display the maximum allowed error messaging through the user interface. Useful for capturing critical php errors and environment issues. This setting is referred to as: SERVER_MODE
 - Save Button:** A green button labeled "Save" is visible at the bottom.

Xibo poslužitelj – konfiguracija (users)

primjer konfiguracije grupe korisnika: urednici

The screenshot displays two configuration windows side-by-side. The left window, titled 'Page Security', shows a list of security groups with checkboxes and assigned status indicators. The right window, titled 'Menu Item Security', shows a list of menu items with checkboxes and assigned status indicators. A dropdown menu is open over the 'Dashboard' item in the right window, showing a list of sub-items: Dashboard, Administration Menu, Advanced Menu, Design Menu, Display Menu, Library Menu, and Top Nav.

Security Group	Assigned
Content	✓
DataSets	✗
Displays	✗
Homepage and Login	✓
Layouts	✓
License and Settings	✗
Reports	✗
Schedule	✓
Templates	✗
Updates	✗
Users and Groups	✗

Menu Item	Assigned
Dashboard	✓
Layouts	✓
Library	✓
Manual	✓
Schedule	✓
Settings	✗
Templates	✗
Users	✗

Page security:

- Content ✓
- Homepage and Login ✓
- Layouts ✓
- Schedule ✓

Menu Item Security:

Dashboard:

- About ✓
- Layouts ✓
- Library ✓
- Manual ✓
- Schedule ✓

Design Menu:

- Campaigns ✓
- Layouts ✓
- Templates ✓

Library Menu:

- DataSets ✓
- Media ✓

Top Nav:

- Design ✓
- Library ✓
- Schedule ✓

Xibo poslužitelj – konfiguracija (users)

primjer dodavanja korisnika u grupu

Manage Membership

Drag or double click to move items between lists

Assigned

korisnik

Available

xibo_admin

xxxx

xxxx

xxxx

Help

Cancel

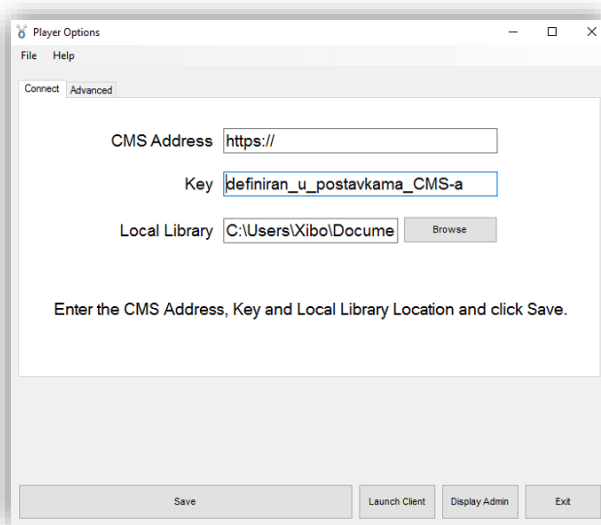
Save

Xibo klijent - .NET Win 10 (home) instalacija

- Mrežna dostupnost CMS-a (LAN\Internet..)
- Microsoft Windows XP SP3 / Windows Vista / Windows 7 (8, 8.1.. 10)
- .NET Framework v3.5 SP1
- Internet Explorer 7+ (*preporučeno IE10 ili noviji*)
- Flash Player Version 9 ili noviji
- Windows Media Player 11 ili noviji
- Za podršku PowerPointa, Microsoft PowerPoint 2003 ili noviji (*viewer nije podržan*)

Xibo klient - .NET Win 10 (home) instalacija

<https://github.com/xibosignage/xibo-cms/releases/download/1.7.9/xibo-client-1.7.9-win32-x86.msi>



Player Options

File Help

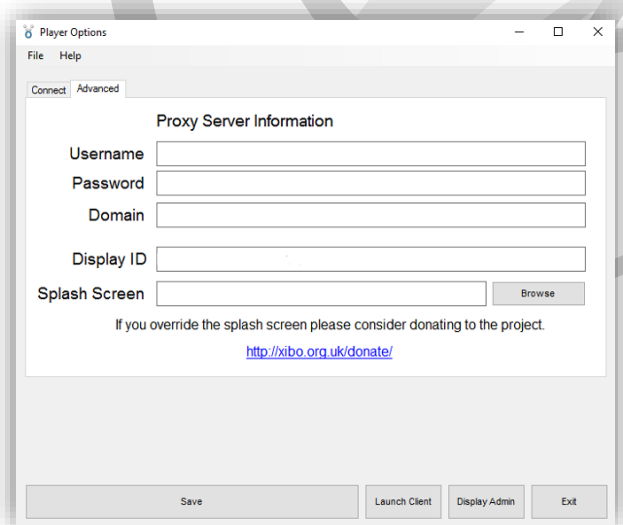
Connect Advanced

CMS Address

Key

Local Library

Enter the CMS Address, Key and Local Library Location and click Save.



Player Options

File Help

Connect Advanced

Proxy Server Information

Username

Password

Domain

Display ID

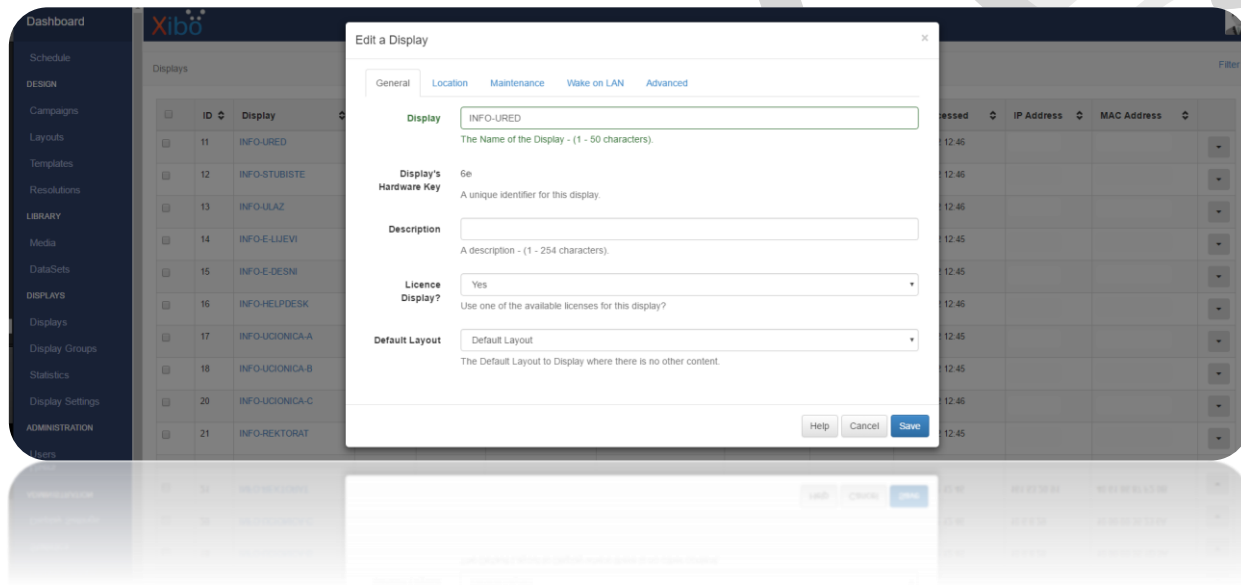
Splash Screen

If you override the splash screen please consider donating to the project.
<http://xibo.org.uk/donate/>

Xibo klijent - .NET Win 10 (home) instalacija



Xibo klient - registracija



Displays - Settings

Edit Profile

General Location Troubleshooting **Advanced**

Show the icon in the task bar?
Should the application icon be shown in the task bar?

Cursor Start Position
Bottom Right
The position of the cursor when the client starts up.

Enable Double Buffering
Double buffering helps smooth the playback but should be disabled if graphics errors occur

Duration for Empty Layouts
10
If an empty layout is detected how long should it remain on screen. Must be greater than 1.

Enable Mouse
Enable the mouse.

Enable Shell Commands
Enable the Shell Command module.

Expire Modified Layouts
Expire Modified Layouts immediately on change. This means a layout can be cut during playback if it receives an update from the CMS.

Maximum concurrent downloads
2
The maximum number of concurrent downloads the client will attempt.

Shell Command Allow List

Which shell commands should the client execute?

Edit Profile

General Location **Troubleshooting** Advanced

Name
Windows
The Name of the Profile - (1 - 50 characters)

Default Profile?
Is this the default profile for all Displays of this type? Only 1 profile can be the default.

Collect interval
1 minute
How often should the Player check for new content.

Download Window Start Time
00:00
The start of the time window to connect to the CMS and download updates.

Download Window End Time
00:00
The end of the time window to connect to the CMS and download updates.

Enable PowerPoint?
Should Microsoft PowerPoint be Enabled?

Enable stats reporting?
Should the application send proof of play stats to the CMS.

Use CEF as the Web Browser
CEF is Chrome Embedded and offers up to state web rendering. If unselected the default Internet Explorer control will be used. The Player software will need to be restarted after making this change.

Notify current layout
When enabled the client will send the current layout to the CMS each time it changes. Warning: This is bandwidth intensive and should be disabled unless on a LAN.

Screen shot interval
0
The duration between status screen shots in minutes. 0 to disable. Warning: This is bandwidth intensive.

Limit the number of log files uploaded concurrently
2
The number of log files to upload concurrently. The lower the number the longer it will take, but the better for memory usage.

Prevent Sleep?
Stop the player PC power management from Sleeping the PC.

Help Cancel Save

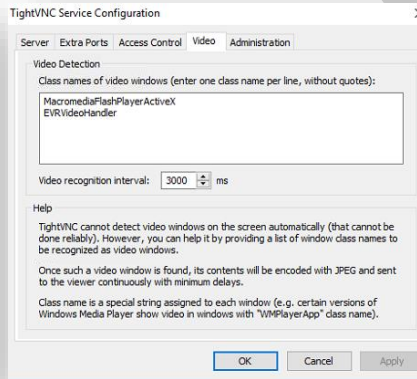
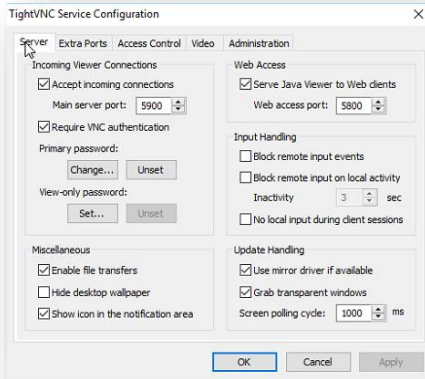
Xibo klijent – podešavanja 1/2

- User autologin (cmd/netplwiz – Accounts: “Users must enter a username...”)
- Boot to desktop (Win 8.1)
- Load “no sounds” scheme (Control panel -> Sounds and Audio Devices / Properties)
- Disable balloon tips in the notification area
- *HKLM\SOFTWARE\Microsoft\Internet Explorer\Main\FeatureControl\FEATURE_BROWSER_EMULATION*
- Bluetooth / Wireless / Live Tiles – Off?
- Power Sleep, Turn off display – never
- System - optimize for performance, show window contents while dragging, smooth edges of screen fonts
- Unpin store, pin CP, Xibo client, Xibo options
- Privacy options – Background apps

XiboClient.exe = (DWORD) 00011000

Xibo klijent – podešavanja 2/2

- VNC / Team viewer / RDP
- TightVNC server - service mode

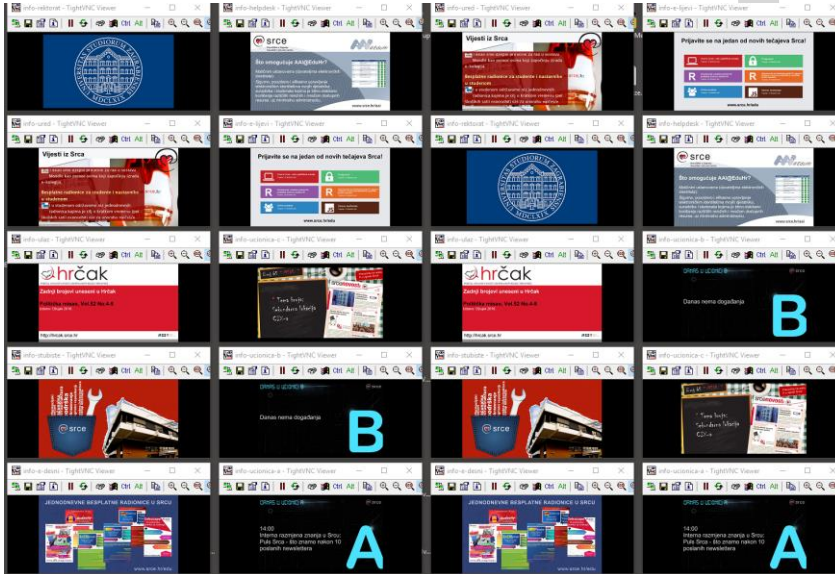


Video Detection:

- *MacromediaFlashPlayerActiveX*
- *EVRVideoHandler*

```
#Internet  
Explorer_Server  
#WindowsForms10.W  
indow.8.app.0.c4edf4  
_r11_ad1  
#WMPlayerPP
```

Nadzor klijenata: VNC/VBS



- "Save session to a .vnc file"
- Xibo_nadzor.vbs

Dim shell

**Set shell =
CreateObject("Shell.Application")**

shell.MinimizeAll

**shell.Open "info-ucionica-a.vnc"
Wscript.Sleep 100**

...

shell.TileVertically

XIBO WATCHDOG!

Maintenance poslužitelja (old log, statistics, status of displays)

- Administration -> Settings -> Maintenance
- Off, On, Protected (key)
- Windows (Scheduled Task)
 - `c:\php\php-win.exe -f c:\path\to\Xibo\maintenance.php secret`
- Linux (Cron)
 - `wget -q -O /dev/null http://example.com/Xibo/maintenance.php?key=changeme`
 - `lynx -dump http://example.com/Xibo/maintenance.php changeme > /dev/null`
 - `php /var/www/Xibo/maintenance.php changeme`
 - `ionice -c3 -p$$;nice -n 10 /usr/bin/php /var/www/Xibo/maintenance.php changeme > /dev/null`

<https://community.xibo.org.uk/t/xibo-cms-post-installation-setup-guide/522>

http://xibo.org.uk/manual/en/cms_maintenance.html

Backup poslužitelja

Baza, library folder, individualni layout, settings.php.

- `mysqldump -uroot -pXXXXXXXX--all-databases > xibo_all.sql`
- `mysqldump -uroot -pXXXXXXXX xibo > xibo_db.sql`
- `tar -zcvf xibo_library_backup.tar.gz xibo-library`
- `/xibo/settings.php`

Layout export (VBS)

- `http://xibo.posluzitelj.hr/xibo/index.php?p=layout&q=Export&layoutid=XX`
- `CreateObject("WScript.Shell").Run("http://xibo.posluzitelj.hr/xibo/index.php?p=layout&q=Export&layoutid=105")`

Upgrade Xibo sustava

- Backup!
- Server – save *settings.php*, redeploy → upgrade wizard na CMS sučelju
- Klijent – MSI installer, TightVNC, “Transfer files”, Ctrl+Alt+Shift+Del

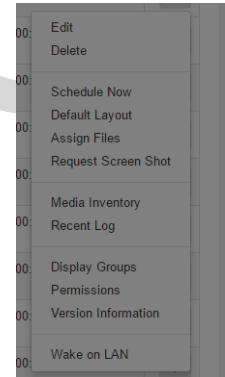
Set Instructions for Upgrading this client

Installer File

Display	Type	Version	Version Code
INFO-URED	windows	1.7.8	112

Cancel

Save



Troubleshooting

Display Settings

ADMINISTRATION

Users

User Groups

Settings

Applications

Modules

Transitions

ADVANCED

Log

Sessions

Audit Trail

Report Fault

About

Help Links

cURL

2. Turn ON full auditing and debugging.

Turn ON Debugging

3. Recreate the Problem in a new window.

4. Automatically collect and export relevant information into a text file. Please save the file.

Collect and Save Data

5. Turn full auditing and debugging OFF.

Turn OFF Debugging

6. Click on the below link to open the bug report page for this release. Describe the problem and upload the file you obtained earlier.

Ask a question

Further Action

We will do our best to use the information collected above to solve your issue. However sometimes this will not be enough and you will be asked to provide more information.

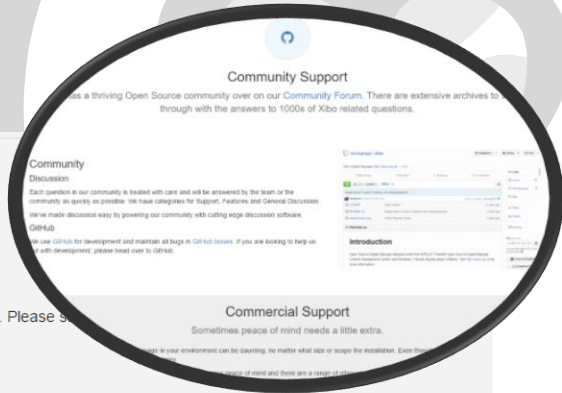
1. Switch to Test Mode.

Switch to Test Mode

2. Recreate the Problem in a new window and Capture a screenshot. You should post your screenshot in the same topic as the question you asked.

3. Switch to Production Mode.

Switch to Production Mode



Nove verzije (<http://xibo.org.uk/blog/>)

- 1.6 Installs: 5970
- 1.7 Installs: 20583
- 1.8 Installs: 161

- 1.7.9
- <http://xibo.org.uk/2016/09/27/1-7-9-released/>

- Docker!
- http://xibo.org.uk/manual-tempel/en/install_docker.html

- 1.8 “Tempel” - 1.8.0-rc1
 - **Playlists**
 - **Interactive Signage (1.9)**
 - **Xibo API**
 - **Changes for Developers**
 - **PHP 5.4 or higher**
 - **The Slim PHP Framework**
 - **Twig**
 - **Composer**
 - **PSR-4**
 - **MVC**
 - **RESTful by design**
 - **A separate Web Folder for Security**
 - **PHPUnit**

Dodatno:

- <http://xibo.org.uk/>
- <https://community.xibo.org.uk/>
- <https://github.com/xibosignage>
- <https://springsignage.com/>
- <http://minix.com.hk/>
- <http://www.dsdevices.com/>
- <https://www.concerto-signage.org/>
- <http://www.opensplash.net/>
- <https://www.risevision.com/>
- <http://www.capterra.com/digital-signage-software/>





Pauza

U nastavku: live demo.

Xibo

Open source digital signage



Sveučilište u Zagrebu
Sveučilišni računski centar

www.srce.unizg.hr

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