

Lucas Junqueira August 2013 (Managana 1.6.0)

advanced tips

# Getting started with Managana advanced tips

Written and compiled by Lucas Junqueira 2<sup>nd</sup> Edition: August 2013 (Managana 1.6.0)

With information from

http://www.managana.org

http://www.ciclope.art.br/ciclopeen

Including material written by Álvaro Andrade Garcia & Marilia Bergamo



This work is licensed under the Creative Commons Attibution-Noncommercial-Share Alike 3.0 License

To view a copy of this license, visit:

http://creativecommons.org/licenses/by-nc-sa/3.0/

Or send a letter to:

**Creative Commons** 

171 Second Street, Suite 300

San Francisco, California, 94105, USA

# **CONTENTS**

1 INTRODUCTION	
1.1 About Managana	4
1.2 Why use Managana	4
1.3 Some advanced tips	5
2 EDITIONS, SITE MAPS AND OFFLINE CONTENT	6
2.1 Sitemap	
2.2 Offline content	
3 SEARCH	10
4 VIEWER INTERFACE LANGUAGE	11
5 WORKING WITH VARIABLES AND CODE	13
5.1 Saving and loading variables	14
5.2 Community values	14
5.3 Meta data	15
6 GEOLOCATION	17
7 GUIDES	19
8 HTML TEXT AND CSS	21
8.1 Community CSS	
9 HTML BOX CONTENT	24
9.1 Closing HTML box and getting data from it	
10 EXTERNAL FEEDS	27
10.1 Facebook	
10.2 RSS2	30
10.3 Twitter	30
10.4 WordPress	31
10.5 External feed progress code	32
11 IMPORTING PDF FILES	34

## 1 INTRODUCTION

## 1.1 About Managana

Managana is a free cross-platform software for digital publication based on imagination as interface. Created by the Ciclope Atelier, it allows the creation and maintenance of communities that share interactive content on the web, tablets, smartphones and exhibits. Each community has interactive streams composed of clusters of audiovisual, graphics, text and external feeds. Managana mixes and sequences playlists that can be created, displayed, and animated at the software itself.

Managana is made for the era of cloud computing, mobile devices and the panopticon: the Internet 3. The software, 100% free, published under the LGPL license version 3 of the Free Software Foundation, mixes and sequences media streams and their interaction with the main digital world platforms. It evolved from the software called Imagination Site, made by Ciclope Atelier, developed since 2002, having gone through five versions. The 6.0 software version was entirely re-written using free tools and baptized as Managana.

With roots in Sanskrit, the name Managana, composed of mana and gana, and present in the anthem of India, means "peoples minds". The first verse of the anthem "Jana Gana Mana adhināyaka" is officially translated into English as: "Thou art the ruler of the minds of all people".

You can check a small presentation video about Managana features at the software site: <a href="http://www.managana.org/versions/">http://www.managana.org/versions/</a>

# 1.2 Why use Managana

Managana will help you to develop any kind of audiovisual content for crossplatform environments without any knowledge on programming. In spite of this, Managana is not only for non-programmers. If you know a little of programming you also can make use of the scripts available for the software or implement your own. A note for hard programmers: Managana is also an opensource software that you can modify under the LGPL version 3 to develop tools for your own customers.

Contents generated by Managana run on projections, televisions, computer monitors, notebooks, tablets and smartphones, in various conditions and operating systems like Windows, Linux, MacOS, Android and iOS.

It works with immediate update online via a graphical editor and through the integration of Twitter, Facebook, WordPress and RSS feeds. Managana not only imports content from places as also shares information on G+, Facebook and Twitter. Interactions with mouse, touchscreen, remote controls using tablets and smartphones, joysticks, Microsoft Kinect and various sensors are in its design.

Managana allows editing online via web. The content editing module allows dynamic editing, in draft, pending, and published. Access and modification management through administrators, editors, authors and communities is also implemented. Easy to translate, made in an open format and file structure, it allows third parties to include new features.

# 1.3 Some advanced tips

Just like any other creation software, Managana has its little "secrets", some features that are not explicit but can provide very nice results and interaction possibilities to your content. This document is intended for the ones already familiar to basic creation with Managana that want to improve their creations. The tips are given in no particular order.

If you want to learn about basic content creation with Managana, this is not the document you are looking for. For a step-by-step guide about creating with Managana, check our website – <a href="www.managana.org">www.managana.org</a> – and look for the Getting started with Managana: creating for web and mobile devices at the downloads section.

# 2 EDITIONS, SITE MAPS AND OFFLINE CONTENT

A nice feature introduced on version 1.5.0 is the edition control for communities.

The concept of edition on Managana must be clarified since it is capable of creating "living" publications, constantly updated. An edition for Managana is not a "closed" production, but a sort of "time mark" where a community content is consistent. Editions are assigned to dates, so you can set these "time marks" on a daily basis.

So, what does happen when a new edition of a community is set? First, Managana generates a *sitemap file* for search engines, second, users of offline content will receive a notice so they can update their local content.

## 2.1 Sitemap

While running on web browsers, Managana relies on the Adobe Flash player (<a href="http://get.adobe.com/flashplayer/">http://get.adobe.com/flashplayer/</a>), a plugin well spread across various systems and highly used. However Flash content may suffer when search engines like Google or Bing try to index it.

Managana offers a way to overcome this using *sitemap files*. Sitemap (<a href="http://en.wikipedia.org/wiki/Sitemaps">http://en.wikipedia.org/wiki/Sitemaps</a>) is a web standard accepted by many search engines that describe your content, providing easy-to-find url addresses. When you set an edition, Managana creates a sitemap file for the selected community that you can send to Google, Bing and many other sites.

The sitemap functionality will work better if you provide detailed meta data information for your streams like meaningful names, descriptions and tags for them. This information will also be provided by the sitemap file so search engines can locate the correct stream of your community.

In order to set an edition and create a sitemap file, follow these steps:

- 1. Open your community on the Managana editor.
- 2. Access the *Community* → *Edition...* menu.

Community edition	
Setting a community edition will cause the community sitemap file to be re-created with the provided edition date. This means that you may need to submit your sitemap to search engines again if you want to enable them to find content among your streams. Also, if you enabled offline content for mobile devices, your viewers will be warned to download the community again (only updated files).	
edition date: 04/14/2013 use today's date	
open the current community sitemap URL	
learn about sitemap files on Wikipedia	
open Google webmaster tools for sitemap submission	
open Bing webmaster tools for sitemap submission (also works for Yahoo!)	
update community edition close	

3. Set the edition date and click the "update community edition" button. After some time Managana will warn you that your edition and set and the sitemap file is ready.

Now you can access your sitemap by clicking the "open the current community sitemap URL" button. The edition window also offers you buttons with links to the Google and Bing webmaster tools for sitemap URL submittions.

- P.S. On both Google and Bing sites you'll need a webmaster account to submit the sitemaps. These accounts are free and easy to create. Also, notice that sitemaps are not immediately processed when you send them, and it may take some time for your content to be properly exposed to these search engines.
- P.S.2 Other search engines also use sitemap files just send your URL to all sites you want. Yahoo! currently uses the Bing engine, so there is no need to send your sitemap file to them directly.

#### 2.2 Offline content

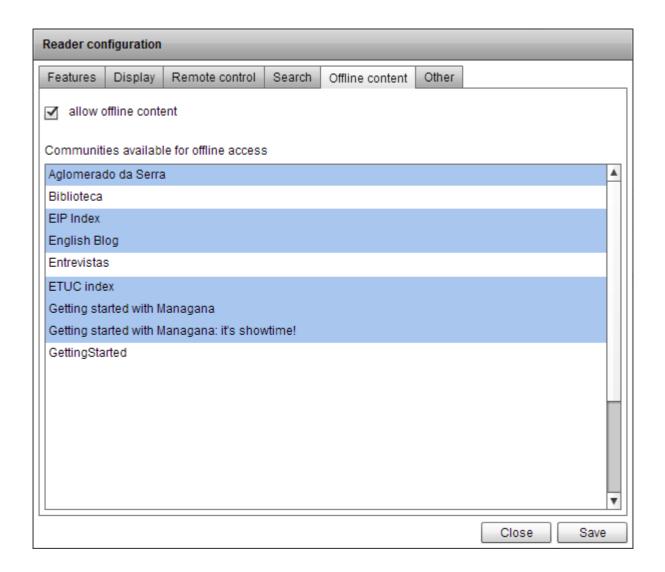
Managana 1.5.0 introduces the *content manager* on the viewer interface while running from packages applications (not from the web). This manager allows users to rapidly access the communities available on your Managana installation. It also provides them a tool to download your communities for later, offline access.



As the content creator you can allow or disallow users to access this manager. Also you can select witch communities to display on it. Check the *Configuration* → *Viewer...* menu and access the *Offline content* tab (you must be logged as super user).

Check the **allow offline content** to enable the content manager window for your viewers. Then, among your communities, you can select the ones to be exposed to the manager.

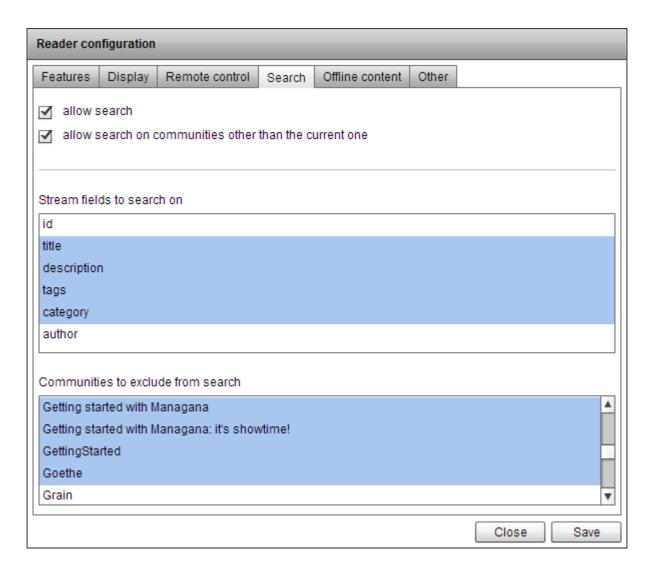
However this is not all you need to do. The content manager needs information about the edition to correctly download the files. So, for each community exposed to the content manager you'll ned to set at least one initial edition.



Every time you set a new edition for a community, all users that downloaded it will receive a warning message asking them to re-download the content. Managana tries to check each file so only updated ones will need to be downloaded again.

## 3 SEARCH

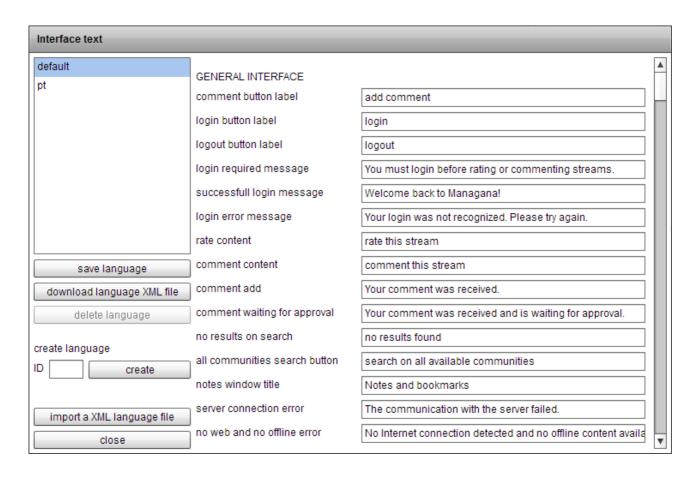
Managana offers content search among your streams. As a system administrator (a super user) you can set the search properties. Access the Configuration  $\rightarrow$  Viewer... and access the Search tab.



From this interface you can choose if users will be allowed to do searches on your content (allow search) and if their searches will go beyond the community they are seeing t the moment (allow searches on communities other than the current one). The search occurs on the stream meta data. The stream fields to search on list allows you to select the meta data fields used for it, while communities to exclude from search gives you control over the content accessible to user searches.

## 4 VIEWER INTERFACE LANGUAGE

Managana supports multi-language installations for the viewer, web or application (player and remote). The software selects automatically the language to choose based on the system default language. You can provide the proper translations at the editor interface. Access the *Configuration*  $\rightarrow$  *Interface language...* menu (super users only).



You can create as many additional languages as you want. You just need to provide a valid language code (a 2-letter code, based on ISO639-1:2002). Then, you can translate the text from English to the created ones. When the Managana viewer is launched, it first looks for the current system language. If it does not find it, Managana just loads the default language set.

When you save a language set, the changes become immediately available to the web viewer. In order to use a language set on the Managana applications, both player and remotes, you'll need to export the language files (**download**  **language XML file** button) and use the saved file on the AppWizard or on Showtime. You can also import these XML files on the editor.

The table below shows some valid language codes:

language	code
Chinese	zh
English	en
Esperanto	eo
French	fr
German	de
Japanese	ja
Portuguese	pt
Russian	ru
Spanish	es

In order to learn more about the language codes, check <a href="http://en.wikipedia.org/wiki/ISO\_639-1">http://en.wikipedia.org/wiki/ISO\_639-1</a>.

## 5 WORKING WITH VARIABLES AND CODE

Managana creations can be highly interactive due to usage of the *Progress code*. It gives instructions to the content about how to react to the user interaction. Progress code is not a truly script language with lots of options, but it does provide some fancy tools to you.

Every time a progress code is needed, the Managana editor provides a simple wizard to create it. You can also type it directly on the editor. For up-to-date information about the Managana progress code, access

http://www.managana.org/managana-progress-code-reference/

Among the progress code "groups", one, "CODE", gives you the ability to create complex interactions, including saving and loading values. There are many actions to work with variables, for creating, manipulating, saving and loading them. Managana has five variable types. The basic ones are the numerical and the string ones.

If you want to use an assigned numeric variable, just place the # mark before a valid name and Managana will replace it by the corresponding value. If the name is not valid, it is simply ignored. Check ou this example:

CODE->setNumber->myVar->0

This will create a numeric variable named myVar with the value 0.

*INSTANCE->myInstance->set->x->#myVar* 

This will make the instance named myInstance to move to x position 0. Conditions may also use the # marks:

CODE->ifNumHigher->1->#myVar

This will return true if 1 is higher than the value stored at myVar.

#### CODE->ifNumEqual->#myVar1->#myVar2

This will check if the variables named myVar1 and myVar2 are equal.

The string variables work much like the numeric ones. Just use the \$ mark for them:

STREAM->load->\$storedstreamid

This will load the stream id stored at the storedstreamid variable.

## 5.1 Saving and loading variables

Managana can save the current variable set (numeric and string) to the local filesystem or to your web server (if you prefer, at the cloud). If the user is logged, the save is done at the server, if not, at the local filesystem. Notice that the save and load commands are asynchronous and may not be effective for some time after you call them.

The values are saved and loaded related to the current community, however, unlike you may expect, when you load a new community all values set are kept – they will only be erased from memory if you manually request so using CODE->clearAllValues.

# 5.2 Community values

To exchange data among users, Managana supports the community values. Unlike normal variables, these values must be defined at the editor at the *Community* → *Variables...* menu. Community values may be loaded and set with progress code, but do it carefully: if it is changed by one user, it is changed for all of them. That's why the number operations for community values are always done directly on server. This enables you to create counters without messing the data.

Community variables		
variable name	current value	
comSetWidth	640	
remove selected variable add new variable	save current variables close without saving	

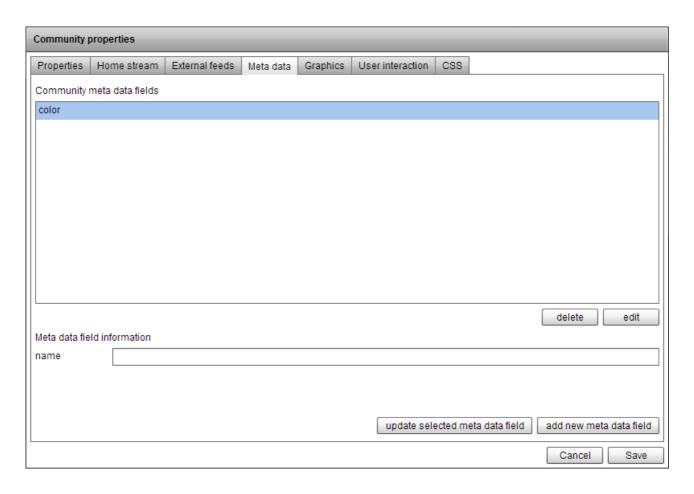
Community values can also be used at your progress code: their mark is % if they are numeric or string, like:

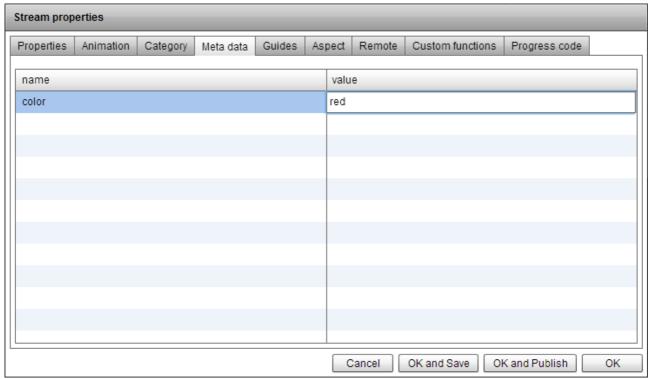
INSTANCE->myInstace->set->width->%comSetWidth

This will force the instance myInstance width to the community value named comSetWidth.

#### 5.3 Meta data

You can set meta data fields at the community properties. Then, you may set values for these meta data for each of your streams. To create a meta data field for a community, access the *Community*  $\rightarrow$  *Properties...* menu and look for the *Meta data* tab. You can, then, set unique values for meta data field for each of your streams, just open the *Stream*  $\rightarrow$  *Properties...* menu and access the *Meta data* tab.



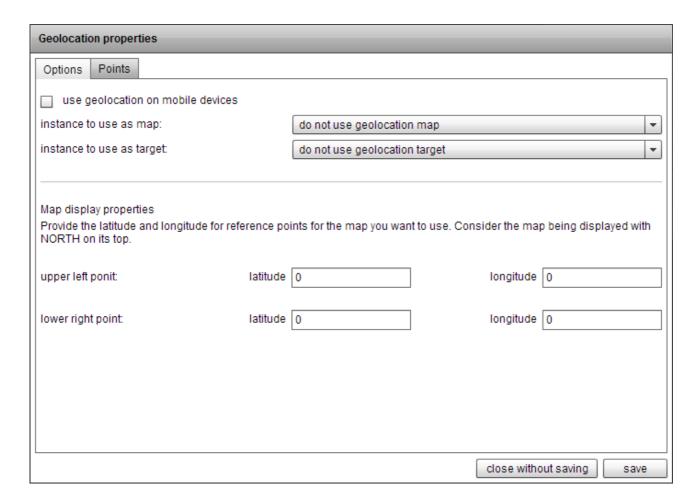


In order to retrieve the current stream value for a meta data, use the & mark at the progress code. An example:

CODE->ifStrEqual->&color->red

#### 6 GEOLOCATION

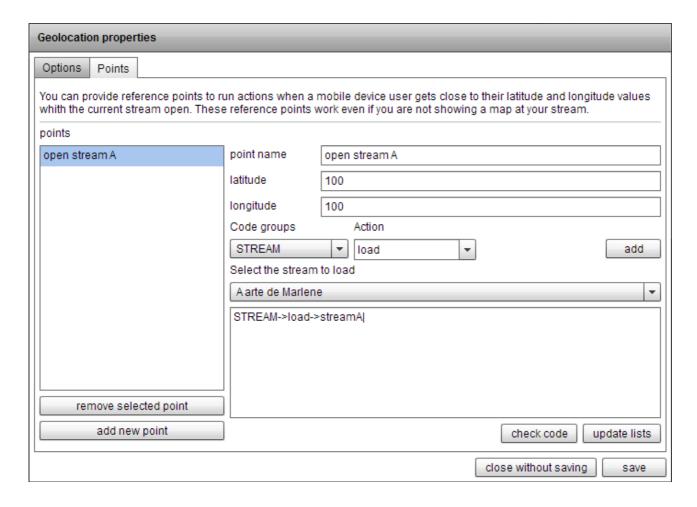
Most of the current mobile devices offer some sort of geolocation functionality. You can use this information on your Managana creations when they are running on them. Access the  $Stream \rightarrow Geolocation...$  menu.



The first tab, options, let you set things up. Start by activating the geolocation by checking **use geolocation on mobile devices**. This is a per-stream setting, so, on the same community you can have some streams that use geolocation and some that don't.

You can now set one instance found on the stream as a map and one as the target. If you do so, Managana keeps tracking the user position and place the target over the map on the corresponding place. This feature also requires that you provide the latitude and the longitude of two points: the upper-left corner of the map and the lower-right one (considering north on top).

The next tab, *points*, allows you to create points of interest with a corresponding progress code. When a user reaches one of these points, the code is automatically run. Notice that you don't need to show a map for this feature, but the stream with the points set must be loaded on Managana for them to work. You can add as many points as you want on a stream.



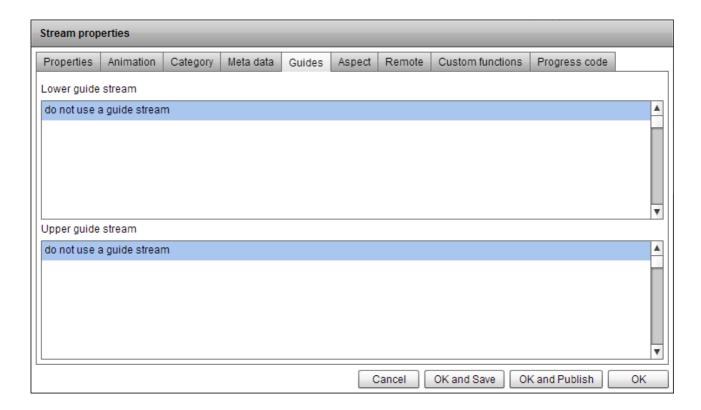
You must notice that different devices may provide different accuracy while checking geolocation data. Avoid placing points too close on your cleations.

## 7 GUIDES

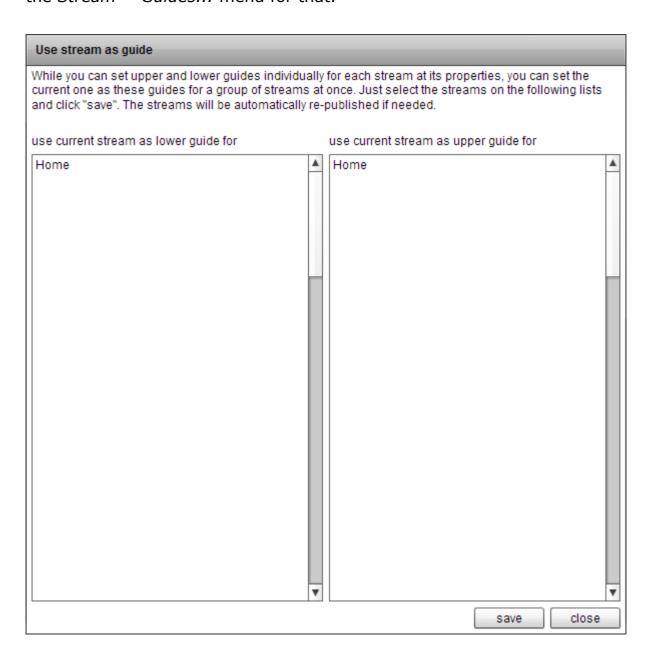
Content creation software usually provide some sort of "master page" functionality. On Managana we call it "guide streams". Every stream can have an upper and a lower guide that are, in fact, other streams prepared to be used this way.

You can use this feature to create, for example, menus and other fixed visual elements that are consistent on your community and assign it to all content streams. If you ever need to change something at your menu, just edit the guide. Of course there are many other ways to take advantage of the guide streams.

You can set guide streams on two different ways. First, individually: access the  $Stream \rightarrow Properties.$  and look for the guides tab. You'll see lists of the published content to choose from.



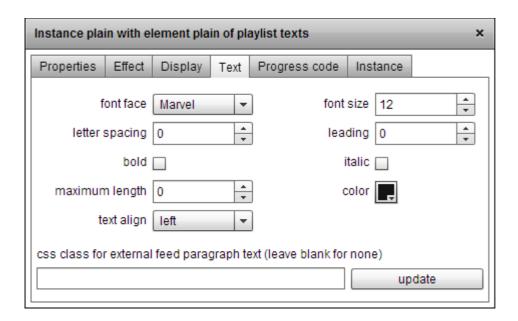
You can also set the currently open stream as the upper or lower guide for other published ones. This is a bulk action that helps you to save time. Access



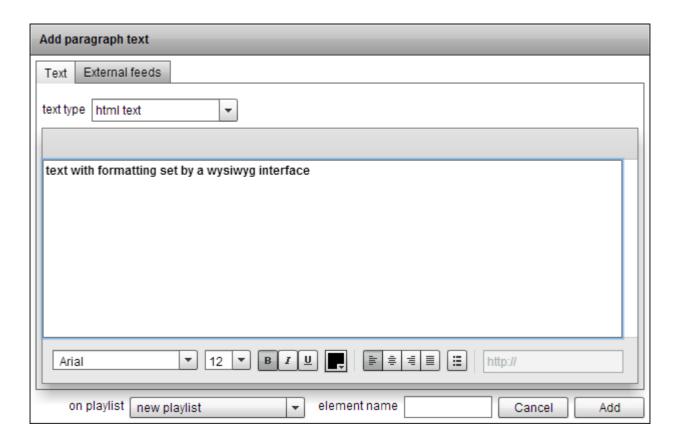
## 8 HTML TEXT AND CSS

When you add text to your content you are presented with two different types: artistic and paragraph. While the artistic text is very simple to enter, for paragraph ones you can choose among three different modes: *plain*, *html text* and *html code*.

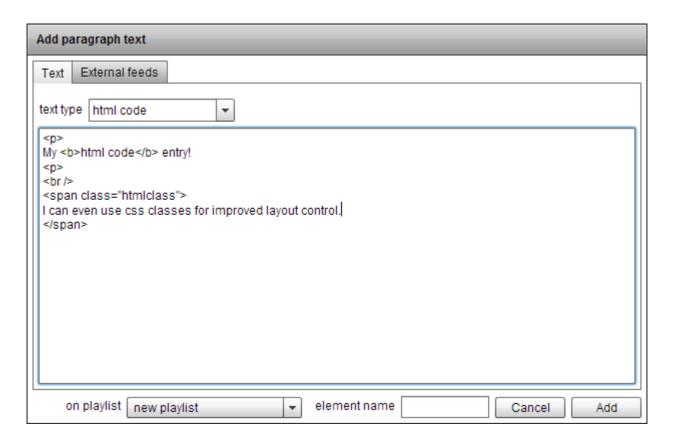
The *plain* text is the simplest one. You type it and set the display configurations at the *instance properties* window, *text* tab.



The *html text* gives you more flexibility on text formatting by providing you a simple wysiwyg interface. Changes on text instance properties won't affect it.

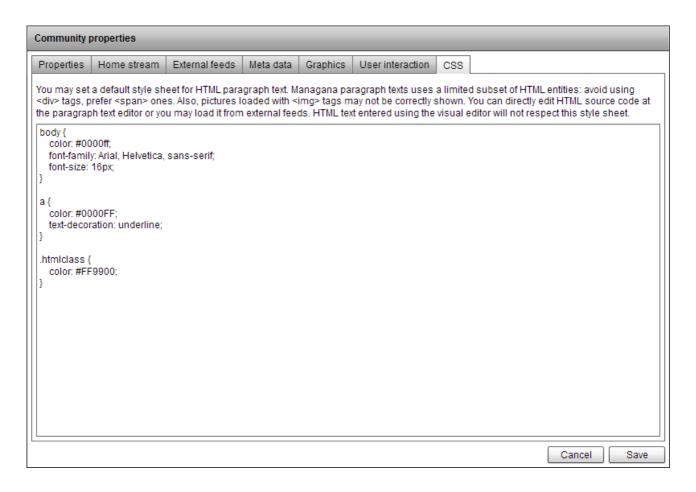


The *html code* is the most powerful text entry way but the most complicated one. Here you can provide HTML entities for extensive layout control, including tags like , <span> and so on. You can even use classes associated to a CSS for even higher control.



## 8.1 Community CSS

You can set a single style sheet that will be used on all html code texts on your community. This enables you to fine tune the layout, keep consistency and also helps you to make changes very fast. To edit this CSS, access the *Community*  $\rightarrow$  *Properties...* menu and look for the *CSS* tab.

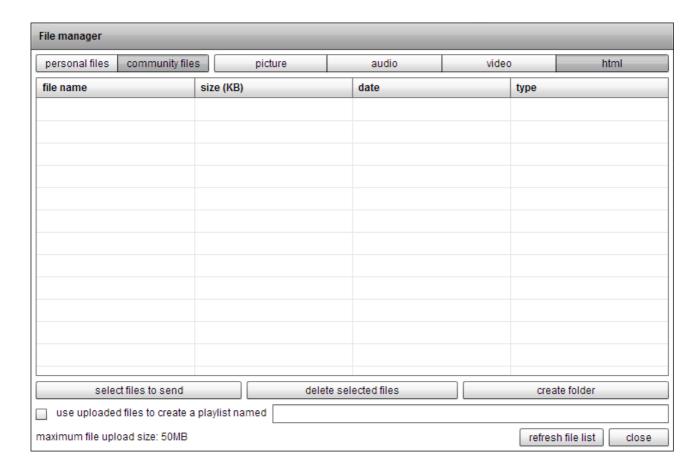


Please notice that Managana does not support the full set of CSS properties/ HTML entities. For example, DIV tags are not supported: use SPAN ones instead. Also, pictures loaded with IMG may not display correctly.

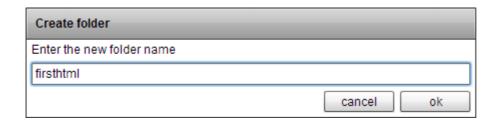
## 9 HTML BOX CONTENT

You can add standard links to your Managana content: the software will open a new tab (if running on a web browser) or a new navigator window if running on an app. You can also embed HTML content among your community files to open it on a layer above the standard Managana playback. This is very useful to create interactive widgets that work across several platforms (using HTML5 for example).

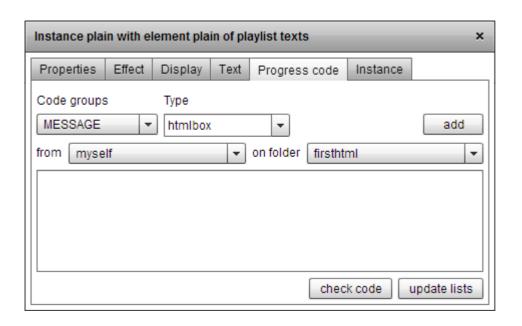
The first step is to create your HTML content outside Managana. Keep all required files inside a folder to simplify the access and name the main file as "index.html". Now, you must upload this folder using the file manager ( $Community \rightarrow File\ manager...\ menu)$  – navigate to the html file type:



Now, you must create a folder for your html content. You must create one folder for each different html content you'll use.



After creating the folder, it will be listed on the file manager. Double-click its name to enter it. You can now upload all your creation files to this folder – Managana support multiple file upload at once). You can add as many of these HTML folders as you want. After the upload is done, you're ready to go. Close the file manager and when you insert progress code to you creation, look for the  $MESSAGE \rightarrow htmlbox$  command. You'll be able to select the folder you want to load from. When the action is run, an overlay appears above the Managana content on the viewer, showing your HTML creation.



# 9.1 Closing HTML box and getting data from it

The HTML box overly provides the users a small close button so they can return to Managana. You can also use the following javascript function on your content to close the overlay directly from the loaded HTML page:

```
function closeHTMLBox(pcode) {
  document.location += "?|MANAGANACLOSE|" + pcode;
}
```

Just call the *closeHTMLBox()* function on your creation. You can even send some progress code using it, like:

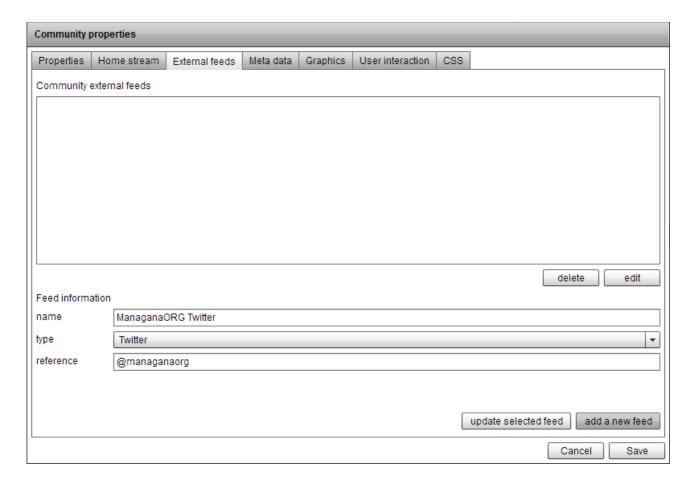
closeHTMLBox('STREAM->load->streamA');

This code will make Managana load *streamA* after the overlay is closed. The closeHTMLBox will not work if you redirect the content to an URL outside your own domain – this is a security procedure adopted by the web browsers (no cross-domain scripting).

## 10 EXTERNAL FEEDS

Managana is not alone on the Internet: there are many information sources around there and you can use them on your creations. We call them *external feeds*. You can incorporate texts from a Twitter account or pictures posted on a blog just like you would do with standard media files.

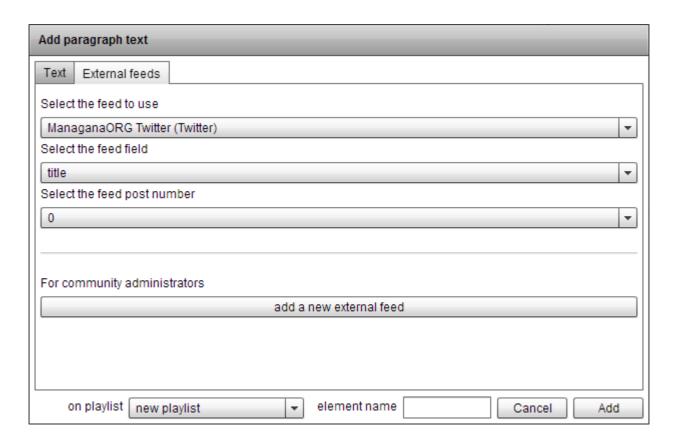
The first step is to set the external feeds available to your community. Access the *Community*  $\rightarrow$  *Properties...* menu and look for the *External feeds* tab.



Now you can set you external feeds sources. Let's get the Managana twitter account posts for example: at the feed information form, type "ManaganaORG Twitter" as the name, select "Twitter" as the type and use "@managanaorg" as the reference. Click the "add a new feed" button and then save the community properties.

To include a post text from this feed to a stream, add a new paragraph text

and access the *External feeds* tab. You can select one of the previously set feed source, the feed information field and the post number.



P.S. The post number is counted backwards: 0 is the most recent one.

You can add this text and it will behave just like the ones you directly type on Managana. You can even set its display properties. While running, Managana will grab the information from the feed source and place the correct information on your stream.

In order to avoid server overcharge, Managana create proxies of the external feeds from time to time. This means that you may not be seeing the latest information. These proxies are created every 15 minutes by default, but you can change this time at the viewer configuration (avoid using small time periods to save precious server resources).

There are four types of external feed Managana can handle, each one with its own particularities.

#### 10.1 Facebook

Managana supports feeds from public Facebook profiles. This means that open pages, like the ones for companies are available, but personal profiles aren't. In order to activate the Facebook support, you must first apply as a developer on the FB network. Then you must create an application to receive an ID and a secret. You must provide this information to Managana by accessing the  $Configuration \rightarrow Facebook application...$  menu.

Facebook application	
Application ID	
Application secret	
	Close Save

You'll also need to download the latest Facebook PHP SDK files and save them to the "feeds" folder of your Managana installation. After that, you're good to go.

When you add an external feed of Facebook type, use the page name as the reference. For example: to get the posts from the Managana page use "managana" as the reference (the Managana Facebook page is accessed on www.facebook.com/managana).

The Facebook external feed type provides you the following feed fields. If not specified, they must be included on your stream as artistic or paragraph text.

- *title* or *text*: the post text
- link: any link embed into the post (if any)
- author: the post author name
- *date*: the post date (there are many formatting options to choose from)
- picture: an image related to the post a picture upload or the biggest

picture found on the post link page (must add as a picture)

10.2 RSS2

The RSS2 feeds are very common and can be found on many blogs and news

sites on the Internet. There is no special setup for this kind of feed: just

provide the full URL address of the feed as the reference for Managana. The

fields provided by RSS2 are:

• *title*: the post title

• *text*: the post text

• *link*: a link to the original post page

• author: the post author name

• *date*: the post date (there are many formatting options to choose from)

• picture: an image related to the post: the biggest picture found on the

post link page (must add as a picture)

10.3 Twitter

There is also no extra configurations to grab Twitter data. You can use two

types of references when creating this kind of feed: @name to get posts from

a public account (like @managanaorg) or #term to search for the latest posts

containing a term (like #managana). The fields provided by Twitter are:

• *title* or *text*: the post text

• *link*: any link embed into the post (if any)

• author: the post author name

• *date*: the post date (there are many formatting options to choose from)

• *picture*: an image related to the post: the biggest picture found on the post link page (must add as a picture)

#### 10.4 WordPress

WordPress blogs provide data in the standard RSS2 format that can be loaded by Managana as an external feed. However we also have a plugin for this famous content management system that allows you to use WordPress as a powerful editor for your Managana creations.

First, download and install the Managana plugin on your WordPress blog. It will create new item on the left menu of your panel with two links: *settings* and *about*. Access the *settings* one to check some extra information about the plugin. When installed the Managana plugin creates a new data box for your posts and pages:

Managana Wordpress plugin
Your Wordpress post/page content, like the post, the title and the featured image, can be retrieved by Managana as an external feed. You may also set a sound and/or a video file for the current content using the fields below.
audio file (mp3)
http://localhost/wpplugins/audio/
video file (flv, f4v or mp4/h264)
http://localhost/wpplugins/video/
You can also send custom progress code to run on Managana. Just provide it at the field below (about the progress code):
You can add extra text information fields to send to Managana
extra field 1
extra field 2
extra field 3
extra field 4
extra field 5

You can use this box to add extra information to a post or a page to send to Managana (check the plugin settings to learn how to do it).

On Managana, when you add an external feed of WordPress type, use the full URL address of the pages you created as the reference. This kind of feed provides a lot of information fields:

• *title*: the post title

• *text*: the post excerpt text

• *full text*: the post full text

link: a link to the original post page

author: the post author name

• *date*: the post date (there are many formatting options to choose from)

 extra field #: any text typed on the extra fields (if add as a picture, audio or video, will consider the text as a url and try to load it)

 picture: the post thumbnail (you can set the thumbnail site to use at the plugin settings – add as a picture)

audio: any audio file provided at tha audio extra field (add as audio)

video: any video file provided at the audio extra field (add as video)

P.S. Unlike the other external feed types, the WordPress one is not cached by Managana and reflect up-to-date information.

# 10.5 External feed progress code

There are progress code commands that interact directly to data received from external feeds. Among them, some can be very useful:

• MESSAGE->openfeedlink will open a link associated with a post

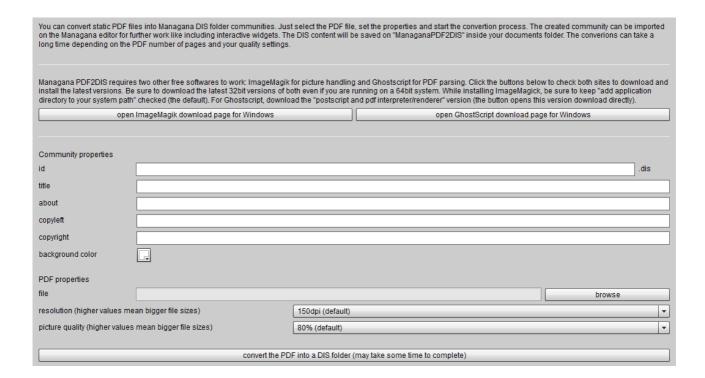
- CODE->runFeedCode will run the progress code sent by WordPress
- CODE->getPostCount gets the number of posts retrieved from a feed
- CODE->ifPostData checks if a post information is available

## 11 IMPORTING PDF FILES

PDF files are a standard for paper-like digital publications. Managana provides you a Windows tool, the PDF2DIS, capable of loading a PDF and creating a fresh community from its contents. The tool converts every page of the PDF to a picture and create a stream from it. After that, it connects these streams as a sequence on the X axis. You can, then, import this community to you editor and start your work from it.

Download the PDF2DIS tool from the Managana site (<a href="www.managana.org">www.managana.org</a>). You'll also need some other free software installed on your computer for it to work:

- Adobe AIR (<u>http://get.adobe.com/air/</u>)
- ImageMagick (<a href="http://www.imagemagick.org/">http://www.imagemagick.org/</a>)
- GhostScript (<a href="http://www.ghostscript.com/">http://www.ghostscript.com/</a>)



To create a new community from a PDF file, first you must provide some

information about it (you may change some of the while working on it at the editor):

- *id*: the community id (DIS folder)
- *title*: the community title
- about: a text about your community (not required)
- copyleft and copyright: notices about your community (not required)
- background color: the color to show below the pages (usually white)

Now you must check the PDF properties, starting with the file itself – you may browse for it on your system. The other two PDF settings are about picture quality:

- resolution: the density for picture generation
- *picture quality*: final jpeg compression quality

After providing all required information, you just need to click the "convert PDF into a DIS folder" button and wait – the conversion may take a long time.

P.S. PDF2DIS also creates an upper guide stream (as seen on section 7 of this documents) to enable navigation. You can change this guide stream at the editor as you want.