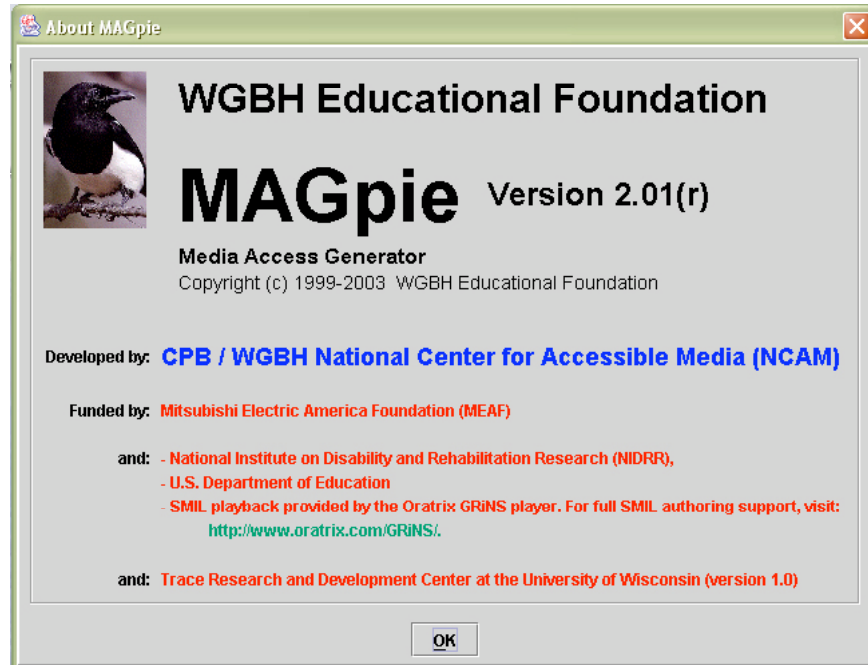


Captioning Real Media With MAGpie 2

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About MAGpie

What Is MAGPie?

MAGpie is a free application developed by the National Center for Accessible Media at WGBH Boston. It is a program that makes it easier to provide access to multimedia content for all types of users. With MAGpie, you can add text captions and audio descriptions to video files in order to provide an equivalent experience to users with vision and hearing difficulties.

You can use MAGpie to add captions to QuickTime, Windows Media, and Real Media files. For this tutorial, we'll go through the steps of applying captions to a Real Media file, but the other formats follow most of the same steps up to the export choice.

MAGpie?

The MAG in MAGpie stands for Media Access Generator, and the application does just that. The pie is apparently only there to complete a clever name, but as you'll see in the tutorial, it could stand for "pretty intuitive & easy."

When you add captions to a file in MAGpie, on export, the application generates all the necessary accompanying files to enable the media player to display synchronized captions.

Synchronized Multimedia Integration Language

These files consist of a text file and a SMIL (pronounced smile :) file, and are used in conjunction with your base media to create the richer multimedia presentation. SMIL stands for Synchronized Multimedia Integration Language, and is a relatively simple language that enables users to link text, audio, and video files for presentation together. You can read more about SMIL at the W3C website.

While SMIL is not a complex language, coding SMIL files by hand involves lots of tedious attention to the base media's time code. MAGpie frees the user from this tedium and makes the process of adding captions to video *much* faster, and even fun!

For an example of SMIL at work, check out The Center for American History's video about Photojournalism & the American Presidency:
<http://www.cah.utexas.edu/photojournalism/index.php>

Alright, now that you know what this software can do, it's time to prepare to use it.

Getting Started

Note: This tutorial assumes you will be working through a MAGpie project as you read it. To maximize screen space, I have not included images of the media player window that will accompany the MAGpie interface, though I will frequently refer to it.

What you'll need

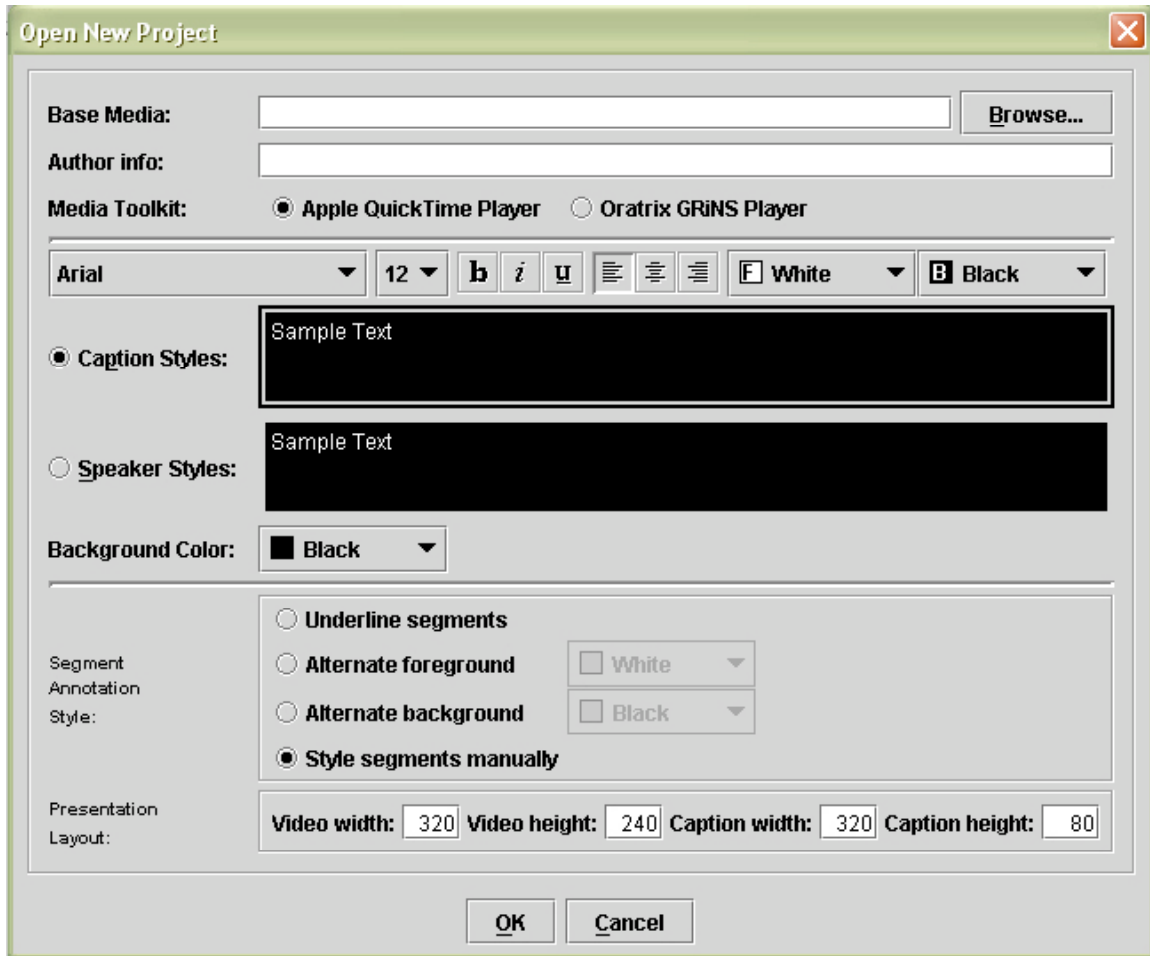
Before you begin using MAGpie, there are a couple of things you should do.

First, locate the video file you want to use. You can use any of the following formats: QuickTime, Real Media, and Windows Media. Create a new folder and place your video clip inside it. This is the folder where the additional files MAGpie creates will be stored.

I also recommend that you have a prepared transcript of the video to use for the captions. It is true that you can use MAGpie for transcribing the video (i.e. filling in the captions as the video plays within MAGpie), but there is no way to easily proofread or spellcheck the transcript once it is split up into captions in MAGpie. If you have a text transcript to refer to during the captioning process, creating captions is as easy as cutting and pasting. Spending a little time transcribing your video beforehand (especially in your first encounter with MAGpie) will save you a lot of frustration.

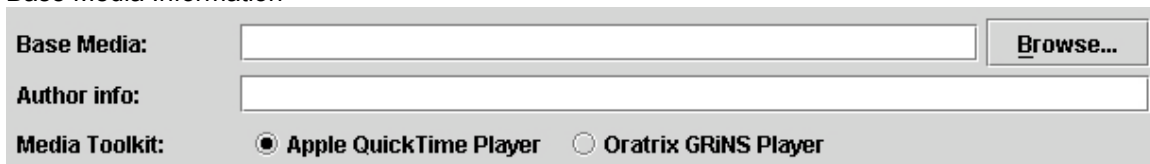
Starting your project

Once you open MAGpie, you will need to start a new project. Go to File>New Project. The New Project Dialog will appear:



The new project dialog has a bunch of options to choose from, so I'll break it down section-by-section:

Base Media Information



This section of the dialog is where you select your media. You may also enter author information for the SMIL file here. Both of those are pretty self-explanatory. The third option, Media Toolkit, takes a little explanation.

MAGpie uses video playback within the application so you can accurately locate the best places to insert captions and descriptions. For QuickTime media files, MAGpie simply uses the QuickTime player for playback. Real Player doesn't work the same way, and therefore when captioning Real Media files you must select the "Oratrix GRiNS player" or you won't be able to view your source video when you open the project.

Base Media:

Author info:

Media Toolkit: Apple QuickTime Player Oratrix GRiNS Player

Caption Layout Settings

These settings control the way that the captions will appear underneath the video. "Speaker Styles" allow you to change the text color or size of announcements of speakers' names. Unless you have an important reason to change them, the default settings should be fine here. Research has shown that people with low vision find white text on a black background easiest to read. If you do make changes to the settings, remember, the higher the contrast between text and background, the more readable your text will be.

Arial **12** **b** *i* u **F White** **B Black**

Caption Styles:

Speaker Styles:

Background Color:

Presentation Layout

Presentation Layout refers to the total area and makeup of the presentation. You'll need to know the size of your video, in pixels, to fill in these values. Video width and height reflect the actual size of the video file, without captions. The caption width and height values determine how much space will be added on to the video to account for captions. The default here should be ok. Remember, just like on TV, captions must be able to keep up with the audio track of the program. Captions should not require readers to get through more than two or three lines before they change (this, of course, varies with the content of each video you are captioning).

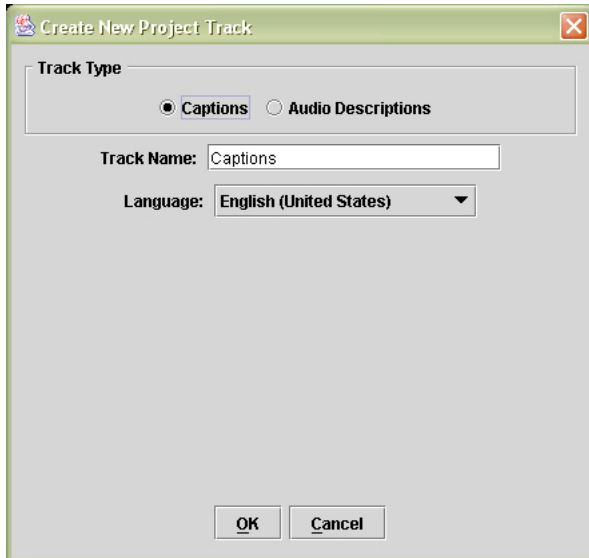
Presentation Layout: **Video width:** **Video height:** **Caption width:** **Caption height:**

Most School of Information tutorial videos are 785 x 420, here's how you would enter values to caption those videos.

Presentation Layout: **Video width:** **Video height:** **Caption width:** **Caption height:**

When you have the size set, click OK.

Next you'll be asked to choose whether you will add captions or audio descriptions, and which language they'll be in:



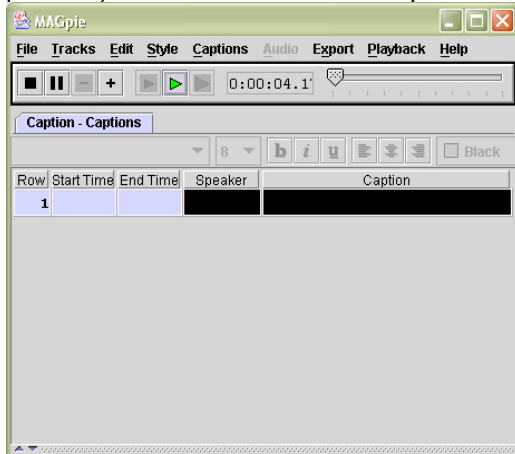
With MAGpie, you have the ability to add multiple layers of captions and descriptions in different languages. For now, we'll just add the one layer of English captions.

Once all of these settings are set up for your project, you're ready to go!

Adding Captions

The MAGpie Interface

You will use the MAGpie Interface to both control the video playback in the player window (not pictured) and to add each set of captions at the appropriate time.



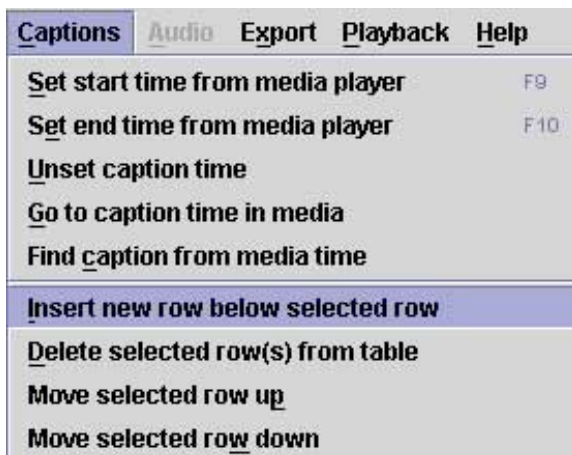
You control playback with the strip of buttons underneath the menu bar:



You add captions with the matrix below the captions tab:



For each new caption, you'll add a new row to this matrix by selecting "insert new row below selected row" from the Captions menu or by right clicking a row.



Ok, that's enough basics, let's get to captioning.

Captioning

The captioning process will differ for everyone, based on both personal working style and video content. What I'll cover here is what I think is the easiest way. It may seem a little frustrating to have to keep rewinding the video so you can keep up, but just consider how bad it would be to have to switch applications and do all the timecode markup in a text file!

So, remember that transcript I suggested you create before starting your MAGpie project? You should open that now in whatever text editor you prefer. It's good to have it a click away for cutting and pasting.

The first thing you'll do is press play and determine where the first caption should begin. Captions should closely follow the audio; if the first few moments of the video have no speaker, you shouldn't start the captions early. A good rule of thumb is to stagger the caption so it appears a second or so before the first words of it are spoken.

So, once you've got the video cued up to a second or so before the first words, click pause. You now need to set the start time for your first caption. Click on the first row in the caption display, then select "Set start time from media player" from the Captions menu (or from right clicking), or press F9.

<u>C</u> aptions	<u>A</u> udio	<u>E</u> xport	<u>P</u> layback	<u>H</u> elp
<u>S</u> et start time from media player				F9
<u>S</u> et end time from media player				F10

This will fill in the "Start" column of the current row with the current time on the player. Of course, you can set this while the video is playing, but we're taking it slow for this first round.

Now you may paste the text of the first caption (a couple of lines) into the caption box. If the speaker is important to the content, you may enter their name in the "Speaker" box.

Row	Start Time	End Time	Speaker	Caption
1	0:00:00.41			In this tutorial you will learn to install Norton AntiVirus on your machine running OSX. Norton AntiVirus will help you to keep your machine virus free by automatically scanning your drives for viruses and periodically updating itself with the most recent virus definitions.

Now you can press play, listening closely so you can pause the playback once again after the caption text has been spoken. Of course, you could also use this time to transcribe what was just said directly into the caption box, but I think it's easier to work with the transcript so you don't have to worry about any typos.

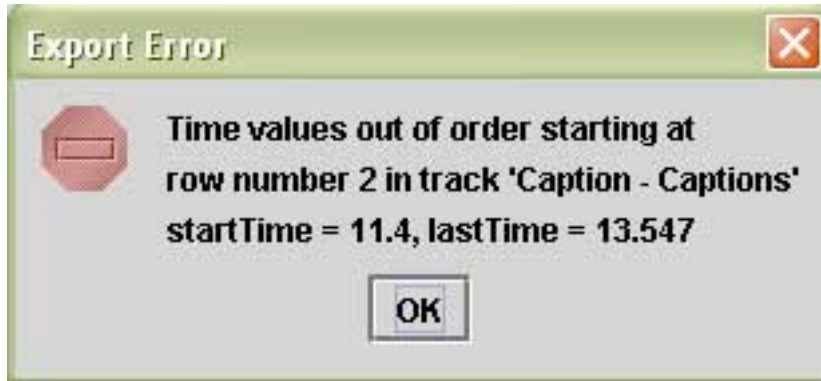
Once the video is paused at the point where you want the caption to change, click in the "End Time" box and the select "Set end time from media player" from the Captions menu (or from right clicking), or press F10.

<u>C</u> aptions	<u>A</u> udio	<u>E</u> xport	<u>P</u> layback	<u>H</u> elp
<u>S</u> et start time from media player				F9
<u>S</u> et end time from media player				F10
Unset caption time				

Now you should play back the video from the beginning to see if the captions appear at the right time. Don't worry if the video is a little crazy looking (sometimes MAGpie has trouble previewing the video), the audio and the captions will display accurately even if the image freaks out.

You can make changes to the timing by either typing in the Start/End time boxes or clicking the boxes and selecting "Set start/end time from media player." Use the scanning slider for easy fast forwarding and rewinding.

Now you can create another caption row and repeat the steps for each subsequent caption. Make sure that your timing makes sense... It's important that caption start times aren't set before the previous end time, or you'll be greeted by this ugly and confusing error box:



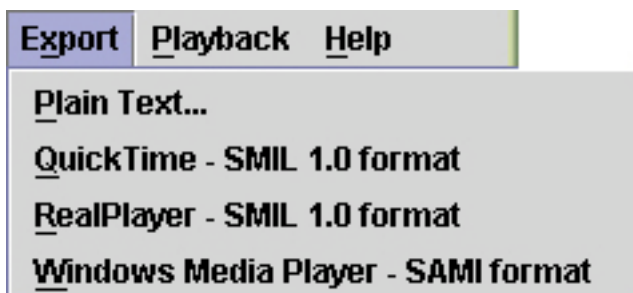
You should save often through out this process, and be aware that you will likely have to watch the video several more times than you expected to in order to get all the captions timed right!

Once you've made it all the way through your video, you're ready to export the project to SMIL. Click the link below to learn how to export.

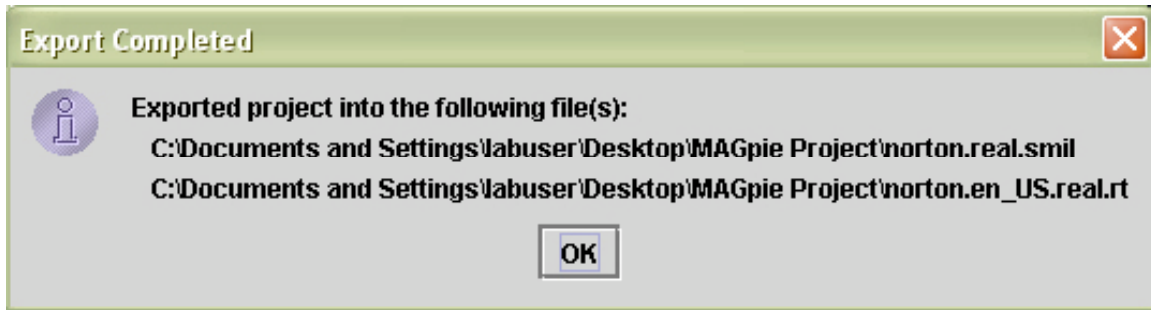
Exporting Your Project

All done? Now's the easy part!





When you've finished with all your captions and have saved your project, you're ready to export the project and create the files needed to play the integrated presentation. Since we used a Real Media file as our base media, we'll be exporting for RealPlayer - SMIL 1.0 format. Go to Export and choose it from the list.



In a flash, an alert box will appear to tell you what was saved and where.



Because you set up your folder before you began your project, you now have a nice neat package with all of the files you need: the base media (RealMedia), the MAGpie project (MAGPIE file), a RealText file, and a SMIL Multimedia Presentation.

 norton.en_US.real.rt	1 KB	RealText	3/25/2004 6:44 PM
 norton.magpie	4 KB	MAGPIE File	3/25/2004 6:44 PM
 norton.real.smil	1 KB	SMIL Multimedia Presentation	3/25/2004 6:44 PM
 nortonavbb.rm	44,742 KB	RealMedia	3/25/2004 6:04 PM

The items in this folder all refer to each other, so you'll need to keep them together for the presentation to work and to re-edit the MAGpie project. If you are going to post these files to a server for others to view, it's not necessary to include the MAGpie project file, but the other three will need to live in the same folder together.

You can view your masterpiece by opening the .smil file with RealOne Player. If you're not happy with the results, you can return to the MAGpie project file, make changes and export again until you're satisfied.

Congratulations! You've just provided with world with much needed rich multimedia content that all sorts of people can enjoy. Spread the word!