Embedding workflows in LaTeX using crowdLabs

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Abstract

This article shows how to embed images from workflows stored on www.crowdlabs.org in a LATEX document. The images can be workflow results, workflow graphs or VisTrails' history trees.

1 Introduction

After uploading your workflows to crowdLabs¹, you need the following requirements in order to embed the workflows in the L^AT_EX file:

- Python (www.python.org)
- the file crowdlabs.sty
- and the file includecrowdlabs.py

Both crowdlabs.sty and includecrowdlabs.py are located in the same directory as this document and they should be copied to the same folder that your main document is located.

1.1 Preparing the LATEX document

After copying the files, you need to configure your document. In the preamble of the LATEX file add the crowdlabs package:

\usepackage{crowdlabs}

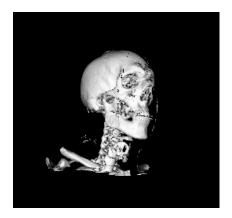
As we mentioned before, the crowdLabs package requires Python to run. If the python executable is not accessible in the PATH, you will need to set the \pythonpath command with the correct path for your environment:

\renewcommand{\pythonpath}{C:/Python27/python.exe}

Also, by default, crowdlabs.org will be used as the main server, but you can use your own crowdLabs server setting the \urlcrowdlabs command:

\renewcommand{\urlcrowdlabs}{http://yourcrowdlabsserver.com}

¹Please visit http://www.crowdlabs.org/site_media/static/user_docs/vistrails_usage.html if you need instructions on how to publish workflows to crowdLabs



2 Embedding workflows

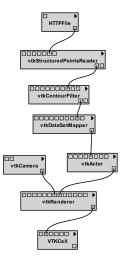
If you go to crowdlabs.org and visit the details page of the workflow you would like to embed, you will see a tab just below the resulting image, named Embed this Workflow. Clicking on it, will display snippets you can use to embed that particular workflow in different types of documents. So copy the text displayed in the In LaTex box. For example, we will embed the image produced by the workflow Isosurface².

We copied and pasted the following text into this document:

\crowdlabs[wfid=1054, buildalways=false]{width=0.45\linewidth}

And it generated the image in Figure 2. This is the workflow that generated the image above:

²http://www.crowdlabs.org/vistrails/workflows/details/1054/



This was using volume rendering:



This is the vistrail containing the workflows above:

