
Subject: suggest: native .pdf export
Posted by [nbehrnd](#) on Mon, 11 May 2020 10:29:36 GMT
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Based on a .smi derived from elsewhere,[1] which was converted with openbabel into a .sdf I let DataWarrior screen the structures for a few characteristics.

Aiming to share it with one who does not use DataWarrior, I miss a built-in function to print the table as a .pdf file as a vehicle of discussion. This could be useful, especially if -- as here -- the cell's background colour has a significance.

So far, I printed the table via an installed HP printer as a postscript into a file (of very large file size) and converted it with ps2pdf into a .pdf like the example file attached. At page breaks, however, lines seem to be broken (table headings). If exported directly from DW as .pdf, their file size could be considerably smaller than now (containing an image in the .pdf as a container) and possibly retain a searchable text-layer.

[1] https://pubs.acs.org/doi/suppl/10.1021/jm301008n/suppl_file/jm301008n_si_002.xlsx

File Attachments

1) [table_S3.png](#), downloaded 1801 times

Table	Structure	Molecule Name	Druglikeness	Mutagenic	Tumorigenic	Reproductive Effective	Irritant	Nasty Functions
5		MERREM	6.4914	none	none	none	none	
6		NASONEX	3.0117	low	high	high	none	
7		PULMICORT	1.6963	none	none	none	none	
		TAMIFLU	-1.4998	none	none	none	none	

2) [table_S3.dwar](#), downloaded 790 times

3) [table_S3.pdf](#), downloaded 801 times

Subject: Re: suggest: native .pdf export
Posted by [thomas](#) on Mon, 11 May 2020 18:51:53 GMT
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If you have a pdf printer driver installed (on Ubuntu you do that with "sudo apt-get install printer-driver-cups-pdf"), you can easily print as PDF, see attached file.

A comment to your openbabel conversion: DataWarrior can directly interpret SMILES. If you rename your .smi to .txt and open with DataWarrior, you should automatically get a structure column. An alternative is to copy the SMILES into the clipboard and just paste them into DataWarrior, which produces a new document with native chemical structures.

Best wishes, Thomas

File Attachments

1) [DataWarrior_table_S3-1.dwar__on-Linux-generated_files-job_91.pdf](#), downloaded 788 times

Subject: Re: suggest: native .pdf export
Posted by [nbehrnd](#) on Tue, 12 May 2020 14:03:44 GMT
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It was possible to replicate the indicated method using the cups pdf printer.

As a closing comment:

Still interested to benefit more from the vector format I wrote a Python script that reads some of DW's .dwar file content and the retained list of SMILES strings, calls openbabel to visualize the structures, and puts all in an .xlsx file. The manual work then left was to open this file in LibreOffice Calc, to adjust the images' sizes to fit the cell size, to apply conditional cell background colors and to save it as .ods. The file size of the then exported .pdf is slightly less than half of the one printing from DW with cups while still offering a searchable, crisply printed text layer, too.

File Attachments

1) [table_S3.smi](#), downloaded 702 times
2) [table_S3.dwar](#), downloaded 745 times
3) [spreadsheet_test.py](#), downloaded 851 times
4) [test.ods](#), downloaded 761 times
5) [test.pdf](#), downloaded 835 times

Subject: Re: suggest: native .pdf export
Posted by [nbehrnd](#) on Fri, 15 May 2020 11:11:21 GMT
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There is a reason why the structure import used a .sdf generated from the .smi by openbabel, instead of reading the SMILES listing file directly.
Neither the direct read of the smiles from a file like 3entries.smi.txt, nor the special

copy / paste from the clipboard (paste without header) kept the column about molecules' names with e.g., the PubChem number only. The attached .pdf documents this observation.

If file 3entries.smi.txt containing the annotated smiles starts with an explicit header line, e.g "structure SMILES", then DW reads the file as containing three structures; the annotating column then still contains both SMILES string and the PubChem number entry.

File Attachments

- 1) [SMILES_3entries.smi.txt](#), downloaded 684 times
 - 2) [3entries.sdf](#), downloaded 759 times
 - 3) [3entries_import_sdf.dwar](#), downloaded 698 times
 - 4) [3entries_import_smi.dwar](#), downloaded 713 times
 - 5) [data_read.pdf](#), downloaded 870 times
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Subject: Re: suggest: native .pdf export

Posted by [thomas](#) on Thu, 21 May 2020 22:25:28 GMT

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DataWarrior uses TAB or comma delimited text files. The smi File only contains spaces between Smiles and Name. If you replace all SPACES by a TABs in any Text-Editor before pasting into DataWarrior, you will correctly get three columns: Structure, Smiles, and Name
