IJDC | *General Article*

YesWorkflow: A User-Oriented, Language-Independent Tool for Recovering Workflow Structure, Provenance, and Semantics from Scripts

tianhong, tim, bertram,
Digital Curation Centre

Abstract

Abstract Abstract Abstract

Introduction and Motivation

A scientific workflow(**apa6ed**) is a formal description of a process for accomplishing a scientific task, usually expressed in terms of tasks and their (dataflow) dependencies. Scientific workflows can include steps for the acquisition, integration, reduction, analysis, visualization, sharing, and curation of scientific data. Scientific workflow management systems (SWfMSs) provide controlled environments for computational scientists to construct complex computational pipelines from modular buildings blocks. Advantages offered by SWfMSs include the intuitive rendering of the workflows as a directed graph, showing the computational steps and the dataflow between them, and the construction and visualization interfaces that they provide, which enable scientists to review, revise, and share their workflows as ?schemas? or schematic diagrams that are distinct from any specific workflow execution. In addition, many SWfMSs (e.g.: Kepler [CITE], Taverna [CITE], Pegasus [CITE], VisTrails [CITE], and Galaxy [CITE]) have been instrumented with runtime, or retrospective provenance capture and management capabilities. The provenance traces generated from workflow runs have been shown to be useful in a number of settings, helping scientists (i) examine the sequence of steps that led to a result; (ii) identify which inputs were used; (iii) interpret and understand outputs; and (iv) verify that the steps were performed according to acceptable procedures.

Received 18 January 2015 | *Revision received* 19 January 2015 | *Accepted* 1 January 2015

Correspondence should be addressed to xyz company Email: a.ball@ukoln.ac.uk

The *International Journal of Digital Curation* is an international journal committed to scholarly excellence and dedicated to the advancement of digital curation across a wide range of sectors. The IJDC is published by the University of Edinburgh on behalf of the Digital Curation Centre. ISSN: 1746-8256. URL: http://www.ijdc.net/

 doi:10.2218/ijdc.v0i0.0

Table 1. Papers and articles published in the IJDC in 2008 and 2009.

n	$n!$
1	1
2	2
3	6
4	24
5	120
6	720
7	5040
8	40320
9	362880
10	3628800

heading 1.1

ddd
ddddddd

System Architecture

Figure example: Figure 1.

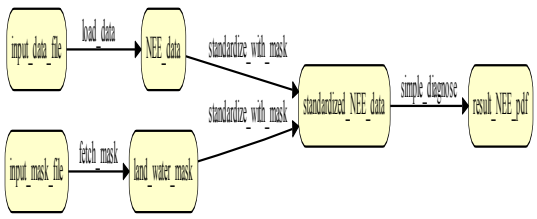

Figure 1. Caption for figure

- atbegshi is used for switching geometry between pages.
- Tables in your document must be formatted according to the design principles promoted and supported by the booktabs package.
- caption is used to format the figure and table captions.
- etoolbox is used behind the scenes for patching commands.
- footmisc is used to format the footnotes.

- titlesec is used to format the section headings.

Acknowledgements

Any acknowledgements should be placed in a section immediately before the references.