

ADAMS

Advanced **D**ata mining **A**nd **M**achine learning **S**ystem

Module: adams-access



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December 20, 2018

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Chapter 1

Introduction

The *access* module extends the spreadsheet capabilities of ADAMS by read and write support for Microsoft Access databases. This is possible thanks to the Jackcess library [2].

Chapter 2

Flow

The additional read and write support is immediately available in the *SpreadSheetReader* and *SpreadSheetWriter* actors. Figures 2.1 and 2.2 display a flow¹ and its associated output that loads a table from a MS Access database.

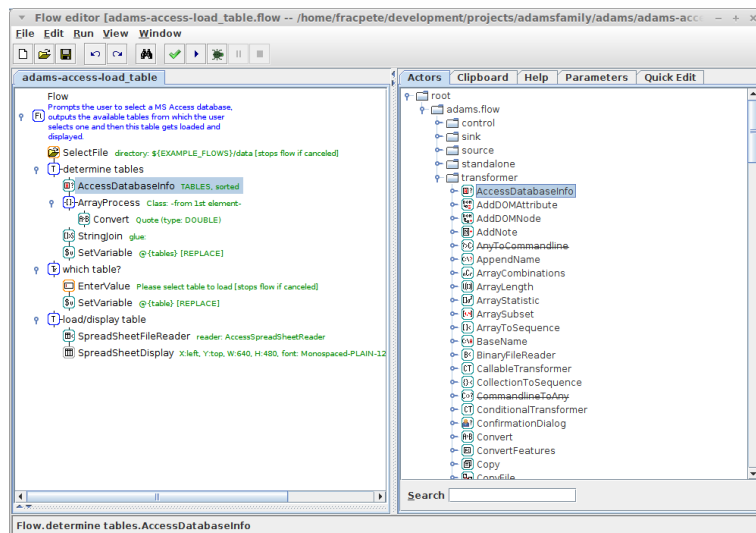
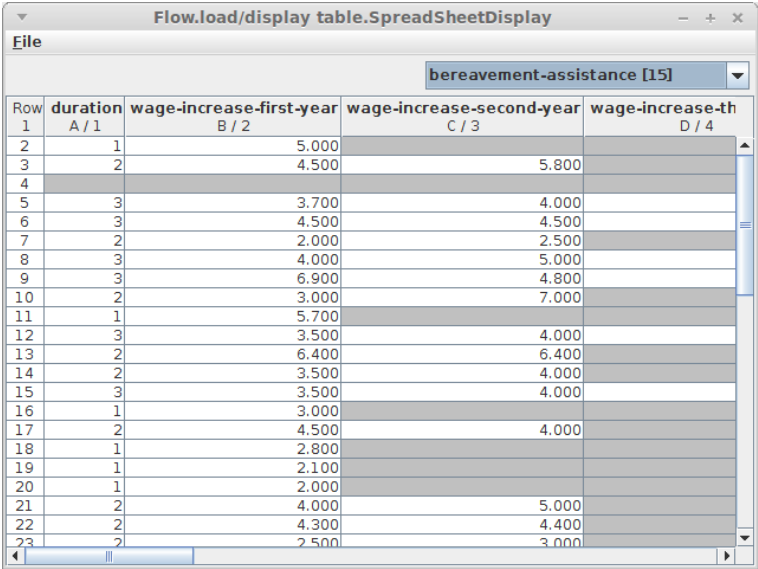


Figure 2.1: Flow for loading table from MS Access database.

¹adams-access-load_table.flow



The screenshot shows a window titled "Flow.load/display table.SpreadSheetDisplay" with a menu bar containing "File". Below the menu bar is a dropdown menu showing "bereavement-assistance [15]". The main area displays a table with the following data:

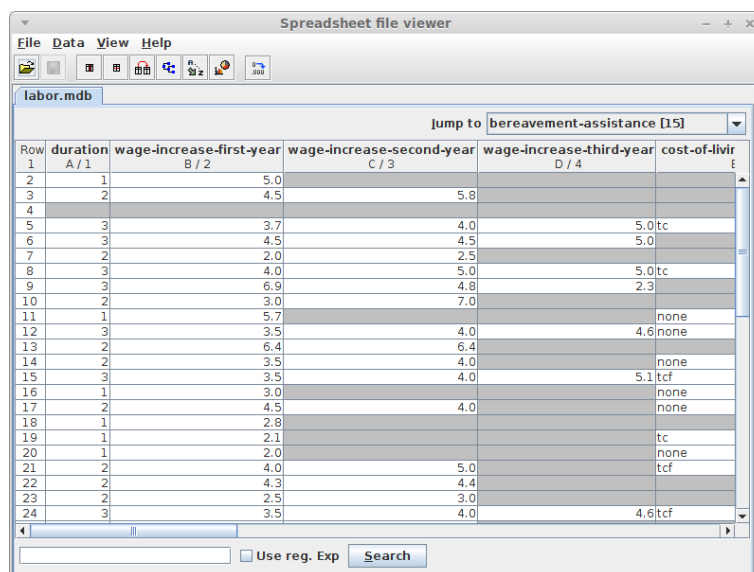
| Row | duration | wage-increase-first-year | wage-increase-second-year | wage-increase-th |
|-----|----------|--------------------------|---------------------------|------------------|
| 1 | A / 1 | B / 2 | C / 3 | D / 4 |
| 2 | 1 | 5.000 | | |
| 3 | 2 | 4.500 | 5.800 | |
| 4 | | | | |
| 5 | 3 | 3.700 | 4.000 | |
| 6 | 3 | 4.500 | 4.500 | |
| 7 | 2 | 2.000 | 2.500 | |
| 8 | 3 | 4.000 | 5.000 | |
| 9 | 3 | 6.900 | 4.800 | |
| 10 | 2 | 3.000 | 7.000 | |
| 11 | 1 | 5.700 | | |
| 12 | 3 | 3.500 | 4.000 | |
| 13 | 2 | 6.400 | 6.400 | |
| 14 | 2 | 3.500 | 4.000 | |
| 15 | 3 | 3.500 | 4.000 | |
| 16 | 1 | 3.000 | | |
| 17 | 2 | 4.500 | 4.000 | |
| 18 | 1 | 2.800 | | |
| 19 | 1 | 2.100 | | |
| 20 | 1 | 2.000 | | |
| 21 | 2 | 4.000 | 5.000 | |
| 22 | 2 | 4.300 | 4.400 | |
| 23 | 2 | 2.500 | 3.000 | |

Figure 2.2: The table loaded from MS Access database.

Chapter 3

Tools

The *Spreadsheet file viewer* automatically picks up the new file format and allows the user to load tables from MS Access databases. Figure 3.1 shows a screenshot of the viewer with a MS Access table loaded (**NB:** you need to tick the *Edit options* checkbox in the open dialog and enter the name of the table to load).



The screenshot shows a window titled "Spreadsheet file viewer" with a menu bar (File, Data, View, Help) and a toolbar. Below the toolbar, a dropdown menu shows "labor.mdb". A "jump to" dropdown menu shows "bereavement-assistance [15]". The main area displays a table with the following data:

| Row | duration A / 1 | wage-increase-first-year B / 2 | wage-increase-second-year C / 3 | wage-increase-third-year D / 4 | cost-of-livir E |
|-----|-------------------|-----------------------------------|------------------------------------|-----------------------------------|--------------------|
| 1 | | | | | |
| 2 | 1 | 5.0 | | | |
| 3 | 2 | 4.5 | 5.8 | | |
| 4 | | | | | |
| 5 | 3 | 3.7 | 4.0 | 5.0 | tc |
| 6 | 3 | 4.5 | 4.5 | 5.0 | |
| 7 | 2 | 2.0 | 2.5 | | |
| 8 | 3 | 4.0 | 5.0 | 5.0 | tc |
| 9 | 3 | 6.9 | 4.8 | 2.3 | |
| 10 | 2 | 3.0 | 7.0 | | |
| 11 | 1 | 5.7 | | | none |
| 12 | 3 | 3.5 | 4.0 | 4.6 | none |
| 13 | 2 | 6.4 | 6.4 | | |
| 14 | 2 | 3.5 | 4.0 | | none |
| 15 | 3 | 3.5 | 4.0 | 5.1 | tcf |
| 16 | 1 | 3.0 | | | none |
| 17 | 2 | 4.5 | 4.0 | | none |
| 18 | 1 | 2.8 | | | |
| 19 | 1 | 2.1 | | | tc |
| 20 | 1 | 2.0 | | | none |
| 21 | 2 | 4.0 | 5.0 | | tcf |
| 22 | 2 | 4.3 | 4.4 | | |
| 23 | 2 | 2.5 | 3.0 | | |
| 24 | 3 | 3.5 | 4.0 | 4.6 | tcf |

At the bottom, there is a search bar with the text "Use reg. Exp" and a "Search" button.

Figure 3.1: Viewer for spreadsheet files.

Bibliography

- [1] *ADAMS* – Advanced Data mining and Machine learning System
<https://adams.cms.waikato.ac.nz/>
- [2] *Jackcess* – pure Java library for reading/writing MS Access databases
<http://jackcess.sourceforge.net/>