

IST-2001-33127

**SciX**

Open, self organising repository for scientific  
information exchange

## **D3: On-line survey software**

Responsible author: Žiga Turk

Co-authors: Tomo Cerovšek, Mateja Šmid, Janez Reflak, Janez  
Žmavc, Bo-Christer Bjoerk, Turid Heglund

Type: software/pilot

Access: public

Version: 1.0

Date: September 30, 2002

## EXECUTIVE SUMMARY:

One of the objectives of the SciX project is to *"investigate the legal, social and psychological obstacles to using eWork approaches in this area as well; this will include a survey among about 300 of our colleagues on their views on e-publishing"*. A survey like this was conducted in spring 2002 (Bjoerk and Turk, 2000) within the community of IT specialists in civil engineering, construction and architecture.

Within SciX the survey would need to be repeated so that some trends could be established. Furthermore, it would be most beneficial if the survey could be conducted within some other communities so that the results could be compared. To get good feedback it is essential that the survey is conducted by a person who is an active member of that community and not by members of the SciX consortium.

This deliverables (D3) is the software that enables a Web-based execution of such surveys as well as some analysis of the results.

The requirements of the software are:

- To provide a tool with which a survey related to the electronic publishing can be set up on the Internet.
- The tool should be easy to use and allow quick deployment on a variety of platforms.
- The tool should allow custom made surveys to be created; some questions may be deleted and some added by the person conducting the survey. Some essential questions would need to be present in all surveys, however, so that some cross discipline comparisons could be made.
- Customisation should not require the knowledge of programming or Web's HTML language.
- Some simple processing of the survey results is desirable; however, the data from the survey should be exportable to tools such as spreadsheets or statistics packages.

A program called "Webswey" was created that fulfils these requirements. The system requirements include:

- a platform running a Web server capable of CGI programs
- availability of Perl interpreter

The program takes a text file with properly encoded survey questions as input and creates a Web based survey form as output. This form is then filled-in and the responses are stored in a format compatible with spreadsheet programs. The program also provides a simple querying and graphing functionality. The user can, through the Web, display various information about the results of the survey, either based on the entire dataset or on a subset that is freely definable through an invative point-an-click query mechanism.

The Webswey software is distributed as freeware and is placed under an open source license. How it works can be demonstrated at <http://www.scix.net/cgi/webswaydemo>

**RELEASE HISTORY**

date	changes
1.9.2002	software, beta version
27.9.2002	this report written
future	see changes.txt in the software package

**TABLE OF CONTENTS:**

EXECUTIVE SUMMARY: .....2  
 RELEASE HISTORY .....3  
 TABLE OF CONTENTS: .....3  
**2. SETTING WEBSWEY UP .....4**  
 2.1 ARCHITECTURE.....4  
 2.2 INSTALLATION .....4  
 2.3 FORMAT OF THE FORM.TXT FILE .....5  
**3. CONCLUSIONS AND FUTURE WORK.....8**  
**4. APPENDIX: SCIX SOFTWARE LICENSE.....9**  
 4.1 THE OPEN SOFTWARE LICENSE.....9  
 4.2 CHANGES..... 12

## 1. SETTING WEBSWEY UP

This deliverable is software. The purpose of this document is to (a) show on paper what the software does and (b) to provide the required documentation for people eager to conduct surveys using it.

### 1.1 ARCHITECTURE

Figure 1 shows the setup of the software and its components.

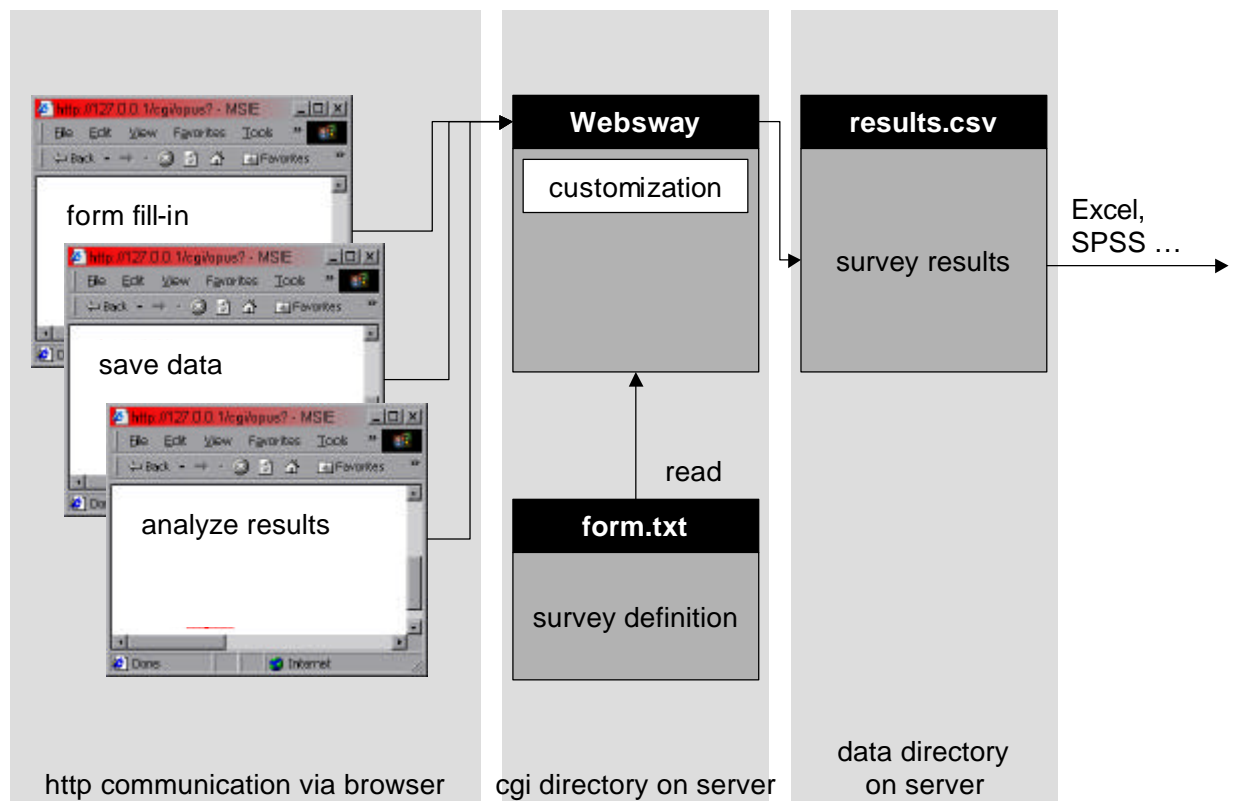


Figure 1: Structure of the Webswey software.

### 1.2 INSTALLATION

Websurvey should be installed as a cgi application onto the Web server. File form.txt should be created in the same directory. Websurvey file must be configured by setting values of some variables. Any necessary directories should be created. Finally, the form.txt file should be created to define questions of the survey.

```
##### CONFIGURABLE PARAMETERS #####
$PASSWORD='x';    # password to access all survey data (change!)
$OPEN=1;         # set to 0 if the survey is closed
$ANSWERS=0;     # in %, how many answers must a person submit for a form to be
                # accepted
# --- DIRECTORIES AND FILES ---
```

```

$SCRIPTDIR = '.';          # where is the script
$DATADIR = '../opusforms'; # must exist and be writeable by the http
server
$IMGURL = '/img';         # where are the images 1.gif - 5.gif
$FORMFILE = 'form.txt';   # should be in the same directory as this file

# --- MESSAGES ---

$onErrorMsg = "Sorry, something failed... please press back and submit
again";
$noErrorMsg = "Thank you for your contribution!";

# --- DESIGN ---

$STYLE = <<EOM;
<style type="text/css">
<!--
* { font-family: Verdana, Arial, Helvetica, sans-serif; font-size: 10pt}
h1,.title { font-size: 20pt; color: #C00;}
h2 { font-size: 14pt; color: #C00;}
h3 { font-size: 12pt; color: #C00;}
-->
</style>
EOM

$BODY = 'bgcolor="#FFFFFF" text="#000000" link="#FF0000" alink="#FF9900"
vlink="#999999" leftmargin="30" topmargin="30" marginwidth="30"
marginheight="30"';

$SECTION = 'BGCOLOR=#800000'; # section background
$TITLE = 'BGCOLOR=#888888'; # question background

$FSECTION = 'COLOR=#FFFFFF'; # section font
$FTITLE = 'COLOR=#FFFFFF'; # question font

$FORM = 'BGCOLOR=#DDDDDD'; # form background
$FFORM = 'SIZE=3'; # form font size

$AON = '<FONT STYLE="color: #D00">'; # numbers in results
$AOF = '</FONT>';

$H = '16'; # height of images

$HEADER=<<'EOM';

```

*Figure 2: Settings of the websurvey file.*

### 1.3 FORMAT OF THE FORM.TXT FILE

This file defines the questions of the survey. It is a simple ASCII file which can be created with editors like Notepad, Vi or Emacs. It can also be created with word processors such as word, but in this case, the file needs to be "saved as" "text only (.txt)" and not as a .doc file. The structure of the file is very simple. At the top there are the title and some introductory text of the survey. The rest are the questions that the respondent should answer:

Line 1: title of the survey  
Line 2: blank  
Line 3-X: description of survey

What follows are questions - each question line starts with a number and title. Where user input is expected it is encoded in [braces]. Types of input fields include:

- [?] text input field
- [n] number input field
- [o] one of several options in this question
- [n-m] input range of number between n and m. For example [1-5].
- [???] multiline text field

While the survey is running the form.txt should not change. Below is an example of a form.txt file with a few sample questions:

```
Survey on Scientific Publishing

Scientific publishing is today at a crossroads between a century-old paper
based publication practice and the exciting new possibilities offered by the
World Wide Web. The aim of this survey is to collect empiric data from
readers of scholarly journals and conference proceedings, as part of a study
looking at the current situation of scientific publishing in the domains of
construction information technology and construction management & economics.
It will take you approximately 15 minutes to fill in this form.

1. Personal information.
We need to know a few basic things about the respondents of this survey, to
enable us to compile statistics based on occupation, affiliation, age etc..

1.1 Where do you work?
[o] university
[o] research organisation
[o] other public/government organisation
[o] private company
[o] other, where [?]

1.2 What are you?
[o] professor/teacher
[o] student
[o] researcher
[o] engineer
[o] manager
[o] other, what [?]

1.3 What is the year of your birth?
[n] 4 digit number please!

1.5 What country are you from?
```

Enter a two letter country code. For example SE for Sweden, UK for United Kingdom, DE for Germany. Americans with an address ending in .EDU or .COM, enter US.

[?] two letter country code as in your email address

1.6 What is your email address?

[?]

2. How do you find, access and read different information sources

In the past, books, academic journals, conferences and personal correspondence were the primary media for the exchange of ideas in academia. This has changed.

2.1 What information sources do you utilise?

Base your ratings on how much time you spend on different sources, classified by content. Where do you learn about what is going on and should be of relevance to you, which paths are dead ends, about new methods and tools etc.

1=don't use at all ... 5=use a lot

[1-5] scientific journal articles

[1-5] reading conference or workshop proceedings

[1-5] listening to conference or workshop presentations

[1-5] journal or conference articles I review

[1-5] books

[1-5] Ph.D. and Master's theses

[1-5] research reports, project plans and presentation

[1-5] trade and technical journals, newsletters etc.

[1-5] visits to companies and construction sites

[1-5] software demonstrations, trade shows

[1-5] trying out new IT-tools, manuals

[1-5] discussions in electronic mailing lists, newsgroups etc.

[1-5] personal discussions or email correspondence with colleagues

[?] other

## 2. CONCLUSIONS AND FUTURE WORK

The Webswey software will be used to repeat a survey that was conducted in the year 2000 in the field of construction informatics and management. It will also be offered, together with some standard questions, to other communities interested in electronic publishing. The focus of this work will be in defining the questionnaire and getting together a relevant target group.

Future enhancements of the software include provisions for a more efficient way of conducting several surveys on the same server, new types of answer types and more configurable parameters.



## 3. APPENDIX: SCIX SOFTWARE LICENSE

The software is available under a modified Open Software License with two changes. The modified version is called the SciX Software License.

### 3.1 THE OPEN SOFTWARE LICENSE

This Open Software License (the "License") applies to any original work of authorship (the "Original Work") whose owner (the "Licensor") has placed the following notice immediately following the copyright notice for the Original Work: **"Licensed under the Open Software License version 1.0"**

#### License Terms

- 1) **Grant of Copyright License.** Licensor hereby grants You a world-wide, royalty-free, non-exclusive, perpetual, non-sublicenseable license to do the following:
  - a) to reproduce the Original Work in copies;
  - b) to prepare derivative works ("Derivative Works") based upon the Original Work;
  - c) to distribute copies of the Original Work and Derivative Works to the public, with the proviso that copies of Original Work or Derivative Works that You distribute shall be licensed under the Open Software License;
  - d) to perform the Original Work publicly;
  - e) to display the Original Work publicly.
- 2) **Grant of Patent License.** Licensor hereby grants You a world-wide, royalty-free, non-exclusive, perpetual, non-sublicenseable license, under patent claims owned or controlled by the Licensor that are embodied in the Original Work as furnished by the Licensor ("Licensed Claims") to make, use, sell and offer for sale the Original Work. Licensor hereby grants You a world-wide, royalty-free, non-exclusive, perpetual, non-sublicenseable license under the Licensed Claims to make, use, sell and offer for sale Derivative Works.
- 3) **Grant of Source Code License.** The term "Source Code" means the preferred form of the Original Work for making modifications to it and all available documentation describing how to access and modify the Original Work. Licensor hereby agrees to provide a machine-readable copy of the Source Code of the Original Work along with each copy of the Original Work that Licensor distributes. Licensor reserves the right to satisfy this obligation by placing a machine-readable copy of the Source Code in an information repository reasonably calculated to permit inexpensive and convenient access by You for as long as Licensor continues to distribute the Original Work, and by publishing the address of that information repository in a notice immediately following the copyright notice that applies to the Original Work.
- 4) **Exclusions From License Grant.** Nothing in this License shall be deemed to grant any rights to trademarks, copyrights, patents, trade secrets or any other intellectual property of Licensor except as expressly stated herein. No patent license is granted to make, use, sell or

offer to sell embodiments of any patent claims other than the Licensed Claims defined in Section 2. No right is granted to the trademarks of Licensor even if such marks are included in the Original Work. Nothing in this License shall be interpreted to prohibit Licensor from licensing under different terms from this License any Original Work that Licensor otherwise would have a right to license.

**5) External Deployment.** The term "External Deployment" means the use or distribution of the Original Work or Derivative Works in any way such that the Original Work or Derivative Works may be accessed or used by anyone other than You, whether the Original Work or Derivative Works are distributed to those persons, made available as an application intended for use over a computer network, or used to provide services or otherwise deliver content to anyone other than You. As an express condition for the grants of license hereunder, You agree that any External Deployment by You shall be deemed a distribution and shall be licensed to all under the terms of this License, as prescribed in section 1(c) herein.

**6) Warranty and Disclaimer of Warranty.** LICENSOR WARRANTS THAT THE COPYRIGHT IN AND TO THE ORIGINAL WORK IS OWNED BY THE LICENSOR OR THAT THE ORIGINAL WORK IS DISTRIBUTED BY LICENSOR UNDER A VALID CURRENT LICENSE FROM THE COPYRIGHT OWNER. EXCEPT AS EXPRESSLY STATED IN THE IMMEDIATELY PRECEDING SENTENCE, THE ORIGINAL WORK IS PROVIDED UNDER THIS LICENSE ON AN "AS IS" BASIS, WITHOUT WARRANTY, EITHER EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, THE WARRANTY OF NON-INFRINGEMENT AND WARRANTIES THAT THE ORIGINAL WORK IS MERCHANTABLE OR FIT FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE QUALITY OF THE ORIGINAL WORK IS WITH YOU. THIS DISCLAIMER OF WARRANTY CONSTITUTES AN ESSENTIAL PART OF THIS LICENSE. NO LICENSE TO ORIGINAL WORK IS GRANTED HEREUNDER EXCEPT UNDER THIS DISCLAIMER.

**7) Limitation of Liability.** UNDER NO CIRCUMSTANCES AND UNDER NO LEGAL THEORY, WHETHER TORT (INCLUDING NEGLIGENCE), CONTRACT, OR OTHERWISE, SHALL THE LICENSOR BE LIABLE TO ANY PERSON FOR ANY DIRECT, INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES OF ANY CHARACTER ARISING AS A RESULT OF THIS LICENSE OR THE USE OF THE ORIGINAL WORK INCLUDING, WITHOUT LIMITATION, DAMAGES FOR LOSS OF GOODWILL, WORK STOPPAGE, COMPUTER FAILURE OR MALFUNCTION, OR ANY AND ALL OTHER COMMERCIAL DAMAGES OR LOSSES, EVEN IF SUCH PERSON SHALL HAVE BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. THIS LIMITATION OF LIABILITY SHALL NOT APPLY TO LIABILITY FOR DEATH OR PERSONAL INJURY RESULTING FROM SUCH PARTY'S NEGLIGENCE TO THE EXTENT APPLICABLE LAW PROHIBITS SUCH LIMITATION. SOME JURISDICTIONS DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THIS EXCLUSION AND LIMITATION MAY NOT APPLY TO YOU.

**8) Acceptance and Termination.** Nothing else but this License (or another written agreement between Licensor and You) grants You permission to create Derivative Works based upon the

Original Work, and any attempt to do so except under the terms of this License (or another written agreement between Licensor and You) is expressly prohibited by U.S. copyright law, the equivalent laws of other countries, and by international treaty. Therefore, by exercising any of the rights granted to You in Sections 1 and 2 herein, You indicate Your acceptance of this License and all of its terms and conditions. This license shall terminate immediately and you may no longer exercise any of the rights granted to You by this License upon Your failure to honor the proviso in Section 1(c) herein.

9) **Mutual Termination for Patent Action.** This License shall terminate automatically and You may no longer exercise any of the rights granted to You by this License if You file a lawsuit in any court alleging that any OSI Certified open source software that is licensed under any license containing this "Mutual Termination for Patent Action" clause infringes any patent claims that are essential to use that software.

10) **Jurisdiction, Venue and Governing Law.** You agree that any lawsuit arising under or relating to this License shall be maintained in the courts of the jurisdiction wherein the Licensor resides or in which Licensor conducts its primary business, and under the laws of that jurisdiction excluding its conflict-of-law provisions. The application of the United Nations Convention on Contracts for the International Sale of Goods is expressly excluded. Any use of the Original Work outside the scope of this License or after its termination shall be subject to the requirements and penalties of the U.S. Copyright Act, 17 U.S.C. Â§ 101 et seq., the equivalent laws of other countries, and international treaty. This section shall survive the termination of this License.

11) **Attorneys Fees.** In any action to enforce the terms of this License or seeking damages relating thereto, the prevailing party shall be entitled to recover its costs and expenses, including, without limitation, reasonable attorneys' fees and costs incurred in connection with such action, including any appeal of such action. This section shall survive the termination of this License.

12) **Miscellaneous.** This License represents the complete agreement concerning the subject matter hereof. If any provision of this License is held to be unenforceable, such provision shall be reformed only to the extent necessary to make it enforceable.

13) **Definition of "You" in This License.** "You" throughout this License, whether in upper or lower case, means an individual or a legal entity exercising rights under, and complying with all of the terms of, this License. For legal entities, "You" includes any entity that controls, is controlled by, or is under common control with you. For purposes of this definition, "control" means (i) the power, direct or indirect, to cause the direction or management of such entity, whether by contract or otherwise, or (ii) ownership of fifty percent (50%) or more of the outstanding shares, or (iii) beneficial ownership of such entity.

This license is Copyright (C) 2002 Lawrence E. Rosen. All rights reserved. Permission is hereby granted to copy and distribute this license without modification. This license may not be modified without the express written permission of its copyright owner.

## 3.2 CHANGES

In clause 1 add:

f) to perform or display the Derived Work publicly with the proviso that Derivative Works that You perform or display shall be licensed under the Open Software License;

Clause 3 should read:

3) **Grant of Source Code License.** The term "Source Code" means the preferred form of the Original Work for making modifications to it and all available documentation describing how to access and modify the Original Work. Licensor hereby agrees to provide a machine-readable copy of the Source Code of the Original Work along with each copy of the Original Work that Licensor distributes, performs or displays publicly. Licensor reserves the right to satisfy this obligation by placing a machine-readable copy of the Source Code in an information repository reasonably calculated to permit inexpensive and convenient access by You for as long as Licensor continues to distribute the Original Work, and by publishing the address of that information repository in a notice immediately following the copyright notice that applies to the Original Work.