

Page-to-form sample

This sample shows how to convert a page to a reusable form that can be placed multiple times on other pages scaling, rotating, anchoring and aligning it.

On this page you can see some of the above-mentioned transformations:

1. anchored to the center of the page, rotated by 45 degrees counterclockwise, 300 point wide (preserved proportions);
2. anchored to the bottom-left corner of the page, 300 point high (preserved proportions);
3. anchored to the bottom-right of the page, 80 point wide and 200 point high (altered proportions).

Fun and Software Development
Benno Luthiger
ETH Zurich
Zurich, Switzerland
benno.luthiger@id.ethz.ch

Abstract – The FASD study gathered 1330 answers about fun and software development from open source developers as well as 114 answers from programmers working in commercial software projects. The analysis of these data proves that fun plays an important role when software developers decide to get engaged in an open source project. Moreover, the comparison of the answers gives evidence for the hypothesis that programming in an open source project is significantly more fun compared to the same activity under commercial conditions. The reasons for this fact are that open source projects are able to attract software developers with a credible project vision and that they can offer them an optimal challenge.

1. INTRODUCTION

The continuing success of open source software has also attracted the interest of the research community. As a result of this academic interest, a number of empirical studies were carried out to account for the open source phenomenon (see for example [1] to [12]). The study about Fun and Software Development (FASD) builds on these existing studies (see [13]).

II. RESEARCH QUESTIONS

The aims of the FASD study are twofold: First, the study aims to make a quantitative estimation of the importance of fun in order to explain the open source developers' commitment. Second, it aims to verify the hypothesis that open source developers have more fun with their work than commercial developers.

A. Research methods

In order to achieve the aims of the study, a questionnaire for an online survey was developed. There were two versions of this questionnaire, one addressing open source developers, the other addressing programmers working in commercial software firms. The questionnaires consisted of 53 questions. The first part of the questionnaire was identical for both versions. The purpose of this part was to measure the flow software developers experience during their work. I used the flow construct introduced by Csikszentmihalyi (see [14], [15]) to operationalise the fun developers have while programming.

In the following part, I asked the open source developers about their readiness for future activities in open source projects, about how many patches and modules they have developed so far, and how much of their working hours and spare time respectively they spend on developing open source software. With these questions, the criterion variables were established, i.e. they function as a measure of

the developers' commitment.

In a further part of the questionnaire, the open source developers were asked about the reasons why they initially joined an open source project or why they started one themselves. In the concluding part of the questionnaire, I gathered demographic data about the respondents and tried to elicit information about the opportunity cost they have when they work for open source projects in their spare time, e.g. by asking them how much spare time and how many hobbies they have.

In the questionnaire for the developers in commercial software firms, I asked them about their willingness to work overtime and about how many checkins they did in the past few days in order to get an impression of their commitment. In a further part of the survey, these developers were asked about their relation to their employer, i.e. how proud they are of their relation to their employer, formal authority and professional competence. Again, gathering demographic data concluded the questionnaire. The questionnaire I used was a standardised questionnaire that contained no open questions. About 60% of the respondents were formulated as statements. About 10% of them included a "strongly disagree" to "strongly agree" Likert scale.

This study design allows answering the questions formulated in the beginning and to test the hypothesis. I used a simple model which combines the open source developer's commitment as a dependent variable with the explanatory variables consisting of the fun (i.e. flow) and the opportunity cost of time (i.e. the availability of spare time). The proportion of the fun on the one hand and variance analysis consisting of the fun (i.e. flow) and the opportunity cost of time on the other hand and commitment on the other hand can be used as a measure that can be explained with fun. By directly comparing the answering behaviour of open source developers and programmers working in commercial firms, it is possible to test the hypothesis that the two groups differ significantly concerning the experience of fun. And by asking the commercial developers about deadlines, project visions and formal authority - all characteristic elements of the commercial software development model which distinguish it from the open source model - I am able to identify the factors responsible for a potential difference between the two groups.

The open source version of the questionnaire was launched on May 3, 2004. I sent a mail to the mailing lists of SourceForge, GNU/Linux, and Open-Source-Systems.

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