Globalpark Enterprise Feedback Suite

EFS Mobile Extension

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1 EFS Mobile Extension

When realizing online surveys on mobile devices, you have to meet special challenges: the display is small and in some cases only black/white, compared to broadband internet access the bandwidth for mobile equipments is in general considerably lower and mobile hardware is generally less efficient than comparable hardware on computers. With EFS Mobile Extension, Globalpark provides a toolbox which enables you to answer these challenges:

- EFS Mobile Extension is an optionally leasable extension which allows to deliver online questionnaires on mobile devices.

- The scope of functionality is derived from the "W3C-Defined Default Delivery Context". This is a minimum standard which mobile devices must respect to fulfill the requirements for mobile internet. This ensures that your mobile survey is in fact accessible with most mobile devices.

- The design of the most important EFS question types is automatically optimized for the size of mobile devices.

- Depending on the output format used by a respondent's mobile device, different templates are used automatically.

- You can upload image files optimized for mobile output, which are also displayed automatically, depending on the output format used.

- Participants can change between different devices during a survey. E.g. a survey started on a mobile device can be continued and completed on a computer. (Except anonymous surveys: in this project type, it is in general not possible to identify a participant who has changed to another computer, and the participant will therefore always be treated as a "new" participant.)

- In the export data record, you can see in which output format the participants have completed the survey.

In the following Chapters, you are introduced to the pecularities of mobile surveys and the features of EFS Mobile Extension.

- Chapter *2, p. 6* explains how the adjustment of content for mobile devices works in principle, and which technical possibilities EFS Mobile Extension offers.

- In Chapter *3, p. 7* to *5, p. 9*, you learn how to activate EFS Mobile Extension for a project and how to optimize questionnaire and layout for output on mobile devices.

- Chapters *6, p. 11* and *7, p. 12* offer additional advice for pretest and analysis.

This document describes the EFS Mobile Extension in version 7.0. Please mind: The functional scope of EFS Mobile Extension has changed between EFS 6.0 and EFS 7.0. Until EFS 6.0, the dispatch of SMS and WAP messages was part of this extension, from EFS 7.0 on the respective functions are available separately in the new EFS SMS Extension. A dedicated manual is available from customer center.

2 The Delivery of Survey Pages for Mobile Devices

Mobile terminal equipments make specific demands on the content, e.g.

- The display is small.

- In some cases only a black/white display is available.

- Compared to broadband internet access, the bandwidths for mobile equipments are in general considerably lower.

- Mobile hardware is generally less efficient than comparable hardware on computer.

Therefore, the content must be adjusted according to the output abilities of the devices used by the respondents.

In parallel to the fast-paced technical progress of mobile equipments, diverse output formats of differing capacity have been developed:

1. HTML: a few mobile devices of the newer generation support the internet core technology HTML. Thus, the whole range of design options is available.
2. XHTML-MP: a few simple formatting commands are supported.
3. WML: a first very simple version of an output format for mobile terminal equipments. It is not possible to format texts or to use colored pictures.

When requesting the survey page, most mobile equipments transmit at the same time information on the output format they support. If EFS Mobile Extension is activated and if the project has been configured properly (see Chapter *3.1, p. 7*), EFS Mobile Extension will respond automatically:

- In case the equipment in question supports HTML, the normal survey templates – as used for the computer version - are delivered.

- For XHTML-MP and WML, special templates are delivered, which can be edited in the pro editor (see Chapter *5.2, p. 9*). If alternative image files have beeen uploaded for XHTML-MP und WML, they will be displayed automatically, too (see Chapter *5.1, p. 9*).

3 Activating EFS Mobile Extension for a Project

3.1 Activating Mobile Output Formats

The special mobile output formats have to be activated for each mobile project.

In order to do so, please activate the option "Dynamically switch output format of survey (HTML, XHTML-MP, WML) depending on browser used by the respondent?" in the **Projects**->{**Selected project**}->**Project properties** menu.

3.2 Deactivating JavaScript check

When the survey is being started, EFS checks the JavaScript version of the survey participant's browser by default. Since this check can lead to problems with some mobile devices, it ought to be deactivated.

To do so, use the option "Check whether the respondent has JavaScript activated and the Adobe Flash Player plugin is available?" in the **Projects**->{**Selected project**}->**Project properties** menu.

4 Optimizing the Questionnaire for Mobile Devices

4.1 Keeping Questionnaire Pages Short

The memory of many mobile devices is limited. Therefore, they may cancel the transmission if too much content is to be 7displayed on one page. In order to prevent this, please do not integrate too many questions on one page.

4.2 Selecting Appropriate Question Types

Most EFS question types are supported by EFS Mobile Extension. Due to the smaller screen of mobile devices and the fact that many devices do not support JavaScript features yet, several resctrictions have been implemented.

- The design of question types 311, 361, 362, 363, 364, 321 is modified for display on mobile equipment: The form elements are arranged differently.

- Question types which require JavaScript are generally not supported (i.e. question types 341, 342, 411, 511, 521, 522 and the flash question types).

- In the case of WML, the question type 142 is not supported either.

> The scope of functionality of EFS Mobile Extension is derived from the "W3C-Defined Default Delivery Context". This is a minimum standard which mobile devices must respect to fulfill the requirements for mobile internet. As JavaScript is not part of this standard, question types which require JavaScript cannot be used - on the other hand, this restriction ensures that your mobile survey is in fact accessible with most mobile devices.

4.3 Abstaining from Using JavaScript Features

Please do not use any EFS functions requiring JavaScript, as e.g. graphical form elements or JavaScript plausibility checks.

5 Optimizing the Layout for Mobile Devices

5.1 Uploading Alternative Image Files for Mobile Output

If images are used in the layout and/or the questionnaire, it is recommendable to upload alternative image files with lower resolution and appropriate graphic type for mobile output.

- The ssignment of image files to the appropriate output format is controlled via the file name: For XHTML-MP output, for example, you simply place the prefix "xhtml_mp_" in front of the proper file name. The XHTML-MP variant of the image "logo1. gif", for example, would be named "xhtml_mp_logo1.gif". The alternative file is uploaded into the media library resp. via the **Layout**->**Pro editor**->**Upload** menu into the \layout folder. During the survey, EFS displays the appropriate image, depending on the participants' ouptut format.

- WML only supports graphics of the type .wbmp.

5.2 Editing the Templates for Different Output Formats

As usual, you can view and edit the templates of a project in the **Layout**->**Pro editor** menu. If mobile output formats are activated for a project (see Chapter *3.1, p. 7*), additional sets of templates are available, which are used depending of the output format of the respondents' mobile devices.

- HTML: These are the normal survey templates, which are also used for the PC version of the survey. They are used if the mobile device supports HTML.

- XHTML-MP: The XHTML-MP templates are marked with the prefix xhtml_mp_
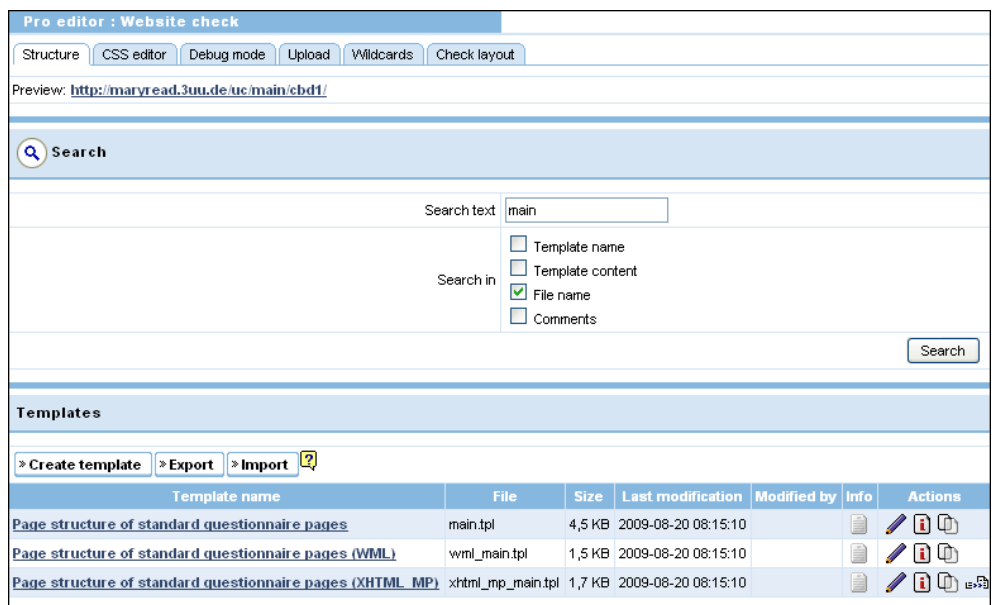
- WML: The WML templates are marked with the prefix wml_

Figure 5.1   Various versions of the main template in the "Pro editor" menu

5.3 Displaying or Hiding Logos

In the XHTML and WML versions of the questionnaire, the usage of logos is usually not recommendable. While it may not cause any issues on the 480x320 display of a smart phone, on the smaller displays of other mobile devices all available space should be reserved for the questionnaire content. Therefore the logos are per default deactivated for these output formats.

If you want to display a logo, proceed as follows:

1. In the **Layout**->**Pro editor**->**Upload** menu, upload XHTML or WML versions of logo 1 or 3 into the \layout folder. (These are the logos which are usually displayed in the upper part of the questionnaire pages.)

2. The XHTML and WML main templates include logos 1 and 3, but they are uncommented. To display them, simply delete the * in the following lines:

```
{* ############### Logo 1 and 3 ############### *}
{* if $has_logo1 == 1}<img src="{$logo1}" alt="" />{/if}
{if $has_logo3 == 1}<img src="{$logo3}" alt="" />{/if *}
```

3. The modified code looks like this:

```
{############### Logo 1 and 3 ###############}
{if $has_logo1 == 1}<img src="{$logo1}" alt="" />{/if}
{if $has_logo3 == 1}<img src="{$logo3}" alt="" />{/if}
```

4. **Save** the logo. Now it will be displayed in the questionnaire versions for XHTML and/or WML.

The usage of logo 2 and 4, usually displayed at the bottom of the questionnaire pages, does not make sense for mobile output formats. If you want to display them anyway, just copy the piece of code above to the appropriate position of the respective main template and adapt the code to your purposes.

6 Testing the Questionnaire

Due to the heterogeneity of the devices used, extensive pre-testing is of special importance for mobile surveys.

In order to simulate access from various mobile devices to the survey, you can use e.g. the free emulation tool "Emulator Klondike Wap Browser 1.5".

7 Identifying Mobile Participants in Analysis and Export

When exporting and analysing data, the variable "output" allows to retrace in which output mode the participant edited the survey *the last time*:

- 0 = HTML

- 1 = XHTML-MP

- 2 = WML

In all survey types in which the participants are known, a participant may start the survey on a mobile device, take a break and then complete it on a PC or vice versa. "output" contains the last output mode used.