Web Hob - Stage I design

User feedback

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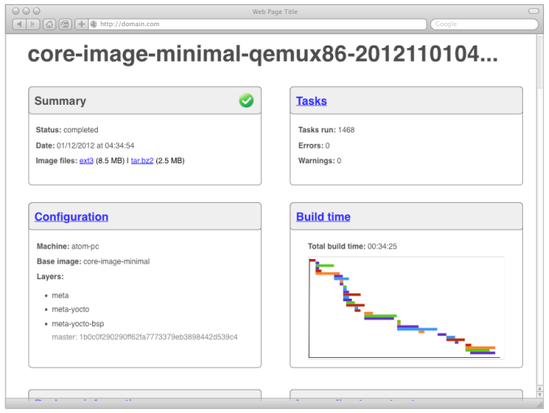
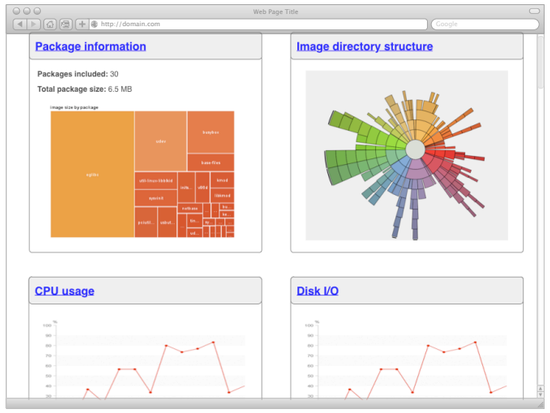
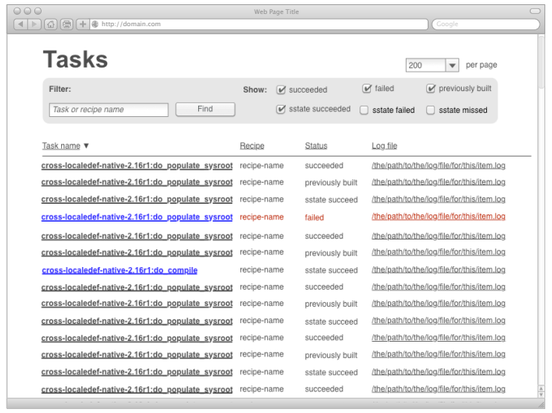
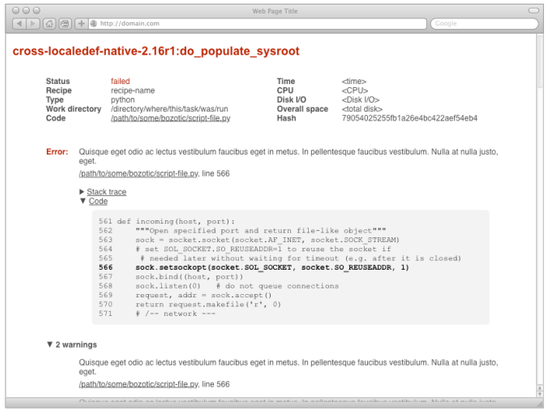
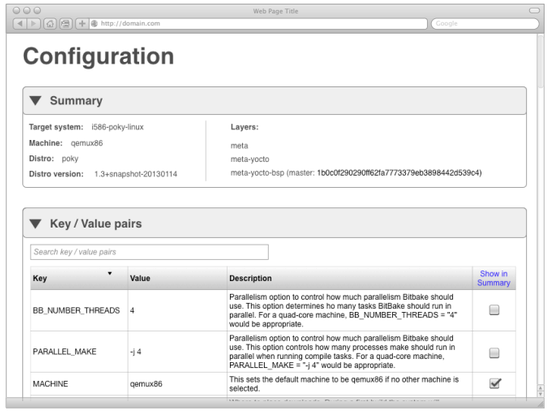
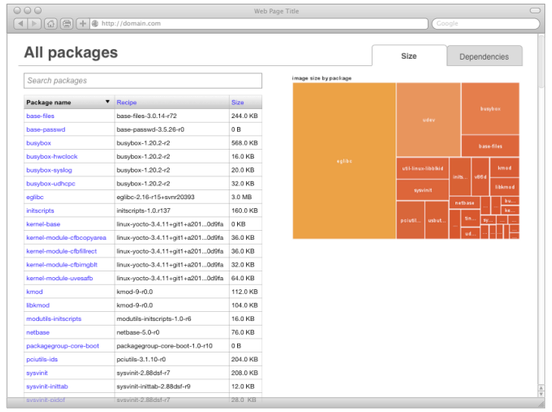


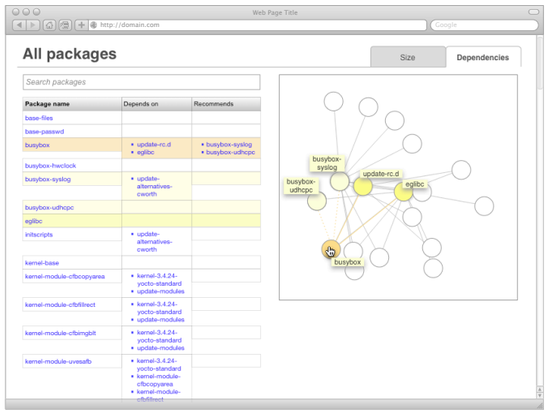


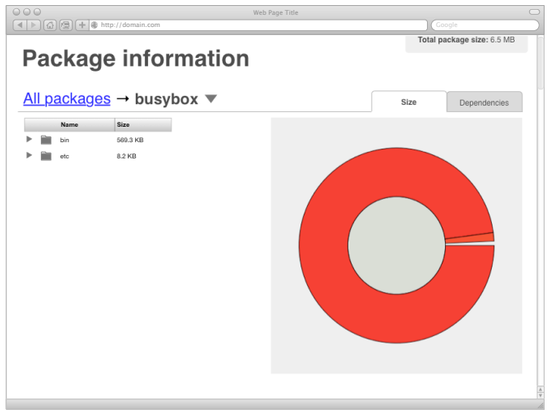


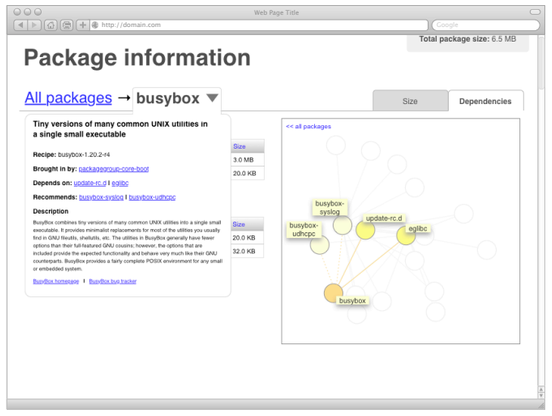












8 interviews

On 23rd and 24th January 2013 we organised 8 interviews with 9 volunteers to gather feedback on our initial designs for the stage 1 of Web Hob.

The scope of what we call "stage 1" of Web Hob includes functionality to analyse the output of a build.

Volunteers were recruited during ELC-E and through the Yocto Project mailing lists.

To facilitate the discussion, we created a static prototype that is available in the Yocto Project git repository:

http://git.yoctoproject.org/cgit/cgit.cgi/yocto-webhob-design/plain/phase1-iteration1-prototype/index.html

The interviews were conducted over the phone, using Skype (http://www.skype.com) and Team Viewer (http://www.teamviewer.com) for screen sharing.

We recorded the interviews using Silverback (http://silverbackapp.com) for further analysis.

About this document

We received enormous amounts of very detailed feedback. Since including it all in this document would be impractical, we have extracted what we consider the most important points.

In general, the feedback was positive.

All volunteers seemed to understand the prototype structure and the information presented on the different screens. Useful was the term most used to define the prototype content.

The concepts of "project", "build" and "image" as organizing principles were generally understood.

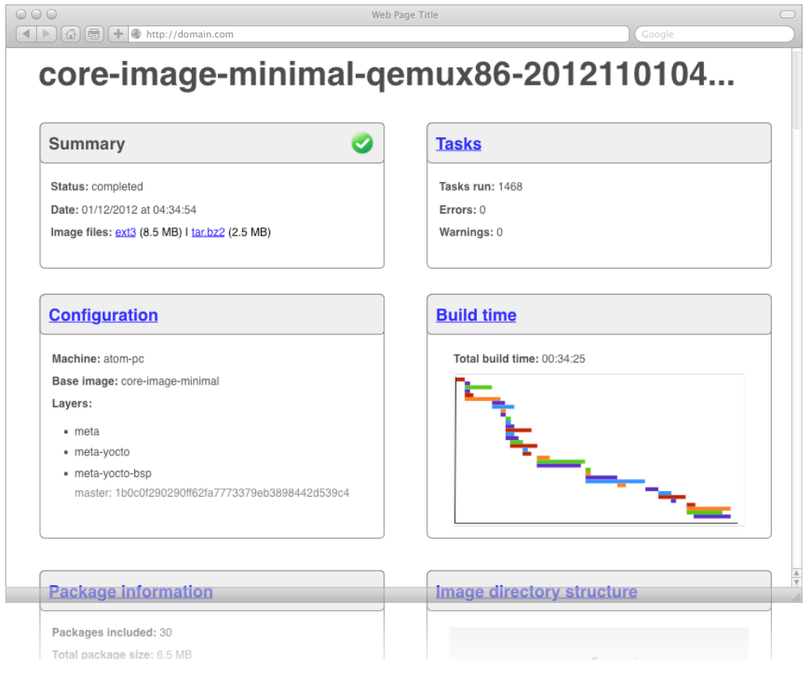
However, their definition varied considerably between volunteers. "Projects" were described in terms of target architectures, customers, git branches and even git commits. "Builds" in terms of completion time stamp, target architecture, one or more BitBake targets, image files, etc. The term "image" seems to be used interchangeably to refer to BitBake targets (base images) and build output (image files). As a result of these differences, volunteers were keen on filtering and customization capabilities to personalize the information displayed on each screen to match their particular needs.

Volunteers were satisfied with the set of build metrics presented.

Configuration details, task information and package dependencies were the most appreciated metrics.

Experience, team size and job role determine which metrics and features are of interest.

Build time, CPU and disk usage information were most appreciated by volunteers focused on optimising the performance of the Yocto Project tools. Less experienced volunteers and consultants asked for sharing features to help getting / providing support. Volunteers working on bigger teams requested user administration and permission management features.



"Build dashboard" page

The goal of this page is to provide an overview of the outcome of a build. Find it at:

http://git.yoctoproject.org/cgit/cgit.cgi/yocto-webhob-design/plain/phase1-iteration1-prototype/Build%20Dashboard.html

Feedback

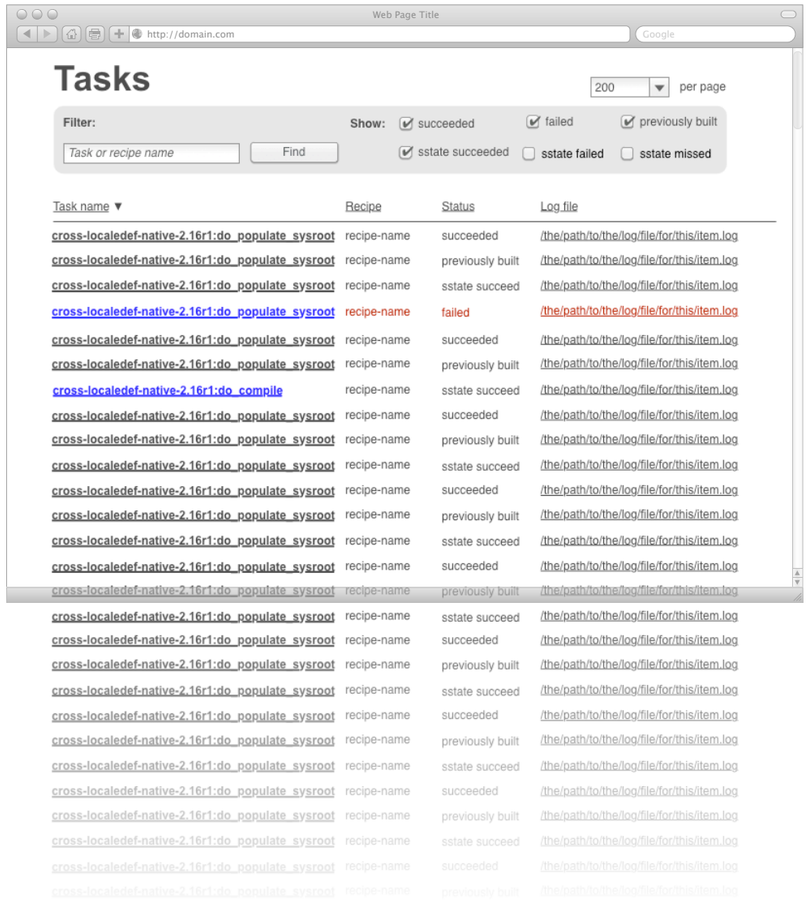
1. Volunteers identified **3 types of information** on this page:

- Information on **what was built**: this included the "Summary" and "Configuration" sections
- **Debugging** information: this included "Tasks", "Package information" and "Image directory structure".
- **Optimisation** information: this included "Time", "CPU usage" and "Disk I/O".

Action: we should explore rearranging the information on this page according to the above classification.

2. Volunteers had different preferences regarding data **visualisation styles**: both the treemap used to present package size and the sunburst diagram used to present the image directory structure proved contentious.

Action: we should consider providing different visualisation alternatives to choose from, and even the ability to remove visualisations altogether to generate a more compact dashboard.



Task information pages

All tasks: this page provides a list of all tasks run during a build. Find it at:

http://git.yoctoproject.org/cgit/cgit.cgi/yocto-webhob-design/plain/phase1-iteration1-prototype/Build%20Tasks.html

Task details: this page provides contextual information about a task. Find it at:

http://git.yoctoproject.org/cgit/cgit.cgi/yocto-webhob-design/plain/phase1-iteration1-prototype/Failed%20Task.html

Feedback

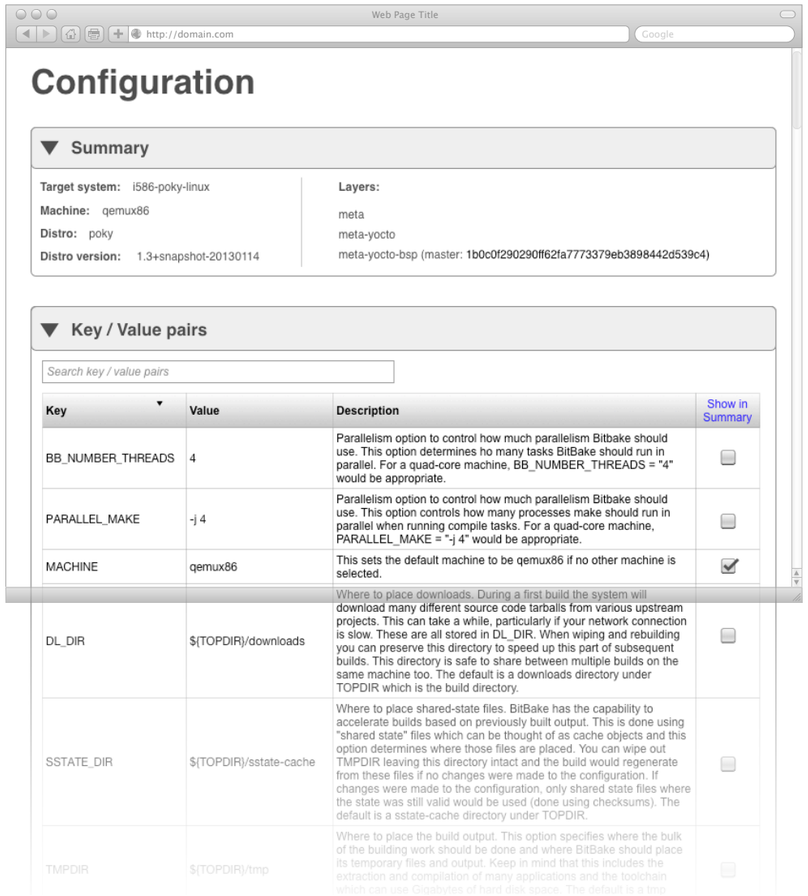
1. Error contextual information and outline of task dependencies were well received.

2. Volunteers were unclear on the meaning of the task status (see 'Status' column on the tasks table).

Action: we should provide an explanation of each task status.

3. Volunteers were slightly confused by the presentation and labelling of the task dependencies.

Action: we should explore alternative presentations and a better heading than "Ancestor tasks".



"Configuration" page

The goal of this page is to provide information about the configuration applied to the build, including all key / value pairs. Find it at:

http://git.yoctoproject.org/cgit/cgit.cgi/yocto-webhob-design/plain/phase1-iteration1-prototype/Configuration.html

Feedback

1. Volunteers want to see which .conf file the key / value pairs are coming from.

Action: add table column for .conf file.

2. Volunteers want to see which key / value pairs have been overridden.

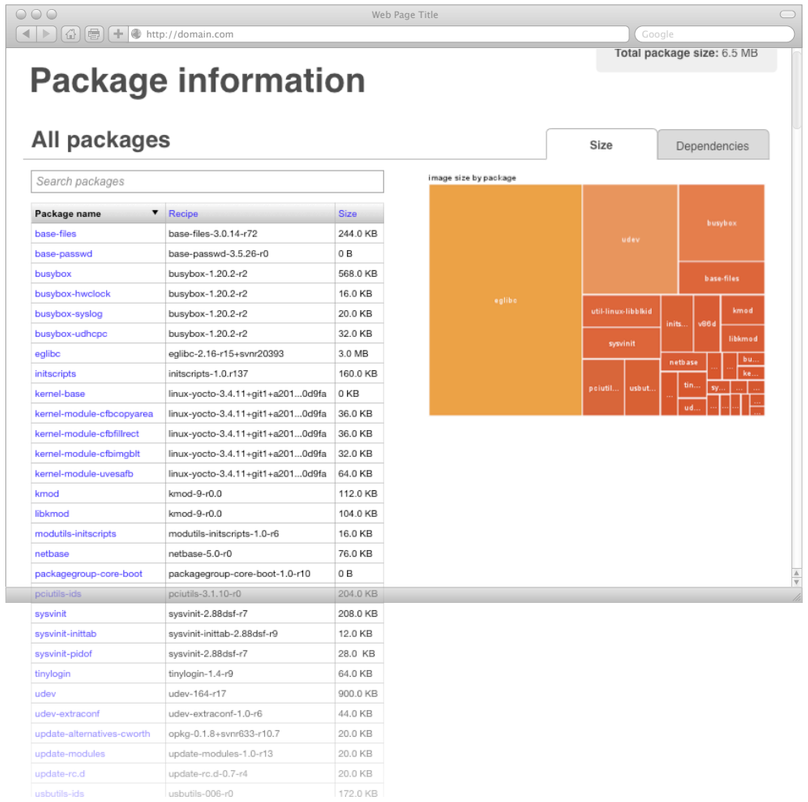
Action: design an effective presentation for overridden key / value pairs.

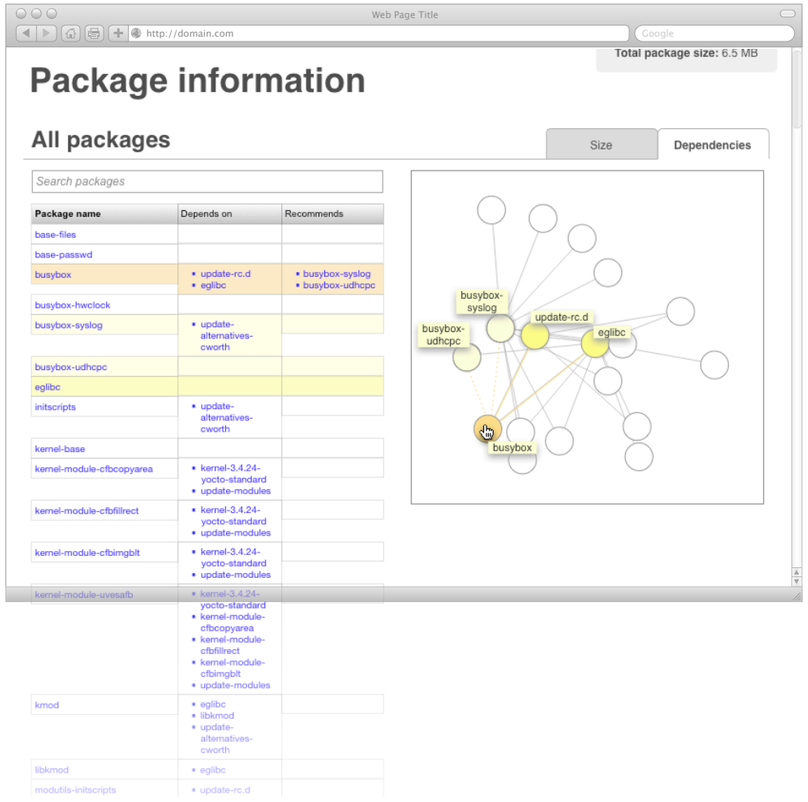
3. Volunteers want to customise the information displayed on this page, both on the "Summary" section and the "Key / Value pairs" table.

Action: provide content customisation and filtering capabilities.

4. Background information about key / value pairs was perceived as useful, but also as taking too much space on the page.

Action: explore more efficient ways of presenting background information about key / value pairs.





"Package information" page

The goal of this page is to provide information about package size and dependencies. Find it at:

http://git.yoctoproject.org/cgit/cgit.cgi/yocto-webhob-design/plain/phase1-iteration1-prototype/Configuration.html

Feedback

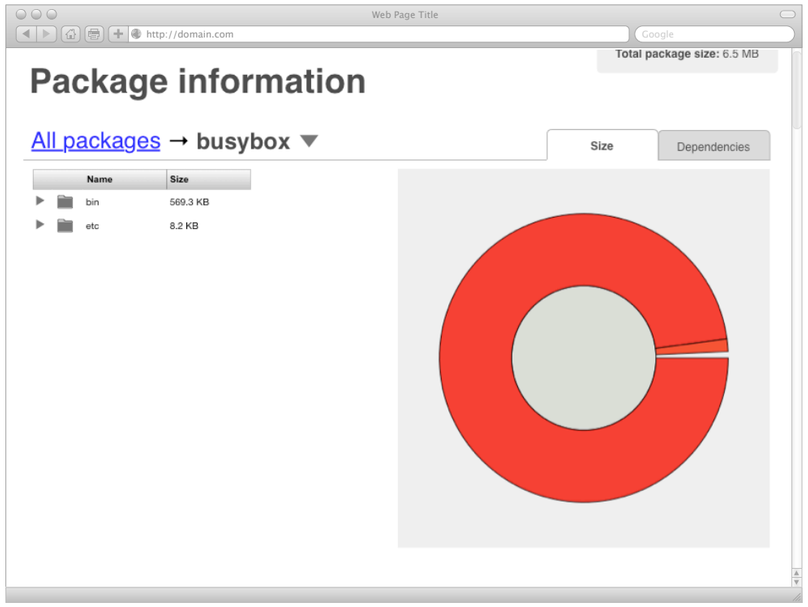
1. Package dependencies presented as an interactive network diagram was the most valued prototype feature.

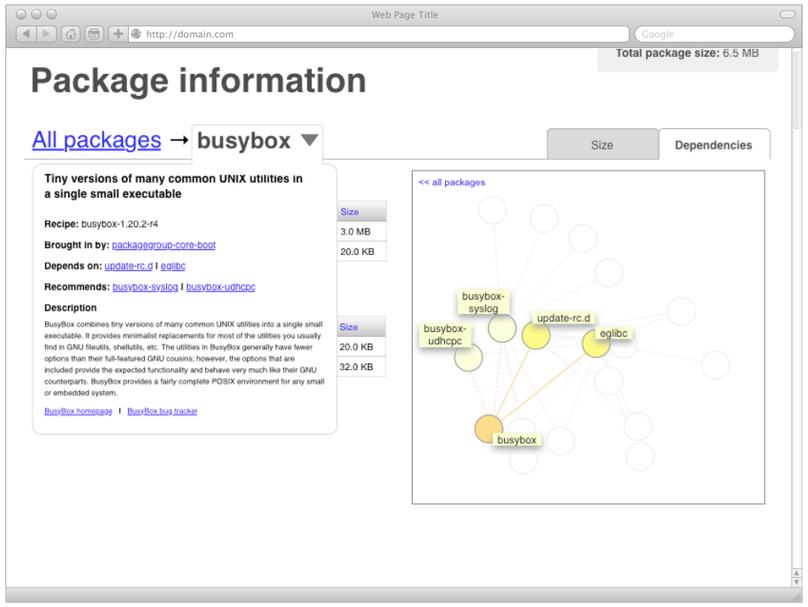
2. Volunteers would like the ability to "turn off" the "recommends" information.

3. Volunteers wanted to see package size expressed as a percentage over total.

4. Volunteers would like to see information about all packages built from recipes, and not only the ones deployed in the image.

Action: add the information requested on 3 and 4 to the packages table, together with content filtering and customisation functions.





Feedback

1. The information about package files was perceived as useful, especially by volunteers with less experience with the Yocto Project.

2. Volunteers requested package background information (recipe, description, license, description, etc) to be visible by default.

Action: change page layout to accommodate package background information.

We received numerous feature requests:

- I want to export data
- I want to create users and give them different access rights
- I want real time information about builds in progress
- I want a notifications system that sends me an email when certain events happen
- I want to view and edit the source files
- I want to edit values directly from the Configuration page
- I want integration with bug tracking and testing tools
- I want to be able to build on multiple servers from a single instance of Web Hob, see and select which server I'd like to use for a project and / or build
- I want to see detailed information about recipes
- I want to share information (for example, about errors to get support)
- I want to rerun individual tasks and subsets of tasks
- I want to compare information between builds
- I want to configure Web Hob to remove old builds automatically
- I want to customise the way Web Hob looks
- I want to specify configuration parameters for projects, which will be inherited by all builds within a project. I want to override the project configuration at the build level.

If you have questions or comments about this document, or would like to volunteer to provide feedback on upcoming design work, contact Belén at:

belen.barros.pena@intel.com