

# **X2go automated testing**

## **Preliminary:**

At the X2go gathering during the last weekend of october 2014 in Essen (Germany), several technical issues concerning x2go, were staged. One of the issues was the lack of automated testing. Kjetil Fleten and Kees Epema were assigned to present a workflow to address the automated testing issue.

## **Goal:**

The intention of automated testing is to cover x2go software behavioral aspects on various operating systems.

## **Initial situation:**

At this moment x2go lacks automated testing.

## **About the author:**

The author of this document is Kees Epema

First I need to say that I am NOT a software test consultant.

I have no fundamental experience in testing such big software projects and I am not certain if the plan is overkill or will have affect on legislation in different countries, where x2go services have been embedded. Maybe a similar plan as stated below has been rejected by the x2go developer team in an earlier stage. I don't know, I'm just trying to contribute...

## **Implementation:**

Automated testing plan 1: Make use of existing logging features of X2go to obtain statistics about behavior on end-users systems

## **Pre-conditions:**

Most components of x2go software are using a file logging feature, to track behavioral of the software when in action. If not we should I think :)

## **General idea:**

We could write a patch for the current version, asking the end-user permission to send over logfiles/statistics of x2go usage to a central x2go location(VPS?) .

It is somehow similar to “Crash Reporter” that is part of the Firefox browser.

We could offer the end-user to review the source code for this patch. It is a way to create more acceptance.

## **Goal:**

This patch might generate useful information about end-users system architecture, operating system, version of x2go dependencies, and other pure technical or statistical information.

## **Technical implementation:**

We could write a cron task that polls a directory, where usage logs were stored, every  $n$  minutes.

When a new logfile arrives, a parser could review the contents. The parser would be able to decide which issues in a logfile should be reported to the x2go developer team.

## **(Information) requirements:**

We need to know at what point a logfile must be sent over to a central x2go location.

It seems consistent to me, that logfiles should be sent over after the end-user terminates a session or after a system-failure (as far as there will be a internet connection left at the supreme moment :)) or after a program-crash.

We need to know which log file entries are worth reporting.

We probably need to review x2go logging regarding two aspects:

1. Assure that log files will contain relevant information for analyses,
2. Assure that the information layout of the log files is 'parsable' for automated testing

Kees Epema, 6 november 2014