THE TRANSPARENCY GRENADE



Introduction

The lack of Corporate and Governmental transparency has been a topic of much controversy in recent years, yet our only tool for encouraging greater openness is the slow, tedious process of policy reform.

Presented in the form of a Soviet F1 Hand Grenade, the Transparency Grenade is an iconic cure for these frustrations, making the process of leaking information from closed meetings as easy as pulling a pin.

Equipped with a tiny computer, microphone and powerful wireless antenna, the Transparency Grenade captures network traffic and audio at the site and securely and anonymously streams it to a dedicated server where it is mined for information. User names, hostnames, IP addresses, unencrypted email fragments, web pages, images and voice extracted from this data and then presented on an online, public map, shown at the location of the detonation.

Whether trusted employee, civil servant or concerned citizen, greater openness was never so close at hand...





Edition 2, Photo by Khuong Bismuth, 2014



Edition 3, Installation view, 2016



Edition 3, Installation view, 2016

Conceptual background

The volatility of information in networked, digital contexts frames a precedent for clamouring (and often unrealistic) attempts to contain it. This increasingly influences how we use networks and think about the right to information itself; today we see the fear of the leak actively exploited by law makers to afford organisations greater opacity and thus control.

This anxiety, this 'network insecurity', impacts not just upon the freedom of speech but the felt instinct to speak at all. It would now seem letting public know what's going on inside a publicly funded organisation is somehow to do 'wrong' -Bradley Manning a sacrificial lamb to that effect..

Meanwhile, civil servants and publicly-owned companies continue to make decisions behind guarded doors that impact the lives of many, often leaving us feeling powerless to effect change, both in and out of a democratic context.

The Transparency Grenade seeks to capture these important tensions in an iconic, hand-held package while simultaneously opening up a conversation about just how much implicit trust we place in network infrastructure; infrastructure that reaches ever more deeply into our lives.

Further details

This is a one-off object created in January 2012 by <u>Julian Oliver</u> for the Studio <u>Weise7</u> exhibition at Labor 8, Haus der Kulturen der Welt, Berlin, curated by Transmediale 2012 Director, Kristoffer Gansing.

The body is made of Tusk2700T, a highly resilient translucent resin, printed from a stereo-lithography model made by CAD designer Ralph Witthuhn based on a replica Soviet F1 Hand Grenade. Metal parts were hand-crafted from 925/1000 sterling silver by <u>Susanne Stauch</u>, complete with operational trigger mechanism, screw-on locking caps and engraving.

STL files for the Grenade body are available here, licensed under CC-BY-SA.



The components include a 'Gumstix' <u>ARM Cortex-A8 computer</u> with expansion board, Arduino Nano (for SPI display control), LED Bargraph (for wireless signal level, controlled by GPIO pin outs from Overo COM), powerful 802.11 board antenna, 3.7v battery, 64x32 pixel LCD RGB display (harvested from NKK 'SmartSwitch), 5mm cardioid microphone and an 8Gb MicroSD card. The computer runs a modified <u>Angstrom OS</u>, a GNU/Linux embedded operating system popular on ARM devices.

The grenade prior to assembly



Browser-based map interface to Transparency Detonations









Software development tools used

Any work done on the software side of the Transparency Grenade was done on a laptop running <u>Debian Stable</u>. Programming was done using the IDE <u>VIM</u>. Minicom was used for serial communications using a USB Serial FTDI from <u>Sparkfun</u> electronics.

Grenade Software

The Transparency Grenade leverages GNU/Linux with the following software relevant to the capture part:

- airmon-ng
- tcpdump
- ssh

Capture is trivial, sent over an encrypted tunnel (ssh) like so:

Capture on monitor device with full snaplen over SSH tunnel to date formatted
filename

tcpdump -s 0 -i mon0 -w - | ssh xxxx@transparencygrenade.com 'cat > caps/\$(date +'%d%m%Y').pcap'

The grenade itself has no other software related to the capture part running on-board.

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Promotional images

Hi resolution images of the grenade, the software, it's parts and the process of building it can be downloaded <u>here</u>

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