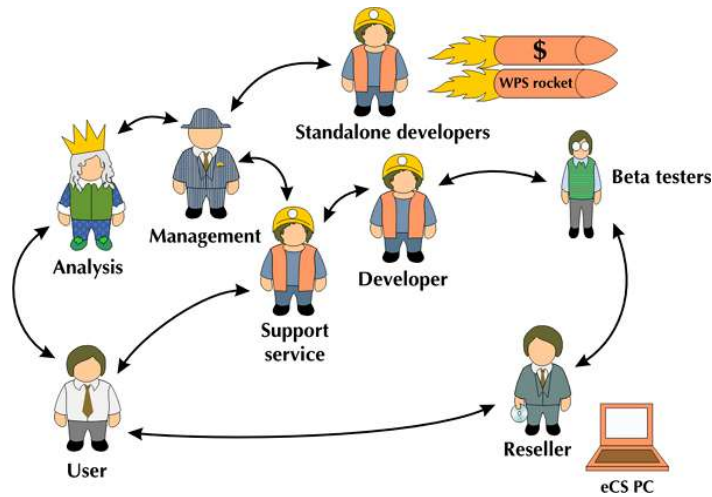# Evolutionary Sprint 2008/11

Speaker: Eugene Gorbunoff

Evolutionary sprint 2007/11

"Change your mind"

Evolutionary sprint 2006/11

"OS/2 Village"

What is Evolutionary Sprint?
- Evolutionary = don't migrate to other platform
- Sprint = 2-3 years to improve situation
  (starting from fall 2006)

software

Why do we use OS/2? Why don't migrate to ..

- + Look at the list of Solutions.. business
- + Shareware apps (50 alive)
- + Hundreds of free apps
- + Community of users
- - no, hundreds of apps are dead
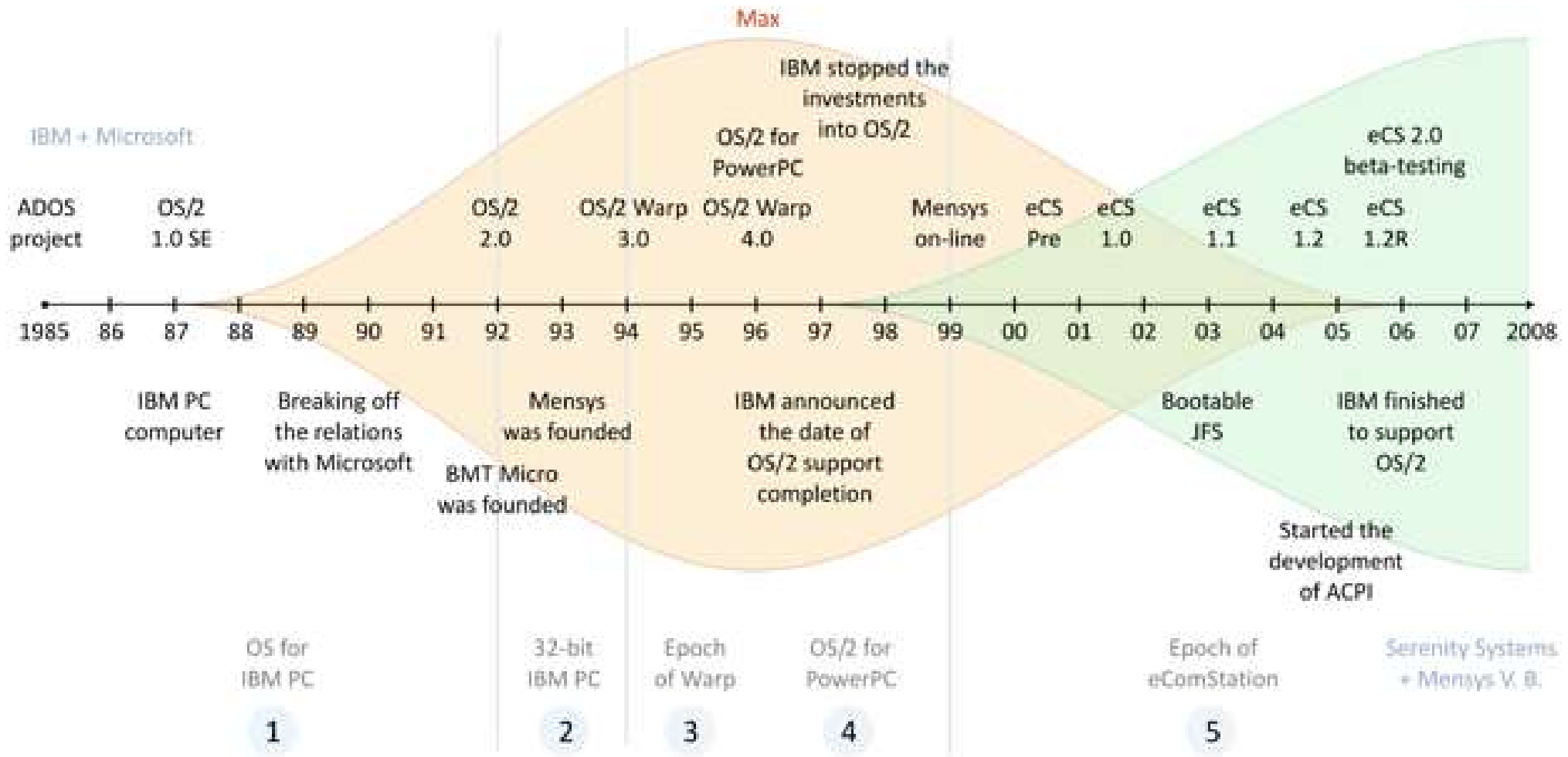- + multithreading is good
- - problems with drivers, software

software

Users ask us:

eCS is developed by community, not a corporation. => that's why we should find the answers all together.

• soft: Where is software, how to create it without investments?

• hard: How to run eCS on modern PC?

• population: How to attract more users so life becomes more fun and interesting.

• niche: What is the niche, area of usage?

• expansion: Why no advertisement of eCS on other markets? Are you going conquest new markets?

Evolutionary Sprint

OS/2 - eComStation evolution

Why eCS is alive?

• because there are huge investments into drivers support. You can run eCS on any modern PC.
• What happened with IBM satelites? The landscape is changing
• (Hadrware) What happens on the market today?
  * Users are purchasing mini-notebooks
  * Users upgrade to Core Duo, Quad Core
eComStation should be ready for this hardware. It is ready since 90-th.
• (Market) 50 shareware/commercial apps...
• The sellings of eCS are increasing

Do we have a chance to win? Do we have conditions for success?

- YES, we are on PC market (PC market is roughly 200 million units these day, grows 15 percent a year). Huge market, many resellers
- YES, we have the market already (50 products)

- YES, if eCS is commercially successful. If it's easy to sell it and everybody can make money on eCS
- YES, we can include new components to OS very quickly
- YES, if care about the design of all applications (Ugly screenshot = 0 users, More nice screenshots => more new users)

.. success if:

• YES, we collaborate with Linux. No bloody battles with competitors
• YES, if develop and sell completed solutions (accountant, POS, ..)
• YES, if create 20 new medium killing apps every year
• YES, if promote eCS, spread news over hundreds of sites
• YES, work via internet is popular. We don't need sky-scrapers for offices, we need professional managers only
• YES, if standardize (eCS installer, UI, bug-reports, ..)
• YES, if more companies start working on eCS market
• YES, of compatibility with mobile toys
• YES, if develop modular apps, pluging-based (Win - monolithic)

.. success if:

• YES, if we have simple User Interface. (Depends on OS libraries)

Formula of success:

Successful eComStation = Kernel development (ACPI, drivers) **x** Games **x** User Interface **x** Applications **x** .. **x** Marketing

(2008) eComStation PC

Welcome to http://ecomstation.ru/ecspc
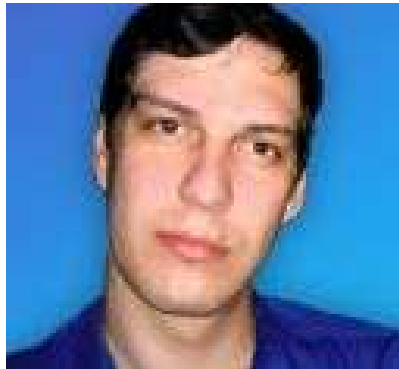(Common info about supported hardware)

Hardware DB.. - more than 1500 reports

Peripheral devices:
* USB MSD
* Laser Postscript Printers
* CD/DVD/Blu-ray disk drivers

software

(2008) Community

http://ecomstation.ru/community

(2008) Software:

- DVB-T support in Emperoar TV
- Papyrus office demo-version
- Contacts with APSoft regarding Socket Services
- OpenOffice.org 2.4 betas, GA version.
- always the latest Thunderbird, Firefox!! -- GOOD
- PMView updates -- OK (ESWay 2007)
- New eCS components and utilities

(2008) Software (Multimedia):

* RAW support - Failed
* SMPlayer
* kmp, ..
* monkey's audio
* eCo Tunes
* z!, PM123

(2008) User interface

+ PNG transparency
+ more templates/control elements

ALL05
NeoWPS
Desktop

(2008) ACPI driver

• Based on latest Intel source code (always the latest Intel machine)
• Improved Suspend/resume for APIC SMP, you can read success stories.
• Updated drivers for ACPI
• mutexes to execute many requests in parallel
• updated ACPI toolkit
• Improved PowerOff
• partial Acer notebooks support

software

(2008) Drivers
1) Collecting bug-reports of **Panorama VESA**,
updates of widescreen activator

2) **Genmac** is added to eCS 2.0. Genmac wrapper -- it's necessary support users and help them to collect unofficial drivers. Current state, Thorolf Godawa: "for most people it's working, some people are using the unsupported mode to get working no supported adapters but that's all. "

3) **USB**: Mensys started modification of USB Stack (based on eCo Software sources)
There are no real bug lists. Rather a first thing to get all USB drivers working and do some basic code merges.

software

(2008) Drivers

1) **CUPS printing system**. CUPS is working via network.

2) **USB Flash disks** – widget, site, FAQs, instructions.

3) **Uniaud** - HDAudio, the driver includes patches from:
(ESWay 2007)
    * Paul Smedley
    * eCo Software patches
    * Richard Jerant
    * more people

(2008) Kernel

1) **SMP kernel** is default now (ESWay 2007/11)

2) (ESWay 2007/11) **PROTECTONLY=YES** is default.
No, investing efforts to support VDM, New VPIC.SYS is
developed as part of ACPI project

3) **New OS2LDR** is created -- http://ecomstation.ru/kernel

4) **Kernel is rewritten**. It is useful for ACPI research only, for
developers. Read more: http://ecomstation.ru/kernel

(2008) eComStation API

1) SDL/2 is ready for Panorama VESA

2) eCo Software runtime is updated (New control elements)

3) GCC 3.x.x, 4.x.x (New classes, important for Mozilla and modern applications).

4) libdart library, libkva video library (WO, SNAP, DIVE)

DEV03 Developer Connection

software

(2008) New shareware/commercial products

    * Emperoar TV (DVB-T)
    * Searchplus
    * eCS FAQ brochure
    * CD/DVD Toys
    * eCo Tunes

(2008) Netbooks

Now you can use eComStation on netbooks (5"-10")

ASUS EeePC 701 - October 2007
2008 – 5.2 million
2009 – 8 million
2012 – 50 million

Panorama VESA + Danis506 + Widescreen activator + Genmac

software

(2008) Virtual machines

No investments into Virtual machines.

You can use old versions of SVISTA/2,
VirtualPC 2004, Vbox/Qt3

+ We should spend the resources to the development of new
software and drivers

(2008) Networking

• Samba client is debugged, Samba server is used in some companies. The developers are making front-ends to manage Samba server, users.

• A Samba client. A lot of work has gone into this project to make eCS be able to connect to Samba server. Samba protocol is used to communicate with modern storage devices like NAS (Network Attached Storage).

(2008 -> 2009) Drivers

- 2 0 0 8 -- Updated USB stack may be released. (Problem of Exigen Latvia was: no bug-tracker, no feedback from users)

- 2 0 0 8 -- Flashdisks, step 3: USB stack refresh -> then flash disks support may be improved

- 2 0 0 8 -- ACPI todo:
    * suspend/resume
    * VPIC.SYS
    * Speedstep/Throttling/AMDPowerNow
    * Create utilities (ACPI Setup, ..)

(2008 -> 2009)

1) **New Kernel** is useful for debugging purposes only
   Logging to COM3 (OS2LDR),
   Logging to USB/Ethernet – FAILED
   Debugging via keyboard, IR – under construction

2) **Security** – Protect system files today

3) **RAW format** – eCo Software failed to deliver the IO Proc

4) **OS/2 World Awards** – important to stimulate the internal competition and reward active developers and users

(2008 -> 2009) Vista compatibility

1) eComStation FAQ

2) Another item in the development lab right now it find an easy method to install eCS 2.0 next to Windows Vista (Microsoft modified a few items in the disk layout system).

(2009) eComStation 2.1

eComStation 2.1 is planned (CUPS, Samba server)

What is OS development?
• Kernel (drivers)
• API
• Utilities
• User Interface
• Networking

eComStation installer should download updates from the Internet.

software

(2009) eComStation infrastructure

• Let's start the discussion of Security. Protection of system files.. IF we expect more users then viruses, trojans to appear.

• Java VM -- Sun has not open sourced everything we need to make the files compile on eComStation. Early reseach indicates that some of library files we need to even try and compile Java on OS/2 are not open source but are Windows/Linux binaries.

• Integrate system database
We are lacking dozens of small database applications. Why? No database. SQL queries.

(2009) Applications, applications, applications

+ 50 new shareware products every year.

To increase the value of eComStation pack, it's necessary include 10-20 additional small applications (scheduler, backup, address book, etc) and 5-7 large applications (catalogues, etc).

The only way to overcome the competitors:
• Good design of applications
• Commercial approach (else 80% of apps are dead)
• Create mini-companies (2-3 developers)

(2009) Drivers

2 0 0 9 -- ACPI for eComStation strategy:

We can see that users install/setup ACPI not properly, they don't make simple experiments to adjust ACPI setup. Conclusion: the users should make the research locally, run local tests, adjust ACPI/drivers setup without help of support service. It's necessary give more test scripts, more setup programs.

(2009) Drivers

2 0 0 9 – Panorama VESA

(since 2007) It's necessary check the state of Panorama VESA video driver. One manufacturer should be supported with 2D acceleration; Problem: Intel X3000 - it's necessary develop 3D driver. No resources, frozen.

Panorama Intel -- refused
(Improve video-drivers for mini-notebooks)

(2009) National language support

REFORM:
eComStation All languages on ONE CD.

eComStation Multi-Language should be always ready for usage even if some modules are not translated.

• Works on eComStation/japanese English, German, Russian, Italian, French, (Dutch?), Japanese and Traditional Chinese.

• More applications use LANGE library.

(2009) Mobile assistants support

Mobile devices are very important.
* Let's say the PC market is roughly 200 million units these day, grows 15 percent a year.
* Mobile devices (Cell phones) = billion units a year.

it's necessary create a site or sub-page and some users will concentrate on connvectivity of mobile devices and eCS. This is strategic goal, important for survival of our platform.

(2009) ACPI

It's necessary check the state of ACPI drivers. By default eComStation is running on any model of PC till 2009.

eComStation is running on PC hardware without virtual machine.

(2009) Networking (replace TCP/IP stack)

It's necessary check what is the status of IPv6. No need in IPv6 till 2009 because other OSes support IPv4.

* The main improvement brought by IPv6 is a much larger address space that allows greater flexibility in assigning addresses.

Example:
IPv6 address: 2001:0db8:85a3:08d3:1319:8a2e:0370:7334

! There are hardware gateways to connect Ipv4 networks to v6 networks

software

(2009) 3D-graphics   (since 2005)

• No need in realtime 3D Graphics,
• We need qualitative static 3D images

OpenGL ES (software) should be ported.
It is critical for students.

IF there is demand then we can discuss
hardware acceleration.

(2009) USB 3.0 support

• Declared: fall 2007, Intel Developer Forum

• Intel, Hewlett-Packard, Microsoft,
    NEC, NXP Semiconductors, Texas Instruments.

• USB 2.0: 480 Mbit/sec -> USB 3.0: 5 Gbit/sec

• A completed USB 3.0 specification was published in 2008.

(2009) Hardware

1) Large harddisks, fix os2dasd.dmd

2) Touchscreen. As soon is possible. It's important for POS, for netbooks. We don't support USB models.

3) Even if we have Java VM – it's not enough, we need support of USB Security Keys. Pre-pay 50'000 keys per year.

(2009) Software
The reselles need 50 new shareware products per year.
(Currently we have 50 products)

• RAW support -- FAILED, (since 2007 -- RAW I/O Procedure to preview photos made using modern digital still cameras) How to view large photos? 5-14 Mb ? NeoIB viewer!

• Games. Zero contacts with games companies. So.. don't expect to get games. What to do? 🕱. sNOa..

• Flash player, current state: (current illegal Flash 7, Paul Smedley's port of Gnash)
• OpenOffice.org 3.1 is planned to 2009.
• Internet TV, (WarpVision? mplayer already exist)

software

(2009) eComStation books

Books are important:
• For every new user
• To promote eComStation in the Internet, shops, amazon

Under construction:
eComStation User's Manual

(2009) Node applications

• **Software updates client**. To accelerate the distribution of software: it's necessary create Catalogue (you install it on local PC, the program is checking for software updates every day)

+ the developers are not able to distribute news about updated applications.
- FAILED: Roadmap 2008, all software is distributed via eComStation Software Catalogue application. ..

• **Develop plugins for node apps**: To replace 1000 small applications with 3-5 medium products, it's necessary create Automator/2, ..

(2009) eComStation − is a toolkit

OS/2 controls = transistor
=> OS/2 applications = FM-radio tuner

Today is year 2008
eComStation should contain chips
=> so we can construct complex
eComStation applications

(2 0 1 0) Kernel

Let's use the open-source kernel from Team/2.

• It's 100% compatible with IBM kernel.
• allows improve drivers
• allows run eCS on new hardware
• Memory issues are resolved
• Supports hibernation, suspend/resume, Acer notebooks

(2 0 1 0) ACPI

It's necessary check the state of ACPI drivers. By default eComStation is running on any model of PC till 2009.

(2 0 1 0) Knowledge exchange

We need new developers of drivers and applications.
Old developers should share the knowledge.

• DevCon site
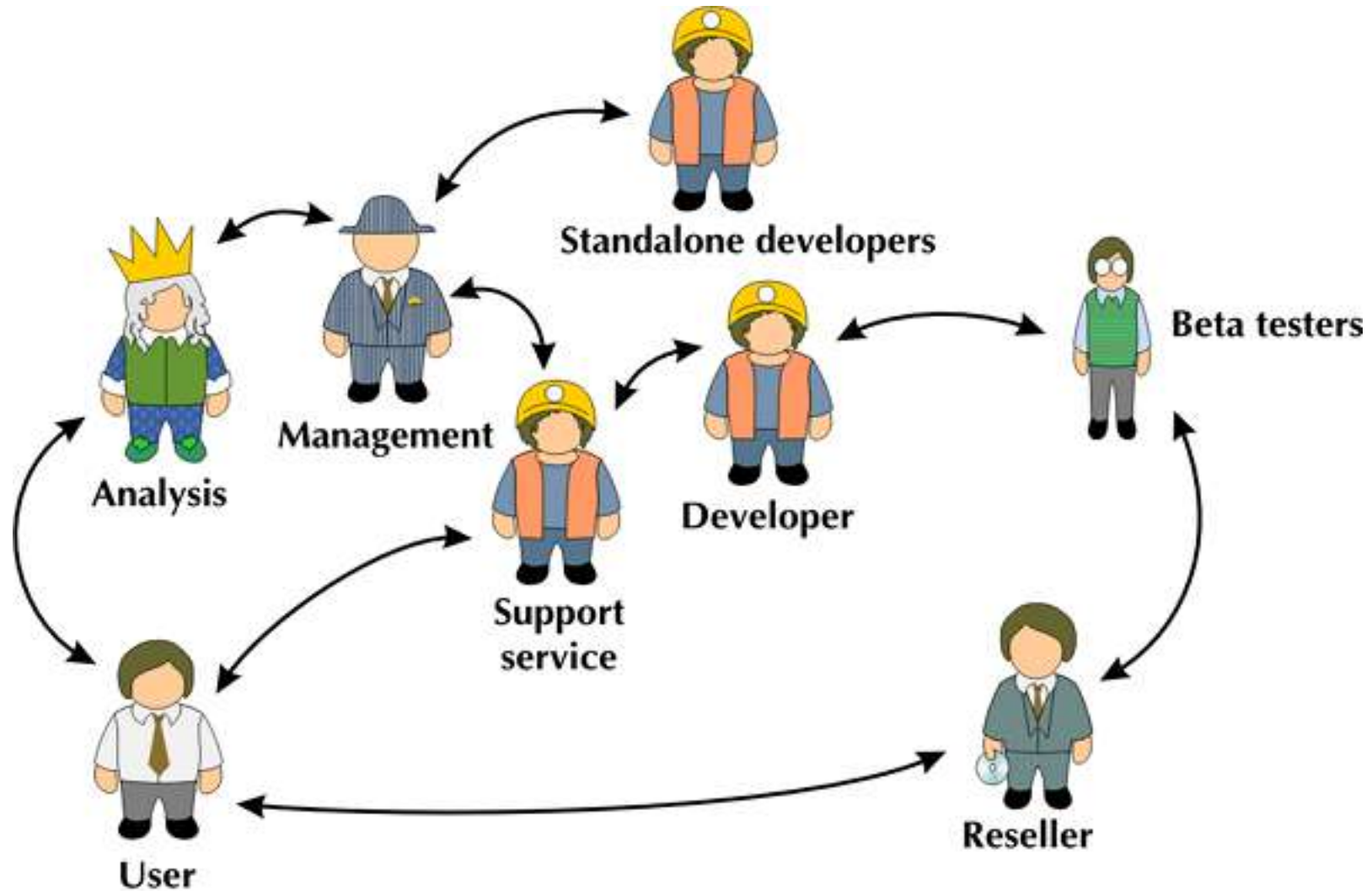• Attract more people to the conferences

Black list

• Web-cameras -> Video phones

• Bluetooth

• Firewire – USB replaced the Firewire standard?

• Google web-browser – all efforts to Firefox

• IP-phones. it's cheaper to use
hardware devices. Let's monitor
new hardware and notify users
which models to use.

http://ecomstation.ru/community

Roles: Users

Declare: "I need new applications and features: .."

A) eCS is commercial OS. People don't want to buy it. What to do? We should publish detailed info about the system. All screenshots, all features. This is the only way to increase the population.

B) Community overview: * Users don't write reviews anymore. Professional developers / specialists are writing all texts. Example: ecomstation.ru

Roles: Managers

Sort the e-mails, be ready to continue
frozen project.

Every developer – in separate city, in different country.

Roles: Government

Role: "roads"/ factories/ education
REFORM: The leader should speak every week

80% of applications are never released. The government should care about the developers, order the infrastructure development (knowledge, shop, bug-tracker, templates).

- Give freedom to eComStation Demo-CD
- Stack of tasks for standalone developers
- Share the knowledge about the OS
- Publish rules how people can help to eCS (replace a module)
- Roadmap for 3 years (so companies can invest money)

software

Roles: Zealots

Build 2-3 node sites which contain
50-100 sub-sites:
• Web-server based on eCS, NAS
• Reviews of eCS 2.0
• How to burn CD/DVD, MediaCenter
• How to setup Lotus Notes 4.x
• Mobile, students, 3D, Graphics, ..

Export news, reviews.
Show screenshots of eCS.
Warp ring
Commercial banners

Roles: Students

* Is it possible attract simple home user?
* Is it possible attract professional developer/businessman?
* We should attract students, play role of users and developers

Stupid student:
* plays the games only
* ..

We don't need all students, we need useful students:
* have time to try eCS
* create small native apps, math utils

Why the developers are not
able to develop (complete) the software?

Roles: Developers

- Advice 1: Work in a workgourp
- Advice 2: Read all instructions at DevCon site
- Make innovations

To survive:
- create N apps, not 1
- Integrate to existing sites, use existing modules&libs

Evolutionary sprint:
- What do users need? Read the forum.

Roles: Solution developers

The requirements:
- Touchscreen drivers
- Graphics UI toolkit
- Internet/security libs
- Network/Wifi adapters, Printers

How to create?
- But companies which own solutions
- Free toolkit to create solutions
- Better database support

Roles: Resellers

Internal market is equipped with software,
start promotion of eCS platform on other markets.

Mistakes:
• Sell shareware apps, not eCS & Openoffice only
• Don't wait for release of eCS v.New, promote existing
products (catalogue, banners, ..)

Roles: Resellers

eComStation PC:
* web-cameras support
* System information
* Recovery tools

Roles: eComStation Developers

10-20 developers .. 50 total <> 2000 (Windows)

REFORM: Professional fulltime developers/managers only.

eCS developers create Node applications, drivers, write documentation. eCS team should manufacture 50% of software

How to become eCS developer?
Main rule: don't expect that somebody will tell you what to do, will reward you. Help to eCS DevGroup, implement basic task, then start your own extensions, analyze your ideas together with other eCS team members. Don't wait that somebody will tell you what to do.

Why Windows users
don't migrate to eComStation?

Roles: New users

200 million PC => eCS is suitable for 1%, we should to attract 1-2 million of new users
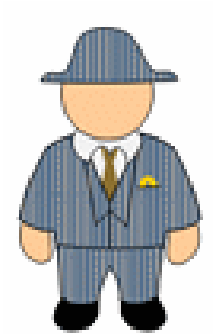
How to attract new users?
• eComStation PC
• Reviews of eComStation software

Why companies don't invest
into software development?

Roles: Companies/businessmen

We need 30 companies,
1 company is manufacturing
1 medium size application, expensive (100$..400$)
(minimal to keep the community in tone)

Advice 1: Increase the usage of eCS in
own company, publish success story
http://ecomstation.ru/solutions

Roles: Foreign Companies / developers

Example: Pixel Image editor
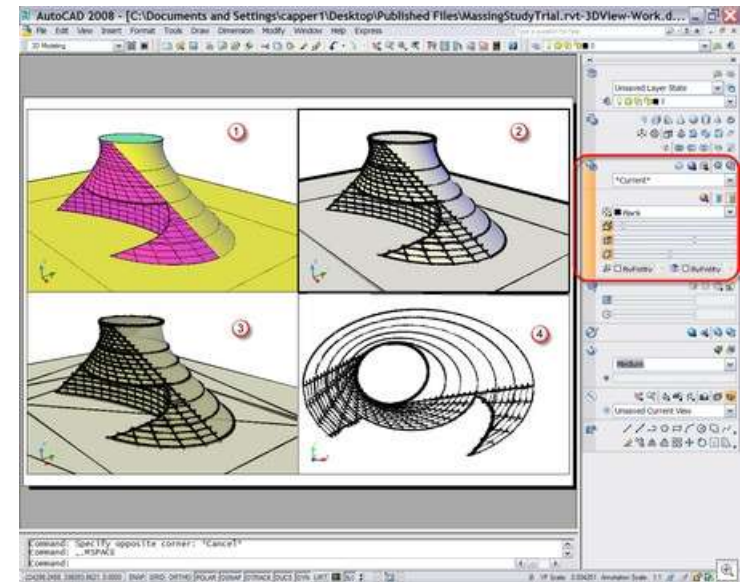
1) They will start the development if > 1 million users, if we can prove this. <> 1 Million of users if Many companies are manufacturing tons of software for eCS.
2) Pay large money to the companies

Conclusion: we should use internal resources.
Todo: Create templates, publish documentation. Maybe foreign companies will use this templates. Describe the market of eCS.

Niche of eComStation

Roles.. conclusion:

eComStation role

• eComStation is the center of development. Center of the community.
• Purpose of eComStation – bring prosperity to eCS people.
• If eComStation is successful then people are successful

eComStation is needed:
• If there are solutions based on eCS
• If the developers create technologies, know-whow

Homework:

* Applications, applications, applications.

* Attract attention to eCS! Publish reviews, publish good screenshots (no screenshots in the internet)

* Support the developers! Write reviews of your favorite software

* Participate in new projects: eComStation MultiMedia Center, Point-of-sale, Student

* Participate in projects: Sync mobile <> eCS PC

Evolutionary sprint

http://ecomstation.ru/esway