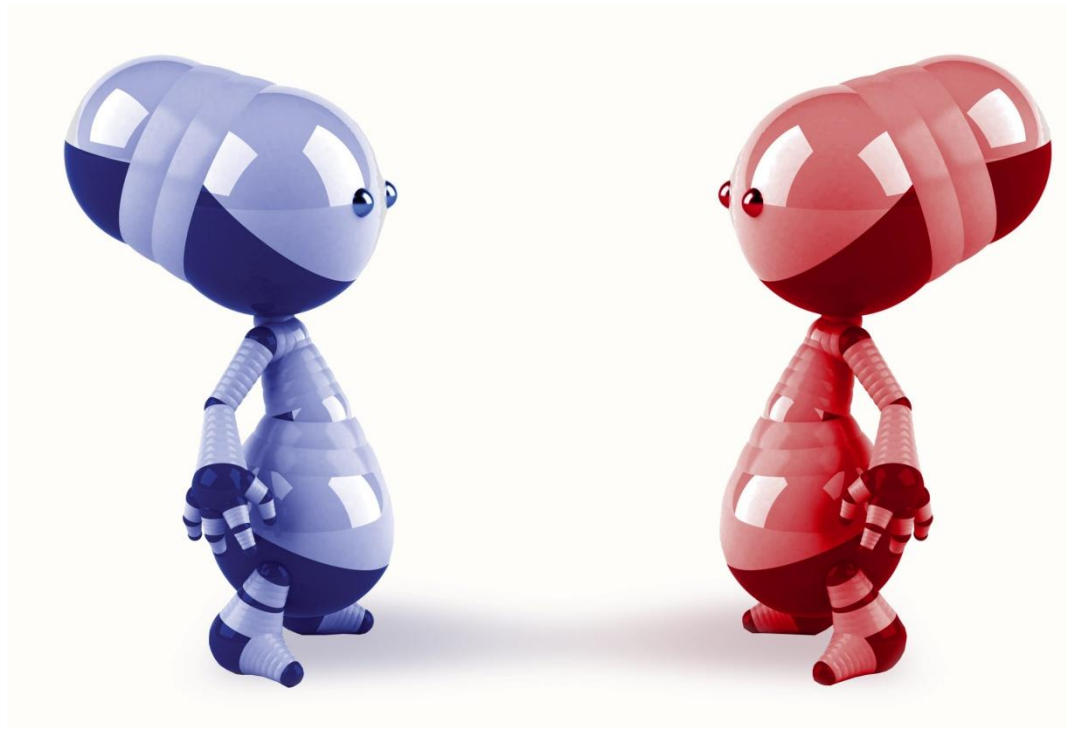


AROBS Transilvania Software

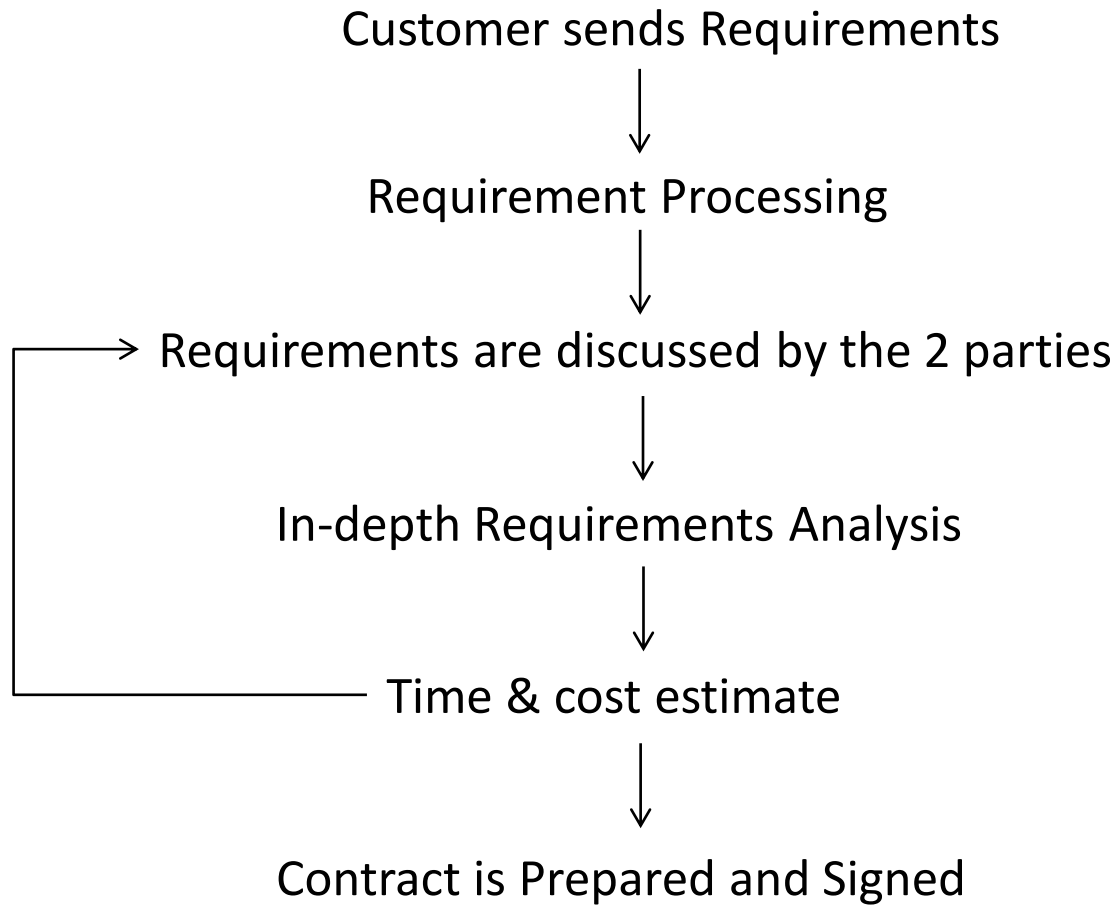


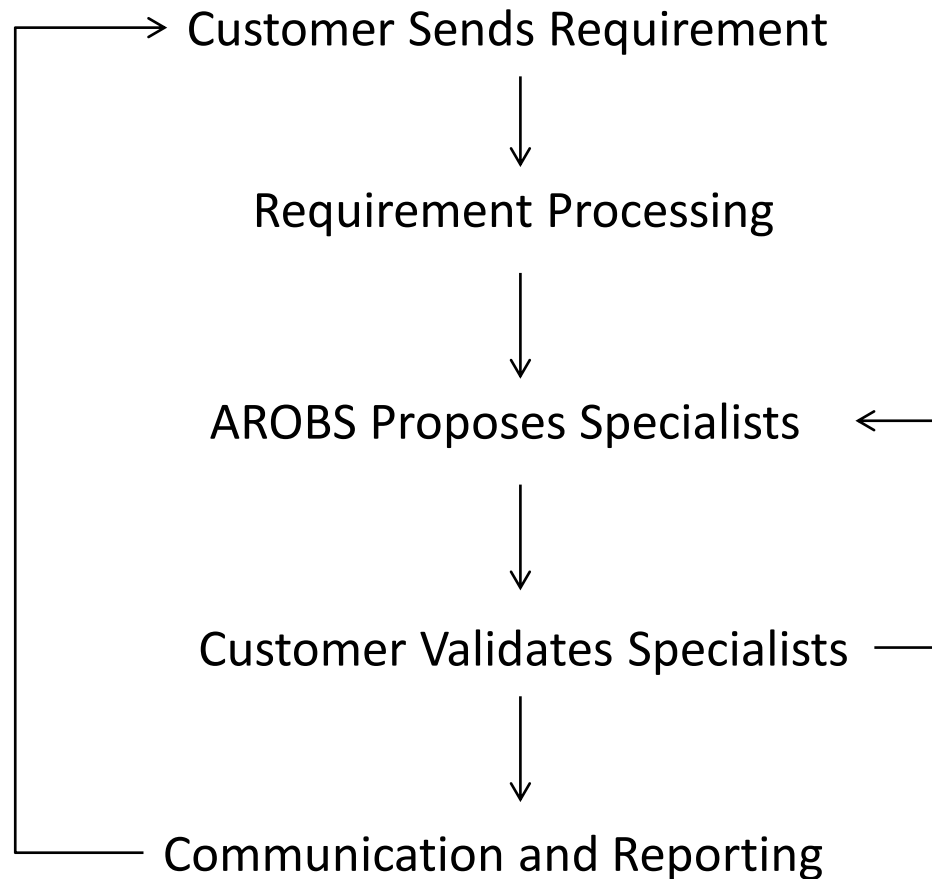
Making Outsourcing Projects Successful

- Working Model
Project Based, Time & Material
- Communication
On-site meetings with the customer (periodical)
Weekly video conference calls
Daily meetings by VOIP, IM
- Collaboration Tools
Timesheet Reporting System (Hourly based timesheet reporting system)
Source Control (SVN, Perforce, MS Source Safe, etc)
Issue Tracking Systems (Bugzilla, JIRA, etc)
- Project Management
Agile Methodology, Waterfall, Prototyping, Iterative
- Team Structure
Flexible structure – stand alone / customer's team extension
Role based: project manager, software architect, software engineer, QA



Project Based Assignment – Estimation Process





- Upon consultation with Customer, AROBS' project coordinator sets up the complete team needed for a forecasted workload of 3 to 6 months.
- The Customer usually provides functional and technical requests to the dedicated team.
- AROBS team members provide feedback to improve the product worked on (technical refactoring) as well as functional suggestions.
- Flexible team structure. Up-scaling or down-scaling are possible as long as the changes are requested well in advance. The time interval required to scale the team is defined at the project startup and can be anywhere from 2 weeks to 3 months, depending on a combination of factors.

- Regular meetings between customer representatives and AROBS team members to discuss project operations and tasks for the next iterations (or major releases), as well as strategic issues concerning the project management and governance.
- Meeting frequency (conference calls & management meetings): usually high in the early stages of the project, than at fixed time intervals
- Communication methods: video calls, voice group conferences, Skype chat, emails
Any requests from the Customer should be recorded, so they are expected in written format
- Continuous feedback provided to the customer:
 - through weekly reports sent via e-mail, phone, or Internet phone;
 - by sending them the last versions of the programs being developed.
 - by means of the time sheet reporting system. The customer can also access the time sheets based on a user name and password supplied by us.

- Planning the milestones carefully
- Closely monitoring each milestone
- Managing the project scope
- Making all team members aware of the project scope
- Focusing on allocation efficiency
- Execution of deliverables according to the schedule (not at the end of the milestone)
- Counting the number of bugs and their severity to determine the quality of the delivery

- Standard QA processes
- Additional internal & external quality management procedures (for early feedback)
 - ✓ **code reviews** - code is regularly checked against a list of coding conventions and best practices)
 - ✓ **beta testing** - developers to cross test applications and share findings
 - ✓ **pair programming** – early detection of coding errors, improved communication within the team, improved product quality
 - ✓ **exit reviews** - at the end of the project or a major delivery feedback is collected from customer, execution time is compared with estimated effort to assess productivity and increase predictability

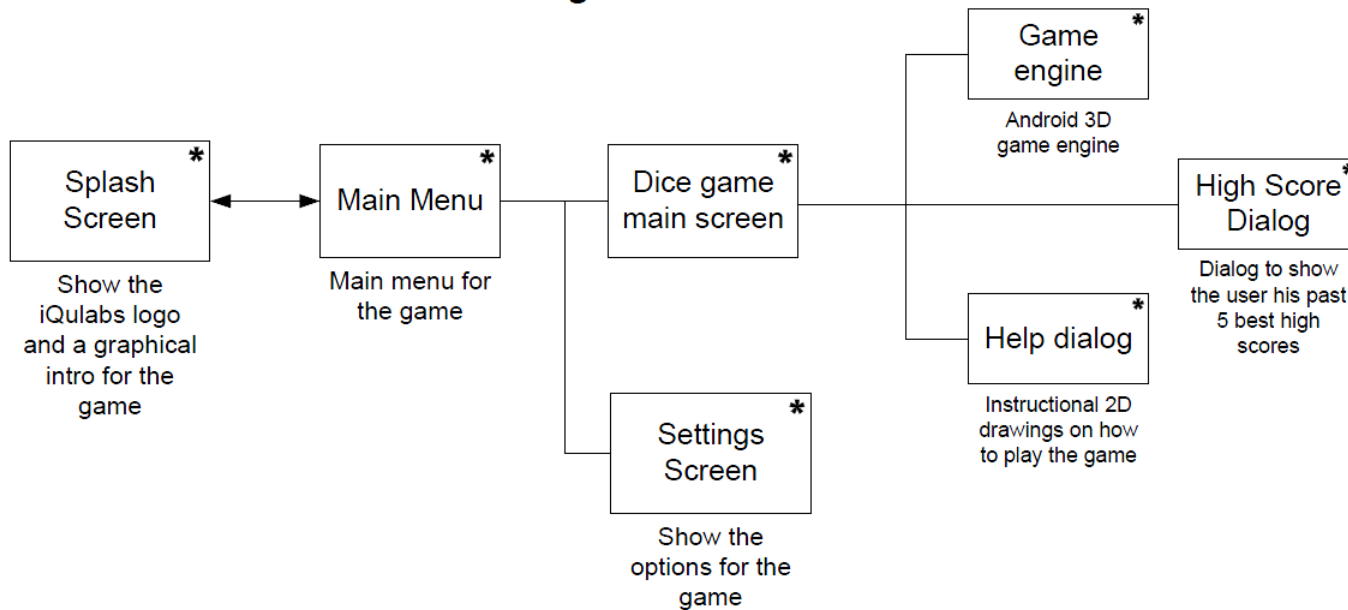
- Setting aside time for knowledge transfer
- Clearly defining the components to be outsourced
- Deciding upon the most appropriate project tracking method and on the review frequency
- Starting small and growing in time to the optimal team size
- Continuous monitoring and assessment of the team involved in the project to ensure visibility of performance within the virtual team, throughout the project lifecycle

- Continuous support for the code. Maintenance/bug fixing are provided on an as needed basis, throughout the entire project lifecycle.
- Ongoing estimation revisiting and updating during the analysis phase of the project. The customer is immediately notified on any proposed change.
- Applying a significant margin for errors during the early stages of the project planning. Error sources: changing specifications, incomplete requirements etc.
- External access to the client to our project tracking tools (Jira or Redmine) where updates on the progress and task/resource allocation can be checked.

3.1 Program Structure

The Android game will utilize a simple architecture as the user does not need to navigate through a lot of menus, a basic context menu being sufficient to offer all the information required.

3.1.1 Architecture diagram



Sample Wireframe

Settings

User Profile:

Username:

Weight:

Units: Imperial Metric

Application settings:

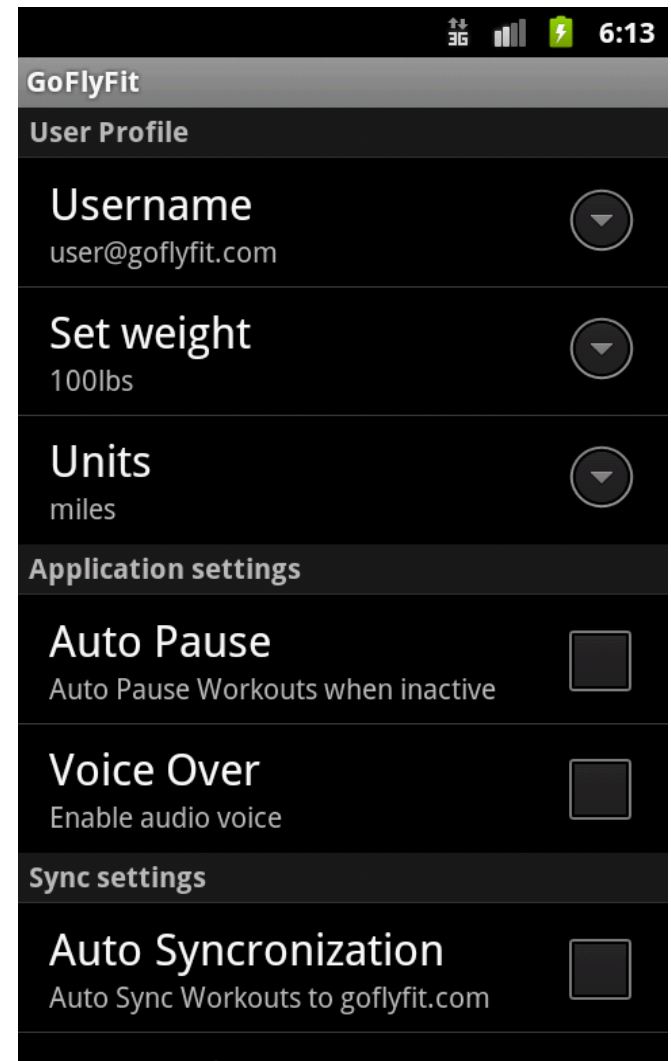
Automatic Synchronization:

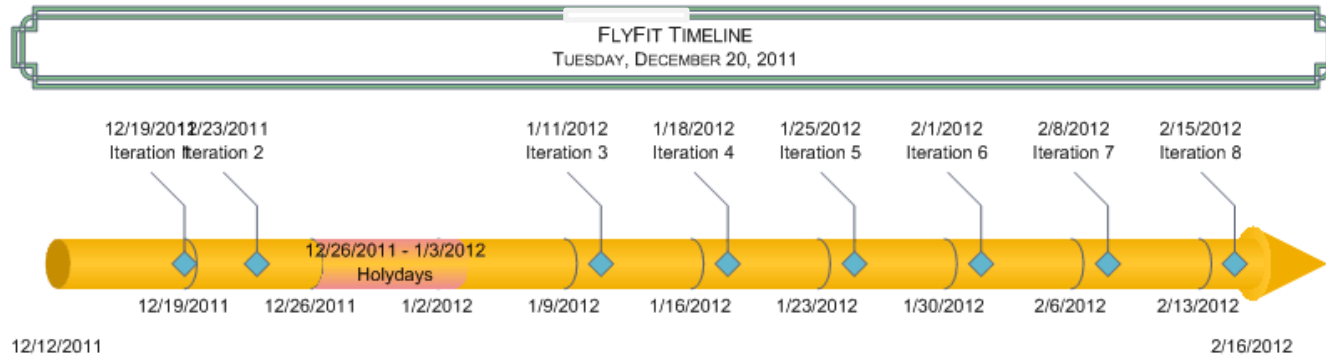
Automatic facebook post:

Automatic pause:

Default sport: ▼

Voice over: enable





- ITERATION 1**
Register UI (portrait), Login UI, Transition to Main Screen + Voiceover, Main Screen, Dashboard UI (partially), Timer, Music Player
- ITERATION 2**
Statistics UI, History UI
- ITERATION 3**
Register UI (landscape), Remember/Forget Account, Login functionality, Register functionality, Workout persistence
- ITERATION 4**
History - display workout results, Settings UI, Settings functionality, voice-over on exit

Sample Milestones

Milestone	Working	Delivery
Wireframes	8 - 14 february	15 February
Design	15 february - 1 march	1 March

Milestone	Working	Delivery
M1 (login page, user management pages)	8-13 February	14 February
M2 (bank management, scoring model/customer data upload)	14-16 February	17 February
M3 (dashboard)	17-21 February	22 February
M4 (expenses and fees, report)	22-27 February	28 February
M5 (graphs)	28-29 February	1 March
M6 (statistics)	1-5 March	6 March
M7 (design integration)	6-13 March	14 March
M8 (testing & bug fixing)	14 - 26 March	26 March



SOFTWARE ACCEPTANCE FORM

1. Description of project: Cranta parachuting game implemented on Nokia's Symbian^3 devices
2. Date project started: 04.01.2011
3. Date project actually completed: 18.05.2011
4. Technician in charge of project: Zsolt Langviser, Arobs Transilvania Software, Technical Project Manager
5. Comments: First release was delivered on 18.05.2011 and a second complementary release containing the Facebook integration was delivered at 27.06.
6. Delivery details: The final release build containing the software installer has been delivered to Mr. Stefan
7. Acceptance by client: _____

I understand all software and / or web site issues have been addressed, that I have contracted for. I also understand how my software works, and we are satisfied with the product and that final payment for this Product is due.

***deliverables are included on the attached DVD that is sent with this form**

St. _____ Country Sports Manager

AROBS Transilvania Software
Andrei Schiop, Development Manager

Date: __. __. 2011

Date: 09.20.2011

Recommended Methodology: SCRUM Agile

The Agile Manifesto

We are uncovering better ways of developing software by doing it and helping others do it. Through this work we have come to value:

Individuals and Interactions	over	Processes and Tools
Working Software	over	Comprehensive Documentation
Customer Collaboration	over	Contract Negotiation
Responding to Change	over	Following a Plan

That is, while there is value in the items on the right, we value the items on the left more.

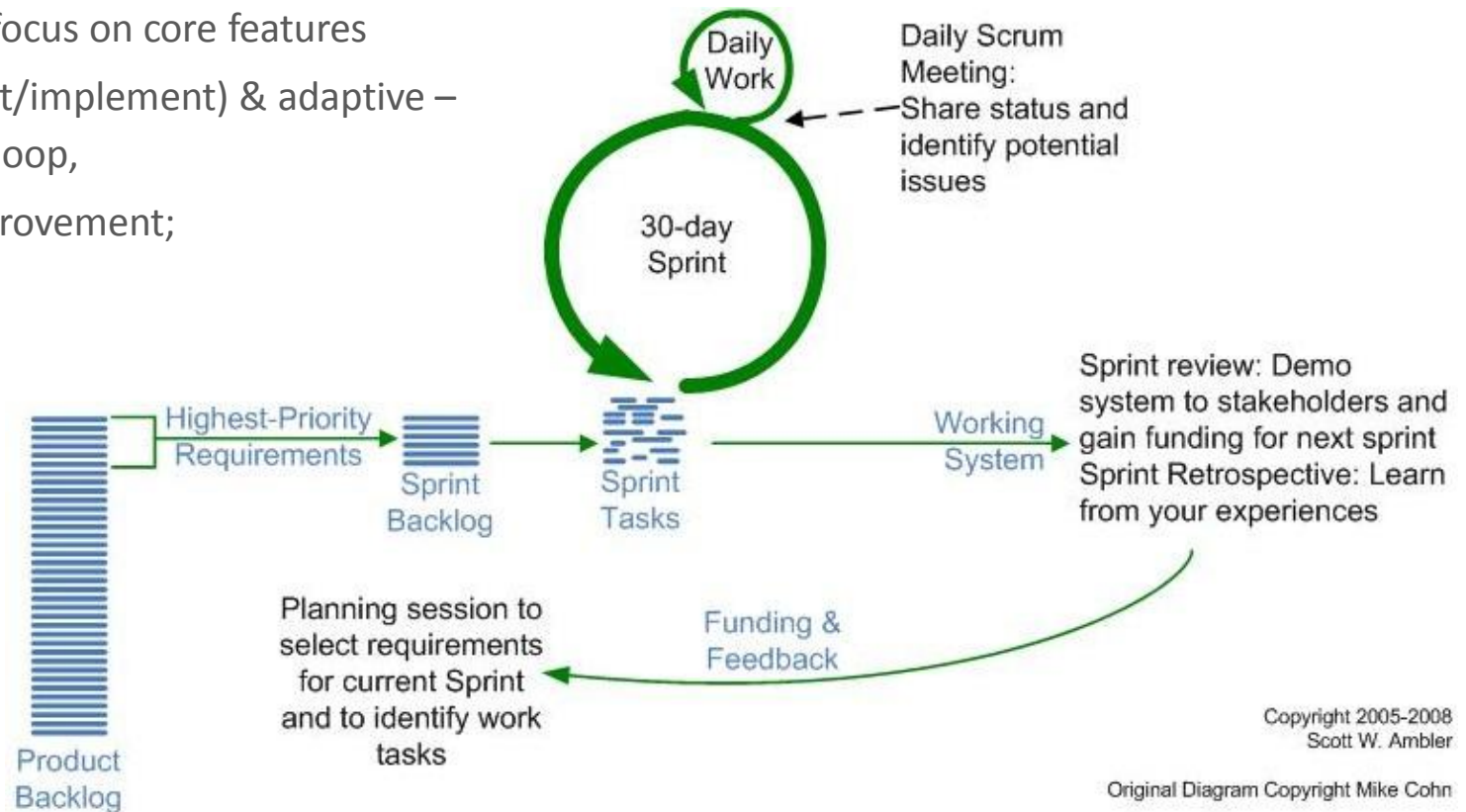
- Development is split into short iterations (2 weeks or more)
- Goals are set at an iteration level (e.g.: features and functions to be implemented)
- Product backlog: the full list of features desired for the product, and put together before starting the development
- Sprint backlog: the part of the product backlog that must be solved during one development iteration
- Sprint Reviews: presentations of results/demos made at the end of each development iteration. Customer checks the results and can spot errors before they would do real damage and cause significant losses

SCRUM Agile – Main Benefits

- The product is allowed to evolve. Usually there is no mandatory list of features that must be implemented except for (maybe) a maximum of 20% of the product backlog.
- Risks are greatly reduced, compared to other methodologies. Sprint Reviews enable error detection at an early stage, eliminating their ripple effect.
- Change management is simple. In the iteration planning stage you can simply replace some requirements with others, provided they are of equal effort.
- Encourages Customer participation in the process

SCRUM Agile – Main Reasons to Adopt It

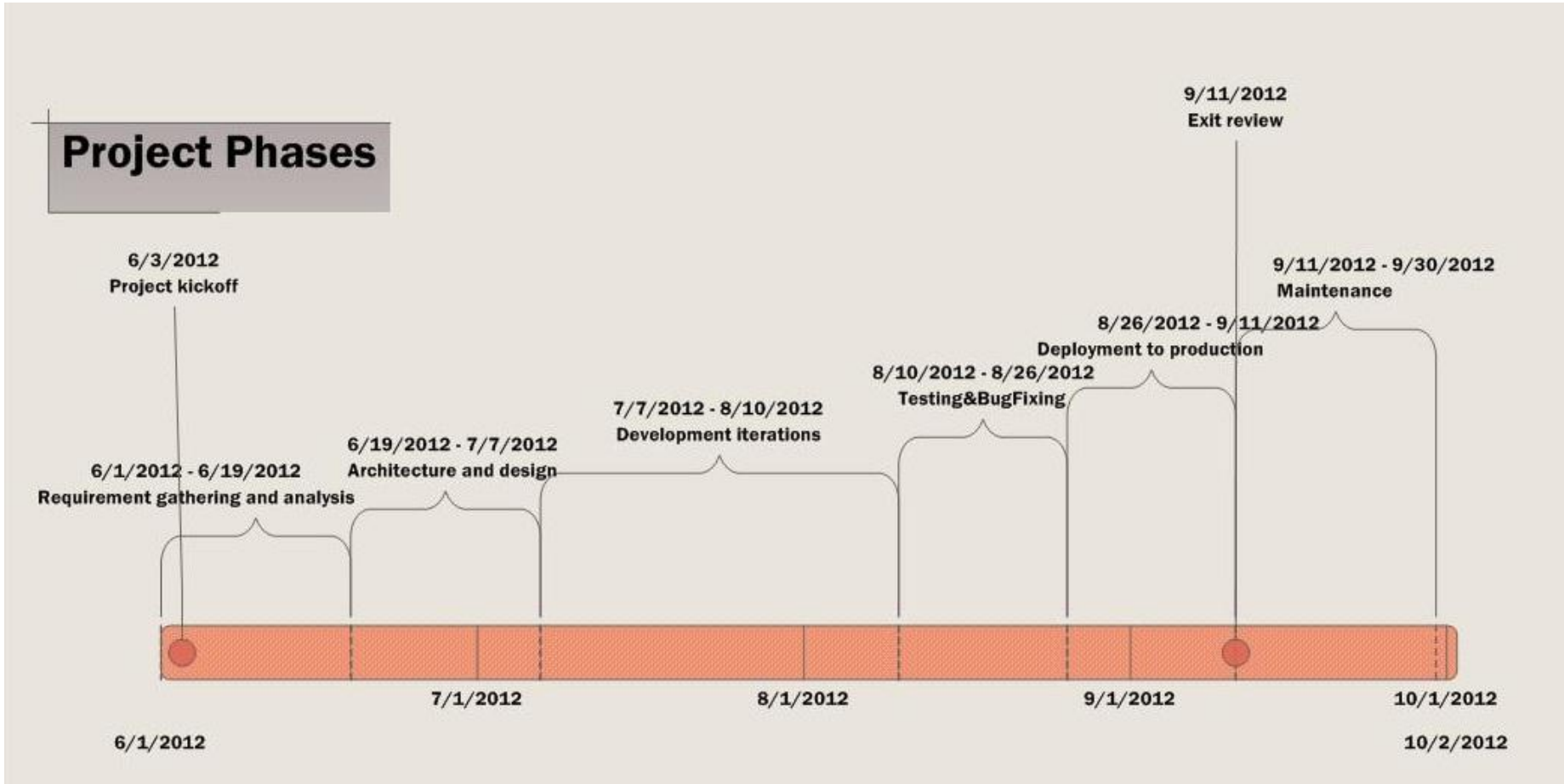
- Highest business value in the shortest time
- Rapidly and repeatedly inspecting actual working software
- Transparency – exposes problems / builds trust
- Prioritization – focus on core features
- Empirical (invent/implement) & adaptive – short feedback loop,
- Continuous improvement;
- Time boxing;
- Face-to-face communication
- Simple tools



Copyright 2005-2008
Scott W. Ambler

Original Diagram Copyright Mike Cohn

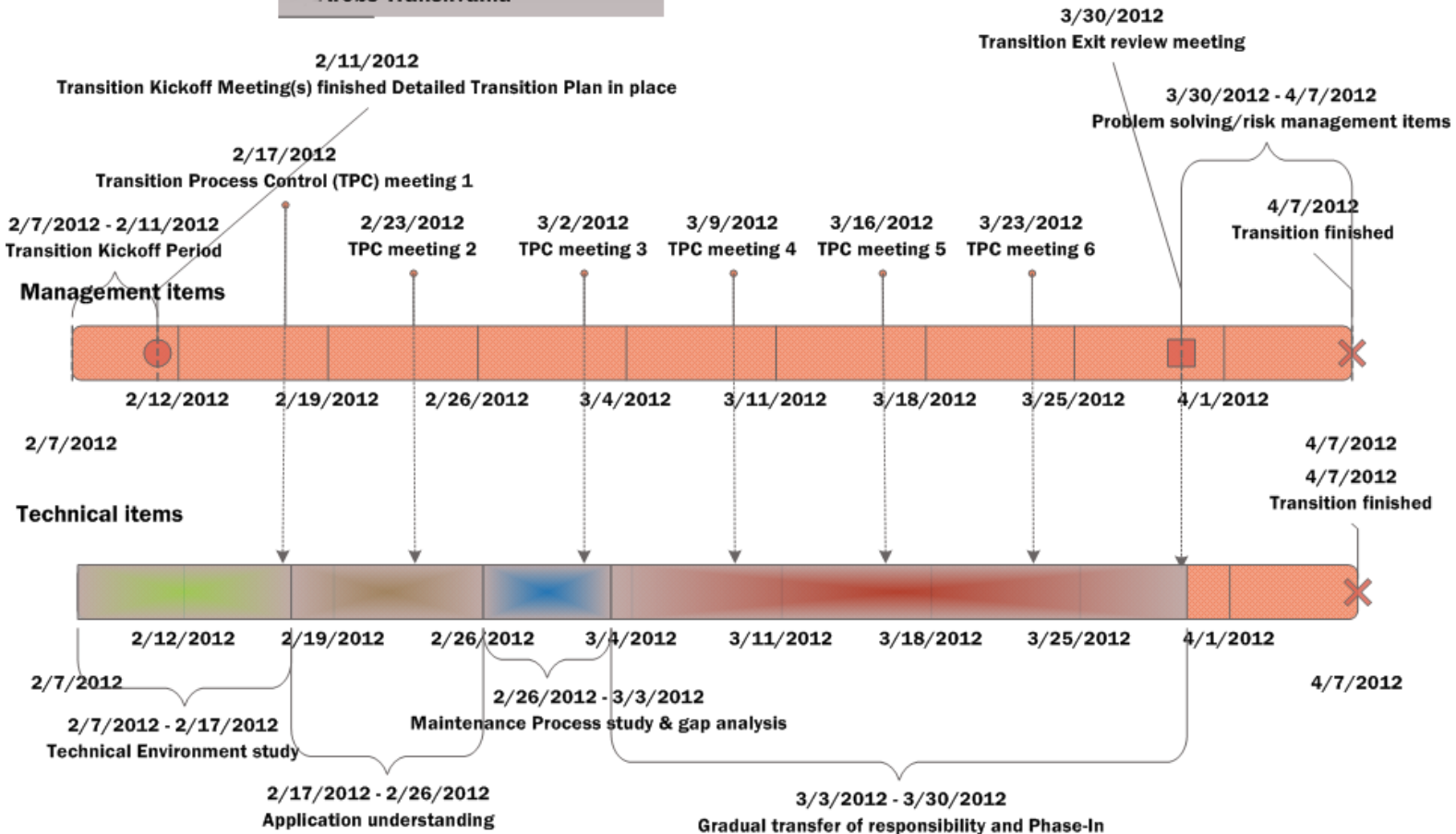
Sample Project Stages (Real Project)



Sample Timeline for Project Migration

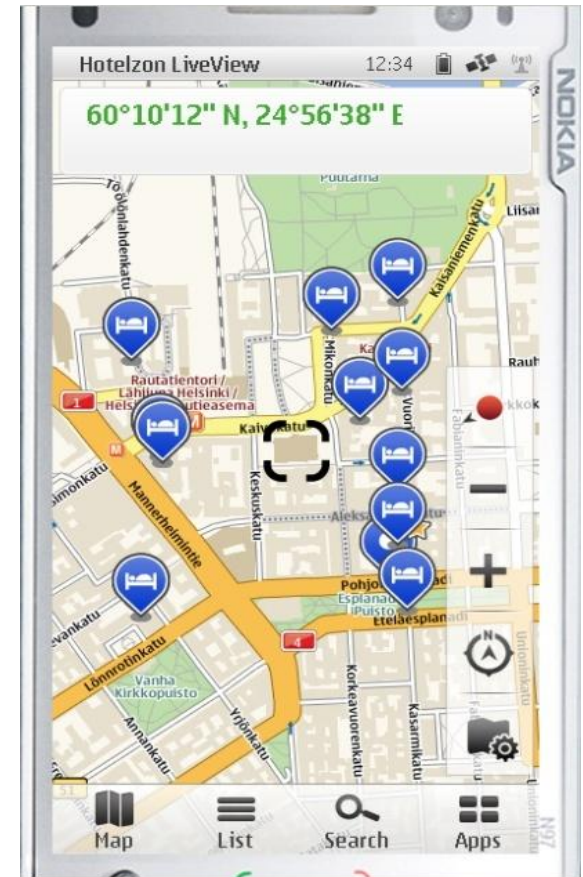
Transfer Timeline

Arobs Transilvania



Success Story – Hotelzon

- HotelZon – Finnish provider of online hotel booking solutions
- Switched to AROBS from an Indian provider
- Gradually increased the allocated team to around 30 people
- Services requested: from requirement definition to testing, customer support, and sales in several languages
- Acquired AROBS shares
- Projects: Web and mobile versions



- Axedo – Swiss company that distributes, manages and offers training courses for innovative high-end human resources management systems.
- Cooperation started about 4 years ago
- Our project: an employee self-service software solution, allowing employees to handle their daily working schedule, trade shifts with other employees and specify holiday preferences, based on a set of rules defined at the company level. Target customers: airline companies, police departments, casino chains
- Gradually increased the team to an average of 5 people (development manager, developers)
- Ongoing partnership – excellent results for both sides

- Wachendorff – German provider of solutions for vehicle operator panels
- Work on centralized control solution for managing various types of accessories attached to the utility vehicle)
- Cooperation started in 2007
- Gradually increased the team to an average of 12 people (development manager, developers, QA)
- Ongoing partnership – excellent results for both sides



Contact Us!

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[Resources on Web Site](#)