



AGRESSO
Quality Assurance

Agresso R&D Quality Assurance



Aim of this document

Agresso R&D follows a Life Cycle Process called Agresso Development Process for running all product developments. This document gives you a description of the Agresso Development Process and aims to illustrate how the process model and the Agresso Team Model are used to ensure the best possible quality on our Agresso Business World products.

Process documentation

All phases, roles, guidelines, templates etc. are extensively documented on our intranet. This document contains excerpts from the existing online interactive visual tour.

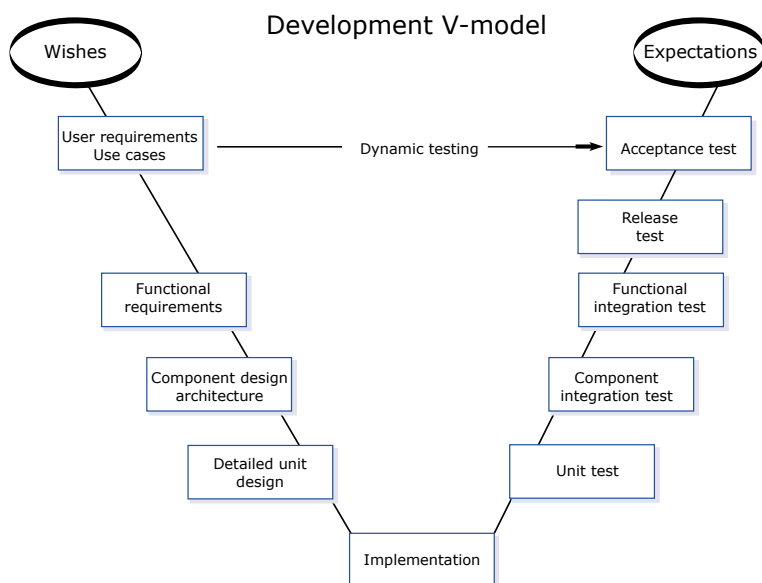
Introduction

The Agresso Development Process (ADP) describes a life cycle that can be used for successful software development. The process model allows a team to respond to customer requests and to change product direction mid-course. The process model can be used to improve project control, minimize risk, improve product quality, and increase development speed. The process is based on Microsoft's Process Model for Application Development. The process is currently undergoing modernization with the Universal Modelling Language (UML) tools for development.

Agresso Development Process

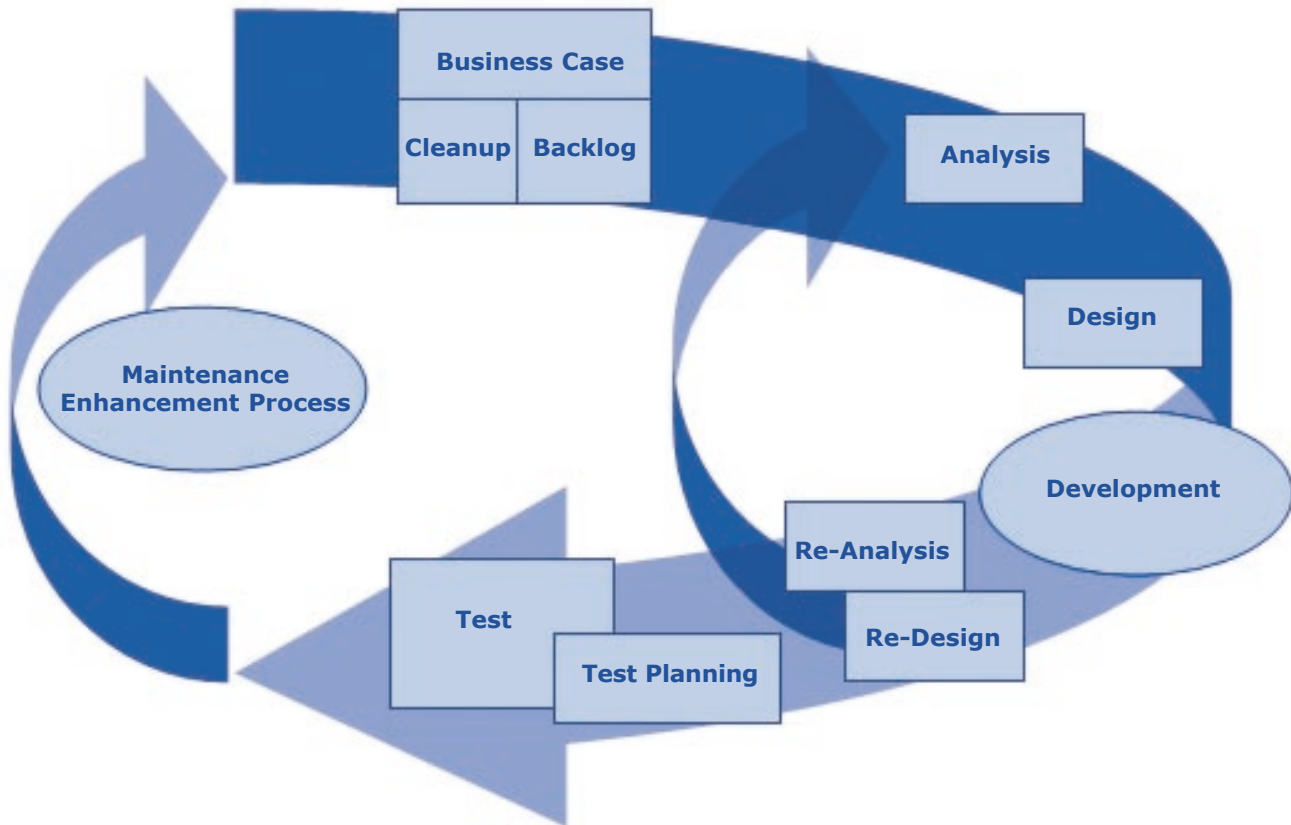
Process Model

Every software development effort goes through a life cycle, a process that includes all activities in the development cycle that take place up to initial release. The main function of a life cycle model is to establish the order in which a project specifies, implements, tests, and performs its activities. The appropriate life cycle model can streamline your project and help ensure that each step moves you closer toward your goal



The illustration above shows how the ADP matches against the traditional waterfall model of development. However, the ADP also uses the spiral model of development, which is iterative, in order to gain the strengths of increased creativity and greater management of risk. Thus, the process model provides the benefits of milestone-based planning from the waterfall model, as well as the iterative creative process from the spiral model. Milestones are review and synchronization points rather than freeze points. They allow the team to adjust the scope of the project to reflect changing customer requirements or to react to risks that may materialize during the course of the project. Each phase of the development process culminates in an externally visible milestone. These milestones are points in time when all team members synchronize their deliverables with each other key project stakeholders.

Agresso Development Cycle



The graphic above illustrates the Agresso Development Cycle.

The Agresso Development Process has the following phases:

Analysis Phase

Once the Envisioning Phase is finished and teams are assigned a vision and resources, some initial analysis must take place to determine what exact features are needed to meet both the business case and the team vision. Detailed feature lists, draft risk analyses and user requirements are the main deliverables of this phase.

Design Phase

Once a team has been through analysis, the next step is describing the features in detail. This occurs by writing functional requirements, system requirements and possibly prototyping. Each team also delivers a Project Plan with Work Breakdown Structure to tasks, assignments and estimates of hours.

Development (iterative) Phase

Each team implements the features planned in the Design phase. A typical development phase is limited to 6 weeks. Within that time, features are developed (programmed) and test plans are written according to the previously written specification. Once any feature becomes testable, it is tested. In this way, design flaws and programming errors can be caught and fixed early. Changes to the specification are allowed as long as the focus remains on the original concept of the feature. The team Project Plan is continually updated and evaluated against the original to decide if the original plan for the next development phase is acceptable or needs changed. Deliverables are the code, test plans, discovered error lists, and user documentation.

ReDesign (iterative) Phase

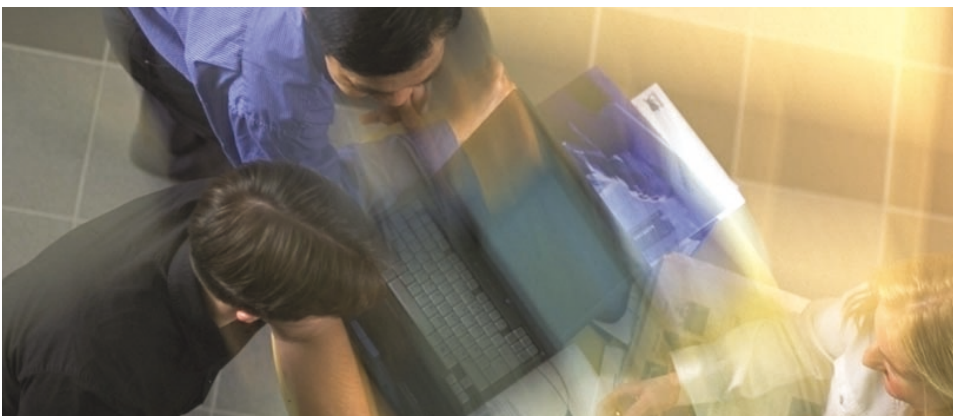
After Development the project team may or may not have a new project plan and a revised feature list. Any specifications for the upcoming phase are to be completed during ReDesign and then presented to the Design board for review. Changes to the Master Schedule should be officially updated and briefed to the Project Board.

Test Phase

Review the quality of the product to be released. This includes volume testing specifically for the portal, functionality testing of the new elements, integration testing of old and new product areas, and installation testing of the master CD. Usability, localization and Help file tests are also accomplished. The Deliverable is a Master CD with known quality.

Maintenance

The main objective in the Support & Maintenance department is to increase the quality of the released versions of the AGRASSO Business World product, and support the Agresso Customer Support departments in Europe and North America. This includes handling reported software problems and preventing errors from occurring.



The Quality Assurance processes within ADP

The specific Quality Assurance processes run in parallel to the development process and from start to finish, from Business Case to Maintenance. Specific areas reviewed are:

- Business Case – to determine market ‘needs’ as focus for new developments
- Risk Analysis – to determine the risks involved with potential new developments
- Specification Reviews – to check specification is complete from user viewpoints and good preplanning of the project has occurred
- Design Reviews – to check specification is complete from functional and technical viewpoints
- Code Standards – documentation of programming routines
- Code Review - buddy system for code audits of new developments
- The ADP Visual Tour

Each of the above phases is illustrated in the online visual tour with its own link.

An example of the Development Phase is shown below

Each of the grey buttons is linked further to the appropriate help, i.e. templates, instructions for use of templates, process descriptions, etc. The coloured buttons link to a special page describing each team member’s role in this phase.

Development phase

Participants	Processes	Templates	Guidelines		
Developer	Development	Project plan	Project tracking	Code reviews	Unit test
Team tester	Programming	Test plan	Code standards	Release notes	Component test
Autotest	Testing	Release notes	Heat usage	Project tracking index	Module design
Group PM	Code review	Project review slides	Source safe routines	Usability test	
Business Manager	Stabilization	Usability test plan			
User Educator				Review boards	
Product Board				Project review	
Release Manager				Team plan review	

Agresso Team Model for application development

The team model for application development describes how teams should structure themselves and what principles they should uphold in order to be successful at developing software. Our model is based on Microsoft's Team Model for Application Development.

The Agresso Team Model for application development is intended to address the issue of how to organise the total available resources in the best possible way to accomplish maximum output and product quality.

All ADP teams have basic members specified by our team model:

- Analyst
- Developer(s)
- Tester
- User Educator

One of these also gets a dual role as Team Leader for administration of the project. The individuals assigned to these Team Roles come from the different departments of Agresso R&D. Thus we have a matrix organization where individuals look to team leaders for assignments and line leaders for personnel issues.

Translation to Project Tracking

Experience is one of the key assets of a software company. Our standard Project Master Schedule represents the knowledge that has been built up over the years. Agresso R&D changes the Project Master Schedule as part of the release evaluation process (what went good and where can we improve).

At the end of the Envisioning Phase of a new project, a Master Schedule has been created and approved by the Product Board with a target release date. The individual development teams then get a chance to analyse and design the planned user requirements at ever more detailed levels. The Master Schedule is then supplemented by individual Project Plans, which are created by each team. The project plans include a work breakdown structure of the feature to be created, the tasks involved, the assignment of tasks and the estimates for how long each task will take. Since the teams themselves develop these plans, they are stakeholders in making achievable goals. A new Product Board reviews the project planning at this stage. Any conflicts between the team project plans and the Master Plan are resolved at this level. This is the point at which Unit 4 Agresso can safely announce the planned release to the public.

