



ANAIS SOFTWARE SERVICES Quality Assurance Plan

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Executive Summary

The purpose of this document is to state the policy of Anais Software Services QA Strategy Policies used in software development.

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Quality Assurance Plan

1. Introduction

1.1 Purpose

The purpose of this document is to state the policy of Anais Software Services Quality Assurance Strategy Policies used in software development. This document addresses to all parts involved: clients, managers, developers, testers and other parts interested in development of a product.

The responsibility of quality process is not only the attribute of QA department but of the whole resources including human resources, material and environmental resources.

1.2 Scope

This document is part of the ANAIS SOFTWARE SERVICES Guidelines and Policies Library therefore must be followed accordingly. Intended audience includes:

1. Customer Representatives
2. Project Managers
3. Quality Assurance Group
4. Developers

The Quality Assurance Manager who is responsible for the integrity of the document must ensure that:

1. The document is produced in a timely manner
2. The document is kept consistent with ANAIS SP

1.3 Definitions, Acronyms and Abbreviations

Term	Definition
QA	"all the planned and systematic activities implemented within the quality system to provide confidence that the project will satisfy the relevant quality standards."
AUP	Anais Software Services Unified Process

1.4 References

IEEE Standard for Software Test Documentation; Approved 16 September 1998, IEEE-SA Standards Board

Key Practices of the Capability Maturity ModelSM, Version 1.1; Mark C. Paulk, Charles V. Weber, Suzanne M. Garcia, Mary Beth Chrissis, Marilyn Bush. February 1993

2. QA Overview

Please notice that, a quality plan that addresses both key project processes and project deliverables must be in conjunction with stakeholders.

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Please notice that “quality” is a subjective term. That is why, together with customer representatives, clear criteria must be established for specifically defining quality at each key checkpoint or for each deliverable.

Roles and responsibilities for the key quality assurance evaluators must also be established with management representatives.

There must be a clear agreement on the points in time that quality reviews will occur and how and to whom findings will be reported.

Anais Software Services will ensure the quality by involving quality resources:

- ***qualitative environment (offices and facilities that will sustain the activity)***
- ***qualitative material resources (computers, communicative tools – phones etc)***
- ***qualitative technologies (software)***
- ***qualitative management***
- ***qualitative human resources – well trained professionals, with certified abilities and competences***
- ***qualitative process – see AUP (Anais Unified Process)***
- ***qualitative management***

3. Quality Objectives

The Quality Assurance Plan describes the strategy and methods Anais Software Services will deploy to ensure that:

- ❖ That the project is being managed, developed, and deployed in a sound, reasonable way.
- ❖ That the project's deliverables are of acceptable quality before they are delivered to the project's clients
- ❖ The AUP is followed
- ❖ Standards (of implementation, coding, testing, communication, etc) agreed with stakeholders are followed.

4. Capability Maturity Model - QA perspective

4.1 Goals

Goal 1 The project's software quality management activities are planned.

Goal 2 Measurable goals for software product quality and their priorities are defined.

Goal 3 Actual progress toward achieving the quality goals for the software products is quantified and managed.

4.2 Commitment to perform

Comm #	Policy	Examples
Comm 1	The project's software quality management activities support the organization's commitment to improve the quality of the	Improvements to the process that increase software product quality are a top priority of the

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software products.	<i>organization.</i>
The project defines and collects the measurements used for software quality management based on the project's defined software process.	
The project defines the quality goals for the software products and monitors its progress towards them.	
Responsibilities for software quality management are defined and assigned to the software engineering group and other software-related groups.	-software quality assurance, -software configuration management - documentation support.

4.3 Ability to perform

Ab #	Ability Description	Indicators	Examples
Ab 1	Adequate resources and funding are provided for managing the quality of the software products.	Specialty engineers in areas such as safety and reliability are available to help set the software quality goals and review progress towards the goals.	
		Tools to support predicting, measuring, tracking and analyzing software quality are made available.	-data collection tools, -database systems, -spreadsheet programs, -software life-cycle simulators, -quantitative analysis tools - code audit tools.
Ab 2	The individuals implementing and supporting software quality management receive required training to perform their activities.	Refer to the Training Program key process area.	-planning quality commitments and goals for the product, -measuring product and process quality -controlling product quality using the defined software process.
Ab 3	The members of the software engineering group and other software-related groups receive required training in software quality management.	Refer to the Training Program key process area.	-understanding the goals and benefits of quantitatively managing product quality, -collecting measurement data, -understanding the quality measurements for the software process and product, and - planning and controlling the quality of the software product.

4.4 Activities performed

Act #	Activity description	Indicators	Examples
Act 1	The project's software quality plan is developed and maintained according to a documented procedure.	An understanding of the software quality needs of the organization, customer, and end users is developed as appropriate.	-surveys, -focus groups, and - product evaluations by users.
		The software quality needs and priorities of the organization, customer, and end user are traceable to the system requirements allocated to software and the software quality goals.	-establishing targets for the number of post-delivery defects -performing predictive exercises as the product matures to assess the likelihood of meeting those goals.
		The capability of the project's defined software process to satisfy the software quality goals is assessed and	Techniques such as Quality Function Deployment and Taguchi's method for robust design can be used to relate the

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		documented.	<i>quality goals of a product to the process capability.</i>
		The software quality plan satisfies the quality plans of the organization, as appropriate.	
		The software quality plan is based on plans for previous or current projects in the organization, as appropriate.	
		The software quality plan is updated at the start of the project, at major project milestones, and whenever the allocated requirements change significantly.	
		The software quality plan undergoes peer review.	
		The software quality plan is reviewed by affected groups and individuals.	<ul style="list-style-type: none"> -the customer, -the end user, -software engineering (including all subgroups, such as software design), -software estimating, -system engineering, -system test, -software quality assurance, -software configuration management, -contract management, and - documentation support.
		Senior management reviews the software quality plans.	
		The software quality plan is managed and controlled.	<i>"Managed and controlled" implies that the version of the work product in use at a given time (past or present) is known (i.e., version control), and changes are incorporated in a controlled manner (i.e., change control).</i>
Act 2	The project's software quality plan is the basis for the project's activities for software quality management.	The points in the process where software quality is measured.	
		The high-leverage quality goals for the software products.	<i>High-leverage quality goals for the software products are those that provide the greatest customer satisfaction at the least cost, or the "must haves" from the customer or end user.</i>
		The actions that the software project will implement to improve on past quality performance.	
		The activities to measure software product quality.	<ul style="list-style-type: none"> -peer reviews, -prototype development, -product simulation -testing.
		Quality goals for software work products, as appropriate.	<ul style="list-style-type: none"> -the characteristics that are planned to be met - the critical characteristics that, if not met, would make the product undesirable or not

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		The actions that will be taken when the software product quality is projected not to meet the quality goals.	<i>needed by the customers or end users.</i>
Act3	The project's quantitative quality goals for the software products are defined, monitored, and revised throughout the software life cycle.	Characteristics of product quality that describe how well the software product will perform or how well it can be developed and maintained are identified.	<i>-functionality, -reliability, -maintainability, and - usability.</i>
		The measurements used to quantify the characteristics of software product quality are identified.	<i>-reviewing prior performance data and customer requirements, -developing prototypes, -expressing intermediate software products in formal representations, -using formal software engineering methods -conducting tests.</i>
		For each characteristic of software product quality, measurable, numeric values, based on the required and desired values, are selected as quality goals for the product.	<i>-the mean time between failure as specified in the requirements, -the mean time between failure that must be achieved (as determined by analysis and experimentation), and - the mean time between failure that is planned to be achieved.</i>
		Quality goals for the software products are documented in the project's software quality plan.	<i>-the characteristics that are planned to be met -the critical characteristics that, if not met, would make the product undesirable or not needed by the customers or end users.</i>
		Quality goals for each software life-cycle stage are defined and documented.	<i>-software requirements, -software design, -coding - software test. -product defects related to each software life-cycle stage will be reduced from the previous product release by some predetermined percentage -a predetermined percentage of predicted defects will be found by the end of the test cycle.</i>
		Quality goals for the software products and software life-cycle stages are revised as understanding of the products and understanding of the organization's, customer's, and end users' needs evolve.	
Act 4	The quality of the project's software products is measured, analyzed, and compared to the products'	The software tasks are planned and performed to address the project's software quality goals. At the beginning of a software task, the team performing the task:	<i>An example of a change is revising a peer review checklist to address defects that have been found to escape peer reviews.</i>

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	quantitative quality goals on an event-driven basis.	<ul style="list-style-type: none"> ▪ reviews the quality goals for the software product, ▪ determines the quality goals applicable to the software task, ▪ identifies its plans to achieve the software quality goals, and ▪ reviews changes made to the process to meet the software quality goals. 	
		The quality of the software work products of each software life-cycle stage are measured.	-peer reviews, -simulation, and -testing.
		The quality measurements are analyzed and compared to the software quality goals to determine whether the quality goals are satisfied.	
		Appropriate actions, consistent with the software quality plan, are taken to bring the quality measures of the products in line with the software quality goals.	
		When it is determined that the software quality goals conflict (that is, one goal cannot be achieved without compromising another goal), actions are taken to resolve the conflict. <ul style="list-style-type: none"> ▪ The cost for achieving the software quality goals is analyzed. ▪ Alternative software quality goals are considered in light of long-term business strategies as well as short-term priorities. ▪ The customer and end users participate in quality tradeoff decisions, as appropriate. ▪ The software work products and plans are revised, as appropriate, to reflect the results of the tradeoffs. 	
Act 5	The software project's quantitative quality goals for the products are allocated appropriately to the subcontractors delivering software products to the project.		<i>Refer Software Subcontract Management key process area.</i>

4.5 Measurement and analysis

Measure#	Measurement description	Examples
M 1	Measurements are made and used to determine the status of the software quality management activities.	-the cost of poor quality -the costs for achieving the quality goals.

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4.6 Verifying implementation

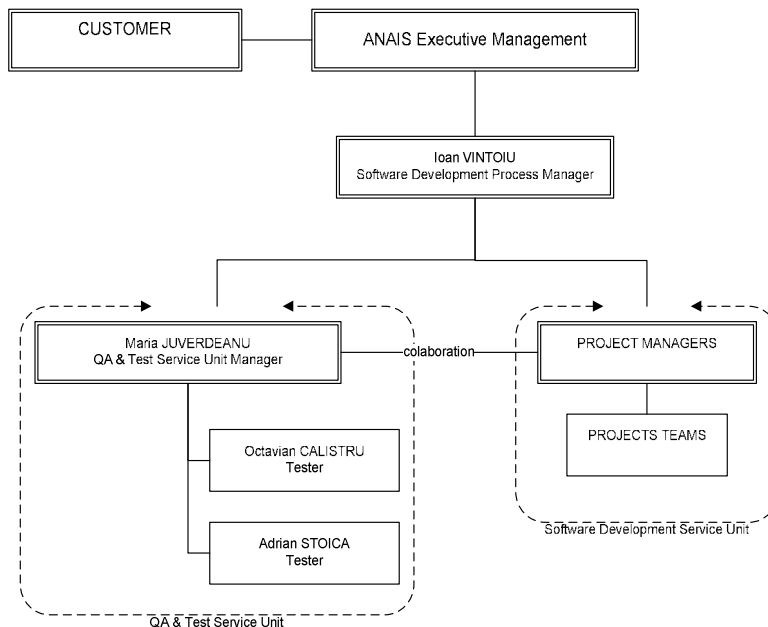
Verif #	Policy	Indicators
Verif 1	The activities for software quality management are reviewed with senior management on a periodic basis.	
Verif 2	The activities for software quality management are reviewed with the project manager on both a periodic and event-driven basis.	
Verif 3	The software quality assurance group reviews and/or audits the activities and work products for software quality management and reports the results.	At a minimum, the reviews and/or audits verify: 1. The preparation of the project's software quality plan. 2. The process for establishing and tracking the software quality goals.

5. Management

5.1 Organization

The QA function will be a separate entity and will maintain independence from the project management by possessing a direct reporting function to the senior management.

This structure will protect the QA team's independence and objectivity concerning the assurance of high-quality, professional products and services. This team is responsible for the development of an QAP that will be used to identify the roles and responsibilities of the members involved in the project: stakeholders, project managers, developers



5.2 Tasks & Responsibilities

The role of the QA team is to assist the technical staff to continually improve the quality of their work products and services.

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The QA team is responsible for establishing processes and procedures that accurately verify and validate the adherence of project to applicable standards, guidelines, and procedures.

The QA team will be involved at the start of the project. They will participate in the development of the Project Management Plan (PMP), also the Phase I Transition Plan to establish their function within the project and to provide input into the project's schedule and work breakdown structure (WBS).

To ensure that QA activities are identified and that time is allotted for QA activities. Funding for the QA team members will be planned within the task hours and cost structure.

The organizational responsibilities as they relate to QA are:

Senior Management

- Provides management support, supervision, and oversight for the QA function
- Ensures the independence of the QA function
- Makes available staff and other resources as needed to support QA
- Ensures resolution of problem and concern issues
- Reviews QA audits and reports

Project managers

- Manages overall performance.
- Ensures QA activities are conducted
- Ensures compliance with the QA program
- Ensures responses to deficiency reports from QA reviews and audits

Quality Assurance Team

- Develops and maintains the Quality Assurance Plan
- Conducts audits and reviews
 - Ensures work products adhere to the appropriate standard
 - Develops audit and review procedures for project activities
 - Ensures the QA processes and procedures adequately control project quality
 - Ensures the QA activities accurately measure the product, service and process quality
 - Reviews and approves specified deliverables for release to customer
 - Promptly reports results of audits to the project task leader
 - Periodically reports unresolved noncompliant items to technical monitor/senior management
 - Maintains an on-going dialogue with the technical monitor and support staff
 - Ensures that the expectations of QA activities are identified and understood between the technical monitor, task leader, and the team members
 - Collects and analyzes metrics produced from the results of the QA process
 - Recommends changes in procedures to improve processes

Technical Staff (Developers)

- Implements task level quality control based on QA standards, policies, and procedures
- Participates in reviews and audits
- Performs corrective actions or process improvements in response to QA findings
- Manages and controls defects/errors and corrections
- Tracks the status of defects/errors until closed

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The effectiveness of the QA team's effort depends on the support and commitment of the technical staff and all levels of management. All affected groups should be trained in the principles of quality assurance and be committed to the proper inclusion and performance of QA activities within their work efforts.

6. Documentation

All required documents for the project will follow the AUP standards concerning content and format. Standards will be identified and followed for all required project documentation.

The activities are to be implemented according to customer requirements. The required documentation is necessary to ensure that activities are planned, monitored and controlled and will be used to verify the adequacy of the actual processes and procedures used to develop and/or deliver products/services.

The following templates will be used:

Analyze and Design

[Template.AND315010.EN.Software Architecture Document](#)

[Template.AND325001.EN.Data Model](#)

Business Modeling

[Template.BUS101001.EN.Target Organization Assessment](#)

[Template.BUS101005.EN.Business Vision](#)

[Template.BUS101010.EN.Business Glossary](#)

[Template.BUS101015.EN.Business Rules](#)

[Template.BUS105001.EN.Business Actor Specifications - Actor Name \(ID\)](#)

[Template.BUS105005.EN.Business Use Case Specification - Use Case Name \(ID\)](#)

[Template.BUS105010.EN.Business Use Case Model](#)

[Template.BUS105045.EN.Business Architecture Document](#)

Configuration Management

[Template.SCM710005.EN.Impact Analysis - Change Request Name \(ID\)](#)

Deployment

[Template.DPL301005.EN.Deployment Model](#)

[Template.DPL615005.EN.Release Notes - \(Release\)](#)

Environment

[Template.ENV20060521.EN.Base Template](#)

Implementation

[Template.IMP405001.EN.Integration Build Plan](#)

Project Management

[Template.PMS805005.EN.Risk List](#)

[Template.PMS805010.EN.Business Case](#)

[Template.PMS810010.EN.Product Acceptance Plan](#)

[Template.PMS810025.EN.Software Development Plan](#)

[Template.PMS810035.EN.Communication Plan](#)

[Template.PMS810040.EN.Roles and Responsibility Matrix](#)

[Template.PMS820001.EN.Iteration Assessment - \(Iteration Name\)](#)

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[Template.PMS825005.EN.Status Assessment \(<Project name>mmdd\)](#)
[Template.PMS825020.EN.Issue Notice](#)
[Template.PMS838.EN.Communication Minutes \(<Project name>.mm.dd\)](#)

Requirements

[Template.REQ201001.EN.Glossary](#)
[Template.REQ201005.EN.Requirements Management Plan](#)
[Template.REQ201020.EN.Use Case Specifications - Use Case Name\(ID\)](#)
[Template.REQ201025.EN.Vision](#)
[Template.REQ201030.EN.Supplementary Specification](#)
[Template.REQ201035.EN.Use Case Model](#)
[Template.REQ210001.EN.Software Requirements Specifications with Use Cases](#)
[Template.REQ210001.EN.Software Requirements Specifications](#)
[Template.REQ210005.EN.Use Case Storyboard - Use Case Name \(ID\)](#)
[Template.REQ210010.EN.Boundary Class Specifications - Class Name \(ID\)](#)
[Template.REQ215001.EN.Requirements Review Record \(<Project name>.mm.dd\)](#)

Test

[Template.TST501001.EN.Test Plan](#)
[Template.TST505001.EN.Test Model - Iteration Name](#)
[Template.TST505005.EN.Test Cases](#)

7. Standards and Guidelines

The [Anais Software Services Document Library](#) contains artifacts templates, and guidelines and policies of ANAIS SOFTWARE SERVICES Software Services.

The folder '[Artifacts Templates](#)' contains the official templates provided for use within any projects developed by ANAIS SOFTWARE SERVICES Software Services.

The folder '[Guidelines and Policies](#)' contains documentation regarding various constraints which must be considered, and guidelines and policies to follow throughout projects lifecycles in ANAIS SOFTWARE SERVICES Software Services.

8. Metrics

8.1 Defect density reports

The defect density will be performed **iteratively** for each version of the project deployed. The computation will follow the JIRA bug reports/per version.

Ex: <Project Name> version <1.0>

- Total number of bugs reported
- Total number of open bugs
- Total number of reopen bugs
- Total number of closed bugs
- Total number of bugs moved to another version

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8.2 Requirement Traceability matrix

Form the quality assurance point of view, this matrix will help in tracing all the requirements that have been implemented, and the ones that where missed in implementation process

Source Artifact	Requirement Description	UC Reference	SRS Reference	Test Case Reference	Vision Reference	Other References or Comments
This column contains a backward reference to appropriate artifact(s) and the specific section from which this requirement was derived.	This column contains either the exact requirement text from the source artifact or shall contain an abbreviated description of the requirement. When deciding whether to break a statement into individual requirements, the analyst should consider how the requirement would be tested. If the requirement will be tested by a single test procedure, then the requirement probably does not need to be broken down further. If the requirement will be tested by multiple test procedures, then the requirement should be broken down into multiple requirements.	This column shall contain a forward reference to the Use Case Specifications, Use Case Model or Software Requirements Specifications and a requirement identifier within the document. All software requirements must be mapped to one or more section(s).	This column shall contain a forward reference to the Supplementary Specifications or Software Requirements Specifications and a requirement identifier within the document. All software requirements must be mapped to one or more section(s).	This column shall contain a forward reference to the Test Case Specification, Test Plan, or Unit Test Case and a requirement identifier within the document. All software requirements must be mapped to one or more section(s).	This column shall contain a forward reference to the Vision, or Business Rules and a requirement identifier within the document. All software requirements must be mapped to one or more section(s).	This column will provide references to other documents or free-form comments as necessary.

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From a QA point of view, requirements must follow the indicators described below:

Statement Quality Indicators

- Imperatives
- Continuances
- Directives
- Options
- Weak Phrases

Document Quality Indicators

- Format, Structure, and Size
- Readability

8.3 Customer satisfaction.

Satisfaction with the overall quality of the product and its specific dimensions is usually obtained through various methods of customer surveys.

Customer satisfaction is often measured by customer survey data via the five-point scale:

- Very satisfied
- Satisfied
- Neutral
- Dissatisfied
- Very dissatisfied.

9. Review and Audit Plan

Different methods and techniques will be utilized depending on the specific quality assurance activity. The techniques, tools, and procedures that will be used are as follows:

- **Walkthroughs** - Formal or informal, structured walkthroughs are used for orientation, examining promising ideas, identifying defects or errors, and improving products at any stage in the process.
- **Reviews** - An independent evaluation of an activity or process to assess compliance with the project plan; or to examine products or processes against quality factors through the use of checklists, interviews, and meetings.
- **Audits** - An independent examination of a work product or process to determine compliance with specifications, standards, contractual agreements, or other preestablished criteria.
- **Evaluations** - An evaluation activity that examines products/services to determine compliance to customer requirements.
- **Process Improvement** - A process improvement program designed to reduce the error rate in a process.

Quality Assurance will provide an independent review of the processes used at key check points. These reviews will seek to identify risks early, and will simplify monitoring and managing problem areas throughout the project. Due to the dynamic nature of activities and the need to provide quick response requests, the QA team and the technical monitor will identify the sign-off points at key check points of an activity to ensure that expressed goals and requirements are met.

9.1 Walkthrough Procedure

Walkthroughs are beneficial for evaluating plans, documentation and other deliverables and serve to orient staff members to new technology products and services. Walkthroughs will be conducted internally

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and on an as-needed basis. They will be used to:

- Present plans, documentation, or other deliverables for review and approval.
- Review material in the preparation stages.
- Critique and report quality deficiencies of plans, processes, and procedures.

Walkthroughs will be scheduled early enough to allow for revisions if problems are identified. Records of these walkthroughs will be maintained, along with issues that were identified and resulting action to be taken. Issues can be accepted “as is” or may require more work. If further discussion on the issue is required, additional walkthroughs can be scheduled.

9.2 Review Process

Reviews are important to assess compliance with a project plan. Specifically, the review process examines products/services from the context of quality factors. Quality factors are categories of product/service attributes. Examples of quality factors include:

- **Correctness** - The extent to which a product/service satisfies the customer requirements and the stated objectives.
- **Timeliness** - The product/service is provided when needed to the customer.
- **Reliability** - The extent to which a product functions accurately or service is provided on a consistent basis.
- **Productivity** - The amount of resources to correctly produce the product or deliver the service, including the relationship between the amount of time needed to accomplish work and the effort expended.

9.2.1 Review Procedures

The QA team will plan and conduct a review according to accepted practices and standards. A typical review procedure includes:

1. Identify reviews in the WBS and project schedule
2. Verify correct review procedures are in place
3. Document review results against quality factors
 - 3.1 Verify product/service traceability, if applicable
 - 3.2 Verify product/service against contractual requirements
 - 3.3 Verify product/service against standards and procedures
4. Validate corrections by scheduling follow-up actions and reviews
5. Verify that defects or errors are tracked to closure
6. Document review results against product validation information
7. Summarize review findings for other technical groups/organizations (e.g., network engineering)
8. Enhance review procedures

9.3 Audit Process

The QA representatives are responsible for conducting product/service and process audits. The purpose

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of audits is to identify deviations in process performance, identify noncompliance items that cannot be resolved at the technical support or project management level, to validate process improvement/corrective action achievements, and to provide relevant reports to all management levels.

A product audit is an independent examination of work product(s) to assess compliance with specifications, standards, customer requirements, or other criteria. Product audits are used to verify that the product was evaluated before it was delivered to the customer, that it was evaluated against applicable standards, procedures, or other requirements, that deviations are identified, documented, and tracked to closure and to verify corrections. (IEEE STD 610)

A process audit is a systematic and independent examination, to determine whether quality activities and related results comply with planned arrangements. And whether these arrangements are implemented effectively and are suitable to achieve objectives. (ISO 2000)

The QA team will perform the following activities when conducting an audit:

- Define the scope and purpose of the audit within the audit plan.
- Prepare audit procedures and checklists for the audit.
- Examine evidence of implementation and controls.
- Interview personnel to learn the status and functions of the processes and the status of the products.
- Discuss findings with the technical staff and task leader.
- Prepare and submit an audit report to technical monitor/senior management
- Refer unresolved deviations to technical monitor/senior management for resolution.

9.3.1 Audit Procedures

A typical audit would include the following steps:

1. Clearly understand and adhere to the audit scope
2. Conduct preparation meetings in advance of the audit. (Define areas to be reviewed. Define review criteria.)
3. Conduct an overview meeting in advance of the audit
4. Understanding of organization, products, and processes.
5. Conduct the planned meetings, interviews, samples, etc.
6. Review the preliminary findings internally with the audit team.
7. Verify and classify findings from the audit.
8. Validate audit findings with the audit recipient.
9. Prepare the audit report for the audit client.
10. Provide recommendations on request only.
11. Follow-up on corrective action/process improvement.
12. Improve the audit process.

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An audit is considered complete when:

- Each element within the scope of the audit has been examined.
- Findings have been presented to the audited organization.
- Response to draft findings have been received and evaluated.
- Final findings have been formally presented to the audited organization and initiating entity.
- The audit report has been prepared and submitted to recipients designated in the audit plan.
- Document audit findings and recommendations and report to Project Manager.
- The recommendation report, if required by the plan, has been prepared and submitted to recipients designated in the audit plan.
- All of the auditing organization's follow-up actions included in the scope of the audit have been performed.

9.4 Process Improvement

The QA team is responsible for process improvement. Process improvement is successful when an effective process emerges or evolves that can be characterized as: practiced, documented, enforced, trained, measured, and improvable.

A corrective action plan must be developed when a deficiency in the process is detected. Corrective action should prevent the problem from recurring.

Successive steps for implementing a process improvement approach are:

1. Detection of quality-related problems
2. Identification of responsibility
3. Evaluation of importance
4. Investigation of possible causes
5. Analysis of problem
6. Preventive action
7. Process controls
8. Disposition of nonconforming items
9. Permanent changes

The QA team will analyze the results of their findings in relation to the results of documented processes used to produce products or services. This comparison will be used to determine which process may need improvement and to determine the effectiveness of changes to the processes. This comparison will also be used to identify best practices that should be continued or implemented at other sites.

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10. Evaluation and Test

9.1. Evaluation Process

Evaluations examine the activities used to develop/deliver products and services, ultimately determining if the activity is fulfilling requirements.

The QA function establishes criteria for an evaluation, verifies the process has been performed, and collects the metrics to describe the actual results of those activities.

The main activities and test strategies used to ensure the quality of the process and of the product will be outlined in the [Test Plan](#)

9.2. Testing in Anais Software Services Software Services

Anais Software Services Software Services is determined to invest in testing and quality assurance of its software products delivered therefore usually the testing will accounts for 10% to 40% percent of software development. Well-performed tests, initiated early in the software lifecycle, will significantly lower the cost of completing and maintaining the software. It will also greatly reduce the risks or liabilities associated with deploying poor quality software, such as poor user productivity, data entry and calculation errors, and unacceptable functional behavior.

From Anais Software Services Software Services point of view, testing is the process (i.e. activities, workers, and materials) used to identify the correctness, completeness, and quality for a developed piece of software. In other words testing is "the process of questioning a product in order to evaluate it", where the "questions" are things the tester tries to do with the product, and the product answers with its behavior in reaction to the probing of the tester.

The ways in which Anais Software Services Software Services will perform tests, is described in each project's Test Plan and will depend on several factors:

1. Application domain
2. Project's budget
3. Risk tolerance defined for the project
4. Project's team

11. Tools, Techniques and Methodologies

JIRA

12. Configuration Management

[Template.SCM710005.EN.Impact Analysis - Change Request Name \(ID\)](#)

13. Quality Records

The quality records will be traced in **Status assessment** and **Iteration** assessment documents
The client will have to perform the **Acceptance plan** and to provide feedback.

The following documents should be included in deliverables documents:

- a) Test plan;

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- b) Test design specifications;
- c) Test case specifications;
- d) Test procedure specifications;
- e) Test item transmittal reports;
- f) Test logs;
- g) Test incident reports;
- h) Test summary reports.

14. Risk Management

The Risk management will be performed by project managers according to [ANAIS SOFTWARE SERVICES - Risk Management Guidelines](#)

The purpose of [Template.PMS805005.EN.Risk List](#) document is to sort all the risks identified, analyzed, and prioritized for the project developed. In addition, the document contains, for each risk identified, the appropriate management strategy.

Not taking into consideration the risks, means that the quality of process and product can be affected and all measures taken so far become useless.

Also the risks must respect the reporting method proposed by Anais Software Services in order to ensure a good management and resolution.

Example:

RS-02-0005: Lack of clear specification mean overrun budget

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15. Appendix A - Document Control

15.1 A.1 Document Status

Status:		Copyright:	©2007 ANAIS Software Services		
Owner:	Maria Juverdeanu	E-mail:			
Prepared by:	Maria Juverdeanu				
Created at:	September 21, 2006 4:44 PM	Project:	<Project Name>		
Modified at:	September 27, 2006 2:54 PM	Modified by:	Maria		
Category:					
Pages:	21	Revision:	66	Time:	810
Change Control Procedures:					

Submit changes:

1. Activate Track Changes by selecting Tools->Track Changes (CTRL+SHIFT+E)
2. Perform changes on the document
3. Before saving the document update the Revision History
4. Change comments to PROGRESS or REVIEW
5. Update automated fields by selecting Edit->Select All (CTRL+A) and pressing F9
6. Update the version number at the beginning of the document (the same as in Revision History)
7. Save the document into the project documentation workspace
8. Notify interested parties for review and approval

Review and approve changes:

1. Activate Reviewing tool bar by selecting View->Toolbars->Reviewing (CTRL+SHIFT+E)
2. Accept or Reject Changes
3. Before saving the document update the Revision History
4. Change comments to REVIEW or APPROVED
5. Update automated fields by selecting Edit->Select All (CTRL+A) and pressing F9
6. Update the version number at the beginning of the document (the same as in Revision History)
7. Save the document into the project documentation workspace
8. Notify interested parties about the review

15.2 A.2 Document Version Control

Revision History			
Date	Version	Description	Author(s)
9/26/2006	1.0	Creating the document	Maria Juverdeanu

15.3 A.3 Document Approvals

Approved by:

Client Sponsor

Project Sponsor

Project Manager