# USAGE OF CONTEMPORARY METHODOLOGY IN IMPLEMENTATION OF RESOURCE MANAGEMENT INFORMATION SYSTEM IN ALBANIAN STATE POLICE

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*Project Background*

On their way to the European Union structures for Albanian governmental institutions it is extremely crucial to improve the management procedures in order to make progress towards European standards and achieve the relevant level of operational efficiency and transparency. Bearing this in mind the Government of Albania has adopted a comprehensive policy reform program to strengthen Albania institutional and governance capacity. A major element of this program involves the strengthening of the Albanian State Police, which was initiated in 1998 by adapting of the Total Information Management System initiative. Acquiring a tool for an effective resource management processes seems to be the consecutive step towards creation of a modern police force modeled after best European standards. As it regards organization of resource management procedures within Albanian State Police, they are controlled by the Ministry of Interior, but it the long-term perspective ASP will be given the power to manage independently its financial and material resources in order to enhance its autonomy and to minimize the risk of political interference. Until the reform process is completed, it is essential to ensure the improvement of resource management, since it will guarantee the continuity and effectiveness of the desired changes. Also, the Ministry of Interior (MoI) and Albanian State Police (ASP) do not have an integrated system for human, financial and material resources management. Almost all information is recorded manually in registers in separate offices centrally as well as in respective regional ASP Directorates / Commissariats. The decision making processes are therefore slow and inefficient since it is impossible to extract the essential detailed and comprehensive information and then to analyze those data in a timely manner, which in effect leads to the costly and inefficient management.

## Project objectives

Resource Management Information System (RMIS) project is intended to "enhance the capacity of the Albanian State Police to manage its human, financial and material resources in a modern, efficient and transparent manner, thus contributing to the development of the institution and the improvement of its overall performance" and thereby significantly reduce the backlogs in information and data flow by development and implementation of RMIS, which includes development of: 1.Human Resources system; 2.Assets and Logistics Management system; 3.Finance and Budgeting system;4.their implementation, configuration, integration, start up operation, user training, deployment, provision of after-sales support and finally production and delivery of all associated documentation such as Software specification, system document, user manuals and training materials/tutorials.

## Project results

Project expected results to be achieved in the course of the project include: 1.The delivery of the fully operational resource management information system composed of human resources, finance and budgeting; 2.Logistics-inventory-warehouse management and information knowledge inventory modules, including RDBMS and development tolls; 3. Training of the ASP technical personnel to be able to support and maintain RMIS and all components required for its operation; 4. Delivery of the Train-the-trainers training to ASP personnel and scheduling and follow up of end-user training; 5. Provision of the warranty and support services.

By the end of the project, complex RMIS is designed, developed and implemented. The system is developed and customized based on Oracle E-Business Suite application software and standard Oracle development tools.

## Methodology

"*A methodology is a set of guidelines or principles that can be tailored and applied to a specific situation.*"

### Application Implementation Method

In order to perform a successful implementation it is followed the Oracle-recommended metodology: "Application Implementation Method"

(AIM), a method to manage and guide Oracle Applications projects. This comprehensive and scalable method is designed to support the efficient implementation of applications. With predefined process work flows and software templates for rapidly creating project deliverables, AIM's structured approach tailors the project to the ASP's unique requirements. From defining mission and strategy to going live, AIM encompasses all essential project steps to minimize risk and facilitate a fast, high-quality implementation.

**Overview**

Implementing mission-critical applications is a complex and highly challenging task. Within this structured framework, however, the method must be flexible enough for the implementation effort to be tailored to the specific and unique needs of the organization. Oracle's Application Implementation Method (AIM Advantage) is a proven, flexible and scalable process and toolkit. AIM meets the demand for quicker, more efficient business system implementations. While traditional implementations make it difficult to realize business benefits quickly, the use of AIM's core and optional tasks automatically define the fastest route by focusing on those tasks that are most relevant to the implementation. By eliminating any unnecessary tasks from the project, the implementation timeframe is reduced. In addition, AIM addresses numerous business issues that organizations currently experience such as: 1. New chart of accounts to meet changing business needs — AIM provides instructions to guide the project team through the simple setup of the new chart of accounts; 2.Applying new technology/processes to gain tangible business benefits — AIM addresses the need to move up to web-based applications as well as new customer facing systems and processes and provides guidance for implementing these new technologies; 3.Replacing existing system — AIM provides directions on how to rapidly implement a new system that will expand as the organization expands; 4.Updating business processes — AIM provides the ability to restructure current business processes to make them more aligned with leading practices; 5.Managing change — AIM addresses the fact that this may be an  organization's first implementation and some users may be hesitant or anxious about the new system; specific tasks in AIM guide the organization through change management activities; 6.Inability to adjust to

organizational changes — AIM will accommodate setup of new organizational structures brought about by reorganizations and acquisitions; 7.Obtaining business intelligence — AIM has specific tasks that guide the organization through the construction of application extensions in order to capture the right management information.

**Benefits of AIM Advantage**

When facing the challenge of implementing new business applications, the goal is to achieve a balance between time, quality and cost. AIM Advantage supports this effort by providing an approach that is: Fast, High Quality, Promotes User Acceptance and Cost Effective. AIM Advantage offers a method proven by thousands of successful implementations. It meets the demand for quicker, more efficient business system implementations by eliminating any unnecessary tasks from the project plan and reducing the implementation timeframe.   AIM Advantage includes a set of deliverable templates, project workplans and detailed tasks so there is no need to reinvent the wheel. All of these features combine to support a rapid implementation. AIM Advantage builds quality control checkpoints into the project.   Periodic management reviews and acceptance points ensure that implementation efforts stay aligned with the project plan and the organization's business objectives. Through its integration with Oracle's Project Management Method (PJM), AIM Advantage provides complete guidance for the project manager. AIM Advantage includes organizational change management processes to facilitate communication, learning and process adoption throughout the organization. The benefit to the organization is a solution that encompasses people, business processes and technology requirements. AIM Advantage eliminates common implementation errors from the implementation. All implementation team members, regardless of the level of experience, have a roadmap for performing their particular tasks. AIM Advantage helps each team member clearly understand the implementation process and their role on the team. The result is that time and budget are not wasted on unnecessary tasks.

## Key Features

AIM Advantage was developed with the following key features: 1.Flexibility; 2. Scalability;3.Structured Framework; 4.Leading-Edge Technology; 5.Integration with Other Oracle Methods and Offerings. This approach will enable to fulfil the overall objective of the ASP - which is to enhance the capacity of the ASP to manage it's resources in a modern, efficient and transparent manner improving the general performance of the organization. The delivered solution has been flexible, scalable and based on leading edge technology, enabling the ASP to efficiently manage the Human Resources, Assets, Logistics, Finance and Budgeting. The system is based on the world class solution of Oracle Corporation, delivered by a well known vendor, customized and delivered by experienced consultants with close assistance of the software producer.

## Flexibility

AIM Advantage is flexible because it allows the organization to either use a pre-packaged approach or develop a tailored approach based upon the size and complexity of the proposed implementation and the organization's unique requirements. AIM provides specific guidelines to assist in determining which approach is appropriate. A pre-packaged approach is a set of predefined activities using AIM Advantage tasks and deliverables.These pre-packaged approaches may be part of the FastForward or Oracle Point Solutions families of approaches and are typical of smaller, less complex implementations with no or few custom developed extensions and interfaces.  A tailored approach allows an organization to have maximum flexibility and extensibility in implementing Oracle Applications.

## Scalability

AIM Advantage was designed with scalability in mind. From the largest, multi-national, multi-site, multi-entity projects, to the smallest, limited size, constrained scope projects — AIM Advantage provides the scalability required by each unique project. AIM identifies implementation tasks and task steps as either core or optional. A foundation of core tasks defines the minimum set of steps necessary to implement Oracle Applications. Task selection guidelines assist in determining which optional tasks to include in the project plan. This

greatly reduces the complexity for the project management team in planning the work effort required for the implementation.

The diagram below illustrates the relationship between core and optional tasks.
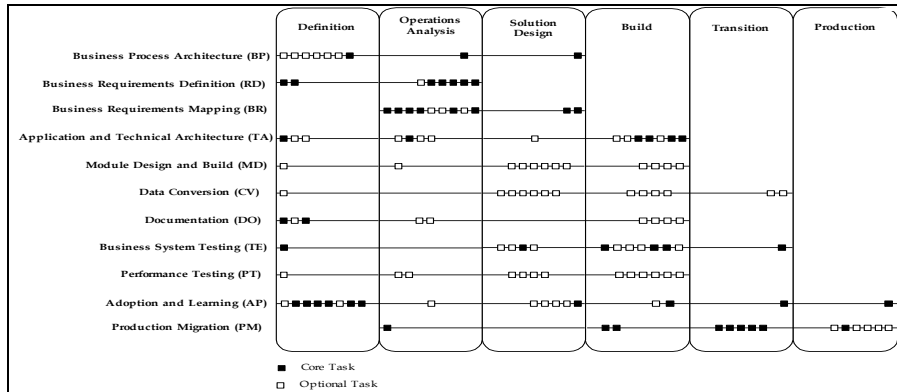


Figure 1 Core and Optional Tasks Diagram

The project processes named in the abovementioned chart are as follows:

Business Process Architecture (BP) - *addresses understanding of the ASP business processes and aligns them with the business requirements and applications to be implemented.*

**Business Requirements Definition (RD)-**defines the business needs that must be met for the successful implementation of the application and technical suite.

**Business Requirements Mapping (BR)**-validates that an acceptable and feasible solution to business requirements is developed and documented.

**Application and Technical Architecture (TA)**-the project team designs information systems architecture around ASP business vision.

**Module Design and Build (MD)**-produces custom application extensions to fill gaps in functionality identified during Business Requirements Mapping.

**Data Conversion (CV)-**defines the tasks and deliverables required to convert legacy data to the Oracle Application tables. The objective of the Data Conversion process is to convert and test all legacy data that is available, feasible to obtain, and necessary for the operation of the new application.

**Documentation (DO)**-begins with documentation standards created early in the project to build quality operations support reference materials.

**Business System Testing (TE)**-is a formal, integrated approach to testing the quality of all application system elements.

**Performance Testing (PT)**-helps the project team define, build, and execute a performance test on a specific performance system.

**Adoption and Learning (AP)**-accelerates the implementation project team's ability to work together through team building and organization-specific application learning

**Production Migration (PM)-** the objective is to migrate the company, systems, and people to the new enterprise system.

**Structured Framework**

AIM Advantage uses project phasing to include quality and control checkpoints and allow coordination of project activities throughout the implementation. During a project phase, the project team will execute tasks in several processes.
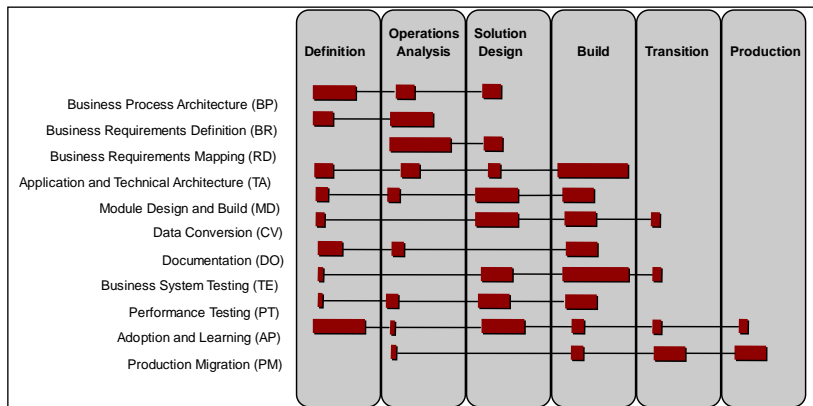


Figure 2. The Application Implementation Method Process and Phase Overview

**Leading-Edge Technology**

AIM Advantage is updatable from the World-Wide-Web, making support for new AIM Advantage offerings from Oracle and Oracle's business partners only a mouse-click away.

**Integration with Other Oracle Methods and Offerings**

AIM also includes information about when to consider using other Oracle methods and offerings. Over 40 task-level references in AIM tell the project team when to consider using other Oracle Accelerators™ such as:

1.Oracle Tutor; 2.Application Implementation Wizard (AIW);3.Learning Needs

Assessment (LNA); 4.Custom Development Method (CDM);5.Oracle Business Models (OBM); 6.Solution Value Assessment (SVA);7.Data Warehouse Method (DWM)

**Project Phases for Control**

AIM splits the project lifecycle into six phases that include quality and control checkpoints and allow coordination of project activities that have a common goal.During a project phase, the project team will execute tasks in several processes.Unlike other methods, AIM does not use a waterfall approach. Therefore, quality is built in from the project's inception as prototyping occurs throughout each phase.

Figure 3 illustrates the relationship between the six phases and the eleven processes.
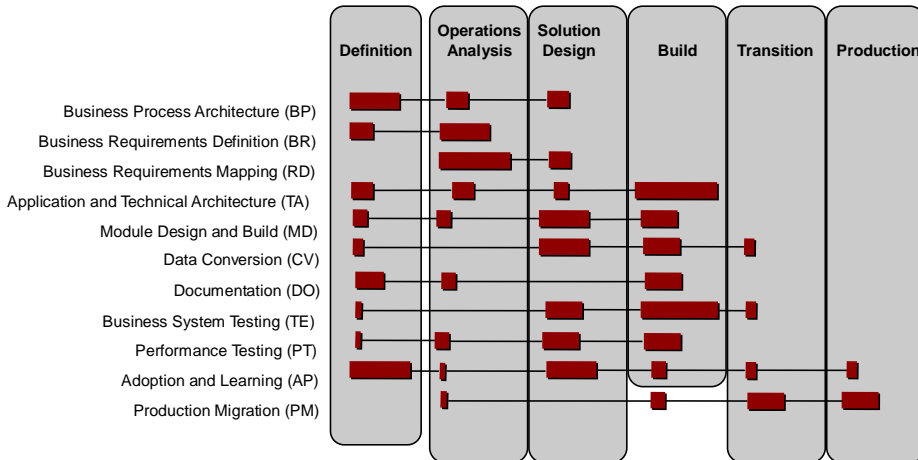


Figure 3. The Application Implementation Method Process and Phase Overview

Below is a description of the six phases that are part of the AIM Foundation:

**Definition**

During Definition, the implementation project is planned.  The goals are to plan the project, review the organization's business objectives, and evaluate the feasibility of meeting those objectives under time, resource and budget constraints. In addition, the project team is organized and oriented and a learning plan is developed. Also during the Definition phase the project team: 1. Creates the

infrastructure to support ongoing project activities; 2.Develops architectural, conversion, and performance testing strategies, objectives, and approach; and 3. Performs baselining and process modeling.

## Operations Analysis

During the Operations Analysis phase, the project team collects management, technical, and end-user business process information and requirements. The project team develops business requirements scenarios that are used to assess the level of fit between the detailed business requirements and standard application functionality. Proposed solutions for gaps evolve into detailed designs during Solution Design.The project team creates a model for the application structure and suggests an overall technical architecture.

This model: 1.Proposes how the business and integration requirements fit within the application architecture; 2.Identifies the high-level hardware, software, and communications components recommended by the technical architecture to support the future business system; 3.Develops solution alternatives and estimates; 4.Develops a transition strategy for migrating the ASP from the current to the future system environment; and 5.Defines performance testing procedures for the new system. During this phase, communication occurs with middle and first line managers who are not on the project team to prepare them for their role in a successful implementation.

## Solution Design

The goal of Solution Design is to create the optimal business process solution to meet ASP future business requirements. During Solution Design, project team members create detailed narratives of processes that were determined by matching application features to business requirements during Operations Analysis. To design effective business processes the project team: a) Designs business and application configuration options; b) Evaluates, models and designs custom extensions; c) Designs interfaces and conversion; d) Identifies process and organizational changes required for implementation.

## Build

During the Build phase, the development team codes and tests all custom extensions including enhancements, conversions, and interfaces. The major activities include: 1. Development and unit-test of program modules; 2.Integration testing to legacy and new systems; 3. Planning, setup and conduct of business system tests; 4. Development and execution of performance tests; 5. Revision of code and configuration as a result of testing.

## Transition

During transition, the project team deploys the finished application into the organization.Transition depends on the Build phase for the fully tested business system. It is within transition that: a) Applications and extensions are implemented in the production environment; b) Data conversion is fully executed into a live system; c) Documentation is used to train end users and support staff; d) Production readiness check is conducted. Transition is a demanding experience for the project team and, in particular, for the end users who have to maintain exposure to two systems until production is declared. Preparation and advance planning facilitates the transition process. If a phased deployment is being employed, Transition may consist of multiple deployments where subsets of the applications may be deployed to various geographical sites at different times.

## Production

The Production phase starts immediately with the production cutover. Production marks the last phase of the implementation and the beginning of the system support cycle. Included in this final phase is a series of refinement and measurement activities. The Information Systems (IS) personnel work quickly to stabilize the system and begin regular maintenance. They provide ongoing support to the organization for the remaining life of the system.

## Project Processes for Continuity

All Application Implementation Method (AIM) tasks are organized into *processes* that group related tasks together. Project team members are assigned to these groupings according to their specialization and background.

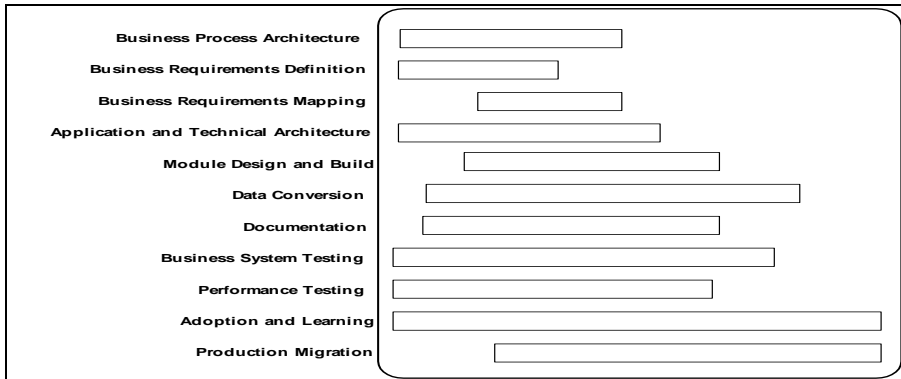The figure below illustrates the process overlap which occurs during a project.



Figure 4 Application Implementation Method Process Overview

## Business Process Architecture (BP)

Business Process Architecture addresses understanding of the ASP business processes and aligns them with the business requirements and applications to be implemented. Business processes are analyzed to determine the change required to bring them into alignment with ASP business objectives, and new or improved business processes are designed. The result of this process is a set of optimized high-level designs that balances changes to the applications with changes to Sample Organization.

## Business Requirements Definition (RD)

The Business Requirements Definition process defines the business needs that must be met for the successful implementation of the application and technical suite.  Business processes are documented by identifying business events and describing the steps the ASP takes to respond to those events. These processes are organized into business scenarios that capture the ASP business requirements.

### Business Requirements Mapping (BR)

The Business Requirements Mapping process validates that an acceptable and feasible solution to business requirements is developed and documented. Mapping teams are assigned groups of future business processes, usually logically related by business area. Business Requirements Scenarios are then mapped to application functionality. As gaps between requirements and functionality emerge, they are resolved by documenting workarounds, alternative solutions, application extensions, or even by changing the underlying business process.

### Application and Technical Architecture (TA)

During the Application and Technical Architecture process the project team designs information systems architecture around ASP business vision. Using the business and information systems requirements, the process facilitates development of a blueprint for deploying and configuring: Oracle, third-party and custom applications; supporting application databases; key enterprise interfaces and data distribution mechanisms between applications, servers and data centers; computing hardware including servers and client desktop machines with browsers; and networks and data communications infrastructure. Both application and technical architecture designs become more detailed and concrete as they progress from Definition through Operations Analysis to the Solution Design phase.   It is important to consider both aspects of architecture throughout the process so that a top-to-bottom view of the future system architecture is created early on. Any issues that affect the technical architecture can then be assessed in the context of the application architecture design, and vice versa.

### Module Design and Build (MD)

The Module Design and Build process produces custom application extensions to fill gaps in functionality identified during Business Requirements Mapping. Custom systems include program modules (forms, reports, alerts, database triggers, and so on) that must be designed, built, and tested before they can be incorporated into the new system. Module Design and Build addresses the design and development of the custom modules; the Business System Testing

process supports testing of custom modules.

### Data Conversion (CV)

The Data Conversion process defines the tasks and deliverables required to convert legacy data to the Oracle Application tables. The objective of the Data Conversion process is to convert and test all legacy data that is available, feasible to obtain, and necessary for the operation of the new application. The first step of this process is to explicitly define the data business objects that are required to be converted, along with the legacy source systems. The converted data may be needed for system testing, training, and acceptance testing as well as for production.

### Documentation (DO)

The Documentation process begins with documentation standards created early in the project to build quality operations support reference materials. Documentation requirements and implementation complexity are closely correlated and the amount and level of detail of documentation varies by project.

### Business System Testing (TE)

The Business System Testing process is a formal, integrated approach to testing the quality of all application system elements. It focuses on preparing for testing early in the project lifecycle to link testing requirements back to business requirements as well as secure availability of the project resources for testing purposes. Finally, it utilizes common testing information, including data profiles, to promote testing coordination and minimize duplication of test preparation and execution effort.

### Performance Testing (PT)

The Performance Testing process helps the project team define, build, and execute a performance test on a specific performance system. The process does not assume a particular scope for the performance test — the project team can use the same process to define a complex test on an entire system, or a simpler test on some component or subset of the system. The team may also initiate the

process more than once on a project with differing scopes and objectives to test the performance of different aspects of the system. The specific goals of each process and the relative timing within a project may differ, but the method the team uses can be the same. This process provides a powerful and direct means of assessing the performance quality of your system or some part of it. Performance Testing is closely related to Application and Technical Architecture —they are interdependent.

### Adoption and Learning (AP)

The Adoption and Learning process accelerates the implementation project team's ability to work together through team building and organization-specific application learning. This process also helps determine human performance support implications so that the organizational structures and job roles align to meet new performance expectations resulting from the technology change. Learning needs of all those impacted by the implementation are considered and appropriate training materials and learning events are developed and conducted.

### Production Migration (PM)

The objective of the Production Migration process is to migrate the company, systems, and people to the new enterprise system. Following production cutover, additional objectives include monitoring and refining the production system and planning for the future. The Production Migration process encompasses transition to production readiness, production cutover, and post-production support.

### Conclusion

Using Oracle AIM helps you in the early stages of your implementation to establish what kind of solutions your customer wants and how Oracle Applications needs to be configured in response to customer demands. Thereafter it becomes very useful in monitoring and documenting the entire implementation process. It is particularly useful in ensuring that at the end of each phase you have signed off deliverables. As with all project management tools, however, it is only effective to the extent that it is used and understood by those involved in the implementation.