Appendix B – Implementation Guide

ASYCUDA++ Functional Manual

V1.15

Appendix
B

Implementation Guide.

Advice on the Successful Implementation of ASYCUDA++.

Contents of Appendix B.

Amendment Control Grid

Periodically, amendments to this Reference Document will be issued. Each amendment batch will be serially numbered and dated. This Amendment Control Grid is provided in order to maintain a record of the receipt and incorporation of amendments into the Reference Document and thereby ensure that it is kept fully up to date.

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About this Appendix

This Appendix is designed to assist the successful implementation of ASYCUDA by highlighting important areas and details that are sometimes overlooked. It covers: -

- UNCTAD's objectives;
- Trade Facilitation;
- EDI;
- Customs requirements;
- Implementation strategies;
- Project risks;
- Relevant issues.

Introduction

UNCTAD, the United Nations Conference on Trade and Development, was set up by the United Nations General Assembly in 1964 and is mandated to promote international trade with a view to accelerating economic development.

UNCTAD's SITE Division has over ten years experience in the development and implementation of Customs computer systems, in more than 60 countries. UNCTAD's most recent Customs automatic data processing system is ASYCUDA++.

Many countries, in seeking to develop their economies through increased trade recognise that the lack of accurate trade statistics is a major obstacle. Also, in a large number of countries the collection of Customs duties or taxes is relied on to provide the major proportion of the national revenue. The introduction of computers and automated Customs systems can provide a solution and is often seen as an attractive option. This is frequently with the encouragement of the International Monetary Fund and the World Bank.

In practice, technology only provides part of the solution. Many of the existing problems lie with inefficient and cumbersome Customs procedures and documentary requirements.

In undertaking ASYCUDA implementations UNCTAD seeks to introduce not only new procedures and concepts but also new management techniques and new ways of thinking for all staff throughout National Customs administrations.

The implementation strategy for the project provides the framework for planning these changes within the country. This paper is **not** in itself a Project Implementation Strategy. A realistic strategy for a country can only be drawn up after careful consideration of the issues, priorities and options relevant to that country. However, rarely are such issues or problems truly unique, and for that reason, this Appendix is intended as a reference source and guide to the project team in drafting their own strategy. It covers a number of implementation issues that will be immediately relevant and it brings together some of the experiences and advice from other project teams.

UNCTAD's Objectives

UNCTAD's objective is simply that the country obtains the maximum possible benefit from the implementation of ASYCUDA. These benefits are in terms of meeting their own National Objectives, as well providing a national contribution to the International objectives of Trade Facilitation through harmonisation, standardisation and simplification.

Trade Facilitation

Trade facilitation is defined as: -

"the systematic rationalisation of procedures and documentation for international trade (trade procedures being the activities, practices and formalities involved in collecting, presenting, communicating and processing data required for the movement of goods in international trade)".

Over the years international and national organisations have made many Trade Facilitation initiatives that have introduced improvements in trade-related information flows, by simplifying requirements and documentation and standardising practices and coding.

However, certain countries still maintain requirements that run contrary to these facilitation efforts because of historical precedents, commercial inertia, difficulty in adjusting the methods of their control bodies or ignorance of solutions that have been developed elsewhere.

The problems created by trade documents fall into two categories: the supply of data and the complexity of some of the procedures. Generally procedural requirements should be re-examined and manual systems tidied up before information technology can, with safety and economic advantage be systematically applied.

The above paragraphs are extracts from the UNCTAD publication, "**Compendium of Trade Facilitation Recommendations**." This publication is essential reading for any Implementation Team. It is recommended that at an early stage of the project copies be freely circulated within country, to Customs staff and to trade bodies.

Other UN publications that should be freely available to the project team are: -

"Recommendations and Guidelines for Trade Efficiency"

"Trade Facilitation - Trade Data Elements Directory" (UNTDED*)*

Electronic Data Interchange (EDI)

One major attraction for a country in choosing to introduce a modern computerised Customs processing system is to be in a position to participate in the worldwide move towards direct electronic communications.

EDI revolutionizes business communications by removing a complete layer of business practices—the use and processing of paper documents. This brings substantial benefits and savings, such as accuracy (data is received directly form computer files and not re-entered manually), speed and cost (data is processed by computer and transmitted quicker and cheaper than paper documents by mail or courier).

Up to now the major obstacles to wide spread use of EDI has been both technical and procedural. Technical issues included the communications infrastructure and the ability of computers to 'talk' to each other, and acceptance of an agreed format for the electronic messages.

UN/EDIFACT

UN/EDIFACT is an international standard for the transmission of EDI messages. It is the only EDI standard that has received official approval by the United Nations. UN/EDIFACT permits organisations, both public and private, to transmit data in a common format - a common computer language. Among the officially approved UN/EDIFACT messages there are four so far which are unique to Customs operations. These four Customs messages are: -

- The Customs Declaration Message (CUSDEC)
- The Customs Response Message (CUSRES)
- The Customs Cargo Report Message (CUSCAR)

- The Customs Conveyance Report Message (CUSREP)

The electronic format "CUSDEC" is for Customs declaration - it permits the transfer of data from a declarant to a Customs administration.

Procedures with EDI

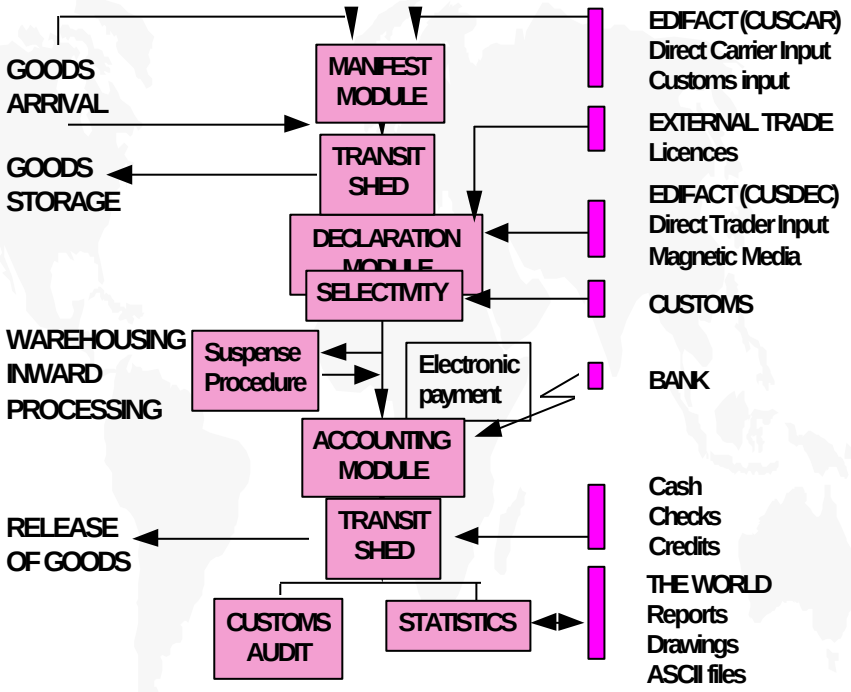
Replacing paper documents by EDI messages does not change the basic trade requirements between partners in International trade transactions. Neither does it change their obligations to comply with the National Customs laws or regulations, such as presenting a declaration to Customs to obtain clearance of imported goods.

The challenge for Customs administrations - and Project teams - is to modify existing procedures or introduce new procedures which allow the trade the benefits of the accuracy, speed and savings of EDI data transfers while at the time maintaining Customs controls.

It must also be recognised that this 'concession' by Customs also produces very substantial efficiencies for the Customs administration. Legal changes may include the replacement of the traditional paper documents, Customs declarations, etc. with electronic messages have the same legal value as an equivalent paper document.

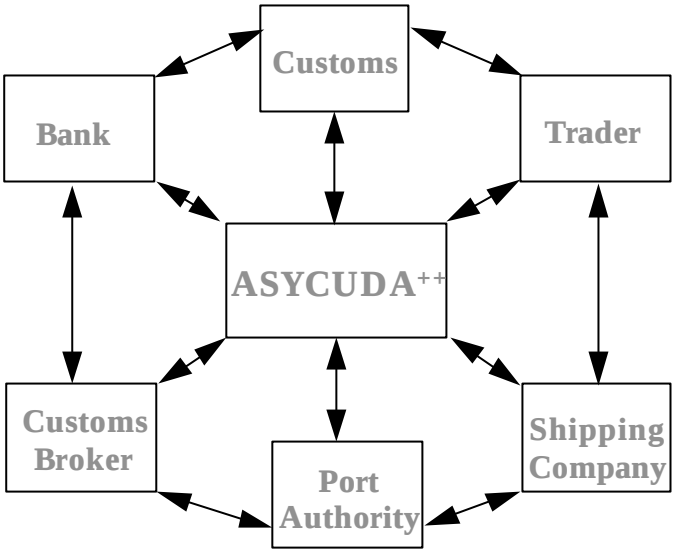
Process Flows in an EDI Environment

This flow chart illustrates how data received by EDI can be integrated into Customs processes.



Community Computer Networks

The potential benefits of EDI extend to all members of the trading community. As the use of EDI expands, Customs can be seen as only one of a number of clients on a 'Trade Community' computer network who can receive data electronically and to which they usually 'add value' and re-transmit.



Direct Trader Input (DTI)

The functionality of ASYCUDA, and the Client/Server architecture, makes the system ideal for extensive use of Direct Trader Input. It is simple matter for the trader or Customs broker, in their own office, to create, check and lodge an electronic declaration with Customs.

They can (depending on the system configuration) 'request' assessment electronically, the declaration can be paid automatically upon assessment and release made immediately available - all within a matter of minutes.

Through selectivity, and applying a process of rational thought to Customs risks and effective control methods, the system offers the opportunity to make radical improvements to the effectiveness of the operations of many Customs administrations.

Project teams are likely to meet considerable resistance to such changes, from within Customs and also the trade. For instance, in many countries an organised or technically qualified Customs broker network doesn't currently exist. The introduction of new technologies and methods requires much preparatory work. Implementation strategies often include an extensive information/education program for the trade as well as Customs.

Within Customs, 'Senior Management' and 'Risk Assessment and Targeting' courses are highly recommended as a medium to promote discussion on new Customs methods and providing for the use of Risk Management techniques and targeted selection of declarations outside the classification of normal trade.

Understanding of Customs Requirements

Customs, irrespective of country or geographical region, share many common interests and concerns. Worldwide Customs administrations are under ever increasing pressure to be seen to be more efficient and to provide better levels of service. These 'service' demands may be coming from government, (for direct improvement such as higher revenue collections), but frequently this increasing pressure is coming from the trade. Importers and exporters, transport industries and other traders are looking for better service in the form of faster delivery from Customs control and more consistency, with reduced costs to allow them to remain internationally competitive.

Customs Concerns

In the business of Customs, administrations perceive that they face many risks. These concerns can be broadly grouped as follows:

- Loss of control - failure to detect and prevent import or export of controlled or prohibited goods;
- Revenue issues – Failure to collect the correct Customs duties or taxes payable on goods;
- Fraud; and
- Inaccurate, incomplete or non-existent trade data.

Customs administrations often see these problems as caused by "too many imports and exports, not enough Customs staff", caused by increasing international movements of goods and passengers, and improved international communications and transport.

These all reduce the time available to Customs to process goods and documents and thus reduce the tolerance of traders to administrative delays. A first reaction is to expand the Customs workforce. This can provide some short-term relief, but in practice may increase and perpetuate existing inefficiencies.

Eventually, faced with the prospect that it is a practical impossibility to effectively look at every document, consignment or passenger, Customs must look to new methods and procedures for a solution.

Modern Customs Practices

Around the world many Customs administrations have faced these problems and have found solutions - some being more successful than others. The simplification of documents, the automation of processes with the increased use of computers to perform routine calculations and collate data provide only part of the answer to many of these Customs problems.

Increasingly, Customs are relying on a mix of relatively new skills to achieve their objectives. Using the accumulated pool of Customs knowledge within existing Customs staff, in conjunction with new technology, Customs can target that proportion of import or export transactions which have been **rationally** identified as of particular interest or concern. This targeting, or use of a system called **'Selectivity'**, in conjunction with a scheme that incorporates a trader education program and a system of penalising infractions of Customs legislation, has been found to be very effective.

Customs Advisors

UNCTAD and the World Customs Organisation recognise that efficiencies can be gained through the introduction of revised Customs procedures that compliment the gains of the implementation of ASYCUDA++ within a country. For this reason each ASYCUDA project includes within the Implementation team an UNCTAD provided 'Customs Advisor'. These advisors come from Customs administrations practiced in using technology as a working tool and where they have gained broad experience in Customs management and modern Customs concepts and procedures.

National Customs

In the initial phase of an implementation project, the Customs Advisor, with the assistance of members of the National Implementation team, will carry out a detailed analysis of existing Customs organisation and procedures.

This will determine and recommend the most effective way of setting up ASYCUDA++ to meet national requirements. This includes looking at options for streamlining present methods and adapting existing process flows to an electronic environment as well as considering the adoption of new procedures and legislation to improve Customs processing.

This process of analysis, reporting, recommendation and negotiation, is carried out with the National Customs Administration and in full consultation with all appropriate interest groups.

Project Implementation Strategies

Project Implementation

UNCTAD's project responsibilities will vary according to the terms of the particular Project Agreement. UNCTAD may be contacted to provide full project management services, as well as the ASYCUDA system software and technical expertise, or they may provide the software and expertise to implement the system and associated reforms, while working as part of a project team formed, staffed and managed by the National Customs Administration or Government.

In either case, it must be clearly understood that an ASYCUDA implementation, as provided by UNCTAD, cannot be treated as a 'turn-key' package. This means that UNCTAD personnel cannot just come into a country, set the system up themselves to meet National requirements and then hand over a complete working system.

Successful implementation requires the total commitment of a National Customs Administration and other Government Departments. Much of the physical work in the configuration and installation of the system relies on human resources provided by the local administration. In almost all instances implementation requires changes to National Customs legislation and changes to existing work practices that may be strongly resisted by some elements of the trading community.

Skills Transfer

Apart from the obvious component - the system software - UNCTAD provides technical expertise in automatic data processing, in modern Customs procedures and in project management. The implementation of the system, and the ultimate measure of the success of a project is determined by the ability of the Project Team and UNCTAD to effectively pass on these skills to staff of the National Customs Administration. By such skills transfer, and by fostering national independence in systems maintenance and in future development, the project provides a basic infrastructure that is geared to reap the benefits of modern communications capabilities and Customs techniques.

Skills transfer is in part through formal training but the major benefits for staff of a National Customs Administration come from working as members of the project, either on the technical or the implementation teams.

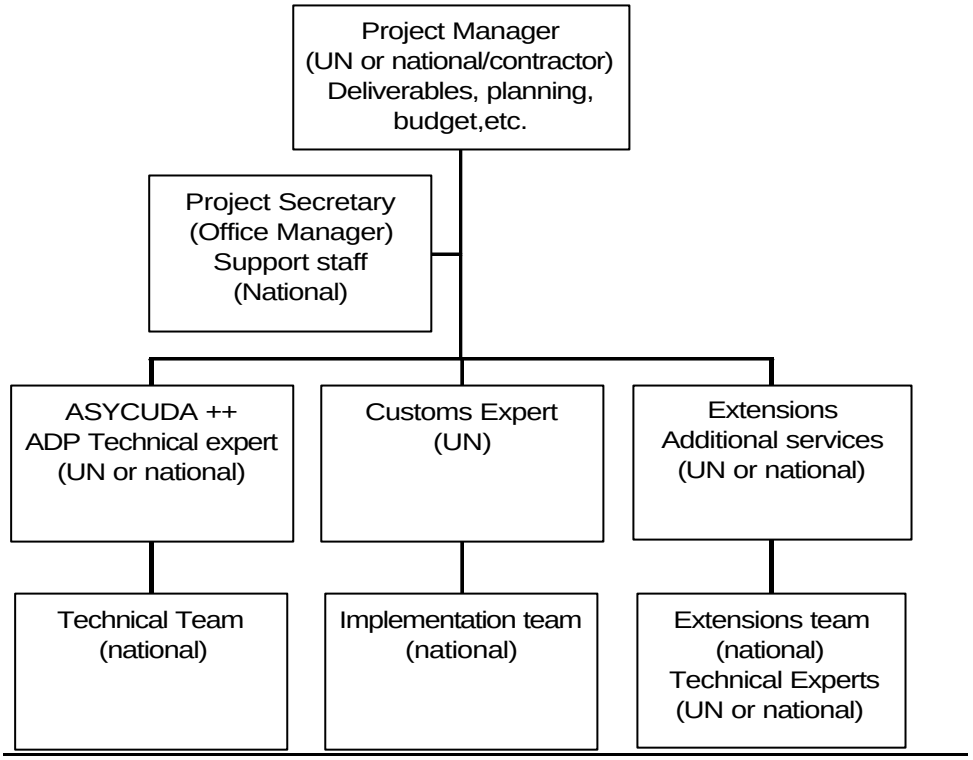
Project management and control standards

The early establishment of the project management methodology is essential for project and quality control purposes. Without specific methodology, relevant management and without documentation control and quality standards in place, it just not possible to assess the degree of ongoing achievement during the project or if the project is progressing according to plan.

Management control standards, quality controls and documentation standards, are the responsibility of the Project Management. Divisions of responsibilities on project management are usually specified in the Project document.

Project Management Structure

A typical project management structure is depicted below:



Responsibilities:

National Technical Team – Installation, Maintenance, Advice, Training.

National Implementation Team – Implementation of ASYCUDA++, Functional definition, Logical and Physical, Procedures, Training.

National Extensions Team (National and External Technical Experts) – Application developments, system enhancements, Specialist services like Training and Trade Facilitation advice

Implementation Strategies

The development of an implementation strategy for a project is not simply a process listing a sequence of events against a timeframe acceptable to a client agency or administration.

Objectives

At the start of an implementation project a strategy document must be drafted. This should clearly state the objectives and policy framework within which the project is to be delivered, specifically -

- How the objectives will be achieved;
- The criteria against which project deliverables will be measured;
- What is to be delivered and when;
- The risks to the project and how these risks can be managed;
- The perceived management requirements.
- Leadership

To ensure that the project achieves its objectives, a clearly defined and dynamic project organisation is required. The management framework must provide to the project teams:

- Clear leadership and communication;
- Clearly defined and assigned responsibilities;
- Transparency for all stakeholders;
- Consistent planning and monitoring;
- Regular, informative reporting;
- Firm control

Implementation

While a draft implementation plan is usually drawn up at the Project Document stage, many factors or aspects are involved in determining the 'right' implementation strategy for any particular country.

It is normal practice to adopt a phased approach, with the first phase emphasising a detailed situation assessment and the technical and functional training of the core teams made up from local staff. After staff have received initial training they can commence building and configuration of the system to local specification.

The installation of the trial system at a pilot site is usually the next step, to allow running in parallel and testing. The modular construction of ASYCUDA++ permits a strategy that includes a step by step implementation of ASYCUDA functions.

For instance, as a first step, the core modules, for declaration processing and accounting, cashier's functions, can be introduced without initially adding the complications of selectivity or manifest check.

The Government or Customs Administration in most instances will have particular concerns or priorities. These concerns may have been the determining factor in instigating the ASYCUDA++ implementation. The implementation strategy for the project will of course give adequate weight to these concerns and national priorities. Examples of concerns (shared by most administrations) are:

- Undervaluation of goods;
- Insufficient protection of revenue collected;
- Corruption, internal fraud;
- Misclassified (incorrectly rated) goods;
- Complicated and inefficient procedures;
- Understating cargo quantities;
- Undeclared (not reported) cargo.

The nature of ASYCUDA and most automated Customs systems is that the majority of these base concerns can be tackled from first implementation and very quickly produce positive results.

Risks to the Project

Any project of the size and duration of a National Computer System implementation involves many risks. It is strongly recommended that Project Management and Implementation teams incorporate into their planning a recognition of project risks, learned from the experience of previous projects.

Potential Risks to Project Success

Underestimating Tasks and Timetables.

Planning the time required for any project is often underestimated. It is a fact in project management that the time invested in ensuring that project plans are complete as well as possible is repaid many times over in time savings during the project life cycle. It is always a risk in the user country that the pressure to show quick results leads to incomplete planning and underestimating timeframes. The result of this is to increase the risks of delays, which in turn sap user confidence and result in cost overruns.

High Level Commitment.

A potential cause for failure is the lack of Senior Customs Management commitment to the reform of Customs. Without a strongly motivated and committed national team the project will not succeed.

Team Selection.

It is extremely important that the project team have a sufficient number of fully committed and qualified national Customs and computer experts to work full time from the beginning of the project. Failure to provide a competent team who can take charge of the implementation of the project will jeopardise the project and successful skills transfer will not be possible. Reassigning staff during the life of project is a common problem and **must be avoided** wherever possible.

Automating Current Procedures.

Automating current procedures should not be attempted. Part of the implementation of ASYCUDA is a thorough analysis of user requirements to ensure the most efficient procedures and document flow to compliment the introduction of automation. Any developments running concurrent to the implementation of ASYCUDA must be integrated into and be consistent with the project objectives.

Failure to link Project Objectives to Government and Customs Strategies

This will lead to conflict in priorities and resource allocation. This aspect is particularly important in the collection of business and trade statistics to relevant government and business authorities.

Management Process.

The implementation process must be clearly documented and all parties to the project must submit realistic project work and plans. Regular progress reviews against these plans is essential to the success of the project.

Change Management.

ASYCUDA will bring substantial change to the internal Customs procedures particularly to declaration processing including assessment, accounting and examination processes. Unless a well-managed strategy is in place to address this change the project could fail due to the unwillingness of users to accept these changes.

Refurbishment of Customs Premises.

Customs offices need to be physically adapted to the requirements of the new computerised environment. Basic needs include air conditioned offices with uninterrupted power supply that are efficiently secured and separated from public areas reserved for agents and brokers.

Project Experiences

Contact UNCTAD for details on availability of copies of individual reports and reviews of ASYCUDA implementations.

Relevant Implementation Issues

The following are issues common to many implementation projects:

Training

Training is a critical component of the implementation plan and many activities are dependent on the completion of the training program. The project team can achieve little productive effort until they have been trained in ASYCUDA and system development methodologies. Additionally, Customs staff and management and the trading community need to be trained in those aspects of the new procedures and technology that will enable them to manage and use the system efficiently.

The aims of the training are:

- For the project team to be able to build and install the system successfully;
- For the national users to develop the essential skills to maximise the benefits of the software and to ensure that Customs is able to configure, operate and manage the system independently on a day to day basis, particularly with regard to legal, fiscal and administrative changes; and
- For the system support team to maintain the software and to continue development in accord with the needs of the national Customs administration.

Data Conversion

One of the higher risk activities early in the project is the conversion and building of the reference and control file database used to configure the ASYCUDA system. The completeness and accuracy of these files is critical to the integrity of the system.

Two major tasks in this activity are the building of the Tariff file and the Importer registration file. These are major tasks and with the Importer file a unique method of identification needs to be developed to ensure the security of the client registration process. In some instances the required data may be available within existing Customs or other Government departments data systems.

Staffing

Successful project implementation requires a high degree of commitment by the national Customs administration, by making available highly qualified and experienced staff to provide the expertise and user input. The staffing components of the plan should be framed to ensure that as a priority competent staff are available as and when needs require.

Single Administrative Document (SAD)

Perhaps one of the most important changes is the way internal Customs procedures will change following the introduction of the Single Administrative Document (SAD). This document is the driving force of changes in the workflow and apart from an additional step of data capture will greatly simplify the processes of document examination and duty assessment. New import and export declaration forms, based on the SAD need to be introduced early in the project and certainly well in advance of computerisation. Introduction of the new documents includes an extensive consultation and education process involving trade and industry.

Legislative Reform

It is important early in the project to review the Laws under which Customs operate and identify any alterations that will have to be made to implement ASYCUDA and accompanying procedural changes. The situation varies from country to country. In some instances the necessary changes may be in administrative measures that are within the power of Customs to amend. Other changes may require changes in the statute law that need the approval of the Parliament of the country and the amendment process may be slow and cumbersome.

Direct Trader Input (DTI) is an area that is new and not catered for in most legislation. This could include legal recognition of an electronic lodgement process, with electronic 'signatures' and the like.

Tariff sub-divisions and further tariff breakdowns below 6 digit levels are another area where legislative change has been needed in previous projects.

Procedural Reform

It is a significant task to identify and implement procedural changes. As stated above, the SAD replaces the majority of the existing import and export forms currently in use. In addition, the entry processing method in can follow a completely new path that may include physically separating the Customs Brokers from Customs staff. The computer system may require a revision of procedures to accommodate internationally agreed data standards and codes.

Transparent Implementation.

During the entire reform process the ASYCUDA implementation team must maintain a high level of openness and transparency. This should go hand in hand with change management efforts carried out within Customs to avoid misinformation, minimise reaction and resistance based on rumour or incorrect information. One means of reducing problems is to either use existing Customs media resources or to commence publication of a regular newsletter.

Systems Integration

When carrying out the phased introduction of ASYCUDA modules or functions, or integration with other systems designed to work in conjunction with the ASYCUDA core, care must be taken to ensure a rational implementation.

One strategy is for the creation of a systems integration working group, to produce a strategic systems development plan acceptable to all parties and with a clear assignment of development activities.

Site Preparation and Facilities Management

Implementation strategy is often dependent on the availability of hardware, site preparation, communications facilities, facilities management and in some situations the provision of staff to be supplied by contractors.

Installation sites frequently require major works. That, and difficulties in installing communication lines are frequent causes of project delay. In many instances because of the absence of detailed or accurate plans of existing buildings the unexpected becomes the expected. Allow sufficient flexibility in your planning to allow for such occurrences.

Fallback Procedures

Fallback procedures should be in place before automation at each site. The systems being automated will be verified by manual procedures before automation at each place and for each process. This has the effect of assuring the integrity of the fall back arrangements as well as providing a test for the new system without the added complication of the computer facilities.

Manual procedures that compliment the automated applications need to be in place prior to computerisation.