13. Introduction

This plan identifies customers' objectives, discusses our current processes from the perspective of those objectives, and presents the process changes we plan to make to ensure meeting the objectives. Quality metrics, objectives, and tracking and reporting are discussed. A key milestone list is presented, and resource/investment requirements identified.

13.1 Stakeholders/Objectives

CCPS has a number of stakeholders, with various objectives. This section identifies stakeholders, outlines their objectives, and, where possible, presents quantitative ways to identify how well we achieve those objectives.

13.1.1 MSDS Management

MSDS management views the CCPS project from two quality perspectives:

- Delivery of a system that delights the customer, and opens that market to us in the future. They wish to acquire ATCO as a long-term client. The metric that will be used is revenue from ATCO.

- Delivery of the system on time, within budget, and to specification. Even if the system does not generate business, its development (1) should not be a drain on MSDS, and (2) should be a good example of our work. The metrics for the first two are milestones met and development cost/budget. Meeting specifications is yes/no measurement based on system test results.

Objective values for the metrics are given below.

13.1.2 ATCO Management

ATCO views CCPS from the following quality perspectives:

- On-time delivery so that unnecessary cost is avoided. Milestones met will measure this.

- Elimination of the paperwork so that the cost avoidance potential can be achieved. This will be measured by monitoring successful delivery of transactions and Faxes in operations.

- Simplicity of use so that training and retraining is minimal. This will be measured during the "soak" period by direct observation of the people that will have been trained using the CCPS course.

Objective values for the metrics are given below.

13.1.3 ATCO Users

ATCO users of CCPS will be unionized office staff personnel. They expect the following:

- Simplicity of use. This includes such factors as on-line "Help," validity checking and hints to correct errors, similarity of format to existing paper flows, similarity of system "look and feel" to others in use, etc. All these will be evaluated by observation and interview during the soak period.

- A desirable work environment - the system and job provide an interesting and challenging situation. This will be measured during the soak by observation and interview.

 Objective values for the metrics are given below.

13.2 Quality Objectives

Our quality metrics were identified above. The objectives for each are quantified, where possible at this time, in the table below.
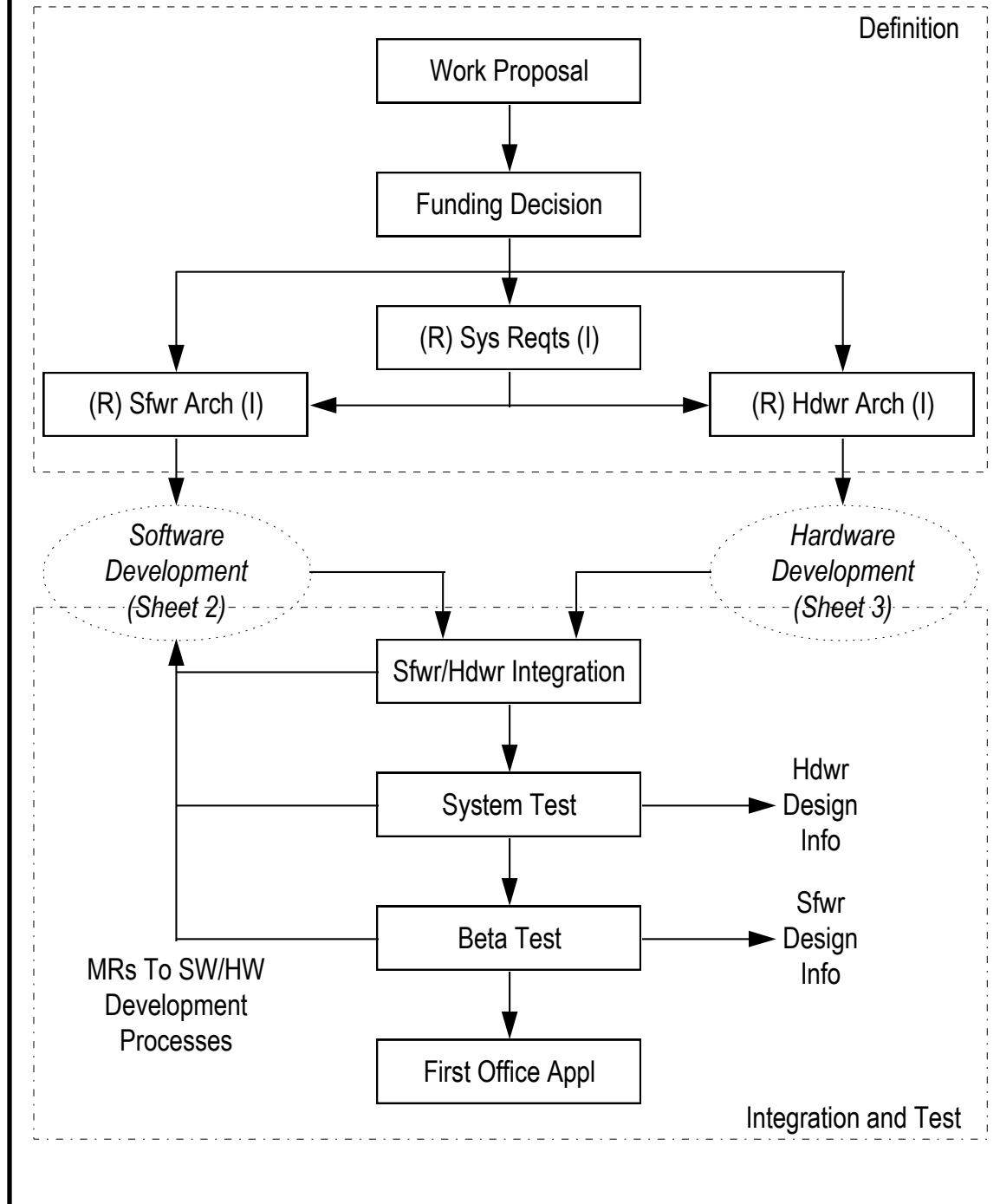
Metric	Objective
Market access - future revenue from ATCO	10% of MSDS revenue from projects for ATCO within five years.
On time delivery	Beta start as scheduled and committed
Within budget	Total cost not to exceed the contracted amount
Meeting requirements	*No CRs open* on any key feature (TBD) at delivery
Paperwork elimination	Successful delivery of all information within the specified times, as determined by our delivery logs and random checks, except in cases where target computers are unavailable
Simplicity of use	TBD by HPE
Work environment	TBD by HPE

13.2 Current Process and Capabilities

The current development process is shown in the attached figures, and is documented in Reference 5, as are overall MSDS process improvement plans.
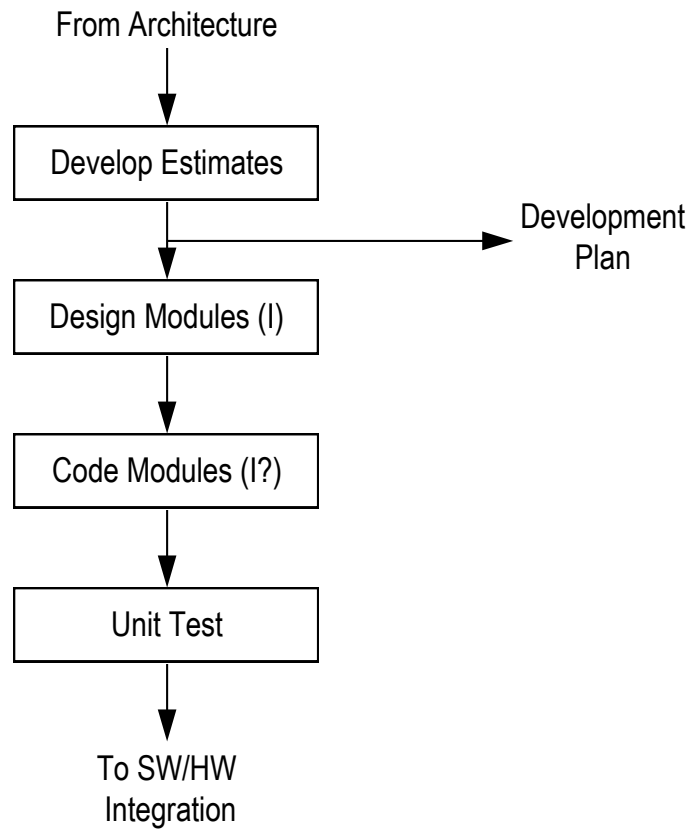
DEVELOPMENT PROCESS

Definition

Work Proposal

↓

Funding Decision

↓

(R) Sys Reqts (I)

(R) Sfwr Arch (I) ←→ (R) Hdwr Arch (I)

Software Development (Sheet 2)

Hardware Development (Sheet 3)

Sfwr/Hdwr Integration

↓

System Test → Hdwr Design Info

↓

Beta Test → Sfwr Design Info

↓

First Office Appl

MRs To SW/HW Development Processes

Integration and Test

SOFTWARE DEVELOPMENT

From Architecture

↓

Develop Estimates

→ Development Plan

Design Modules (I)

Code Modules (I?)

Unit Test

To SW/HW Integration

HARDWARE DEVELOPMENT

From Architecture

Development Plan

Ckt Pack Design (I)

Board Layout

Parts Review

Board Assembly

DFM Review

Board Debug

Unit Design (I)

HW Integration
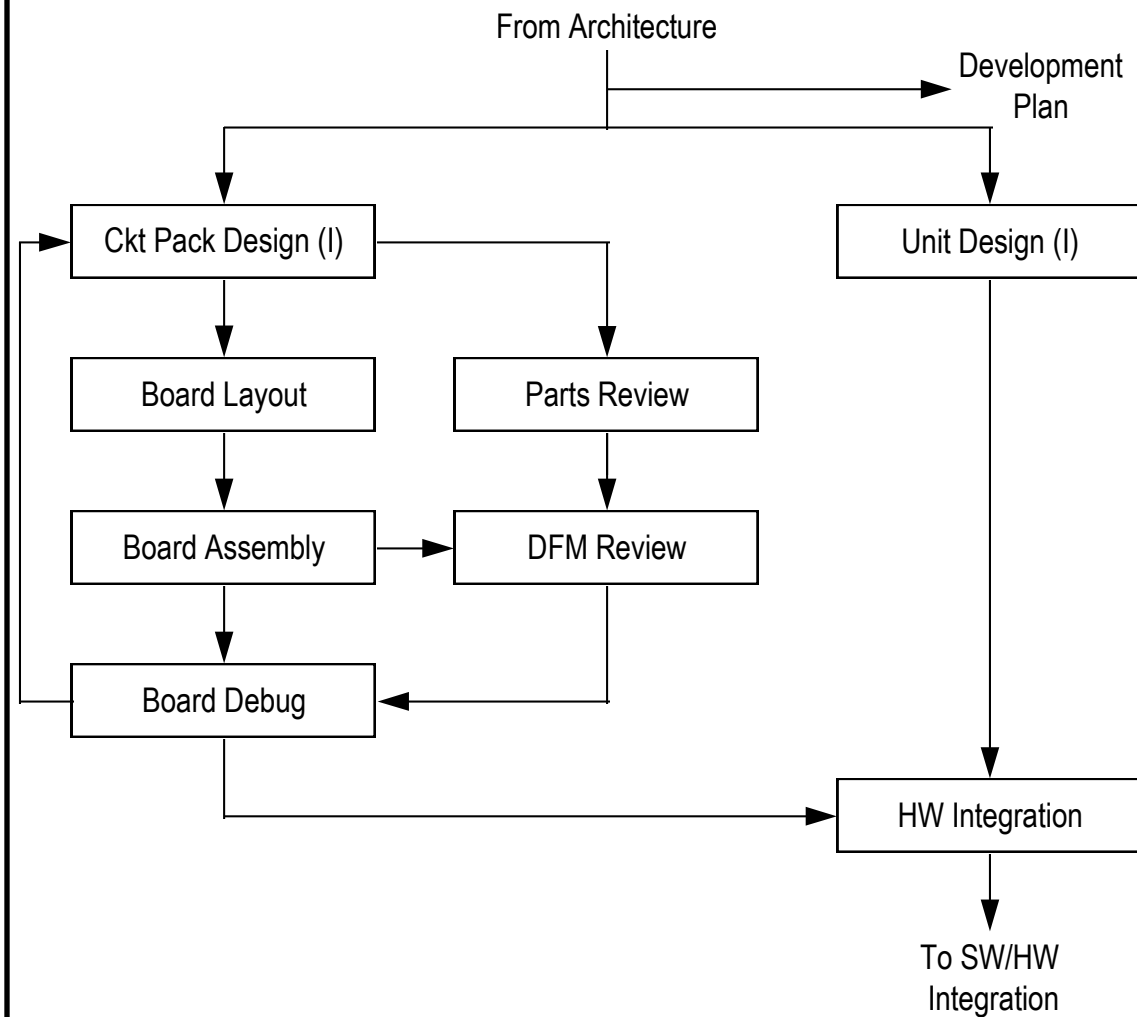
To SW/HW Integration

The process has been demonstrated to have the following capabilities:

1. Delivers on or before commitment date 80% of the time. Has always delivered at no more than 110% of expected project duration.

2. Delivers on or below budget 60% of the time. Has always delivered at no more than 125% of expected budget.

3. Has met or exceeded the Policy Deployment goals of MSDS in all areas:

   - Severity 1 and 2 defects found within one year by customer

   - Find and fix time for Severity 1 and 2 defects

   - Find and fix time for Severity 3 and 4 defects

   - Customer response time

4. Customer Value Added as determined by the MSDS Customer Report Card process exceeds 1.05 and has a rising trend.

Overall, we know that our current process can be relied upon for projects similar to those previously delivered. Including the overall MSDS Quality Improvement Program, it's capabilities will be sufficient for this project, with the exception addressed below.

13.4 Planned Process Improvements

Reference 5 contains overall MSDS process improvement initiatives. In addition, this project necessitates added attention to human performance issues.

Our previous systems, while similar to this one, have used the MML interface, which is clearly defined, and the standard for the applications. This system will depart from that standard, as the customer has specifically required a GUI running under Windows. We have one experienced Visual Basic programmer on the staff, but no experience in sophisticated interface design.

In order to deal with the situation, we have explicitly scheduled prototyping of the GUI, with a customer approval interval following that. In addition, we plan to acquire a Human Performance Engineer to participate in this activity, to design the "Help" features, menus, and messages used therein. This person will also conduct the on-site evaluations required during the Beta test, and will participate in system test, evaluating the overall human performance aspects of CCPS.

13.5 Other Process Changes

No other process changes are planned.

13.6 Tracking and Reporting Quality Results

Methods for tracking and reporting results are shown in the table below.

Metric	Tracking
Market access	Quarterly reports from MSDS Marketing and Sales at MSDS Business Review - revenue anticipated, committed, received
On time delivery	Milestone status reported at each Project Meeting
Within budget	Expense status reported at each Project Meeting
Meeting specification	CR status report by feature commencing with beginning of System Test, reported at Project Meeting
Paperwork elimination	Daily examination of delivery logs during integration test and Beta, with daily reporting to whole project by e-mail, and weekly summary to MSDS senior management and customer
Simplicity of use	TBD by HPE
Work environment	TBD by HPE

13.7 Key Milestones

All parts of the quality plan are in place already, *except for* objectives related to human performance. In order to achieve those goals, the recruitment of an HPE is crucial, as are the interface design tasks assigned to that person. The single key milestone associated with this is his/her "on-role" date, planned to be *XX/XX/XX*. Any deviation from this will require re-planning.

13.8 Resources/Investment

All resources required to implement this Quality Plan are covered elsewhere. The HPE has been budgeted for in the overall **Budget and Resources Plan**.