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Software Testing Documentation
AIIPS Smart EyeSight
Version 1.0

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1 Introduction

1.1 Purpose

The purpose of the Software Testing Documentation (STD) is to describe the executions of procedures and code. The STD can facilitate communication by providing a common frame of reference (e.g., a customer and a supplier have the same definition for a test plan). This document can serve as a complete checklist for the associated testing process. . In many organizations, the use of these documents significantly increases the manageability of testing. Increased manageability results from the greatly increased visibility of each phase of the testing process.

1.2 Scope

This document will explain the methods used to test each of the procedures necessary to fulfill the requirements described for Artificial Intelligence Image Processing Segmentation (AIIP/S) in the Software Requirements Specifications (SRS) document for our software Smart Ice. These procedures are explained in detail in the Software Design Description (SDD) document. The procedures that will be tested in this document are:

- Probabilistic Neural Network (PNN)
- Image Segmentation (IS)

The methods that are going to be used to test each of the procedures and/or functions mentioned above are:

- Unit Test
 - Black Box
 - White Box
- Integration Test
 - Bottom-Up
 - Top-Down
 - Sandwich

1.3 Definitions and Acronyms

This subsection shall define, or provide references to the definition of all terms and acronyms required to properly interpreted the SPMP.

Term	Definition
Software	Smart Ice code

Table 2: Definitions

Term	Acronym
AIIPS	Artificial Intelligence and Image Processing/Segmentation
PNN	Probabilistic Neural Network
Defense Advanced Research Projects Agency	DARPA
Software Requirements Specification	SRS
Software Test Document	STD
Software Design Description	SDD
Institute of Electrical and Electronics Engineers	IEEE

Table 3: Acronyms

1.4 References

IEE Std 610.12-1990, IEEE Standard Glossary of Software Engineering Terminology.

2 Equipment

The software Smart Ice has the functionality of receive an image then the image is segment and classified and produces an output as was explained in the SRS. These two functions that were mentioned on the scope (section 1.2) will need to be test:

- 150 images with different histogram colors and forms.

3 Test Plan

The test plan is necessary in order to archive a better life for the product. This plan will detail which test would be done as follow:

System Function	Test
Image Segmentation	
Image Classification	

Table 4: Definitions