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|  | | Engineering Design Document |
|  | |  |
|  | **Version: 1.0**  **Last Revised:**  **Author: Anatoliy Lokshin** | |

Table of Contents

[1 System Overview 4](#_Toc277773501)

[2 Assumptions and Dependencies 4](#_Toc277773502)

[3 Functional Design 4](#_Toc277773503)

[4 Technical Design 4](#_Toc277773504)

[4.1 Class diagram and description 4](#_Toc277773505)

[4.2 High-Level Design / Tasks 6](#_Toc277773506)

[5 Error list 6](#_Toc277773507)

[6 Outstanding Issues 6](#_Toc277773508)

Document Version History

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Functional Design Review

| **Name** | **Title** | **Date Reviewed** | **Date Approved** |
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Technical Design Review

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| **Kyle Quest** | Architect | 11/18/2010 | 11/18/2010 |
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Engineering Task Worklist Review

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References

|  |  |  |
| --- | --- | --- |
| **Document Name** | **Author** | **Location** |
| **MetraTech Security Framework Specification** | Kyle Quest | http://seceng.metratech.com/gf/download/docmanfileversion/20/78/MtSecurityFrameworkSpec.doc |
| **Validator subsystem requirements** | Anatoliy Lokshin | http://seceng.metratech.com/gf/download/docmanfileversion/52/120/Validatorsubsystemrequirements.docx |

Version Configuration

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# System Overview

Short description of the existing requirement. Reference to the requirement document.

# Assumptions and Dependencies

The Validator subsystem depends on the configuration loader.

# Functional Design

N/A

# Technical Design

## Class diagram and description

A high-level class diagram for the Validator subsystem is shown on the Figure 1.



Figure 1. Validator subsystem class diagram

**ValidatorEngineBase** is a common parent class for all validator engines. It overrides the ExecuteInternal method of the EngineBase abstract class. Also it defines an abstract ReturnType property and abstract Validate internal method.

The ExecuteInternal method checks whether an input value is null or empty string and throws the NullInputDataException if it is. Otherwise it passes the data to the ValidateInternal method, that must be overridden in each of validator engine classes.

## High-Level Design / Tasks

1. Fix error message and exception types for existing validators
2. Basic long validator
3. Basic double validator
4. Basic string validator
5. Printable string validator
6. Hexadecimal string validator
7. Date string validator

# Error list

The following table shows a listing of errors that can occur.

|  |  |  |  |
| --- | --- | --- | --- |
| **Error Code** | **Error Message** | **Description** | **Area** |
| **NullInputDataException** | Input data is null | When input data is null or empty string |  |
| **ValidatorInputDataException** | Depends on context | When data does not pass the validation |  |

# Outstanding Issues

List all open issues regarding this document.

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| **ID** | **Date raised** | **Description and Resolution** | **Page/ Section** | **Raised by** | **Allocated to** | **Status** |
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