Requirements Specification for AutoLoc Script and Plugin

# Introduction

This document provides an in-depth description of the technical and functional requirements for the AutoLoc script and the AutoLoc plugin. These components are independently crucial for automating the localization process of websites and for seamless integration with various Content Management Systems (CMS). The specifications detailed herein are intended to furnish developers, end-users, and other stakeholders with a clear understanding of the operational procedures, setup requirements, and functionalities of the AutoLoc script and plugin.

# Part 1: AutoLoc Script for Website Localization

## Detailed Overview

The AutoLoc script is a Python application designed for operation from the Command Line Interface (CLI). Its primary function is to automate the extraction of translatable strings from website files, such as HTML and JavaScript, and manage these strings by populating them into structured JSON files tailored to each required locale.

## Detailed Requirements

1. Extraction and Management of Translatable Strings:

The script is required to meticulously scan through HTML, JavaScript, and other files that may contain hard-coded strings intended for translation. It should extract these strings and systematically populate them into designated JSON files. Each locale requested by the user results in a separate JSON file specifically for that locale.

2. Locale Management:

The script must support multiple locales simultaneously. For each locale, a unique JSON file is created. The naming convention for each JSON file should reflect its locale (e.g., `en\_us.json` for American English, `fr\_fr.json` for French).

3. Replacement with String Identifiers:

After extracting the strings, the script must replace the original content within the HTML and JavaScript files with unique string IDs. These IDs serve as string variables pointing to content from the corresponding JSON files.

4. Integration with Translation Management Server (TMS):

A pivotal feature of the script is its ability to interface efficiently with a Translation Management Server (TMS), which oversees the translation of the extracted JSON files.

The TMS is responsible for detecting modifications in these files, updating them with the appropriate translations, and pushing the translated content back to the source code repository.

5. Client-Side Integration Requirements:

Clients are expected to manually integrate the updated source code, which includes the latest translations, into their live websites. They must also shift from hard-coding strings directly into HTML or JavaScript files to managing these strings via the JSON files created by AutoLoc, aligning with the localization structure proposed by AutoLoc.

6. Functionality for Language Switching:

The script should support a feature that allows website visitors to switch between the languages available on the website. Upon selecting a language from a dropdown menu, the website’s content should automatically update by fetching the corresponding translations from the JSON files located in the “translations” directory.

7. Continuous Localization Process:

The ongoing process of localization, including translation reviews, validations, and the automatic updating of translated files, should be comprehensively managed by the TMS.

# Part 2: AutoLoc Plugin for CMS Integration

## Detailed Overview

The AutoLoc plugin is designed to facilitate the integration of translation processes into various CMS platforms, ensuring that content management is both dynamic and localized.

## Detailed Requirements

1. Development for Specific CMS:

Each CMS supported by AutoLoc necessitates the development of a unique version of the plugin, crafted in the CMS's native programming language.

2. Automated Translation Management:

The plugin must automate the transmission of content from the CMS to the TMS for translation and handle the reception of translated text from the TMS via APIs.

3. Database Schema Management:

A crucial function of the plugin is to create or update the CMS’s database schema to support the new locales effectively. It must manage the activation of these new locales within the CMS seamlessly.

4. Management of Translated Content:

The plugin is responsible for collecting newly translated strings from the TMS and accurately posting them to their respective tables within the CMS database.

# Summary

This concise document articulates the comprehensive specifications for the AutoLoc script and plugin, delineating each step and requirement to ensure clarity and facilitate effective implementation. By adhering to these detailed specifications, developers and clients can achieve a robust implementation of website localization and CMS integration, thereby enhancing global accessibility and usability of content across diverse linguistic demographics.