# Agent Performance Summary Reporting

# Solution Proposal

## Introduction

The purpose of this project is to provide standardized agent-level data specific to daily agent activity in all call centers in the Texas Project and, eventually, the greater MAXIMUS organization. The data will be used to summarize agent performance over a user-definable time period as well as to provide summary data at higher managerial levels throughout the organization, from supervisors to top level executives. Standardizing data will allow call center stakeholders to assess performance of agents, teams, managers and projects equally.

## Purpose

This purpose of this document is to provide an overview of the initial observations of the Texas effort and to propose a solution for gathering agent performance data at both the project and corporate levels using a repeatable and durable process.

## Observations

We have noted a number of concerns based on the current implementation extract, transform, and load (ETL) scripts in use by the Texas project. These concerns include:

* A need for configuration management
* Development (DEV) and test (TEST) environments are not production (PROD) clones
* A need for separation of extract and transform logic

The current state of the Texas ETL scripts indicates a need for configuration management. As yet, the corporate version control system (SVN), is not being utilized. The fact that there is no version control system in use is of particular concern. A version control system should be the first development tool put in place on a project. Without version control, the ability to establish baselines, easily recover from mistakes, make backups, identify differences between versions of a file, and collaborate with team members is constrained. Additionally, this generally leads to a profusion of unused copies of source code resulting in distracting project clutter.

The current directory of Texas ETL scripts consists of two directories and 408 files. This is indicative of a lack of configuration management. There is no way to readily identify which of those 400 files is currently in use. A number of files are clearly identified as copies based on their filename. The filenames also indicate that there is a logical grouping of files that should probably be organized into subdirectories. The lack of organization also indicates that there is no repeatable way to deploy these files to another project.

Development and testing of the ETL scripts are currently being run against production (PROD) source data systems. This means that an unnecessary load is being placed upon live systems during all analysis, development and testing activities. We currently have no means of determining whether or not this has a detrimental effect on end user experience or processing time. But generally speaking, development and test activities should not occur against production systems.

## Proposal

In order to develop a repeatable process that projects can use to implement the Agent Performance Summary Reporting solution, we propose the following steps.

* Develop a configuration management plan for the ETL project that allows for the following.
  + Version control
  + Logical organization of project artifacts
  + Deployment of the ETL scripts to multiple MAXIMUS projects
* Refactor the Texas ETL scripts to create a baseline for a multi-project solution.
  + Refactor the directory structure and scripts to conform to the configuration management plan.
  + Optimize the ETL scripts to eliminate any aggregation occurring in the extract phase of the ETL process.
  + Add ETL job audit to track data warehouse ETL history.
* Develop a testing plan and test cases for a multi-project ETL solution.
* At a minimum, perform the necessary analysis against a second call center with different data sources to prove the viability of a multi-project solution. Optimally, we would develop, test and implement the multi-project solution for a second call center.

A configuration management plan should describe the following software configuration items, control and implementation of change, recording of change, configuration audits, review cycles, approval authority, and personnel responsible for configuration management.

As mentioned in section 3, implementation of a version control system should be the first step on any software development project. To misquote Obi Wan Kenobi, version control is “an elegant weapon for a more civilized age.” We recommend that the Texas project immediately check in their scripts to a version control system.

## Deliverables

We propose the following deliverables to support this effort.

* Business Requirements Document
* Report Specification
* Technical Design Document
* Configuration Management Plan
* Deployment Instructions
* Testing Plan
  + Test Cases
  + Test Results
* Data models
* Corporate ETL scripts
* Multi-project ETL scripts

## Summary