# QTP SAP GUI Technical Manual - 04 Architecture

## Prelim Pages

Version Control /Approval etc

## Introduction

Chapter 4 covers architecture chosen by the test engineers for this specific project. The experience levels of the recipients in the future was a consideration in making the architecture choices, hence this proposed architecture was developed by the Automation engineers and approved by the Automation Management team for use in this project.

## Architecture Overview

Basic architecture premise is use a driver script and call functions that drive specific screens. This is a simpler process and follows the SAP systems operation. It allows for alternate scenarios in the case of contractor or AWA engagement that is required in the processing of employees and is maintainable (code wise) by staff with some experience in VB Script programming.

With a few exceptions, the driver contains a simple set of calls to the screens where the actual screen is filled in and save is clicked before handling the messages and dialogs where required. The exceptions are where:

* a generated value must be changed for the screen to accept a value
* a system value has to be extracted from a dialog prior to entering the main screen handler

## Basic Screen Architecture

Figure 1 below outlines the general architecture of QTP screen handlers for SAP GUI. A couple of exceptions to this design occur for where:

* Dialogs or pop-ups are used in lieu of status messages.
* The error requires an alternate generated value to be handed to the screen



Figure

These exceptions have only been observed on SAP Transaction PA40/PA30 Infotypes 0105 (Communication) and 0220 (Superannuation). Infotype 0009 Bank details extracts system data to ensure the process selects a valid Bank Key (BSB) without compromising the operation.

### Infotype 0105 Exception

Error messages on subtype 10 (Email) require the generated value to be updated, which is not possible within the screen handlers’ architecture. See Chapter 5 – Functions for details on this screen architecture exception handling.

### Infotype 0220 Exception

One specific message is handled by SAP as a dialog in lieu of a status message. This produces additional complexity to the architecture as the status bar handler is not designed or intended to do additional work on dialogs and pop-ups. See Chapter 5 – Functions for details on screen architecture exception handling.

### Infotype 0009 Exception

Before calling the screen driver, the Bank Key (BSB) is selected from a system listing of all available Keys. See Chapter 5 – Functions for details on this process.