



White Paper:
HPA™
Human Process Automation

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Abstract

A new generation of call centre platforms consisting of event driven components contained within a procedural framework has emerged. Since call scripting has become an abused and misunderstood term, and since the new techniques are more akin to workflow technology, the new term HPA (Human Process Automation) is introduced. The significant benefits of the procedural combination of software components within HPA processes are analysed. The implications of this new technology on various aspects of the call centre such as Web integration, the shift to the customer contact centre and call centre workflow are explored.

The case for intelligent call scripting

Call scripting is one of the most misused and misinterpreted terms in the call centre industry. In its most prejudiced form it is used to describe nothing more than the text that an agent is to recite automaton-like during a telephone conversation, thus reducing the hapless call centre employee to something less than human.

In reality, call scripting is a method of standardising the call processing exercise and genuinely helping the agent to maintain a focus on the actual purpose of the conversation. A script is a procedure. An intelligent script is a flexible procedure that caters for a great variety of alternative possibilities. As such, it provides the agent with the rules within which a telephone conversation should progress to its successful conclusion.

It can be argued that imposing a set of procedural rules on the way in which a call is to be handled reduces the freedom of the call centre agent and his or her ability to be spontaneous and creative in his or her work. But wouldn't this be the same as saying that the rules of chess are limiting the freedom of a great master or that the rules of perspective are inhibiting the freedom and creativity of a good painter? On the same note, one can cite Jean Bouridan, a fourteenth century French philosopher. In his view of the divergence between free will and determinism, a hungry ass stood between two haystacks, both of which were equally appetizing. Unable to decide from which stack to eat, the ass eventually starved to death.

Facile as it may seem, the previous example points out a major distinction between two major types of task and therefore two types of computer-human interaction: procedural and event driven. Most modern, web based applications are event driven. This is to say that at any point in the application, the user has the choice of selecting the next action out of a wide range of possibilities, and these actions can be performed in any chosen order. In contrast, a procedural application will direct the user to the next logical action to be performed in a predefined manner. Even though procedural applications are quite unfashionable at present, some tasks require them and the introduction of concepts such as "wizards" in various user environments serve to emphasize this point.

Inasmuch as most modern desktop applications are essentially event driven and contain procedural (wizard-like) elements, call scripting is conceptually procedural and contains event driven components. There are many advantages to this approach. First and foremost, if we look at the call as a data capture exercise, it guarantees that the agent does not collect less than necessary or more than sufficient information from the caller. Furthermore, it avoids the "Bouridan effect" in the sense that the agent is never at a loss as to what to do or ask next and therefore appear hesitant, make mistakes and prolong the call unnecessarily. Finally, it allows the agent to be active and actually guide the conversation to a successful conclusion, as opposed to an event driven approach that would make the agent passively reactive to the caller.

HPA software

Call scripting is not the only type of application that contains event driven modules within an essentially procedural framework. Robotic Process Automation or RPA workflow applications, for example, which have become ubiquitous over the last decade, employ a similar strategy. Within the RPA workflow philosophy, certain events trigger processes that contain a number of steps that need or need not be performed in each case. Each step normally involves the use of some event driven application (word processor, spreadsheet, etc.) but the process itself is strictly procedural.

Modern "call scripting" platforms are certainly more akin to RPA workflow applications than to the traditional monolithic scripting applications of the past. It is therefore more appropriate to refer to them as Human Process

Automation or HPA platforms, in the sense that they are a special case of workflow processes that begin with a call being taken or made and conclude when the call terminates. The HPA process will guide the call from one step to the next, while at each step an event driven application is activated.

The importance of components

There are significant and tangible benefits associated with the use of standard software components within HPA platforms. The fact that these components can communicate with other applications via standard interfaces allows the complexities intrinsic within these components to be separated from the actual logic flow of the process (or script) within which they exist. This simple fact has opened the way for extremely easy to use tools for the rapid development and deployment of scripts. Non-technical users, given the right components can now rapidly develop new processes (scripts) and deploy them at the push of a button.

The components employed within HPA processes can vary from the ridiculously simple (a set of buttons, a text box) to the sublimely complex (order taking, diary management). The process (script) designer is shielded from that complexity, and free to concentrate on the logical flow of the call. The component's actual functionality is irrelevant as long as its interfaces are simple and well understood.

Although the wide-ranging implications of this new approach are still largely not understood in the industry, it is becoming clear that this simple ability to separate between the event driven functionality of components and the procedural flow of the call is allowing the different functions in the enterprise to concentrate on what they are best at. The IT departments and specialised IT companies can develop self-contained intelligent components, while the call centre managers regain control over the processes they are in charge of. The traditional schism between the call centre manager and the IT department, which has plagued so many call centres can now be bridged.

Customer centric HPA

There is a further aspect of the component-based approach to HPA that is of paramount importance. Modern HPA platforms are equipped with facilities for the logical association of a list of customers with any given HPA process. This

goes much further than the traditional "campaign management" tools since the customer list can reside on the enterprise database itself and be shared between campaigns.

Software components can provide a simple and elegant front end to only those parts of the enterprise database that are relevant to the callflow process itself and shield the agents from the more arcane and irrelevant functionality inherent in the traditional database interface.

Furthermore, the ability to share database resident customer lists between campaigns allows the agent access to full customer history from within the context of any relevant script and, using CLI and IVR integration, can identify the caller and present the customer's history to the agent even before the conversation starts.

Finally, the customer centric approach to HPA is the key to extremely elegant outbound campaign management tools. Being able to access clients records on the enterprise database, allows the use of powerful graphical tools and data mining techniques in the definition of the outbound lists as subsets of the enterprise database itself.

HPA & knowledge

As mentioned before, HPA's main aim is to support call centre agents during the call by providing a logical procedural framework within which event driven components can be deployed. Practically, HPA assists the agent in presenting a professional, knowledgeable and coherent image.

In addition to these features, it is possible to take the level of agent support one level further, by associating web pages to the various components within an HPA process (script). This means that any relevant information resident on the corporate Intranet can be invoked (within a browser) at any point, in a context sensitive manner during the call.

Furthermore, the same technology can be used to allow instant access to relevant web sites that may contain up to the minute information related to the call. This can include up to date prices, product availability or new promotions. The agent is not only as up to date as the corporate web site, but also can assist the caller in the use of the site.

HPA versus RPA

We have defined HPA as a particular case of workflow processes that begin when a call is taken or made and end when the call is completed. This is not necessarily the full extent to which workflow techniques are employed within most call centres. The end of a call may trigger more traditional workflow or RPA processes that can involve any number of steps until the transaction is successfully dealt with.

A typical example would be call centres that deal with telephone answering services and particularly with emergency or service calls. In these situations, the initial call is just the beginning of a process that may involve several steps (like contacting service engineers, doctors, etc) until the case is successfully resolved.

Because of the affinity that modern HPA systems have with RPA and workflow techniques, follow-up procedures can be easily accommodated, and closely integrated with the HPA process itself. This has the advantage of providing one unified system that can support both the HPA process and the workflow or RPA (i.e. follow-up) processes.

Summary

The advent of component software architectures has created new opportunities in the call centre software arena. HPA systems can incorporate these components and deploy them in a manner inspired from the way in which workflow or RPA platforms combine standalone applications in an enterprise environment. The benefits of this approach are compelling. It is a clear vision for the call centres of the 21st century, and it is here now.