

Information on the
Virtual Community Engine



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Contents

Cover	1
Contents	2
Executive Summary	3
Introduction	4
Virtual Communities	4
Relationship Marketing	5
How the Virtual Community Engine Enables Relationship Marketing	5
VCE Product Overview	6
Business Tools	6
Production Tools	6
VCE Agents	7
Complete Web-Based Status Reporting and Server Management	8
VCE Functionality	9
Member Self Registration and Login	9
Contextual Keyword Searching and Abstract Associative Memory	9
Browser Awareness	9
Abstractions of the Everyday	9
VCE Package Solutions	10
VCE Integrated 3 Package (Firewall/Developer Solution)	10
VCE Integrated 2 Package (Developer Solution)	10
VCE Integrated 2 Package (Firewall Solution)	10
VCE Stand Alone Package	11
VCE Support Plans	11
Related VA Services	12
Custom Built Interactivity With Your Existing Databases	12
Creating and Maintaining Your Personalised VCE	12
Webserving	12
About Virtual Artists	13
About the Virtual Artists Core Team	14
Dave Sag	14
Jesse Reynolds	15
Fiona Sprott	15



Executive Summary

The VCE is an open extensible platform suitable for constructing complex web applications for internet relationship management. Features such as visitor personalisation, advanced content management, decision support reporting and web-based authoring enable sophisticated interactive and personalised websites to be built and delivered collaboratively and efficiently.

With the burgeoning growth of content that must be handled by today's corporate websites, the distribution of authoring responsibility from webmasters to business units and end users is crucial. The VCE supplements end-user capabilities with a "publishing service centre" that establishes consistent design, authoring, and maintenance procedures.

The VCE is equipped with robust functionality such as link management, data authorisation, members' self-registration, log in and log out, and collaborative, component-based document creation. It also provides a level of workflow functionality ranging from single sign-off to multi-step approval processes.

The VCE is a tool that enables corporations to more effectively create, manage, store, and publish content for web consumption. It reduces webmaster bottlenecks, and allows IT to put content ownership back in the hands of relevant business units while maintaining central repositories for scalability, security, performance and maintenance.

As websites and intranets mature from a publishing medium to an application platform, developers and application managers will be increasingly involved in content management decisions. The VCE caters for the needs of developers and site administrators, not just authors.

The VCE allows you to evolve site management into a life-cycle discipline focusing on architecture/design, information/application services, content management, monitoring, traffic/usage analysis, security policies, scalability, and metrics/service levels.



Introduction

Virtual Communities

Your business is a community of common interest, comprising suppliers, customers, staff, management, shareholders and more.

The VCE is designed for flexibility, allowing you to represent the kinds of users you have and manage them with your own custom groups. Broadly speaking, the information that flows throughout your wider business community passes through the following hands:

Contributors

Content contributors are typically the largest and most involved user-group within the content creation process. These are the individuals who are primary content owners, and are often responsible for ongoing updates and maintenance. Typically, they are aligned closely with a single business unit or process, and are creating content for a specific audience or purpose. Contributors are rarely HTML-savvy and require tools to enable them to both create and maintain documents in raw formats (pre-html).

Managers

Managers are loosely defined as people in a supervisory role. They are responsible for policy enforcement and are typically part of the content approval process. Managers often have both approval and edit/update capabilities and are also, typically, working within raw document formats.

Editors

The editor category can include traditional editors, legal departments, external PR/image consultants, graphic departments, etc. They are not necessarily involved in content creation directly, but play an integral role through either working with original content or HTML files, often as the final step before publication. As the editor group is more broadly defined than the others, the skill sets and applications used vary widely.

Site Designers

There are multiple responsibilities and skill-sets required for site maintenance and control of the content submission process. The site designers typically create and manage templates, web document designs, style sheets, site layout and navigation, etc.



Relationship Marketing

Put simply, relationship marketing means forging and maintaining a tight, personal relationship with all members of your business community.

Your web site development tool must understand and serve client needs, not just serve up web pages. Moreover, your clients change over time and so must your website. For web-based relationship marketing to be effective, a website must grow as its members make use of its many and varied functions. A website must adapt its presentation, navigation and content to its members' environment, observed behaviour and stated preferences.

How the Virtual Community Engine Enables Relationship Marketing

Virtual Artists' VCE is a high-end content management system which transforms websites from functionless 'brochure-ware' into content-centric web-based applications combining "just-in-time" assembly, complex media, online analysis, profiling, and component frameworks with process automation and legacy integration. The VCE's unique content-centric architecture emphasises personalisation and customer-focused services, integration with campaign management, marketing environments and commerce facilities to link dynamic business processes through multiple electronic channels.



VCE Product Overview

Business Tools

Visitor Profiling and Personalisation Systems

The VCE knows its members, and can refer to them by name. Using its integrated tense and gender awareness, the VCE can provide a conversational interface to your business. It is simple matter to establish custom preferences based on members' click trails, attention span, current vs usual browser, and many other advanced heuristics.

Visitor Tracking

The VCE will generate a wealth of information that can be analysed in a variety of ways. Log reports, member click trails and other reports can be fully customised and provided on an ad-hoc basis or rendered to reports at specified time intervals.

Business Process Automation

Build your business logic into your website. For example, if changes to a company news story must be signed off by the marketing director prior to publication, the VCE provides simple validation processes for all data. The VCE can notify appropriate people via email and will integrate with any number of third party communications systems.

Production Tools

Integrated and Fully Customisable Web-based Development Environment

The VCE is designed to be completely web-based. All site maintenance is done via the browser. All of the site editing tools are able to be edited and customised by the developer who wants additional functionality. Because the VCE will generate Cascading Style Sheets, JavaScript and other DHTML elements, it is possible to develop complex and comprehensive customised editing tools.

Integrated Content Management

The VCE incorporates special 'action tags' for database field retrieval, record selection, set manipulation, relation management and more. Data can be set to automatically render to webserver-ready flat html files on validation. Control of what data is available to be edited and validated by which people is specified by the site designer.



Rich Content Support

Supports HTML, XML, SGML, JPEG, GIF, QuickTime, Shockwave, Java, PDF, and more.

All of the media types supported by the VCE may be added to your content using the VCE's built-in browser-based media object upload.

Integrated Version Control

The VCE's internal data version management system allows for simple data audits, revision control, version tracking and more.

Adaptive Hyperlink Generation

The VCE will automatically generate the correct links to either dynamic or rendered pages and other multimedia content.

Integrated Component Architecture

Sites can be rapidly assembled using 'Chunks' and other media objects. Site components can contain their own logic and enable consistent design and navigation motifs across an entire site.

By developing nested 'chunks', developers gain the advantages of maximum code reusability and information hiding. For example, imagine you wish to thank a member for having edited a story. The member may have edited their own story, or a story belonging to someone else. By defining a chunk called 'your', the developer is able to write "Thanks for editing <_insert_parsed your_> story." The chunk 'your' contains the required logic to write "your", or "Ms X's" depending on the context. In a similar manner, contextual user-interface and navigation elements can simply and quickly be developed and deployed.

VCML: A Simple Tag-Based Scripting Language Independent Of File Formats

VCML is the development language of the VCE. You can embed VCML tags in any XML, HTML, VRML, JavaScript or other text object that can reside within the VCE, including Unix configuration files and Windows .BAT files. VCML tags allow for document flow control, database field substitution, simple expression parsing, looping and iteration, set manipulation, agent scripting, and triggering and more.

VCE Agents

The VCE has built-in agents for logging, page rendering, file mirroring across servers, keyword indexing and mail-outs; other agents can be added as required by scripting them using the VCE's own VCML language.



Complete Web-Based Status Reporting and Server Management

At any time while the VCE is running developers can request status reports, ping tests and other diagnostics from their web browsers.

Visitor Interactivity Support

No extra CGIs are required. The VCE can apply logic to the handling of HTML, XML, or PDF forms with no extra-VCE server-side scripting required.



VCE Functionality

Member Self Registration and Login

Site members can, at the discretion of the site designers, register themselves and log in and out at will.

Contextual Keyword Searching and Abstract Associative Memory

The VCE allows for complete keyword indexing and searching of data. In addition, the VCE provides a unique associative memory system which enables abstract comparisons such as “select similar” to be made. Using these tools, comprehensive user profile matching and predictive mechanisms can be simply exploited in the form of recommendation agents and so forth.

Browser Awareness

The VCE can generate different output depending whether the browser is a search engine, a version 4 browser, or a text-only browser.

Abstractions of the Everyday

The VCE breaks information up into relationships between People, Places, Things, Events, Services and more.



VCE Package Solutions

The following VCE packages are suited to meeting the priority needs of your organisation.

VCE Integrated 3 Package (Firewall/Developer Solution)

This is the deluxe package for the client seeking to develop and maintain their own VCE site, maintain content inside their firewall and present content externally enjoying full access to the dynamic features of the VCE. This package includes 3 VCE licences optimised for functioning together, with one front-of-house server on the outside of the firewall, the other two behind the firewall with one dedicated to the management of content (accessible by all relevant members of your organisation) and the other as a staging server for constructing the next look and feel version of your site. Content upgrades and interface upgrades can happen independently of each other.

VCE Integrated 2 Package (Developer Solution)

This package includes 2 VCE licences, and provides for a staging VCE and a front-of-house VCE so that you can develop the next version of the current site without interfering with the site as it is displayed online to your visitors. The simplicity of the import/export functions make for easy transitions of new design to the live VCE when the time is right.

This package allows for live content creation and modification on the front-of-house server while the developer prepares the new look and feel on the staging server.

VCE Integrated 2 Package (Firewall Solution)

This package includes 2 VCE licences, and is ideal for organisations wishing to allow users behind their firewall to create and modify content prior to moving across to the front-of-house server. This solution results in there being two identical VCE sites placed either side of the firewall, with content maintained on the internal site. Updates are automatically exported by the internal server, and upon passing through the firewall they are noticed and the new data imported by the external VCE for public consumption. The benefit to the client is that transporting files across the firewall is entirely the responsibility of the Firewall Administrator: this ensures integrity of your firewall and security for your network. Our company need not ever have access to your security information.



VCE Stand Alone Package

This package includes 1 VCE licence; therefore there will be restrictions on interface redevelopment. This is the ideal solution for clients desiring a comprehensive distributed publishing service which is not affected by firewall restrictions. This package is also suited to clients who do have a firewall and prefer only the 'flat' website output of the VCE to be on the internet (and have the capacity to provide an alternate search facility specific to the flat site).

VCE Support Plans

VA offer technical and development support contracts with any VCE customised to meet the specific needs of your organisation and project. We consider this process to be of utmost importance and take pride in being able to offer a personalised training and support program upon request.

In general, a VCE developer will only require significant technical support when attempting to create new kinds of functionality which they have not previously attempted with VCML. Required functionality will be determined by your organisation, and will be specific to your needs. In our experience, we find that clients appreciate our personal assistance with design as they implement their ideas and customise the software for their specific requirements.

We recommend that for less experienced clients, and where new functionality will be required, an extensive Support Plan be considered. Via a process of assessment of your needs and desires for your VCE, we will be able to plan accordingly and offer a recommendation as per the purchase of a support contract.

VA are able to offer varying degrees of support, ranging from creative input during the conceptualisation stages, through programming help, to planning the next stage. VA want you to get the most out of your VCE, as we recognise that it will be an integral part of your business practice - and increasingly so over time.

At the time of developing a suitable Support Plan, we will assess your needs and ensure that you select a support plan that will secure sufficient interaction with your personal support liaison, affording your organisation peace of mind.



Related VA Services

Custom Built Interactivity With Your Existing Databases

VA can assist with design and construction of automated systems to integrate your existing databases with your VCE driven internet site. Please let us know what your specific needs are.

VA provides comprehensive source-level VCE customisation, allowing the VCE to communicate with your legacy systems in ways which do not compromise your security. Import/Export filters can be developed and added to suit any of your legacy needs.

Creating and Maintaining Your Personalised VCE

VA provide 'boutique' solutions to our clients, both in regards to our software and webserving, and we are proud to be able to offer such a personalised service. In many cases, requests for added features to the VCE are incorporated for the benefit of many VCE users. However, we seek to always maintain the integrity of the generic version in order to ensure long term flexibility. For this reason, clients with highly specialised needs are offered the option of commissioning their own personalised VCE (unique to them and unable to be used by another organisation). We charge an annual fee, which includes free updates as per the advances made to the generic VCE which allows for you to continue to get the best from your VCE by keeping it in sync with the current generic version. As this is a non-standard service with great scope for variance in the degree of 'personalisation', the yearly fee is based upon an assessment of your needs.

Webserving

VA offer full web serving and web hosting services. For a VCE website, we purchase a machine dedicated to your site, and assemble a mirror site on our UNIX webserver. Fees for webserving vary according to the degree of support requested. We can deliver 24 hour support, or business hours only support.



About Virtual Artists

“Looking to the future we envision ourselves perched, ready for the leap into a new virtual world which we will help to shape.”

Virtual Artists Pty Ltd was established in July 1993 by Co-Directors **Jesse Reynolds** and **Dave Sag**.

The business of Virtual Artists Pty Ltd (VA) encompasses the following:

- Internet Consultancy
- Internet software design, development and distribution
- Internet Hosting Services
 - web hosting
 - DNS registration services
 - email services
 - RealMedia services
 - Internet Telepresence Systems
- Web Design

In 1998 VA were awarded a **Certificate of Business Achievement** for the Australia Post Australia Day Council Business Awards. Prior to this, the company have received much public acclaim for our work with a number of large-scale internet projects and events.

Now in its ninth year of operation, and with offices in Adelaide, Sydney and London, VA has a proven track record of success and is highly regarded by the Australian IT industry as a high-end Internet technology design company. As participants in the industry, VA takes a keen interest in media technology and the direction it is taking, and as such are dedicated to ongoing R&D.

Maintaining a commitment to the eco-business model of practice, VA constantly seeks to forge new relationships with other developers, designers, technicians and creative IT specialists. VA particularly values its established relationships with many of the larger ISPs, as well we maintain strong relations with TAFE, Deadline Media and Publishing, ANAT and the Australia Council - all of whom we have collaborated with on large scale, innovative internet projects utilising the VCE.