Virtual CICS user group: Newsletter 16

Welcome to the Virtual CICS user group newsletter. The Virtual CICS user group at www.fundi.com/virtualcics is an independently-operated vendor-neutral site run by and for the CICS user community.

Virtual CICS user group presentation

The latest webinar from the Virtual CICS user group was entitled, “Creating Modern CICS Web Applications by Exploiting Open Source Javascript Libraries”, and was presented by Stephen Mitchell, Managing Director of Matter of Fact Software Limited.

Stephen started the session by giving the user group his working definition of what was meant by a CICS Web Application. He defined it as any CICS application that involves direct interaction with a Web browser over TCP/IP.

He went on to say that a modern CICS Web application needs sophisticated user interfaces, should be reliable and scalable as well as secure, must be easy to construct and manage, and should be able to securely exploit Open Source offerings such as Dojo Toolkit, JQuery, YUI Library, MooTools, etc.

The challenges that Stephen could see were how to get CICS to do all of this (bearing in mind that CICS is very capable but significant expertise may be needed to achieve the desired result); inertia in mainframe operations (with a reluctance to try anything new); a diminishing pool of CICS experts available who are perceived as expensive; and

CICS JS/Server Status

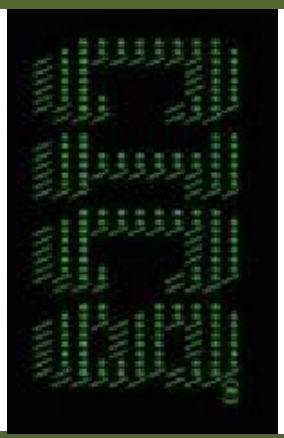
ToolKit	C Vv	C Vv	C Vv	C Vv	C Vv	C Vv	C Vv	C Vv	C Vv	C Vv	C Vv	C Vv	C Vv	C Vv	C Vv	C Vv	C Vv	C Vv	C Vv	C Vv	C Vv	C Vv	C Vv	C Vv	C Vv	Status
DTK (A)	A 150	$B 161	$C 172	$D 172	$E 172	$F 172	$G 172	$H 172	$I 172	$J 172	$K 172	$L 172	$M 172	$N 172	$O 172	$P 172	$Q 172	$R 172	$S 172	$T 172	$U 172	$V 172	$W 172	$X 172	$Y 172	$Z 172	$	Operational
JQR (B)	A 1818	$B 1818	$C 1818	$D 1818	$E 1818	$F 1818	$G 1818	$H 1818	$I 1818	$J 1818	$K 1818	$L 1818	$M 1818	$N 1818	$O 1818	$P 1818	$Q 1818	$R 1818	$S 1818	$T 1818	$U 1818	$V 1818	$W 1818	$X 1818	$Y 1818	$Z 1818	$	Operational
YUI (C)	A 341	$B 351	$C 351	$D 351	$E 351	$F 351	$G 351	$H 351	$I 351	$J 351	$K 351	$L 351	$M 351	$N 351	$O 351	$P 351	$Q 351	$R 351	$S 351	$T 351	$U 351	$V 351	$W 351	$X 351	$Y 351	$Z 351	$	Operational
QJY (Z)	A 172	$B 172	$C 172	$D 172	$E 172	$F 172	$G 172	$H 172	$I 172	$J 172	$K 172	$L 172	$M 172	$N 172	$O 172	$P 172	$Q 172	$R 172	$S 172	$T 172	$U 172	$V 172	$W 172	$X 172	$Y 172	$Z 172	$	Operational
MOO (Z)	A 145	$B 145	$C 145	$D 145	$E 145	$F 145	$G 145	$H 145	$I 145	$J 145	$K 145	$L 145	$M 145	$N 145	$O 145	$P 145	$Q 145	$R 145	$S 145	$T 145	$U 145	$V 145	$W 145	$X 145	$Y 145	$Z 145	$	Operational
PTY (Z)	A 161	$B 170	$C 170	$D 170	$E 170	$F 170	$G 170	$H 170	$I 170	$J 170	$K 170	$L 170	$M 170	$N 170	$O 170	$P 170	$Q 170	$R 170	$S 170	$T 170	$U 170	$V 170	$W 170	$X 170	$Y 170	$Z 170	$	Operational
SAU (Z)	A 190	$B 190	$C 190	$D 190	$E 190	$F 190	$G 190	$H 190	$I 190	$J 190	$K 190	$L 190	$M 190	$N 190	$O 190	$P 190	$Q 190	$R 190	$S 190	$T 190	$U 190	$V 190	$W 190	$X 190	$Y 190	$Z 190	$	Operational
RSW (Z)	A 100	$B 100	$C 100	$D 100	$E 100	$F 100	$G 100	$H 100	$I 100	$J 100	$K 100	$L 100	$M 100	$N 100	$O 100	$P 100	$Q 100	$R 100	$S 100	$T 100	$U 100	$V 100	$W 100	$X 100	$Y 100	$Z 100	$	Operational
DDD (Z)	A 296	$B 296	$C 296	$D 296	$E 296	$F 296	$G 296	$H 296	$I 296	$J 296	$K 296	$L 296	$M 296	$N 296	$O 296	$P 296	$Q 296	$R 296	$S 296	$T 296	$U 296	$V 296	$W 296	$X 296	$Y 296	$Z 296	$	Operational

CICS JS/Server Licence - remaining days 0028

Figure 1: CICS JS/Server: Open Source Resources Served

Contents:



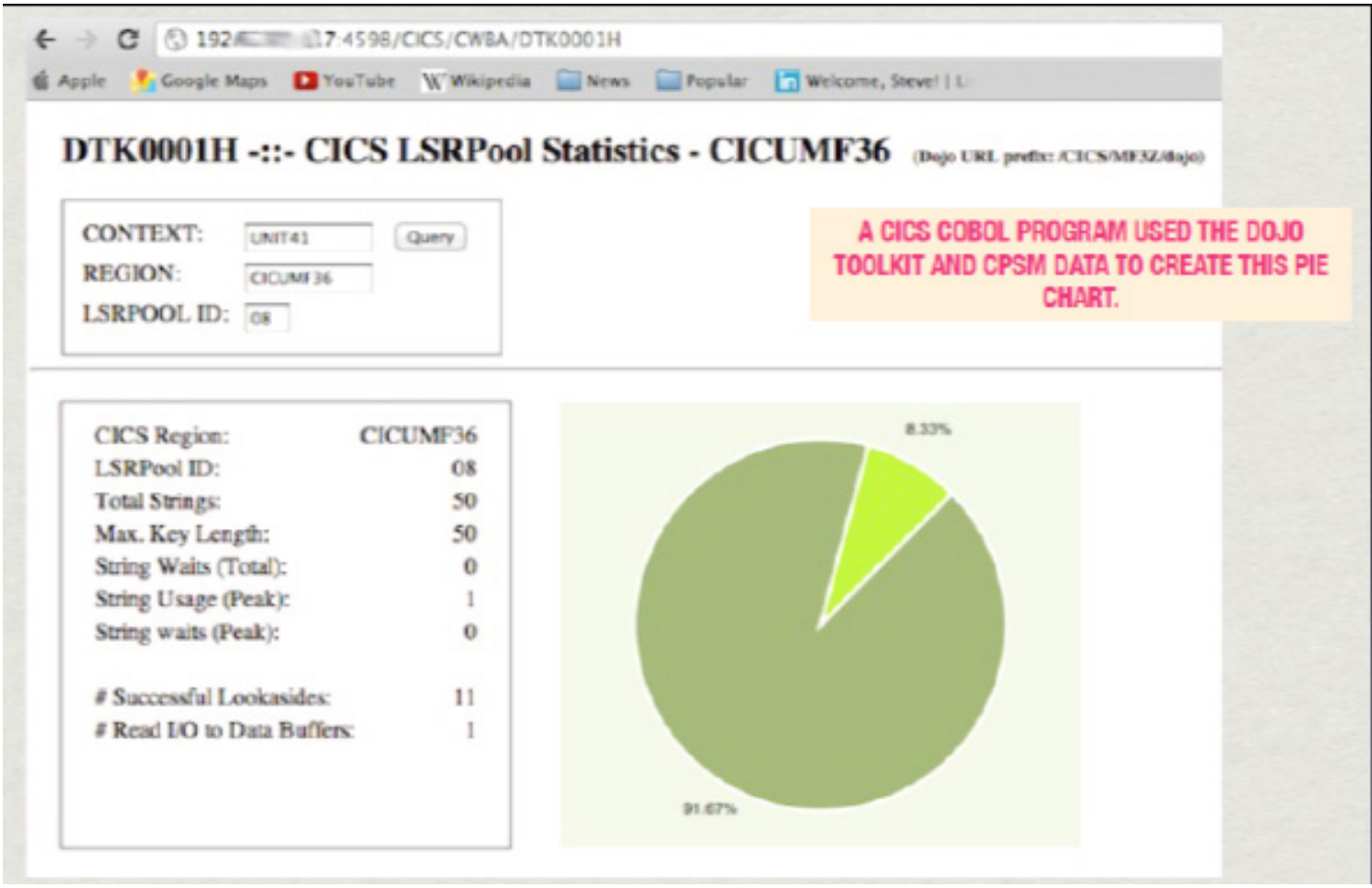


Figure 2: Sample Dojo Toolkit usage

a desire to make everything cheaper to create, run, and manage.

The Open Source JavaScript Libraries that are currently available include Dojo Toolkit, JQuery, JQuery UI, MooTools, YUI Library, D3JS, Scriptaculous, Rickshaw, Prototype, and some others.

Stephen suggested that one solution to the problem was to use CICS JS/Server. This made use of The CICS elements (such as CICS Resource Definitions, CICS RDO Group: DFHWEB, TCPIPServices / URIMaps, document templates, and Web analyser programs), the CICS API (such as EXEC CICS WEB READ / SEND etc and EXEC CICS DOCUMENT CREATE / INSERT etc), and fixed data (such as document templates, DB2 / database records, VSAM data, and Temporary Storage queues).

On the Web browser side, it uses HTML, JavaScript files (.js), stylesheet files (.css), image files (.jpg/.gif/.png), and some other file types and browser plug-ins.

Figure 1 shows the CICS JS/ Server status display. Each item is hyperlinked.

Figure 2 shows how data from CICS can be used to create pie charts. Other types of graphical display are available.

All the usual JQuery tools to build tabbed data and accordions are available. It's possible to create calendars, and use drag-and-drop

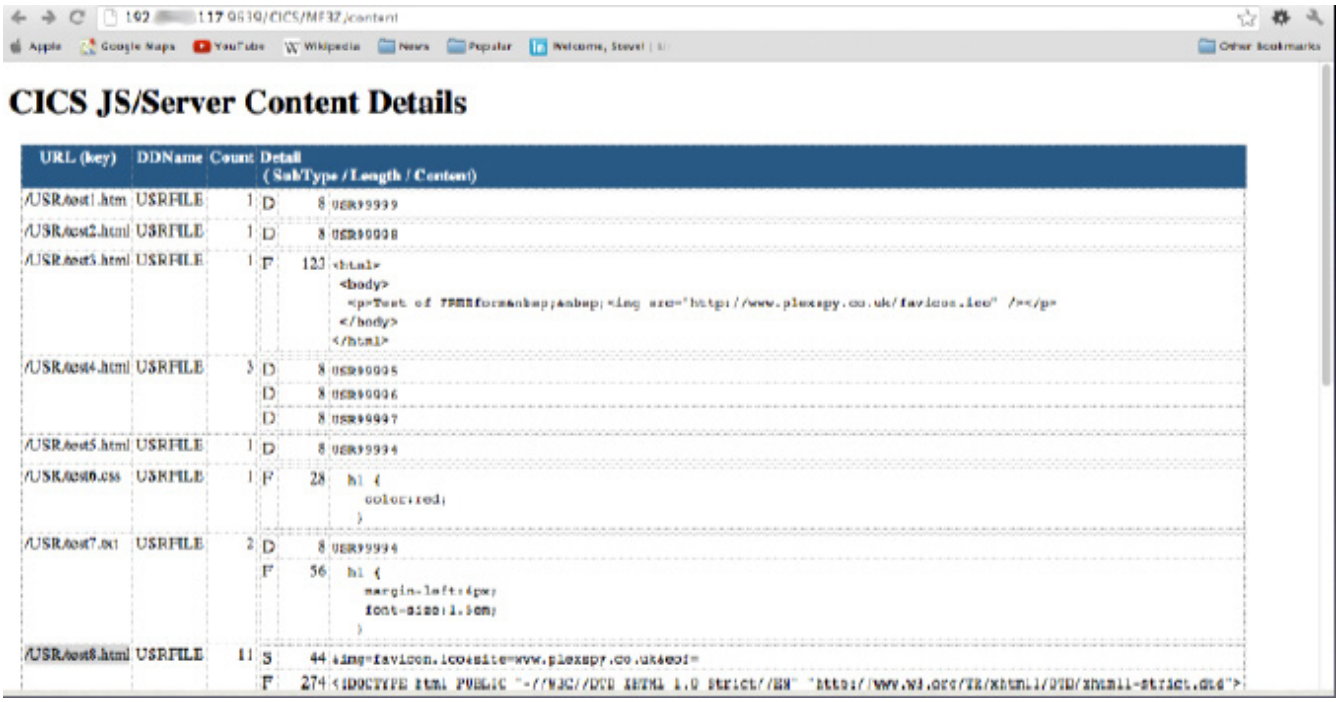


Figure 3: Content Server file records can be viewed through a Web browser

features to add items to a page.

JS/Server can handle bespoke content. Users can define their own CICS document templates to be used by CICS JS/Server, and they can contain Javascript, stylesheets, HTML, images and plug-ins for the Toolkits/ Libraries. Users can define symbolics, freeform text, document templates, and CICS application programs, and construct new CICS Web applications based on them.

A batch job that uses a specially edited REXX Exec creates records in a content server file. The records added to the file are interpreted by CICS JS/ Server, which will create Web applications based on the record contents. Symbols can be used and substituted either by CICS JS/

Server directly or by application programs called by the content server process. Document templates defined to CICS can be used by the content server as part of new novel CICS Web applications.

Figure 3 shows that Content Server file records can be viewed through a Web browser.

Stephen Mitchell concluded his presentation by asking what better platform is there for Web applications than CICS?

He went to suggest that CICS JS/Server brings the strengths of the mainframe to the use of several Javascript Libraries and Toolkits, providing a simple way to install, manage, and operate these powerful Open Source offerings. It enables the tried and trusted processes for managing CICS applications to be extended to the use of these Open Source resources. It allows bespoke content to be served. It facilitates the building, serving, operating, and management of novel CICS Web applications or the improvement of existing corporate Web applications. And it can exploit a Parallel Sysplex allowing for: very high volumes of transactions;

and reliable, resilient, and secure applications.

A copy of Stephen Mitchell's presentation can be found at http://fundi.com/virtualcics/presentations/WebappsSep13s.pdf.

You can see and hear the whole user group meeting by downloading the WMV file from www.fundi.com/virtualims/presentations/2013-09-10meeting.wmv.

Meeting dates

The following meeting dates have been arranged for the Virtual CICS user group:

- On 12 November we have a presentation from Creative Data Movers' Mary Abdill on Programming with CICS TS Channels and Containers.

The next meeting will be on 14 January 2014.

We will be using Citrix GoToMeeting for the user group meetings.

Recent CICS articles

CICS V5.1: Taking Your CICS Applications to a Higher Level by Nick Garrod in *Enterprise Tech Journal* (August/September 2013). You can find the article at http://enterprisesystemsmedia.com/article/cics-v5.1-taking-your-cics-applications-to-a-higher-level.

About the Virtual CICS user group

The Virtual CICS user group was established as a way for individuals using IBM's CICS TS systems to exchange information, learn new techniques, and advance their skills with the product.

The Web site at www.fundi.com/virtualcics provides a central point for coordinating periodic meetings (which contain technically-oriented topics presented in a webinar format), and provides articles, discussions, links, and other resources of interest to IBM CICS practitioners. Anyone with an interest in CICS is welcome to join the Virtual CICS user group and share in the knowledge exchange.

To share ideas, and for further information, contact trevor@itech-ed.com.

The Virtual CICS user group is free to its members.