



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, "Programming with CICS TS Channels and Containers", and was presented by CreativeDataMovers' Mary Abdill.

Mary started the session by telling the user group that channels and containers provided a newer and better technique for passing large amounts of data between CICS programs.

She also suggested that they were generally better than using COMMAREAs; and require logic changes in the program code.

Figure 1 illustrates the different ways to share data that are available. Figure 2 illustrates some of the problems associated

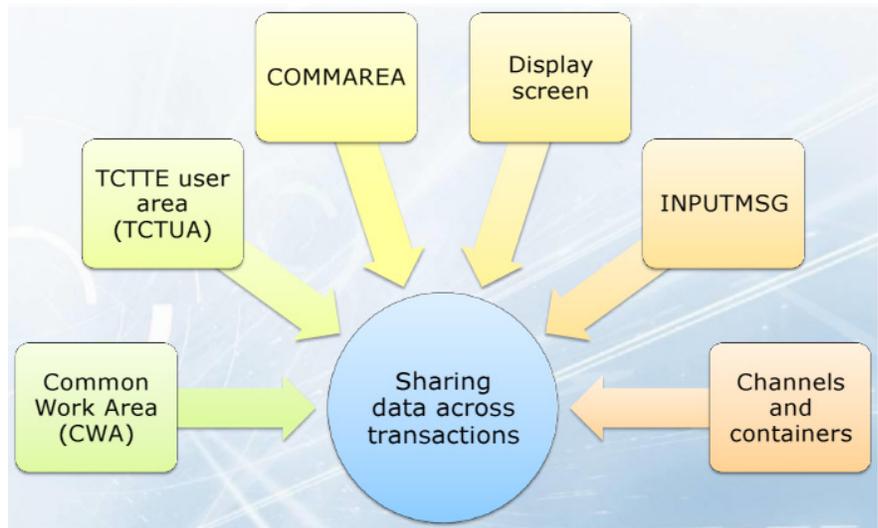


Figure 1: Ways to share data between transactions

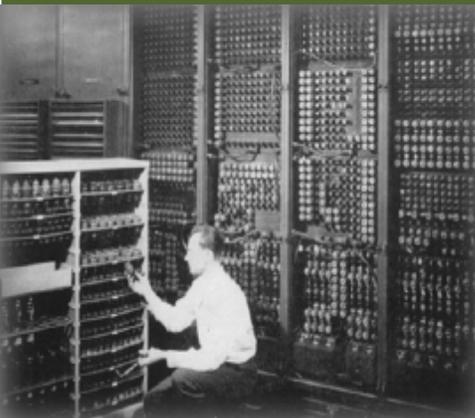
with simply having bigger COMMAREAs.

are possibly faster than COMMAREAs.

Mary Abdill told the user group that people were moving to using channels and containers because: COMMAREA limited to 32K; COMMAREA has a single region or DPL; display screen is not secure; CICS Web Services support channels and containers; and channels and containers

Contents:

Virtual CICS user group presentation	1
Meeting dates	4
Recent CICS articles	4
CICS news	4
About the Virtual CICS user group	4



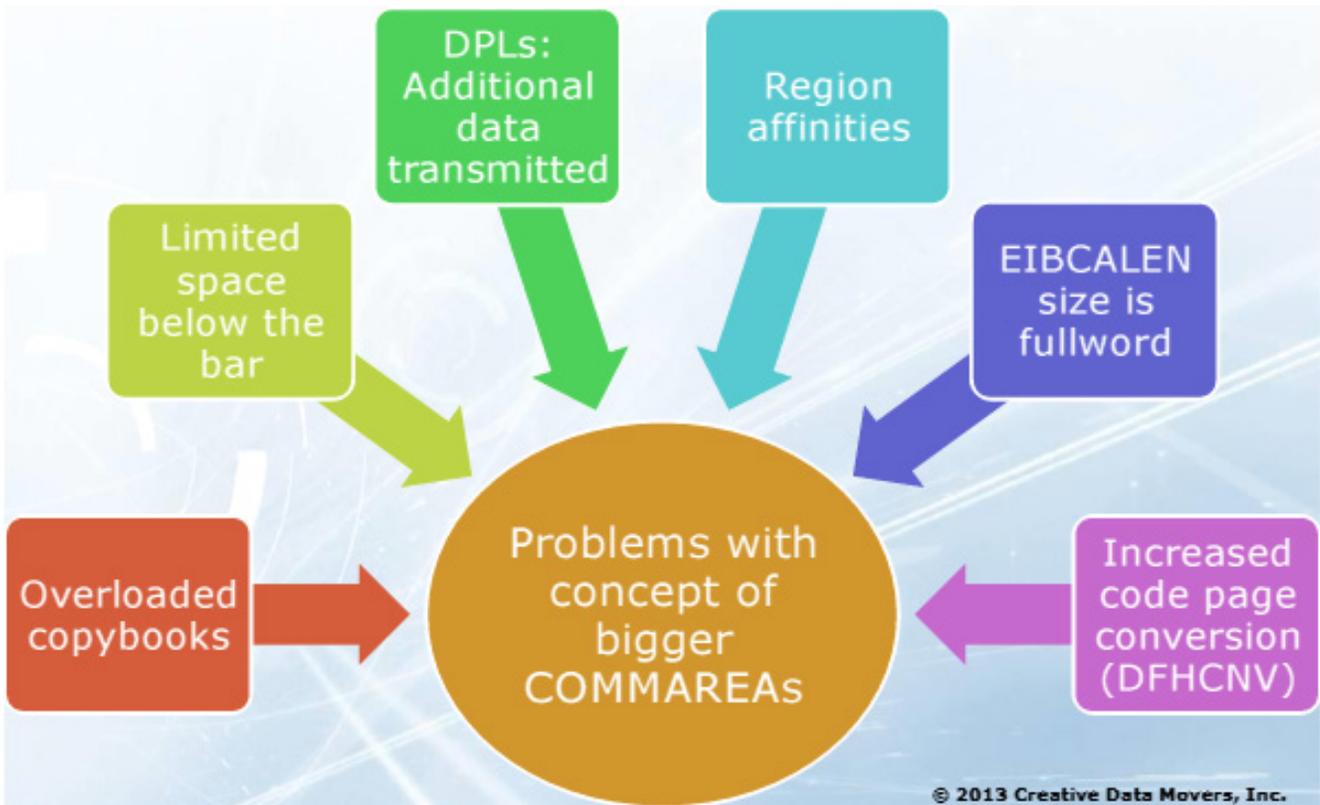


Figure 2: Problems with the idea of bigger COMMAREAs

Figure 3 illustrates the relationship between channels and containers. Each channel can contain a number of containers. The benefits of using them are: there are no size limits; data is more structured; they are easier to program; and provide better data conversion.

To create a container and assign it to a channel, you use the PUT command:

```
EXEC CICS PUT
CONTAINER(container-name)
CHANNEL(channel-name)
```

To pass a channel and its containers, you code CHANNEL(channelName) on a link, xctl, start, or return:

```
EXEC CICS LINK PROGRAM(PROG2)
CHANNEL(channel-name)
```

Mary gave the user group some useful ideas for channel names. The name is 1–16 characters and you can use: A-Z a-z 0-9 & : = , ; < > . - _ . But avoid using | “ \$ @ # / % ? !. If you are shipping channels between regions, just use: A-Z a-z 0-9 & : = , ; < > . - _ . There must be no leading or embedded spaces. Names with less than 16 characters are padded with trailing spaces.

For container names, the same rules apply. And definitely don't use container names beginning with 'DFH', unless requested to do so by

CICS.

For an EXEC CICS PUT container you could use:

- CONTAINER (container-name)
- CHANNEL (channel-name)
- FROM (data-area)
- FLENGTH (fullword, COMP)
- FROMCCSID (current Coded Character Set)
- DATATYPE (BIT | CHAR)

For an EXEC CICS GET container, you could use:

- CONTAINER (container-name)

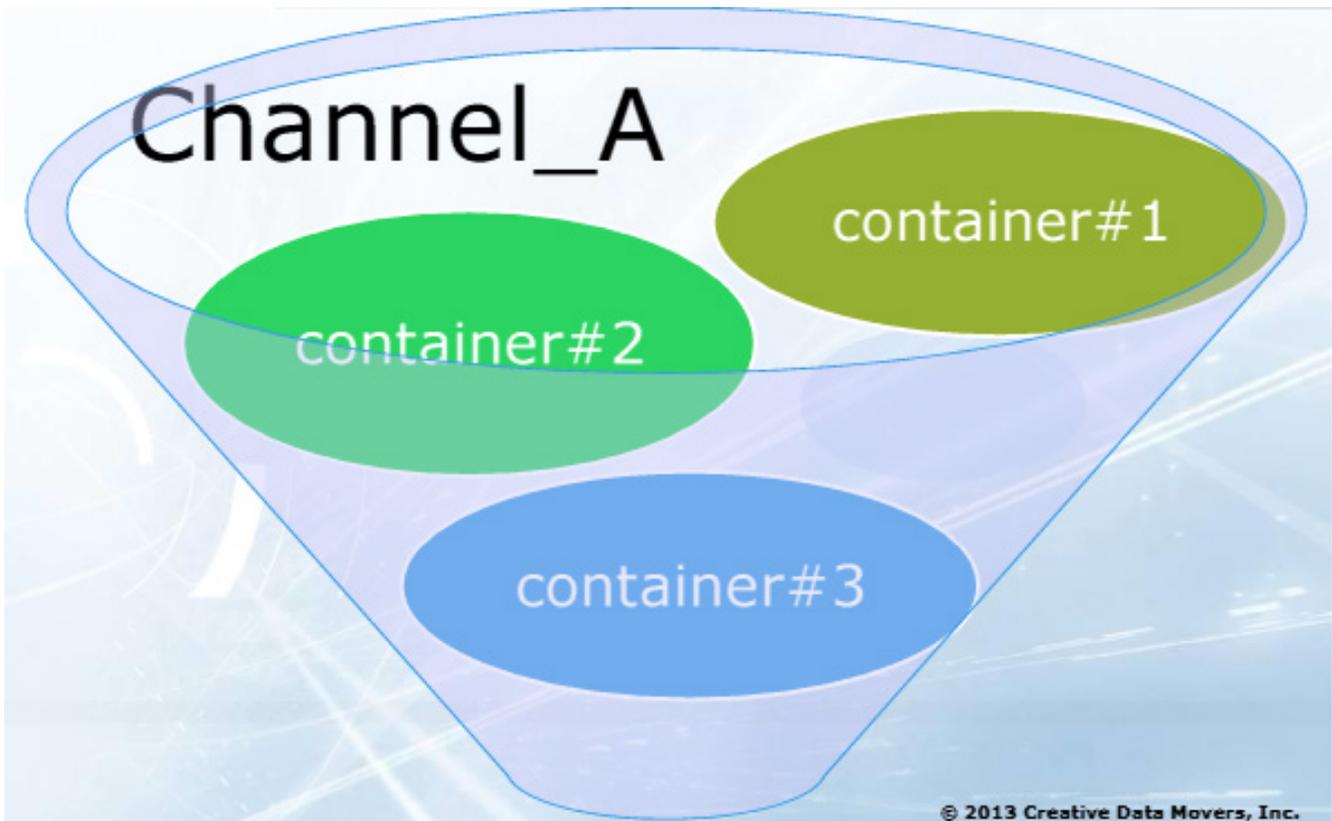


Figure 3: A channel with a number of containers

CHANNEL (channel-name)

INTO (data-area)

FLENGTH (fullword length)

NODATA

SET (Linkage Section pointer)

INTOCCSID (current Coded Character Set)

The current channels is set by the calling program or transaction. It is the channel coded on LINK, XCTL, START, or RETURN. A program may create additional channels, but the current channel does not change during the life of the program. If a channel is not

coded on an EXEC CICS, then the current channel is the default (on GET, PUT, etc, except for LINK, XCTL, START, or RETURN).

A channel is created by naming it on an EXEC CICS

- PUT CONTAINER CHANNEL
- MOVE CONTAINER CHANNEL TOCHANNEL
- LINK PROGRAM CHANNEL
- XCTL PROGRAM CHANNEL
- RETURN TRANSID CHANNEL

- START TRANSID CHANNEL

A channel is deleted when it goes out of scope, ie when no application program is able to access the channel

It's described as temporary when you create it and use it and immediately delete it, with no intention of passing it.

Typically, both client and server programs know their channel name, and the names of all the containers in that channel. However, a server program may handle multiple channels

ASSIGN returns which

channel was passed (EXEC CICS ASSIGN CHANNEL(channel-name)), and returns spaces if there is no current channel.

Mary passed on some best practice hints and tips. She said use separate containers for input and output. Separate containers for each structure and *vice versa* Separate the Error messages container. Do not create too many large containers because it limits the storage available to other applications. The copybook names the channel and containers used and the data fields that map to the containers. So include the copybook in both client and server programs.

Use separate containers for character data versus binary data. Use separate containers for 'input-only' versus read/write data. The server program creates the output containers. If structure is optional, make it a separate container.

A copy of Mary Abdill's presentation can be found at <http://fundi.com/virtualcics/presentations/CCNov13.pdf>.

You can see and hear the whole user group meeting by downloading the WMV file from www.fundi.com/virtualcics/presentations/2013-11-12meeting.wmv.

Meeting dates

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

- On 14 January, we have a presentation from GT Software's Don Spoerke entitled. "Kick your Mainframe into High Gear: Access and Use Mainframe Data with Mobile, Web, and Business Intelligence Applications".
- On 11 March, we have a presentation from IBM.

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

Recent CICS articles

CICS and the Open Transaction Environment: What to Do Without DB2 by Russ Evans in the October/November edition of *Enterprise Tech Journal*. You can find the article at <http://enterprisesystemsmedia.com/article/cics-and-the-open-transaction-environment-what-to-do-without-db2>.

CICS 101: CICS Problem Determination With Trace by Phyllis Donofrio in the October/November edition of *Enterprise Tech Journal*. You can find the article at [\[problem-determination-with-trace1\]\(#\).](http://enterprisesystemsmedia.com/article/cics-101-cics-</p></div><div data-bbox=)

CICS news

CA Technologies has released Version 7.1 of CA LISA. New features include support for CICS Transaction Gateway (CTG), and the ability to virtualize more types of mainframe implementations as well as to trace and virtualize transactions through mainframe CICS. Full details can be found at <http://www.ca.com/us/lpg/ca-lisa-7-1.aspx>.

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.