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, ""Finding Your Way with A CICS MAP – Back To Basics", and was presented by Creative Data Movers' Mary Abdill.

Mary is the founder and president of Creative Data Movers, Inc, and brings to her company rich and diverse technical and teaching experience. Mary is a consultant, IT instructor, courseware developer, and popular stand-up instructor with specialized skills in the area of application design and development. Application Development Boot Camps are one of Mary's specialties. These in-depth boot camps range from mainframe Assembler, COBOL, PL/I, etc programming to developing Web application using Java,
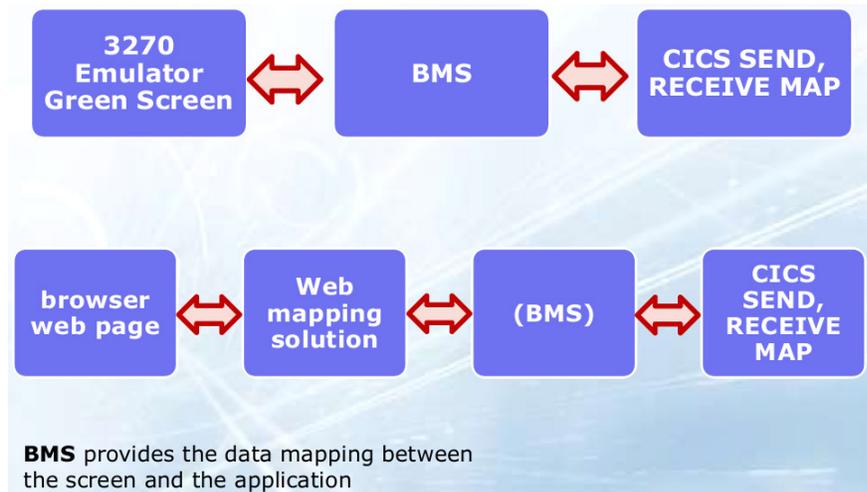
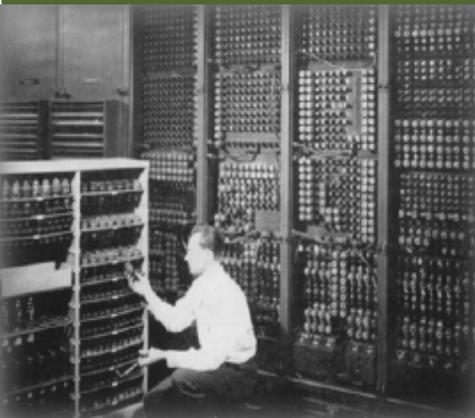Figure 1: Possible data flow scenarios
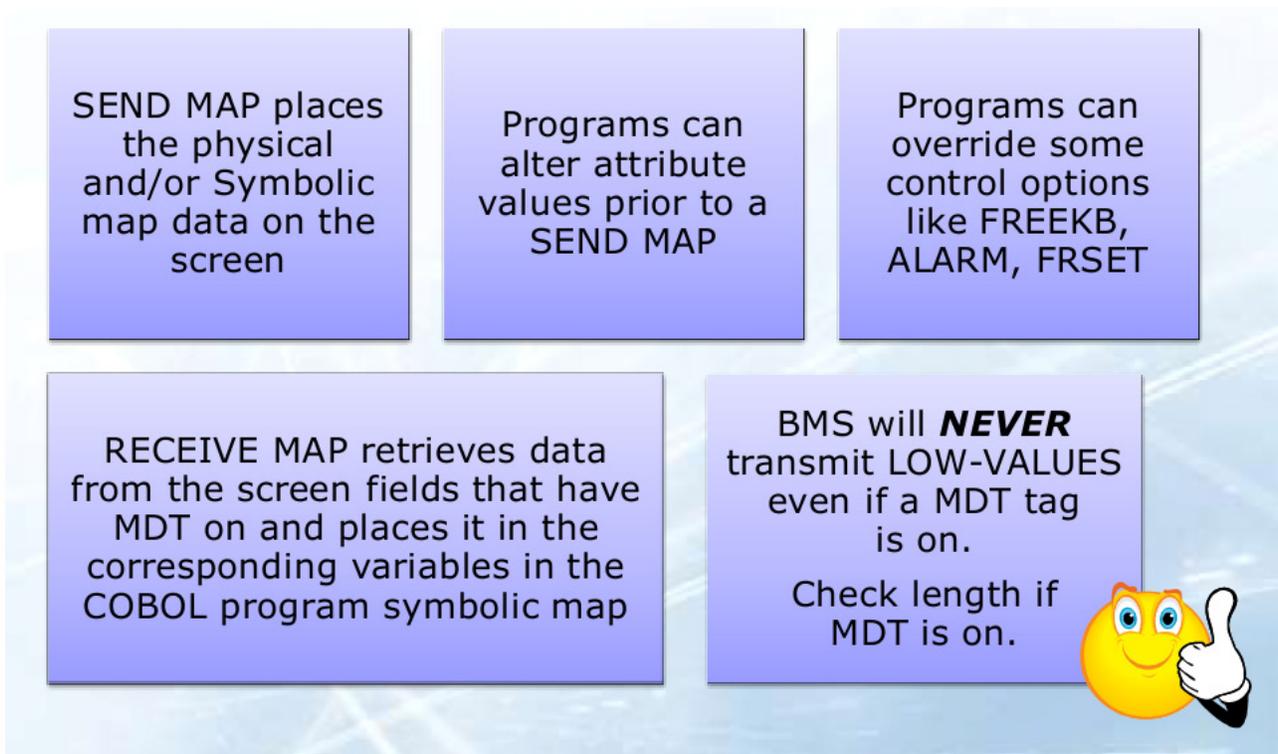
JavaScript, HTML, CSS, servlets, JSPs, etc.

Mary started her session by listing some reasons to learn about maps. These included:

- You are coding actual maps

- You maintain code that uses maps

- You use map generators,

Contents:

Figure 2: Using a BMS mapset in a COBOL program

such as SDF2, and need to learn the concepts

- You use a WEB 3270 Bridge, HATS, or similar to convert maps to Web pages

- You are converting maps to HTML, JavaScript, or CSS.

Figure 1 shows data flow scenarios, illustrating how BMS (Basic Mapping Support) provides the data mapping between the screen and the application.

Mary then explained what maps are. A mapset contains one or more maps. Compiled and decompiled code handles I/O between the CICS application and the user's terminal. The physical map is compiled Assembler macro code. And the symbolic map is a copybook of the map inputs/outputs.

BMS allows you to format the user's screen, and it allows the application to simply deal with the user.

Mary looked at some BMS concepts. Describing the UI is a way of map definition that is still widely used. Or there are three Assembler language macros that can be used for defining maps. There are tools available for drawing data that is entered or changed.

Once BMS mapsets and maps are coded, they can be either assembled or disassembled. If they're assembled, it creates a physical map(s), which creates the load module. If it's disassembled, it creates a symbolic map(s), which creates a copybook.

3270 screens are character-based and mark fields with attribute bytes. Field starts immediately after an attribute byte, and generally goes up to the next attribute byte. Output and text fields do not need an ending attribute. A field has a length, but length does not stop a user from typing more characters, length just controls the amount of data transferred.
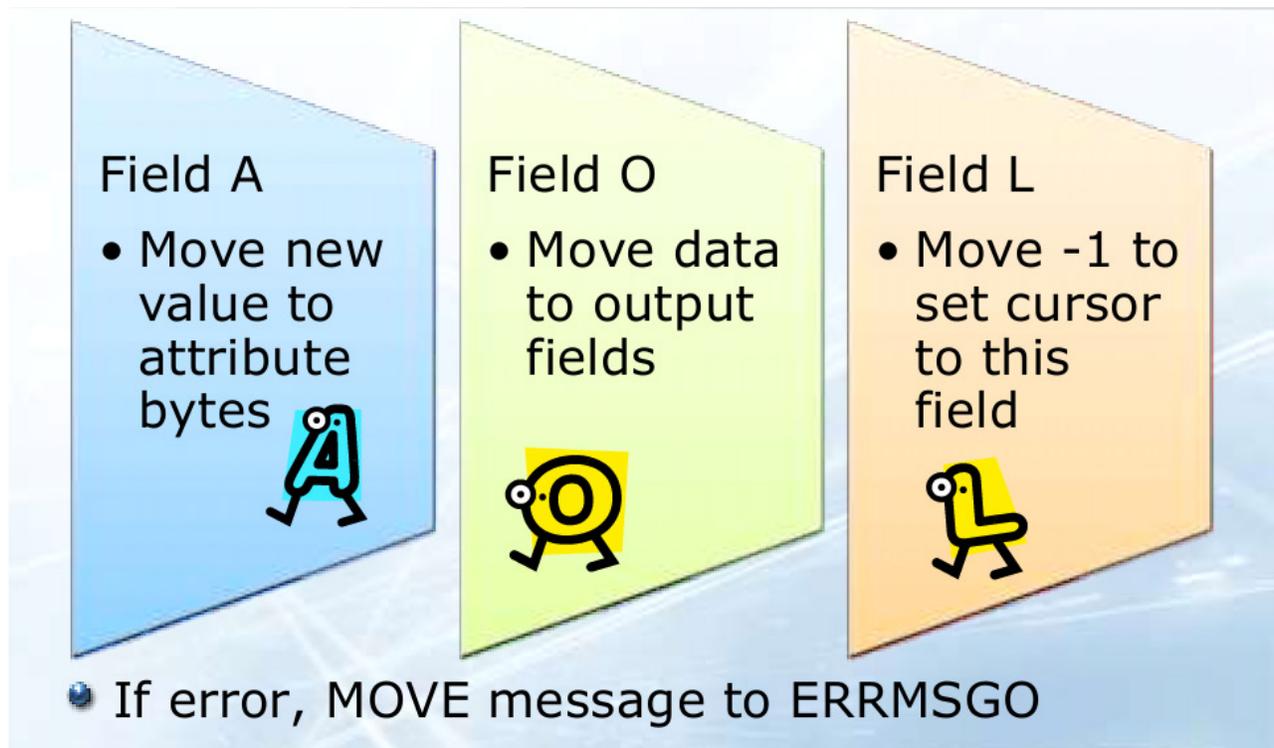
Figure 3: Before SEND MAP

So, without a stopper byte, a user types into the field, but is not stopped if typing goes beyond the end. With a stopper byte, the user can't type past the stopper byte. The stopper byte is a protected attribute byte.

In the same scenario, you could use an autoskip byte. When a user types the last byte in a field, the cursor automatically skips to the next input field. An autoskip byte is a special attribute byte.

The three Assembler macros that define BMS maps are: DFHMDF, which defines an individual field on a screen or Web page; DFHMDI, which defines a map as a collection of fields (the fields can be input (unprotected), output (protected), or text (not seen by application program)); and DFHMSD, which groups maps into a single mapset.

Mary Abdill then spent some time looking at example BMS code and screen layouts. She also looked at DFHMDF ATTRB Options. She explained how to embed CICS commands in COBOL source to SEND and RECEIVE MAPs. Figure 2 illustrates how to use a BMS mapset in a COBOL program.

After a RECEIVE MAP, Length contains the actual length or zero. Field/ Attribute, if not lowvalues, then the user erased the input with ERASE EOF and turned on MDT. Input is the actual text or data. An example of what happens before SEND MAP is shown in Figure 3.

A copy of Mary Abdill's presentation is available for download from the Virtual CICS user group Web site at www.fundi.com/ virtualcics/presentations/ CICSMAPNov17.pdf.

You can see and hear the whole user group meeting by downloading the WMV file from www.fundi. com/virtualcics/ presentations/2017-11- 14meeting.wmv.

Meeting dates

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

- 16 January 2018, when Ezriel Gross will be discussing, "Back to basics".

- The following meeting is on 6 March 2018.

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

Recent CICS articles

Key reasons most CICS sites use CICS Tools by Satish Tanna on CICS DevCenter (23 November 2017). You can find the article at: https://developer.ibm.com/cics/2017/11/23/key-reasons-cics-sites-use-cics-tools/

CICS CM V5.4 provides exciting new capabilities in support of the worlds most powerful mixed language application server by Satish Tanna on CICS DevCenter (15 November 2017). You can find the article at: https://developer.ibm.com/cics/2017/11/15/cics-cm-v5-4-provides-exciting-new-capabilities-support-worlds-powerful-mixed-language-application-server/
Streamline Processes and

Reduce Processor Overhead in CICS by Jim Schesvold in *IBM Systems Magazine* (November 2017). You can find the article at: http://ibmsystemsmag.com/mainframe/administrator/cics/reduce-processor-overhead/

Managing Queues and Fetching Efficiently by Jim Schesvold in *IBM Systems Magazine* (September 2017). You can find the article at: http://ibmsystemsmag.com/mainframe/administrator/cics/queues-fetching/.

Sponsorship opportunity

Are you missing a great opportunity to advertise your CICS software? Ask about our New Year deals.

The Virtual CICS user group is now offering software vendors the opportunity to advertise their products in a number of ways. You could have an advert on the home page of the Web site (at www.fundi.com/virtualcics), you could advertise in the newsletter, and/or you could advertise in the monthly e-mails sent to members of the user group.

E-mail trevor@itech-ed.com for full information about marketing opportunities with the Virtual CICS user group.

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.