Chapter Seven

SURPAS & THE SURPAS WORKBENCH - PART 1

Introduction

This chapter provides an introduction to the SuRPAS application and how to start it, as well as a brief tour of the main menu and the selections available there.

This chapter also describes some of the tools available in the SuRPAS Workbench application, including an introduction to the options available at the main menu and a discussion of tokens. Additional Workbench tools will be discussed in Chapters Nineteen and Twenty Two.

Objectives

To take advantage of the capabilities of the SuRPAS Workbench application, a developer should be familiar with the Workbench main menu choices, and should be able to:
- Open the SuRPAS application
- Open and close the SuRPAS Workbench application
- Understand how to create and manage file tokens

Introduction To The SuRPAS Application

Overview

The SuRPAS application is the core of the SuRPAS product. It is sometimes referred to as Open SuRPAS to connect it to the OpenVMS operating system and to differentiate it from the desktop or PC front-end application. SuRPAS training is spread over numerous chapters in this course and by numerous additional courses, depending on the content focus you are seeking.

This section discusses:
- Logging into SuRPAS
- Navigating the SuRPAS main menu

Starting the SuRPAS Application

The SuRPAS application is an executable job named FALTOPMEN. The executable image file is located in the SuRPAS program library directory.

Creating a Shortcut

Your LOGIN.COM startup command file should have a logical name shortcut assigned so that you can run this application easily. If you do not have this shortcut defined, you can enter it in your LOGIN.COM file and it will become available to you the next time you log into the Alpha. The shortcut definition is:

```
$ SURPAS  :== RUN FAL$PRGLIB:FALTOPMEN.EXE
```

What is FAL?

In the shortcut described above, the logical name for the program library directory begins with the letters "FAL." You will notice FAL throughout the SuRPAS environment. It stands for Funds Associates Ltd., which was the original name for the company when SuRPAS was being developed.

Customized Startup

SuRPAS startup is customized based on your OpenVMS username. Each user has a SuRPAS user authorization record in the user database. This record dictates which SuRPAS main menu functions are available to the user.

Navigating the SuRPAS Main Menu

The main menu displayed when the SuRPAS application is entered allows you to enter a three character selection that matches the functions and tools supported. The main menu is displayed below. Notice that the top line, displayed in reverse video, gives your user name and your active database. The bottom line indicates capabilities supported by the PF2 key and the PF3 key. The KEA! emulator maps the PF keys to the top keys of the numeric keypad - in this case, the forward-slash and asterisk keys.

```
*****  SuRPAS : MAIN MENU    USER : 9RB - ROBERT B ROBBINS   DB : 0

ENTER SELECTION : ACT


   ACT  -  New Accounts/Data Changes Menu
   INQ  -  Inquiry
   INF  -  Information - No Acct Required
   REQ  -  Requests
   TRN  -  Share/Dollar Transaction Entry
   ORD  -  Wire Order Entry System
   OAR  -  Order & Reconciliation System
   DLR  -  Broker/Dealer File Maintenance
   TIM  -  Timer/Adviser File Maintenance
   AFF  -  Plan File Maintenance
   WHL  -  Wholesaler Maintenance


   UTL  -  Utility/Supervisory Functions
   PAR  -  SuRPAS / Fund Parameter Maint

   MAI  -  Read/Send Office Mail
   PSW  -  Change SuRPAS Password
   SWT  -  Switch Databases

PF2 - End Session;     PF3 - Operator Main Menu
```

Figure 7-1 - SuRPAS Main Menu

There are sixteen selections available on the SuRPAS main menu. Additional selections are available on the Operator Main Menu (press the PF3 key). Some of the available selections will be discussed in the next three weeks. The majority are taught in end-user training courses.

Introduction To SuRPAS Workbench

Overview

The SuRPAS Workbench application is a frequently-used set of tools that supports the architecture of the SuRPAS application. Workbench was written in-house and is supported by the manufacturing group.

This section discusses:
- Starting the Workbench application
- Navigating the Workbench main menu
- Creating and managing tokens
- Job/Event Token Management
- Exiting Workbench

Starting the Workbench Application

The Workbench application is an executable job named WBTOPMEN. The executable image file is located in the SuRPAS program library directory.

Creating a Shortcut

Your LOGIN.COM startup command file should have a logical name shortcut assigned so that you can run this application easily. If you do not have this shortcut defined, you can enter it in your LOGIN.COM file, and it will become available to you the next time you log into the Alpha. The shortcut definition is:

```
$ WB  :==  RUN  FAL$PRGLIB:WBTOPMEN.EXE
```

Navigating the Workbench Main Menu

The main menu displayed when the Workbench application is entered allows you to enter a three character selection that matches the functions and tools supported. The main menu is displayed below. Notice that the top line, shown in reverse video, displays your active database. The bottom line indicates that pressing the PF2 key ends the Workbench session. The KEA! emulator maps the PF keys to the top keys of the numeric keypad - in this case the forward-slash key.

```
*****  FAL  PROGRAMMERS  WORKBENCH  --  MAIN  MENU          DB  :  0

ENTER  SELECTION  :  CMS


   CMS  -  Code  Management  System
   TKN  -  TKN  Definition/Maintenance  Menu
   JOB  -  Job  Definition/Maintenance  Menu
   MFS  -  MFS  Definition/Maintenance  Menu
   PAR  -  PARAMS  Definition/Maintenance  Menu
   ERX  -  SuRPAS  ERRXLATE/Errors  Table
   REP  -  Report  Definition/Maintenance  Menu
   ICS  -  Interface  Definition/Maintenance  Menu
   SCR  -  Screen  Definition/Maintenance  Menu
   FIL  -  FILE  Definition/Maintenance  Menu
   REF  -  Cross  Referencing  Menu


   A2E  -  ASCII  to  EBCDIC  File  Translation
   E2A  -  EBCDIC  to  ASCII  File  Translation
   DBM  -  Database  Management
   EXM  -  Examine  File
   REL  -  Funds  Associates  Release  System
   END  -  End  Session

PF2  -  End  Session
```

Figure 7-2 - Workbench Main Menu

Main Menu Selections

The main menu supports seventeen different selections. A number of these selections provide access to other applications, covered later in the training course. Still other selections are no longer used and their original purpose is no longer known.

Main Menu Tools

The tools available on the Workbench main menu are covered in depth later in this course. The following is an overview of each of these tools.

- **CMS - Code Management System** --- The internal code movement system for SuRPAS, used to handle all processes related to software movement and control.

- **TKN - Token Definition / Maintenance** --- Tokens are used to control access to SuRPAS functionality. Subroutines that control/display the screen are called tokens.

- **JOB - Job Definition / Maintenance** --- The JOB is SuRPAS's event or job maintenance utility. This selection is used to handle all additions, changes, or deletions made to the event database.

- **MFS - MFS Error Definition / Maintenance** --- MFS errors are errors defined for data conditions. The errors are kept in the error dictionary file.

- **PAR - PARAMS Definition / Maintenance** --- This utility manages the ability to view and maintain the parameters of a SuRPAS database. It allows you to add, change, delete, and view parameter settings on a byte-by-byte basis.

- **ERX - SuRPAS ERRXLATE Errors Table** --- This option is used to maintain the errors used throughout SuRPAS.

- **REP - Report Definition / Maintenance** --- this option is used to define and maintain SuRPAS reports.

- **ICS - Interface Definition / Maintenance** --- This option is not currently being used. There is no information on this option.

- **SCR - Screen Definition / Maintenance** --- This option is used to generate SuRPAS screen code.

- **FIL - File Definition / Maintenance** --- This option is used to maintain the Logical Unit Numbers (LUN's) used throughout SuRPAS.

- **REF - Cross Reference Utility** --- This utility is a set of research tools.

- **A2E - ASCII to EBCDIC File Translation** --- This option allows you to convert a file that is in ASCII format into EBCDIC format.

- **E2A - EBCDIC to ASCII File Translation** --- This option allows you to convert a file that is in EBCDIC format into ASCII format.

- **DBM - Database Management** --- This set of tools allows you to copy one database over another database, delete and upgrade databases, and look for files in a database. Use this option with extreme caution.

- **EXM - Examine File** --- This utility allows you to view the data within SuRPAS files in variable-by-variable format.

- **REL - Funds Associates Release System** --- This function exists to help with software release; it is used by few PFPC employees.

- **END - End Session** --- This option ends the Workbench application session. This option can also be achieved using the PF2 key.

Creating and Managing Tokens

Tokens are created and managed through the Workbench TKN option. TKN is the Token Definition and Maintenance option and is selected from the main Workbench menu.

Tokens control access to SuRPAS functionality.

On Classic SuRPAS (also referred to as SuRPAS/VMS), the Token is the subroutine that controls and displays a screen.

On SuRPAS Desktop (DSK) the Token can represent:
- A specific function line (e.g. Direct Transactions)
- A group of functions (e.g. Inquiry)

Tokens are stored in a software rooted indexed file:
```
FAL$STDFIL:TKNFAL.DAT
```

The Token Maintenance Screen

The selection of the TKN option displays the Token Maintenance Screen. This screen provides three options for the user.

```
*****  FAL  PROGRAMMERS  WORKBENCH  --  TOKEN  MENU

ENTER  SELECTION  :  TKN

   TKN  -  Define  a  TOKEN

   VBC  -  Generate  VB  Token  Map  File



   MEN  -  Return  to  Main  Menu




PF2  -  End  Session
```

Figure 7-3 - Token Menu

- The TKN option allows you to define a token

- The VBC option automatically generates a Visual Basic (VB) token map in your current directory

- To return to the Main Menu either select the MEN option or press the PF2 key.

- The PF2 key can be pressed at any screen to return to the previous screen.

Token Description

When you choose to define a new token, Workbench will require the token source and the menu path. If the token already exists, its attributes are displayed. Otherwise you can create the new token.

Token Source

There are three possible sources for a token. They are:
- **VMS** - Classic SuRPAS running on OpenVMS
- **DSK** - SuRPAS Desktop
- **API** - A specific Application Program Interface (not currently being used)

Token Menu Path

The menu path provided will depend on the Token Source selected.

If you selected **VMS** as your token source you will now provide a drill pathlist that shows the menu sequence followed to get to the new screen (and the newly defined token representing that screen.
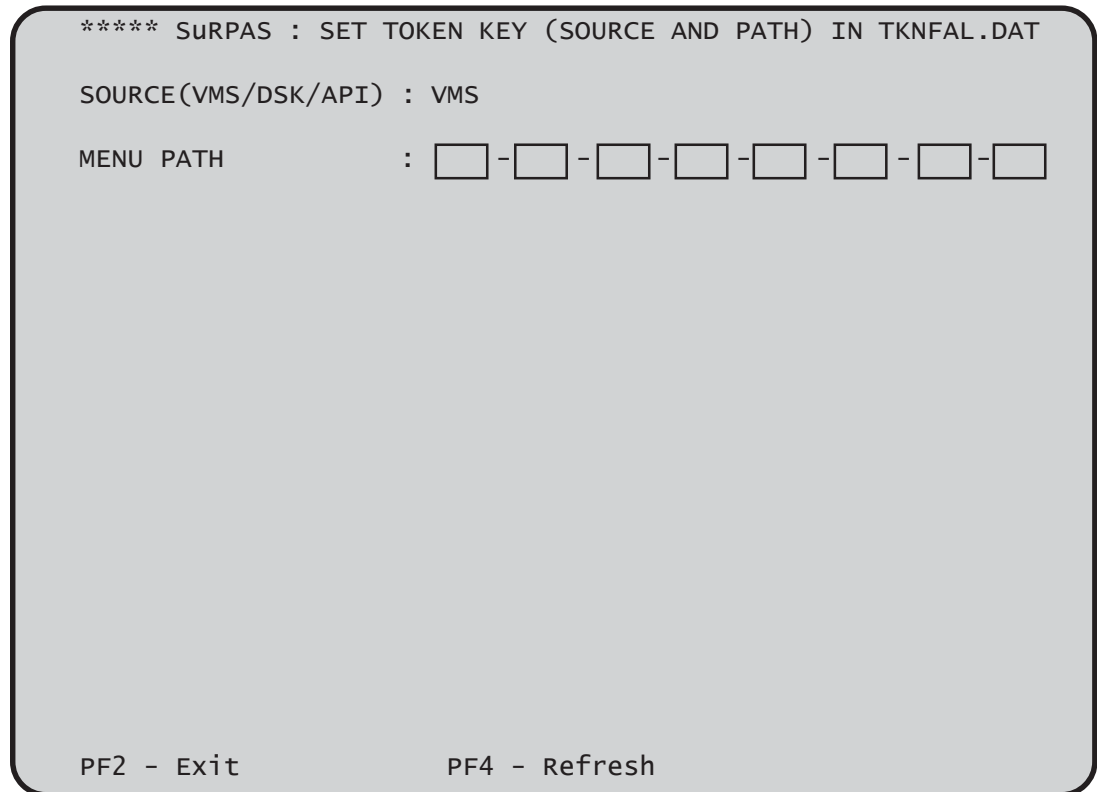
- As an example, if you provide a menu path of TOP-PAR-INS, the path indicates that the new screen is at the fourth level. The first or top level is the main menu (TOPMEN - you always start here); the second level of the path is the PARameter screen, the third level is the INSert screen.

If you select **DSK** as your token source you will now provide the Function points where that screen will exist. In general, this is the name of a screen function such as the Inquiry function. In this case you provide the name only, in this case, **Inquiry.**

If you select API as the token source, you will provide the API # that the screen will be attached to.

The Token Definition Menu

The following is an example of the screen displayed when you select the Token Definition option in Classic SuRPAS.

```
***** SuRPAS : SET TOKEN KEY (SOURCE AND PATH) IN TKNFAL.DAT

SOURCE(VMS/DSK/API) : VMS

MENU PATH           :  □ - □ - □ - □ - □ - □ - □ - □




















    PF2 - Exit              PF4 - Refresh
```

Figure 7-4 - Create Token Screen

Note that the Menu Path prompt requires you to define the path, one screen at a time, with each screen mnemonic separated by a hyphen. When the enter key is pressed (after the last screen mnemonic is typed), the maintenance screen is displayed (see Figure 7-5 on next page).

```
******  SuRPAS :  MAINTAIN THE MENU/TOKEN REPOSITORY      ID: AFTKNUPD  *****

SOURCE          :    VMS

MENU PATH       :    TOP-PAR-INS

TOKEN           :    FALINSMEN          (routine that disps menu or screen)

DESCRIPTION     :
INSTALLATION PARAMETERS MAINTENANCE

ROW # ON MENU   :       0
COL # ON MENU   :       0
# OF ITEMS      :       0
# OF ROWS       :       0
# OF COLS       :       0




PF2-Exit;   PF3-Refresh                :  -
```

Figure 7-5 - Token Maintenance Menu

Job / Event Management

What is an Event?

In the SuRPAS system an *event* is an activity or *job* that performs a specific function related to the management, tracking, and reporting of financial activities related to a given shareholder account.

Events are referenced by a unique name that reflects its function or purpose. As an example, the DIVPOST event posts dividends to an account; the LABREQGEN event requests account labels. These mnemonic names make SuRPAS events easy to recall.

The JOB/Event Menu

Events are created and managed through the Workbench JOB option. JOB is the JOB/Event Definition and Maintenance option and is selected from the main Workbench menu. When an event is created, a .COM file describes how the event will run. The .COM files for all events are listed in:

```
FAL$STDFIL:JDLFAL.DAT
```

The Workbench JOB maintenance utility is used to Add / Delete/ or Change the contents of JDLFAL.DAT. A parameter input module and parameter display module are created. The parameter module name contains a three character parameter type and the mnemonic name for the screen.

- JQE<parameter-mnemonic> - parameter input module
- JQL<parameter-mnemonic> - parameter display module

```
***** FAL PROGRAMMERS WORKBENCH -- JOB MENU

ENTER SELECTION : JOB

  JOB - Define a Job

  LIS - List of Jobnames

  JBQ - JBQFAL Maintenance Byte-editor

  GEN - Generate new JBDISJQE and JBDISJQL rout


  MEN - Return to Main Menu







PF2 - Return to Main Menu
```

Figure 7-6 - JOB/Event Menu

There are two types of events that can be setup:
- Events that require user input (requires an additional parameter screen)
- Events that *do not* require user input

The JOB menu has five selections available.

The JOB Maintenance Menus

The JOB selection on the JOB menu will initiate the display of the JOB
Maintenance Menu shown below.

```
***** SuRPAS : SET JOB DEFINITION IN JDLFAL.DAT                 ID : JDSETJD

JOB NAME                     :   RBRTESTEVT

EXECUTION COMMAND            :   RUN RBR_TEST_EVENT

JOB DESCRIPTION              :   This Job event runs the Test Event comma
                                 nd file



                      ------- QUEUE PARAMETERS -------

FUND PARAMETER REQUIRED ? :  N
DATE PARAMETER REQUIRED ? :  N
PARAMETER INPUT MODULE    :
ALLOW BATCH QUE PROCESSING:  N

                      ------- AUDIT TRAIL DATA -------

FTK NUMBER  :  000000     USER :  9RB   DATE :  07/21/02   TIME :  13290657
DESCRIPTION :

PF1-Accept;     PF2-Cancel;     PF3-Refresh;     PF4-Inquiry
```

Figure 7-7 - JOB/Event Maintenance Menu

There are three pieces of information necessary to create a JOB or event. The
JOB NAME prompt requires the name of the event (up to 10 characters long). In
the above screen, the event has the name RBRTESTEVT.

If the Event name entered already exists, the user will be prompted to **Change** or
Delete the event.

If the Event name is new, the user will be prompted for an **execution command**
and a **job description**.

The execution command prompt requires the name of the command file (.COM)
that runs the job.   In the above screen, the execution command has the name
RUN RBR_TEST_EVENT.

The job description should be concise. Only the first line of the description will be
seen.

Queue Parameters

New Event creation requires four queue parameters to be set up. These four parameters, prompted at the middle of the JOB Maintenance Screen, are as follows:

- **Fund Parameter Required** - Y or N is required - answer Yes if the user is required to enter a fund ID,
- **Date Parameter Required** - Y or N is required - answer Yes of the user is required to enter a date.
- **Parameter Input Module** - JQExxxxxx (the name of the parameter screen) - where xxxxxx = mnemonic name of the screen.
- **Allow Batch Queue Processing** - Y or N is required.

Audit Trail Data

The Audit Trail Data requires the input of the FTK# that supports the JOB/event creation and a description. The current date and time are filled in automatically.

Additional User Input

When the **fund id** is the only user input required, a separate screen is not needed. If the event requires additional user input, additional parameter screens must be created. To create additional user input screens do the following:

1. Create a Parameter Input Module - JQExxxxxx (where xxxxxx is the screen id)
   - JQExxxxxx formats the user input questions, retrieves the responses, and stores the data until the event is executed.

2. Create a Parameter Screen Display - JQLxxxxxx (where xxxxxx is the screen id)

JOB Listings

Select the LIS option from the JOB Menu to obtrain a listing of all JOBs currently in existence in JDLFAL.DAT. You will be prompted for the destination of the listing. This prompt defaults to TT: which is your display screen. The following example shows a portion of the listing that you will see.

```
*** LISTING OF JOBS IN JDLFAL.DAT


JOB NAME    EXECUTION COMMAND  /  JOB DESCRIPTION    FND  DAT  PARAMETERS
----------  ----------------------------------------  ---  ---  ----------
DLRRECON    @FAL$PRGLIB:DLRRECON.COM                   N    N   JQEACTREC
            Produce Activity Recon File
DLRSHR      @FAL$PRGLIB:JOBDLRSHR.COM                  N    N   JQEDLRSHR
            List Dealer Accounts & Summary of Shares
DLRSTMTAPE  @FAL$PRGLIB:JOBDLRTAP.COM                  N    N
            Copy Dealer statements to tape.
DLRUPL623   @FAL$PRGLIB:IXIDLR623.COM                  N    N   JQEDBRUPL
            623 - Dealer Upload Interface
DLYFNDEXT   @FAL$PRGLIB:DLYFNDEXT.COM                  A    N   JQEDFTEXT
            execute extraction of DFT file
DRAORDER    @FAL$PRGLIB:JOBDRAORD.COM                  N    N
            Produce Draft Order Reports.
DRAUPDATE   @FAL$PRGLIB:JOBDRAUPD.COM                  N    N
            Draft_Batch System to Surpas Update.
DRPBCKSITE  @FAL$PRGLIB:DRPSITDEP.COM                  N    N
            Back up system and user files necessary
DRPBCKYEAR  @FAL$PRGLIB:DRPYEREND.COM                  N    N
            Backup the prior year history file for
DRPSYSDSK   @FAL$PRGLIB:DRPSYSDSK.COM                  N    N
            Backup of the System Disk to Tape
```

Figure 7-8 - JOB/Event Listing Menu