helpsystems

Administrator's Guide
Authority Broker
4.20

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Welcome to Powertech Authority Broker

All too often, IBM i users are inadvertently given access to accounts with special authorities like *ALLOBJ, even though the user has no need for such powerful privileges. The user may only need access to a specific application or task, and any excessive authority poses an unnecessary security risk. To eliminate this security risk, Powertech offers Authority Broker.

With Authority Broker, System Administrators have the ability to limit access to powerful user profiles and control access to sensitive databases and programs. Users can be granted temporary authority that is either more or less powerful than their usual settings, and in cases where the user needs higher authority, they can temporarily change to that authority if the administrator has granted them sufficient privileges. In cases where a user would be safer operating under less authority, they can again temporarily change to that authority with the system administrator's advance approval.

Authority Broker, which can be called from command line or batch processes, is similar to the "su" capability of UNIX. But unlike "su", Authority Broker provides additional capabilities such as full auditing and reporting of all changes to authority, as well as comprehensive auditing of the actions the user performs under the assumed authority.

About This Guide

The instructions in this guide present common security concerns and explain how to address those concerns using Authority Broker. This guide consists of the following sections:

- **Implementing Authority Broker**: This section guides you through the essential steps required to begin using the Authority Broker, including configuring switch pairs, switching profiles, and working with screen captures.
- **Reference**: This section includes reference information such as field descriptions and options for Authority Broker's screens and panels.

Integrated Help

This Guide is designed to introduce you to some of the most essential functions of Authority Broker. In addition to this guide, Authority Broker also includes context-sensitive help accessible directly from each product panel. Press **F1** to display the context-sensitive help for any field or panel. This resource describes the functions of each screen and provides information about the available fields and values. Refer to the context-sensitive help for a complete description of all functions and valid values for each field.

```
Date:  4/17/17          PowerTech Authority Broker        Sys : OSCAR
.......................................................................
:                 Assign System User to Switch Profile - Help         :
:                                                                     :
:   _                                                                 :
:       Assign System User to Switch Profile is used to list, add, change  :
:       and remove user profiles allowed to switch.  A system user must be :
:       assigned to a Switch Profile before the swap profile commands can be :
:       utilized.                                                     :
:                                                                     :
:   Position to System User                                           :
:                                                                     :
:       Enter the System User you wish to begin the list with.  The Position :
:       to Switch Profile may be used in conjunction with this value. :
:                                                                     :
:   Position to Switch Profile                                        :
:                                                                     :
:       Enter the Switch Profile you wish to begin the list with.  The  :
:       Position to System User may be used in conjunction with this value. :
:                                                                     :
:                                                      More...        :
:   F3=Exit help    F10=Move to top   F12=Cancel   F13=Information Assistant :
:   F14=Print help                                                    :
:                                                                     :
.......................................................................
```

Contacting Support

To request help from a HelpSystems Technical Consultant, submit a case to Technical Support.

Identifying Your Product Version

Before calling or e-mailing technical support, it is a good idea to check which version of Powertech Authority Broker is installed by running the command PTABLIB/LPRDVRM, which is installed in the Authority Broker installation library. (Or you may also use the menu option **21** (Powertech Product Version Information) from the Configuration Menu, to check which version is installed.)

The command (or menu option) displays a window with the product version and build, along with system information such as serial number, partition number, and OS level.

```
Date:  4/17/17          PowerTech Authority Broker          Sys : OSCAR
Time: 09:20:31                  Main Menu                   Menu: MAIN
                                                             er: QSECOFR
                 ::::::::::::::::::::::::::::::::::::::::::::::::::::::
  Select one of  :          PowerTech Authority Broker          :
  1. Assign Sys  :  _                                           :
  2. Run Author  : Relmod  . . . . . . . . . . . . : R04M16     :
  3. Give a use  : Relmod Date . . . . . . . . . . : 1170314    :
  4. Use Author  :                                              :
  5. Use Author  : System Serial Number  . . . . . : 21828CV    :
                 : System Model Number . . . . . . : 42A        :
                 : Processor Feature Code  . . . . : EPXF       :
                 :                                              :
                 : Logical Partition . . . . . . . : 00004      :
                 : Number of System Processors . . : 00016      :
                 : Number of On-Demand Processors  : 00016      :
                 : Number of Partition Processors  :   3.00     :
                 :                                              :
  Selection or co: Number of Active OS Processors  : 00004      :
  ===> PTABLIB/LP:                                              :
                 : F3=Exit    F12=Cancel                        :
                 ::::::::::::::::::::::::::::::::::::::::::::::::::::::
 F3=Exit       F4=Prompt      F5=Refresh     F9=Retrieve     F12=Cancel
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```

Product Notes

Current User

Powertech Authority Broker uses IBM i facilities to change the current job's authority by changing the IBM i "Current User". This change allows the active job to run under the IBM i authority of another user, other than the user who originally signed on to the job.

While the Operating system recognizes and honors this change without fail, some older business applications may incorrectly look only at the "Signed On User" when they check for internal application security. These older applications do not correctly check for "Current User" and therefore may miss the changed authority.

In such cases, you may have to ask your business application supplier to update their software to recognize the most current method of checking user authority.

The change required is easy, and low risk. In a CL program the following statement:

```
RTVJOBA  USER(&USER)
```

Would be changed to read:

```
RTVJOBA  CURUSER(&USER)
```

Please Contact Powertech technical support if you require further assistance.

Object Verification

Authority Broker does not check if an object actually exists when entering names for User Profiles, Libraries, or Objects. Instead, Authority Broker verifies the entry to ensure the name entered conforms to IBM's naming conventions for libraries, or user profiles, etc.

Implementing Authority Broker

Authority Broker allows administrators to predefine user profiles with elevated levels of authority, then assign system users to that profile. Subsequently, the assigned system user has the capacity to "switch" (or "swap") into that privileged profile for a specific period of time in order to perform specific tasks. Real-time alerts can inform the administrator and Interested Parties of the switch. While switched, all activity is monitored and can be assembled into reports with complete details of every transaction. Screen capture images of switched activity can also be recorded and compiled into PDF reports.

The following instructions explain how to allocate powerful authorities to authorized users using Profile Switches, and monitor privileged activity in order to increase security on your IBM i system.

By the end of this section, you will know:

- *How to approach profile switching and identify the stakeholders.*
- *How to create a Switch Profile and configure Switch Pairs.*
- *How to perform the profile switch (as a user).*
- *How to work with Screen Captures taken during Profile Switches.*
- *How to implement FireCall.*
- *How to run reports.*

For this demonstration, we will consider the following scenario:

- **Joan is the Chief Financial Officer (CFO) of ACME company. She needs an AP data file fixed due to a power outage. The outage caused the AP posting program to fail, corrupting its data.**
- **Frank is the Applications Development Manager who manages a software developer, Alice.**
- **Alice is assigned the task of modifying the AP program.**
- **Ted is the security officer and system administrator for the IBM i system on which the AP reporting system resides.**

Concerns

Alice does not have authority to update the AP files using her own User Profile on the target IBM i system. Ted tightly controls access to the sensitive AP application and its associated libraries and data, granting access to users on an "as needed" basis. Joan is cognizant of her obligations under the Sarbanes-Oxley Act and has required that she receive a report of each specific instance when a developer modifies anything in the AP system. Frank is also concerned about his developers' access to sensitive business documents and has requested a report showing the times his developers access a highly restricted portion of the accounting system.

The Solution

In order to address everyone's concerns and, of course, to allow Alice to do her work, Ted configures Authority Broker so Alice can switch profiles to APMOD (a profile he created that allows developers to

access and modify the objects necessary to maintain the AP system). He also configures Authority Broker reporting to produce reports for both Joan and Frank so that they will know every time that Alice switches to the APMOD profile and what she did when using that profile.

Using a single command, Alice switches to the APMOD profile when she needs to do her work. At the time that Alice switches, Joan and Frank receive an alert that Alice has activated the APMOD profile. When Alice is finished, she enters another command to switch back to her own profile. During the period Alice was switched to the APMOD profile, her every action was audited into a secure journal.

At scheduled intervals, Ted runs the reports for both Joan and Frank that give them the information they need to ensure that Alice, and the other staff programmers, are acting within the limits of their authority.

In the above scenario we have demonstrated the following:

- **Joan and Frank are *Interested Parties*.**
- **Ted is the *Product Administrator*.**
- **Alice is a *System User* who assumes the higher level authority of the APMOD profile.**
- **APMOD is a *Switch Profile*.**

Configuring Switch Pairs

Examine the list of users with special authorities on your systems. Identify profiles that do not need the special authorities, or profiles that only need the special authorities on an emergency basis, or at specific times. Your goal should be to reduce the number of users with each of the special authorities to a very small number on each system.

> **NOTE:** If you have Powertech Compliance Monitor, you can quickly find this information using the Profiles with Special Authority report (Complete Assessment/User). This will allow you to conveniently generate this information for multiple systems.

For the following example, we will assume the previous scenario with Joan, Ted, and Alice.

To create the 'Switch To' profile

1. Create the privileged profile with the higher level of authority needed, (for this example, "APMOD").
2. Set the password to ***NONE** so that it cannot be used for interactive sign-ons.
3. Set the Password Expiration Interval to ***NOMAX** to ensure it remains available.

To assign a system user to a "Switch To" profile

1. Use the command **LWRKAUTBKR** to Launch Authority Broker.
2. From the Main Menu, choose **1**. The Assign System Users to Switch Profiles screen appears.
3. Under Opt, enter **1**, then specify the user (ALICE) and switch profile (APMOD).

```
Date:   5/11/15          PowerTech Authority Broker        Sys : HS42
Time: 15:05:08      Assign System Users to Switch Profiles    Prog: PABR0100
                                                              User: QSECOFR


_____   Position to System User     _____   Position to Switch Profile

Options
 1=Add 2=Change 4=Delete 5=View 7=Day of Week Schedule 8=Override DOW Schedule
 15=Notification Information   17=Switch Pair Exit Points
      System                          Switch
Opt User        System User Desc      Profile    Switch Profile Desc   Type
 1  ALICE____                         APMOD____


                    No entries to be displayed




F3=Exit  F4=Lookup  F5=Refresh  F12=Cancel
```

4. Press ENTER. The Add Switch Information screen appears.

5. Enter the desired switch information. Alice will be allowed a 10 minute session to complete her task. In this case, since Joan and Frank have an interest in reviewing Alice's switches, they are added as Interested Parties who will receive a report each time Alice switches to APMOD.

```
Date:   5/11/15          PowerTech Authority Broker        Sys : HS42
Time:  15:43:57              Add Switch Information         Prog: PABR0110
                                                           User: QSECOFR


System User allowed to switch. . . . . . . : ALICE_____    (Name)
Application/Resource ID to be switched to. : APMOD_____    (Name)
Switching is enabled for FireCall only  . .: _ Yes X No

How many minutes may the System User stay switched: 10____  (Minutes, *NOMAX)
Which environments is this switch allowed .: X Interactive X Batch
Which environment requires switch alerts  .: X Interactive X Batch
Will screens be captured for an interactive switch: _ Yes X No

These Individuals have an interest in this switch:
            Interested Party Alert Method          Include on reports
              FRANK_____    EXTERNALMSGQ_____        X
              JOAN_____    EMAIL-PDF_____        _
              _____    _____        _
              _____    _____        _
              _____    _____        _
                                                             More...
F3=Exit   F4=Lookup   F5=Refresh   F12=Cancel
```

6. Press ENTER. The Day of Week Schedule screen appears.

```
Date:   5/11/15          PowerTech Authority Broker        Sys : HS42
Time:  15:53:35              Day of Week Schedule           Prog: PABR0200
                                                           User: QSECOFR

System user . . . . .: ALICE
Switch to profile .: APMOD

            Day of Week   Allow  Prevent  From Time  To Time
            Sunday          X       _       00:00     24:00
            Monday          X       _       00:00     24:00
            Tuesday         X       _       00:00     24:00
            Wednesday       X       _       00:00     24:00
            Thursday        X       _       00:00     24:00
            Friday          X       _       00:00     24:00
            Saturday        X       _       00:00     24:00




                    _

F3=Exit  F5=Refresh  F8=Work with Date and Time Overrides  F12=Cancel
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```

7. Here, specify the days and times the User (Alice) will be able to switch to the APMOD profile.

8. Press ENTER. The Switch is added to the list. The message "Entry added to database" appears at the bottom of the screen.

```
Date:  5/11/15           PowerTech Authority Broker        Sys : HS42
Time: 08:18:45      Assign System Users to Switch Profiles   Prog: PABR0100
                                                           User: QSECOFR


_____ Position to System User    _____ Position to Switch Profile


Options
 1=Add 2=Change 4=Delete 5=View 7=Day of Week Schedule 8=Override DOW Schedule
 15=Notification Information  17=Switch Pair Exit Points
     System                          Switch
Opt User        System User Desc     Profile    Switch Profile Desc   Type
__  _____                         _____
__  ALICE                            APMOD                             Timed







                                                                  Bottom
F3=Exit  F4=Lookup  F5=Refresh  F12=Cancel
Entry added to database.
```

9. Enter Option **5** (View) to display the Display Switch Assignment screen where you can view the Switch information.

```
Date:  5/11/15           PowerTech Authority Broker        Sys : HS42
Time: 08:23:41             Display Switch Assignment        Prog: PABR0110
                                                           User: QSECOFR


System User allowed to switch. . . . . . . : ALICE        (Name)
Application/Resource ID to be switched to. : APMOD        (Name)
Switching is enabled for FireCall only  . .:   Yes X No

How many minutes may the System User stay switched: 10     (Minutes, *NOMAX)
Which environments is this switch allowed .: X Interactive X Batch
Which environment requires switch alerts  .: X Interactive X Batch
Will screens be captured for an interactive switch:   Yes X No


These Individuals have an interest in this switch:
          Interested Party Alert Method         Include on reports
              FRANK         EXTERNALMSGQ                X
              JOAN          EMAIL-PDF




                                                                  Bottom
F3=Exit  F7=DOW Schedule  F9=Date/Time Overrides  F12=Cancel
F17=Switch Pair Exit Points
```

10. Enter option **15** (Notification Information) to display the <u>Switch Pair Notifications screen</u>, which can be used to list, add, and remove Interested Parties associated with a Switch Pair.

```
Date:  5/11/15          PowerTech Authority Broker      Sys : HS42
Time: 08:29:26            Switch Pair Notifications      Prog: PABR062
                                                         User: QSECOFR


System User: ALICE         Switch to profile: APMOD


Switch Notifications
 Interested party  Method
 FRANK             EXTERNALMSGQ
 JOAN              EMAIL-PDF

                                                              More...
Interested Parties Included on Event Reports
 Interested party  Interested party   Interested party
 FRANK


                                                              More...


F3=Exit  F4=Lookup  F5=Refresh  F12=Cancel  F17=Product exit points
```

Interested Parties placed in the Switch Notifications section will be informed, via the given method, each time the System User switches to the Switch to Profile. Interested Parties placed in the Interested Parties (included on the Event reports) section will be incorporated into the Event reports.

11. To delete a Switch Notifications entry or an Interested Party entry, simply use the space bar to blank out the entry.

12. Enter option **17** (product exit points) to display the Work with Switch Pair Exit Points screen, which is used to maintain product exit points for a system user/switch profile combination. This is not valid when adding an assignment.

```
Date:  5/11/15          PowerTech Authority Broker      Sys : HS42
Time: 08:33:09   Work with Switch Pair Switch Exit Points  Prog: PABR0111
                                                         User: QSECOFR

System User: ALICE         Switch to profile: APMOD

  Before Switch Exit Point:

    Run Seq.  Method              Run Seq. Method
       01                           04
       02                           05
       03                           06
                                                              More...
  After Switch Exit Point:

    Run Seq.  Method              Run Seq. Method
       01                           04
       02                           05
       03                           06
                                                              More...


F3=Exit F4=Lookup F5=Refresh F7=Resequence F12=Cancel F17=Release exit points
```

Next, inform system users how to access their 'Switch To' profile using the steps in the next section, Switching Profiles.

Switching Profiles

After a switch pair has been configured, the user will be required to do the following in order to switch to the 'Switch To' profile.

To switch profiles

1. Enter the command **LSWPPRF**. The Switch Options for System User screen appears.

```
Date:  5/19/15          PowerTech Authority Broker        Sys : HS42
Time: 13:13:35          Switch Options for System User    Prog: PABR0500
                                                          User: MARKJ

Reason for Switching: _____

_____

_____

Call Ticket  . . . .: _____

Options
  1=Select to Switch
     Switch to                                   Number of Minutes
Opt Profile    Switch Profile Desc               Switch is Active
  _  APMOD                                             *NOMAX




                                                           Bottom
F3=Exit    F5=Refresh    F12=Cancel
```

2. Enter a reason for the switch in the Reason for Switching field. This is a required field. Examples might be "I need elevated authority to reset the DST password" or "Using higher authority account to modify value in payroll file at HR's request".
3. Enter a Call Ticket number if requested to do so by your organization.
4. Enter **1** next to the profile you would like to switch to and press Enter.

Effects of Switching Profiles

Switching Profiles provides a method of conferring more, or less, authority to an active job. As with any object, authority is checked when it is used. When a profile switch occurs, any open files and objects allocated by the original profile are accessible to the new profile. Any objects newly accessed will use the new profile's authority.

The switching process only changes the authority of the current job to run under the authority of the new profile. Other jobs that the user is signed onto at the same time are not affected. Switching profile does not affect current job attributes such as Accounting Code, Library List, Attention Program, etc. The one exception is that the user can select to change their default Output Queue when switching profiles.

To see this option, type the **LSWPPRF** command, and press **F4**, and then **F10**.

Any object created by the job while running under the new profile is owned by the new profile, or its group profile if so configured, because the user authorities have been switched.

It is important to note that IBM menus are determined at the beginning of the job, and are not changed once the user assumes new authority. So for example, if switching from a 'high' authority to a 'low' authority, the IBM menu will retain the 'high' authorities menu options. (For a detailed discussion on object authority and how it works see the i5 or iSeries Security Reference manual.)

Identifying the Current Profile

For a convenient reminder of you current profile, use the command **LWHOAMI**.

```
PPL9820                    PowerTech                      13:33:05
                           Main Menu                      HS42

 Select one of the following:

     1. PowerAdmin               (R02M01)
     2. Network Security         (R06M51)
     3. Authority Broker         (R04M08)
     4. DataThread               (R03M08)
     5. Command Security         (R01M07)
     6. Interact                 (R03M04)




    80. Central Administration
    81. Work with Licenses

 Selection or command
 ===> _


 F3=Exit   F4=Prompt   F9=Retrieve   F13=Information Assistant
 F16=System Main Menu   F22=Status
 Current user is APMOD.  Job was started by user ALICE.
```

A message displays at the bottom of the screen confirming that the System User switched into the APMOD Switch Profile and currently is running with QSECOFR's authority.

Releasing a Profile

Once a user has completed their necessary tasks using a profile with higher authority, they should switch back to their original profile. This process is called "releasing the profile."

To release the current profile, enter the command **LRLSPRF**.

The message "[Swapped Profile] Authority has been released" displays at the bottom of the screen, confirming that the authority has been released.

```
MAIN                      IBM i Main Menu
                                                System:    HS42
  Select one of the following:

      1. User tasks
      2. Office tasks
      3. General system tasks
      4. Files, libraries, and folders
      5. Programming
      6. Communications
      7. Define or change the system
      8. Problem handling
      9. Display a menu
     10. Information Assistant options
     11. IBM i Access tasks

     90. Sign off


  Selection or command
  ===>  _

  F3=Exit    F4=Prompt    F9=Retrieve    F12=Cancel    F13=Information Assistant
  F23=Set initial menu
  APMOD Authority has been released.
```

> **NOTE:** System Users can switch from one profile to another, and then into another profile, provided that they are not timed swaps. The switch pair setup must be configured for both of the swapped users in advance to allow each swap (e.g. Frank swaps into SYSADM and then, from there, into QSECOFR).

Authority Broker automatically does a release each time you swap into a new profile when it is a NON-TIMED swap.

See also Calling Authority Broker from a Program.

Working with Screen Captures

Screen Captures taken during Profile Switches can be viewed and distributed to Interested Parties from the Work with Profile Switches screen. You can view individual screen capture images of profile switches, or select any number of captured sessions to be sent to one or more Interested Parties.

Screen Captures are taken during Profile Switch sessions when 'Will screens be captured for an interactive switch' is set to **Yes** for the Switch Pair in the Add Switch Information screen.

To mask passwords from screen captures when using the CRTUSRPRF/CHGUSRPRF commands, use Authority Broker's PABPWDMSK command.

> **NOTE:** After the first swap has been initiated, the PABWSDMON job starts in the PTWRKMGT subsystem. This job is required to process screen captures.

Viewing Screen Capture Images Individually

The Authority Broker Administrator has access to all screen capture images stored within Authority Broker.

1. From the Main Menu, choose option **5**, then **4** to open the Work with Profile Switches screen.

2. Enter **10** for a Profile Switch. The Work with Screen Captures screen appears.

```
Date:  5/26/15          PowerTech Authority Broker      Sys : HS69
Time: 13:41:38          Work with Screen Captures       Prog: PAB3401
                                                         User: MARKJ


System User . . :   BRENDA      Job . . . . . . :   020656/BRENDA/QPADEV0003
Switch Profile  :   QSECOFR     Started . . . . :   05/25/15 22:54:52
Switch Status . :   *ENDED      Ended . . . . . :   05/25/15 22:55:30


Options
  5=Display Screen Capture


Opt  Capture Date/Time          Screen Snippet
 __     05/25/15 22:55:05.167    PowerTech
 __     05/25/15 22:55:17.191    Work with Objects
 __     05/25/15 22:55:17.639    Work with Objects
 __     05/25/15 22:55:19.671    Work with Objects
 __     05/25/15 22:55:23.159    Confirm Delete of Objects
 __     05/25/15 22:55:29.992    Work with Objects



                                                             Bottom
F3=Exit   F5=Refresh   F7=Top   F8=Bottom   F12=Cancel
F13=Playback  F14=Watch Session
```

3. Enter **5** for a Screen Snippet. A warning screen appears that indicates the next screen will be an image of the screen capture from the Switch.

```
Date:  5/26/15            PowerTech Authority Broker         Sys : HS69
Time: 13:49:47               Work with Screen Capture         Prog: PAB3402
                                                              User: MARKJ


System User . . :  BRENDA       Job . . . . . . . :   020656/BRENDA/QPADEV0003
Switch Profile  :  QSECOFR      Started . . . . :   05/25/15 22:54:52
Switch Status . :  *ENDED       Ended . . . . . :   05/25/15 22:55:30

The following display is not active. It is an image from another job.




To end display of the image, press the F12 key at any time.


Press the Enter key to continue.




F12=Cancel
```

4. Press Enter. The screen capture image appears.

```
                            Work with Objects

Type options, press Enter.
  2=Edit authority        3=Copy   4=Delete    5=Display authority    7=Rename
  8=Display description   13=Change description

Opt  Object     Type      Library     Attribute    Text
___  LEVENTRPTP *PGM      PTABLIB     RPGLE
___  LSTMFEXIST *PGM      PTABLIB     RPGLE
___  PABCNXTNBR *PGM      PTABLIB     CLLE
___  PABC0002   *PGM      PTABLIB     CLLE
___  PABC0003   *PGM      PTABLIB     CLLE
___  PABC0005   *PGM      PTABLIB     CLLE
___  PABC0006   *PGM      PTABLIB     CLLE
___  PABC0090SJ *PGM      PTABLIB     CLLE
___  PABC0301   *PGM      PTABLIB     CLLE
___  PABC0302   *PGM      PTABLIB     CLLE
___  PABC0303   *PGM      PTABLIB     CLLE
                                                             More...
Parameters for options 5, 7 and 13 or command
===> _____
F3=Exit   F4=Prompt   F5=Refresh   F9=Retrieve   F11=Display names and types
F12=Cancel   F16=Repeat position to   F17=Position to
The Rollup key was pressed.                            Screen 2 of 6.
```

The highlighted text at the bottom of the screen indicates the key pressed by the user following the screen capture image.

5. Press **F12** to return to the Work with Screen Captures screen.

Sending Screen Capture PDFs to Interested Parties

In addition to distributing Screen Captures immediately after Profile Switch sessions, you can also regenerate Screen Captures from an earlier session and sent them to selected Interested Parties at a later time.

To regenerate and send screen capture PDFs to Interested Parties

1. On the Work with Profile Switches screen, enter option **13**, Email Screen Captures, for one or more Profile Switches.

   > **NOTE:** Press **F16** and place a **1** next to 'Screens Captured' to subset this list to include only switches with screen captures.

```
Date:  5/26/15          PowerTech Authority Broker        Sys : HS69
Time: 13:53:21          Work with Profile Switches        Prog: PABR0090
                                                          User: MARKJ

Options
  13=Email Screen Captures ...

      System     Switch     Switch              Time
Opt   User       Profile    Type      Status    Limit   Start Date/Time
 ___  CHUCK      QSECOFR     *NORMAL   *ENDED    *NOMAX  05/25/15 23:06:11
 ___  BRENDA     QSECOFR     *NORMAL   *ENDED    *NOMAX  05/25/15 22:54:52
 ___  BRENDA     QPGMR       *NORMAL   *ENDED    *NOMAX  05/25/15 22:54:14
 ___  BRENDA     SROWE       *NORMAL   *ENDED    *NOMAX  05/25/15 22:52:55
 ___  CHUCK      QSECOFR     *NORMAL   *ENDED    *NOMAX  05/25/15 22:46:39
 ___  BRENDA     QSECOFR     *NORMAL   *ENDED    *NOMAX  05/25/15 22:42:34
 13   BRENDA     QSECOFR     *NORMAL   *ENDED    *NOMAX  05/14/15 12:53:34
 ___  BRENDA     QSECOFR     *NORMAL   *ENDED    *NOMAX  05/14/15 12:41:11
 ___  BRENDA     QPGMR       *NORMAL   *ENDED    *NOMAX  05/14/15 12:39:30
 13   BRENDA     QSECOFR     *NORMAL   *ENDED    *NOMAX  05/13/15 20:43:56
 ___  BRENDA     SROWE       *NORMAL   *ENDED    *NOMAX  05/13/15 20:22:45
 ___  BRENDA     QSYS        *NORMAL   *FAILED   *NOMAX  05/13/15 20:19:44
                                                                 More...

F3=Exit   F5=Refresh    F11=View Status/End   F12=Cancel
F16=Subset             F23=More Options
```

2. Press Enter. The Select Interested Parties screen appears.
3. Enter **1** next to the Interested Parties who should receive the screen capture PDF.

```
Date:  5/26/15          PowerTech Authority Broker        Sys : HS69
Time: 13:55:34            Select Interested Parties        Prog: PAB3005
                                                          User: MARKJ


Position to Interested Party . : _____

Select one or more Interested Parties with a 1.


Opt  Party      Email Address
 ___  ANDY       ANDY.GRIFFITH@MAYBERRY.USA.COM
 1_   BOBBARKER  BOB_BARKER@PRICE_IS_RIGHT_TV.COM
 ___  BRENDA     BRENDA.PEROUTKA@HELPSYSTEMS.COM
 ___  BRENDAHOME BTPEROUTKA@Q.COM
 ___  CHARLIE    CHARLIE.TOWNSEND@ANGELS@TVLAND.COM
 ___  DUANE      DUANE.WADE@NBA.COM
 ___  EDWARDO    EDWARD.D.JONES@INVESTMENTWORLD.COM
 1_   FRANK      FRANK.COSTANZA@SEINFELD_TV_.COM
 1_   GEORGE     GEORGE.COSTANZA@VANDELAYINDUSTRIES.COM
 ___  JAKE       JAKE.TAPPER@CNN_NEWSCORPORATION.COM
                                                                 More...


F3=Exit   F5=Refresh   F12=Cancel   F16=Subset
```

4. Press Enter. A confirmation screen appears that includes a list of the selected Interested Parties.

```
Date:  5/26/15           PowerTech Authority Broker        Sys : HS69
Time: 13:58:06             Select Interested Parties       Prog: PAB3005
                                                           User: MARKJ


Press Enter to confirm your choices for option 1.
Press F12=Cancel to return to change your choices.



Opt  Party       Email Address
     BOBBARKER   BOB_BARKER@PRICE_IS_RIGHT_TV.COM
     FRANK       FRANK.COSTANZA@SEINFELD_TV_.COM
     GEORGE      GEORGE.COSTANZA@VANDELAYINDUSTRIES.COM






                                                                 Bottom
```

NOTE: A user must be configured as an Interested Party in order for Screen Captures to be sent to their email address. See Work with Interested Parties screen.

5. Press Enter again. A second confirmation screen appears that includes a list of the selected Profile Switches.

```
Date:  5/26/15           PowerTech Authority Broker        Sys : HS69
Time: 13:59:07            Work with Profile Switches        Prog: PABR0090
                                                           User: MARKJ

Press Enter to confirm your choices for option 13=Email Screen Captures.
Press F12=Cancel to return to change your choices.

     System      Switch     Switch                Time
     User        Profile    Type       Status     Limit    Start Date/Time
     BRENDA      QSECOFR     *NORMAL    *ENDED     *NOMAX   05/14/15 12:53:34
     BRENDA      QSECOFR     *NORMAL    *ENDED     *NOMAX   05/13/15 20:43:56






                                                                 Bottom
```

6. Press Enter again. Authority Broker sends PDFs of each captured session to all selected Interested Parties.

From: HS69_AB@Helpsystems.com
To: Mark Johnson
Cc:
Subject: ** REGENERATED ** Profile Switch Notification

✉ Message 📄 Profile Switch 2015-05-13-20.03.10 from BRENDA to QSECOFR.pdf (25 KB)

Attached is the PDF that displays the activity for the profile switch below:

    System user . . : BRENDA
    Switch profile . : QSECOFR
    Started . . . . : 2015-05-13-20.03.10.323000
    Ended . . . . . : 2015-05-13-20.03.25.202000
    System . . . . . : HS69

    Call ticket . . : 111111
    Reason . . . . . : System Testing 1

> **NOTE:** The text "** REGENERATED **" appears in the Subject line of emails that include PDFs that have been regenerated (rather than the PDFs sent automatically at the end of a swap).
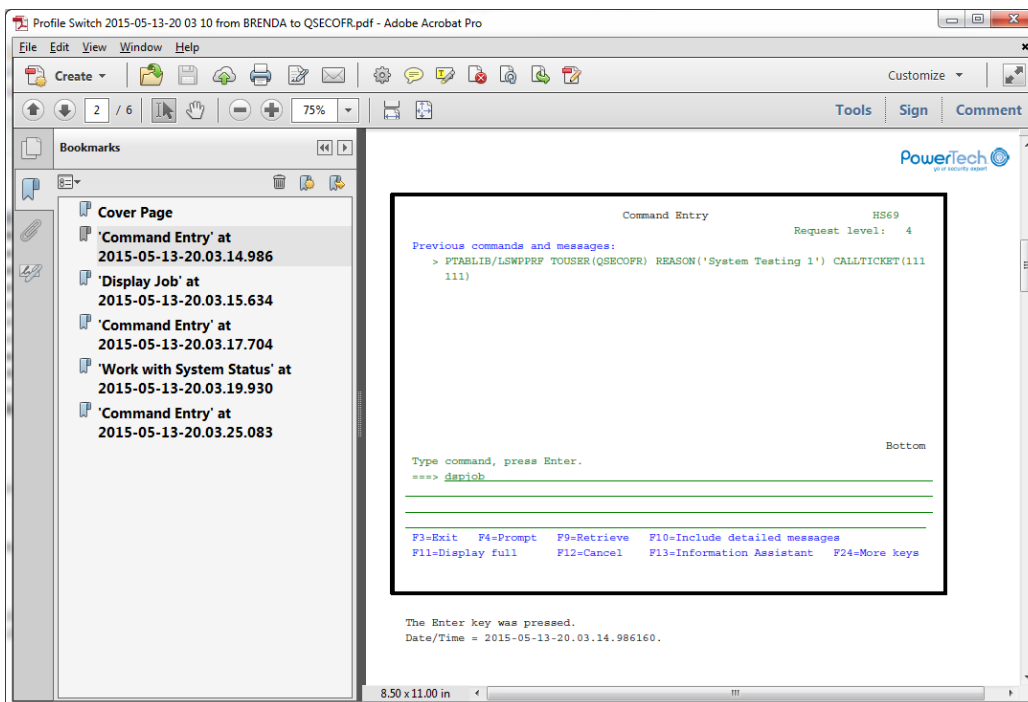
Each regenerated PDF includes screen captures of one of the selected profile switch sessions.

FireCall

With FireCall, a user can be granted temporary authority that is either more or less than their usual settings in order to be allowed to perform a particular function. However this temporary authority is allowed for only a specific period of time, as determined by the *FireCall Operator*. Typically, a FireCall Operator is a helpdesk person without full rights to administer Authority Broker, but does have rights to temporarily enable switches that have been pre-configured by the system administrator. Only the FireCall Operator can grant this temporary authority and determine the appropriate time period the temporary authority will be allowed.

To illustrate FireCall usage and benefits, let's revisit our typical user scenario:

Due to the power outage, the payroll department was unable to complete payroll during regular business hours. Frank was granted the temporary authority (by the FireCall Operator) to complete payroll, overnight, in order to have the payroll completed by the beginning of the next business day. As predetermined by the FireCall Operator, Frank's special temporary authority was terminated at the beginning of the next business day.

In this typical user scenario, FireCall provided the following benefits:

- *Ability to temporarily grant access to powerful user accounts when emergencies arise.*
- *Ability to automatically revoke access to powerful user accounts after a predetermined time period. (Administrators can set limits on the duration of the profile switch and can even configure the action that is taken when the time expires.)*
- *Sarbanes-Oxley compliance.*
- *Record of what the user has done under the switch profile.*
- *24/7 availability.*

> **NOTE:** A profile switch must be enabled by the product administrator BEFORE the FireCall Operator can enable the switch via FireCall (see Configuring Switch Pairs).

To give FireCall authority to a System User (by the FireCall Operator)

1. Ensure the option "Switching is enabled for FireCall only" is selected for the user in the Switch Information screen.
2. Open the FireCall Assignment screen using one of the following methods:
   - From a command line, enter **LFIRECALL** and press Enter.
   - From the Main Menu, select option **3** (Give a user FireCall access to Authority Broker).
   - From the FireCall Menu, select option **1** (Give user FireCall access).
3. The FireCall Assignment screen displays. Existing FireCall switch pairs are presented in the FireCall Assignment screen. (Only switch assignments designated as FireCall assignments are listed.)

```
Date:  5/21/15           PowerTech Authority Broker        Sys : HS42
Time:  10:13:03             FireCall Assignment            Prog: PABR0700
                                                           User: QSECOFR

Reason for FireCall . .: _____
_____
_____

Call ticket . . . . .:       _____
FireCall must start between 10:13 on 05/21/2015 and 10:43 on 05/21/2015
Position to System User: _____
Options
 1=Select
     System                           Switch to
Opt User        System User Desc      Profile    Switch Duration
 _   ALICE                            APMOD          10
 _   BENS        Ben Singer HR         APMOD          10
 _   TERESAP     Teresa Pinkston Systems  APMOD       10


                                                          Bottom
F3=Exit  F5=Refresh  F12=Cancel
(C) COPYRIGHT The PowerTech Group, Inc.  2004 - 2012            +
```

4. Enter a reason for the FireCall assignment. (This is a required field.)

5. Enter **1** (Select) for a user, then specify the length of time the switch will be allowed under Switch Duration.

6. Press Enter. The message "FireCall access has been granted to [user]" displays at the bottom of the screen confirming the switch assignment.

> **NOTE**: FireCall is automatically installed when Powertech Authority Broker is installed and by default, FireCall is already enabled upon installation. (However, should you elect to turn off the FireCall feature and/or later decide to enable FireCall, refer to Enabling and Disabling FireCall.)

Insite Dashboards
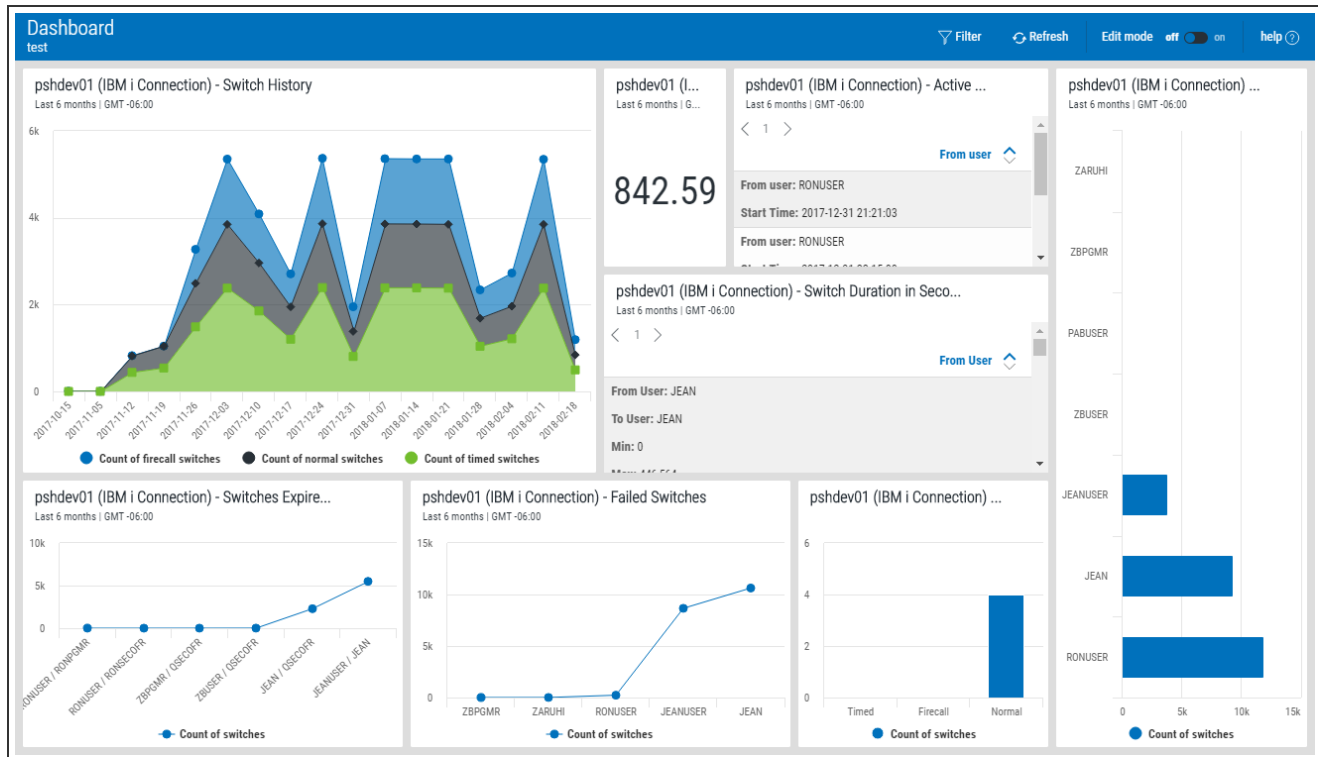
The Dashboard is a feature of the HelpSystems Insite web browser interface. Insite can be downloaded from your User Account page on the HelpSystems website.

The HelpSystems Insite Dashboard can be used to display a visual representation of Authority Broker product activity. See *HelpSystems Insite Dashboard Overview* in the Insite User Guide for details.

A Dashboard can include any combination of *Widgets*, which are the individual visual displays of product data (e.g. charts, graphs, and so forth). See *Dashboard Widgets* in the Insite help for details on creating and editing Widgets. The type of Authority Broker data to include in a widget, such as the number of profile switches over a given time frame, is specified using Assets. See Dashboard Assets for a description of the types of Authority Broker data that can be added to an Insite Dashboard.

You can mix widgets from different products and Data Sources (servers) on the same Dashboard. You can create as many Dashboards as you like.

Dashboards are specific to the profile you used to log on. However, you can share them with everyone or keep them private, as needed. Users logging on with the guest profile can view only those dashboards marked as Guest. For more on the guest profile, see *Authentication* in the Insite help.

Reports

Satisfy your auditor requirements with reports that provide a complete audit trail of privileged user activity. For example, you can create reports for any of the following:

- Summary of profile swaps
- List of all commands entered
- Details from the audit journal
- All invalid access attempts
- Screen captures, emailed as a bundled PDF

Authority Broker's unique report filtering technology lets you print only the critical information that your auditors require. Using filters, you can exclude irrelevant programs or list only commands that were entered from a command line.

To create a report

1. From the Main Menu, choose option **2**, Run Authority Broker Event Reports.
2. Specify a Start and End date and time and the other report details. See Event Reports screen.
3. Press Enter to specify the desired output. For an explanation of the options, see Event Reports Output Options screen.
4. Press Enter to submit the report for batch processing.

Custom Alerts

When an alert is generated, Authority Broker administrators have the flexibility to call their own custom programs in place of the defaults that ship with Powertech Authority Broker (USERMSGQ, EXTERNALMSGQ, etc.).

On the Work with Alert Methods screen, you define the name of the program and the library where it is located. Authority Broker passes the following parameters to your program.

Parameter	Used As	Data Type	Sequence	Description
Interested Party	Input	CHAR (10)	1	The User ID of individual with an interest in when this system user switches to the Application/Resource ID.
Client IP address	Input	CHAR (15)	2	The client IP address returned from IBM's QUSRJOBI API in format JOBI0600. This is typically the IP address of a telnet terminal.
System Name	Input	CHAR(8)	3	The name of the system the profile switch took place on. This is the same name as shows in the "Current system name" parameter of IBM command DSPNETA.
Jon Environment Type	Input	CHAR(1)	4	The job's environment type. 0 – A value - If "0" indicates the job that performed the profile switch was running in batch mode. 1 – A value - If "1" indicates the job that performed the profile switch was running in interactive mode.
System User	Input	CHAR (10)	5	The name of the user profile that switched to the application/resource ID.

Parameter	Used As	Data Type	Sequence	Description
Application/Resource ID	Input	CHAR (10)	6	The name of the user profile the system user switched to.
Notification	Input	CHAR (276)	7	The formatted data used when writing the switch audit journal entry. This contains the "reason" that the system user gave for performing the switch. The format is for Authority Broker message PID8001, as follows: System user requested to run under authority of Application/Resource ID for reason "reason entered for the profile switch"
FireCall Switch	Input	CHAR(1)	8	Specifies if the profile switch pair was created for FireCall. This parameter will always be "N" for Authority Broker 2.0 and earlier.
Call ticket number	Input	CHAR (20)	9	The Call number entered for this profile switch. It can be any combination of letters and numbers (up to 20 characters) that corresponds to a ticket number from a help desk system such as Remedy.

Program processing requirements:

- All parameters are passed to the user-written alert program. None may be omitted.
- All parameters are passed by reference.
- If the alert program fails for any reason it will cause the entire alert process to fail.
- The Authority Broker administrator is responsible for handling library list manipulation. If a customer-written alert alters the job's library list it is the responsibility of the customer's alert program to reinstate the library list before giving processing control back to Authority Broker.

Running Reports from a Command Line

Powertech Authority Broker reports can also be started from a command line or from within a CL program.

To run a report from a command line, enter the following command:

LEVENTRPT

Press **F4** (Prompt) to see the report options. The Event Reports (LEVENTRPT) screen displays. Make your selections and press Enter.

Options:

From Date & From Time

The From Date and Time fields specify the first (earliest) of the events to be included on the report. The From Date and Time must specify a time before that of the To Date and Time.

To Date & To Time

The To Date and Time fields specify the last (latest) of the events to be included on the report. The To Date and Time must specify a time after that of the From Date and Time.

Include Switches Based On

Specifies how profile switches are selected to be on the report.

- **Start:** Selecting Start will include profile switches that started during the selected date and time range.
- **End:** Selecting End will include profile switches that ended during the selected date and time range.
- **Any:** Selecting Any will include profile switches that had any activity during the selected date and time range.

Omit Activity Outside the Date/Time Range

This parameter specifies if detail activity that falls outside the selected date & time range should be omitted from the report.

- **Yes.** Detail activity that falls outside the requested date and time range will bes omitted from the report.
- **No.** Detail activity that falls outside the requested date and time range will be included on the report.

User Type

Specifies the user type for which the report is to run. The user name will be entered in the RUNFOR field.

Allowed values are:

- *SYSTEM: The user named in the RUNFOR parameter is the system user making the switch. Alternately, a U may be used.
- *SWITCH: The user named in the RUNFOR parameter is the user profile to which the switch was made. Alternately, an S may be used.
- *INTPARTY: The user named in the RUNFOR parameter is the Interested Party. Alternately, an 'I' may be used.

User
Specifies the user for which the report is run. This parameter is inter-dependent on USERTYPE. Allowed values are a user profile or the special value *ALL.

Report Type
Specifies the information type to appear on the report.

Allowed values are:

- *SUMMARY: Shows only the switch profile events generated via user profile switches with Powertech Authority Broker (Start Switch and Stop Switch). This option produces only summary-level information. Alternately, an S may be used.
- *COMMAND: Selecting Commands will limit the audit activity shown on the report to the switch profile events and the commands run while the switch was effective. The command information is based on 'CD' type entries in the IBM security audit journal (QAUDJRN). Alternately, a 'C' may be used.
- *ALL: Shows the switch profile events generated by user switches and all journal entries while the switch was effective. This option produces the most information of all options. Alternately, an A may be used.
- *ERRORS: Shows only the switch profile events generated by a rejected user switch attempt. These are shown in the other reports, but can be easier to examine in this report. Alternately, an E may be used.

Omi CL Program Commands
Select only those commands and programs that were run from a command line.

- *YES: Omit those commands and programs that were run from a command line such as QCMD or QCMDEXEC. (You may also use a Y.)
- *NO: Select all commands and programs. (You may also use an N.)

Omit registered programs
Includes or excludes from this report those programs that you have specified via Work with Program Exceptions.

Print Report
Specifies if the report output is to be printed. If selected, you must specify the output queue to which to send the report.

Allowed values for function are:

- *YES: Print the report. (You may also use a Y.)
- *NO: Do not print the report. (You may also use an N.)

Send report to DB file

Specifies if the report output is to be sent to a DB2/400 database file. If selected, you must specify the database file to which to send the report. If the file does not already exist, it will be created for you.

Allowed values for function are:

- *YES: Send the output to a database file. (You may also use a Y.)
- *NO: Do not send the output to a database file. (You may also use an N.)

Send report to directory file

Specifies if the report output is to be sent to a directory file. If selected, you must specify the directory file to which to send the report. If the file does not already exist, it will be created for you.

You must have sufficient access rights to the specified directory file, including all directories in the path, to create and to write to this file.

Allowed values for function are:

- *YES: Send the output to a directory file. (You may also use a Y.)
- *NO: Do not send the output to a directory file. (You may also use an N.)

IFS Reports

Setting Reports for the IFS

From the Authority Broker Main Menu, select option **2** (Run Authority Broker Event Reports).

Set up the report with your desired parameters (see example below)

```
Date:  4/17/17          PowerTech Authority Broker      Sys : OSCAR
Time: 09:33:42                Event Reports             Prog: PABR0300
                                                        User: QSECOFR

Start date and time  . . . . . . . . . . . .:  04/16/17   Date  09:33:42 Time
End date and time  . . . . . . . . . . . . .:  04/17/17   Date  09:33:42 Time
Include switches based on  . . . . . . . . .:  X Start  _ End  _ Any
Omit activity outside the date/time range  .:  X Yes  _ No

User type  . . . . . . . . . . . . . . . . .:  X System User
                                               _ Switch Profile
                                               _ Interested Party

User . . . . . . . . . . . . . . . . . . . .:  *ALL        (Name, or *ALL)

Report type  . . . . . . . . . . . . . . . .:  X Commands     _ Summary
                                               _ All          _ Errors only

Omit CL program commands . . . . . . . . . .:  X Yes  _ No
Omit registered programs . . . . . . . . . .:  X Yes  _ No
Job depth  . . . . . . . . . . . . . . . . .:  0           (0-99, *NOMAX)

F3=Exit   F5=Refresh   F12=Cancel
```

Press Enter to display the Event Reports Output Options screen (shown below).

```
Date:  4/17/17          PowerTech Authority Broker      Sys : OSCAR
Time: 09:36:34          Event Reports Output Options    Prog: PABR0300
                                                        User: QSECOFR

Reporting results method  . . . . . . . .: X  Printer
 Direct printer output to . . . . . . . .:   *DEV        Name
                                             _____  Library
 Print blank lines  . . . . . . . . . . .:   _ Yes  X No

Reporting results method  . . . . . . . .: _  Outfile
 Outfile name . . . . . . . . . . . . . .:   PLAUTBKR01 File name  (Required)
                                             _____ Library name (Required)
                                             *FIRST     Member name (optional)
 If the member already exists . . . . . .:   _ Replace  X Append  _ Cancel
 *PUBLIC Authority  . . . . . . . . . . .:   *EXCLUDE   *USE, *CHANGE, ...

Reporting results method  . . . . . . . .: _  Directory file
 Directory file name  . . . . . . . . . .:   AuthorityBrokerReport.csv

 If the file already exists . . . . . . .:   _ Replace  X Append  _ Cancel
 *PUBLIC Authority  . . . . . . . . . . .:   *EXCLUDE   *USE, *CHANGE, ...

F3=Exit   F5=Refresh   F12=Cancel
```

Enter an **X** next to Directory file as the Reporting results method.

Press Enter to generate the report.

Accessing Your Reports on a PC

> **NOTE:** The default location for the IFS is the user's home directory, typically: /home/username/reportname.csv where username is the user profile name. The location of the home directory is specified in the user profile definition. If the home directory does not exist, the report is routed to the root directory, for example: /reportname.csv. It is recommended that a home directory be created for users that create Authority Broker reports to a Directory file.

There are 2 ways to access your reports on a PC:

- Use FTP to retrieve a file from the IFS, or
- Retrieve a file using iSeries Navigator.

Both of these options use network access servers that can be secured using Powertech Network Security.

Using FTP To Retrieve Files From The IFS

To FTP your file to your local system:

1. Press Start, select **Run**, enter **cmd** and press OK
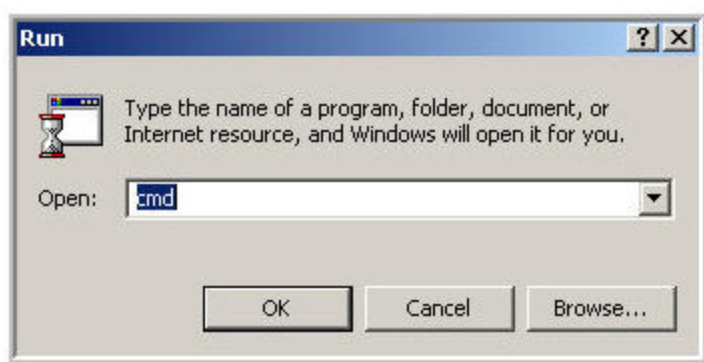
2. At the next screen type ftp (host name). Press Enter.

   Below is a sample FTP session used to retrieve the report:

```
Connected to mukilteo.
220-QTCP at 192.168.1.172.
220 Connection will close if idle more than 15 minutes.
User (mukilteo:(none)): catherineb
331 Enter password.
Password:
230 CATHERINEB logged on.
ftp> cd /home/catherineb
250-NAMEFMT set to 1.
250 "/home/catherineb" is current directory.
ftp> ls
200 PORT subcommand request successful.
125 List started.
demo_2005-08-07-11.22.06.623.csv
demo_2005-08-07-11.22.06.623.rpt
demo_2005-08-08-19.42.33.491.csv
demo_2005-08-08-19.42.33.491.rpt
250 List completed.
ftp: 136 bytes received in 0.08Seconds 1.72Kbytes/sec.
ftp> get demo_2005-08-08-19.42.33.491.csv demo_2005-08-08-19.42.33.491.csv
200 PORT subcommand request successful.
150 Retrieving file /home/catherineb/demo_2005-08-08-19.42.33.491.csv
250 File transfer completed successfully.
ftp: 258 bytes received in 0.09Seconds 2.74Kbytes/sec.
ftp>
```

3. Open the .csv file in Microsoft Excel. (Make sure that you are browsing for "All Files" and not just "All Microsoft Excel Files"). The comma separated file will first appear as unformatted data in the Excel file, as follows:

Retrieving A File Using ISeries Navigator

You can also access your reports on a PC by using iSeries Navigator. The following screenshot illustrates the process of retrieving a file using iSeries Navigator:
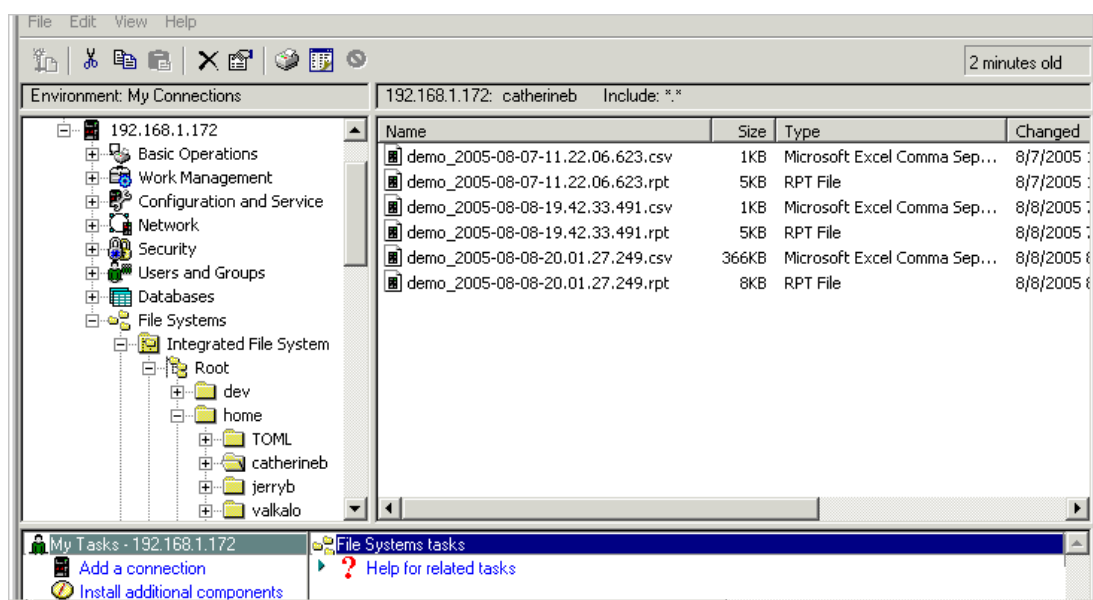
Reference

The topics in this section include reference information such as field descriptions, as well as the Appendix, which includes supplementary information.

Add Switch Information screen

```
Date:  5/11/15           PowerTech Authority Broker        Sys : HS42
Time: 15:43:57              Add Switch Information          Prog: PABR0110
                                                           User: QSECOFR


System User allowed to switch. . . . . . . . : ALICE      (Name)
Application/Resource ID to be switched to. : APMOD        (Name)
Switching is enabled for FireCall only  . .: _ Yes X No

How many minutes may the System User stay switched: 10     (Minutes, *NOMAX)
Which environments is this switch allowed .: X Interactive X Batch
Which environment requires switch alerts  .: X Interactive X Batch
Will screens be captured for an interactive switch: _ Yes X No


These Individuals have an interest in this switch:
            Interested Party Alert Method         Include on reports
                FRANK        EXTERNALMSGQ                 X
                JOAN         EMAIL-PDF                    _
                _____     _____         _
                _____     _____         _
                _____     _____         _
                                                              More...

F3=Exit    F4=Lookup   F5=Refresh    F12=Cancel
```

How to Get There

From the Main Menu, choose option **1**. Add a System User and Switch Profile and press ENTER.

What it Does

System User Switch Information is used to add or change a user profile that is allowed to switch. A system user must be assigned to a Switch Profile before the swap profile commands can be utilized.

> **NOTE**: When accessed by using option **2**, Change, in the Assign System Users to Switch Profiles screen, this screen is titled "Change Switch Information," and includes the same options.

Field Descriptions

System User allowed to switch

The name of a valid user profile who will switch to other profiles. This must be a valid IBM user profile name.

Application/Resource ID to be switched to

The name of a valid user profile that the system user was able to switch to. This must be a valid IBM user profile name.

By default, Authority Broker allows users to switch profiles when they are running in both Interactive and Batch mode. (Interactive is when the user types the LSWPPRF command from a command line; whereas Batch is when the LSWPRF command is submitted to a job queue for background processing).

Switching is enabled for FireCall only

The combination of system user and switch profile may only be used for FireCall events. Defaulted to No.

- Select **Yes** to make this a FireCall Only assignment. This means it can only be used if activated by a FireCall operator. The assignment does not create a Day of Week Schedule.

  > **NOTE:** If FireCall is not enabled, this option will not be available.

- Select **No** - Do not make this a FireCall Only assignee. This means it can be used without prior approval. The assignment will honor any existing Day of Week or Date and Time Restrictions.

How many minutes may the System User stay switched

The number of minutes a profile switch may stay active.

Possible values are:

- Number-of-minutes - The number of minutes a profile switch may stay active. Value must be between 1 and 99999.
- *NOMAX - No time limit is placed on the profile switch. This value is invalid for Firecall Only assignments.

Which environments is this switch allowed

The IBM job environment where a profile switch may occur. Profile switching may be allowed for both interactive and batch jobs. At least one environment must be selected.

Which environment requires switch alerts

The IBM job environment where a profile switch will cause interested parties to be notified of the switch. An alert is sent to interested parties only when an environment has been selected. This is an optional entry.

- If a switch is to be reported or an alert is to be sent, then at least 1 interested party must be entered.
- Interested party must be a valid IBM user profile. The entry must conform to IBM's naming conventions. No test for existence will be performed.
- The interested party must at least receive either reports or alerts. Both reports and alerts may be selected.
- Alert method must be a valid alert method.
- Processing sequence can be between 1 and 99. Duplicates per interested party are not allowed.
- Include the Interested Party on Event reports for this switch pairs activity. Enter an X to signify the interested party is to be included in the Interested Party reports. Defaults to no.
- To remove an interested party blank out the interested party's user ID entry.

Authority Broker switches may be incorporated in batch programs by embedding the LSWPPRF command into your own CL or HLL program. It is possible to generate a high volume of alerts and transactions by executing the LSWPPRF command repeatedly. In such cases, you may want to turn off the alerts option for Batch processing.

One of the key benefits of Authority Broker is that it allows you to fully audit activity that occurs while a user with limited privilege is switched into a profile with higher authority. You can also send messages or alerts to Interested Parties when switches occur.

The Interested Party column allows you to define specific user profiles that are interested in getting alerts or activity reports for a Switch Pair. For example, a Development manager may be interested in learning about any profile switching activity initiated by Developers in her group. A Human Resources manager may require notification any time a member of the IT staff switches into a profile that grants the necessary authority to read or modify a corporate salary file.

Will screens be captured for an interactive switch

- Select **Yes** if you want to capture screens during the switch. This captures every panel and keystroke that is entered during the switch for review later, and also lets you view switches in real-time from the Work With Profile Switches panel. See Working with Screen Captures.
- Select **NO**

These Individuals have an interest in this switch

The parties listed have an interest in when this system user switches to the Application/Resource ID.

Interested Party

The individual interested when this system user switches to, and/or releases from, the Application/Resource ID.

Possible values are:

- user profile -The IBM user profile for the party interested in profile switches and releases of this switch pair.
- *NONE - Special value *NONE may be used in conjunction with exit point method EXTERNALMSGQ.

Alert Method

Alert methods are the mechanism used to alert an interested party when a profile switch has begun and ended.

> **NOTE:** Special value *NONE may be used when the Interested Party for a Switch Pair is to only be included in Event report distributions.

The default alert methods shipped with the product are:

- USERMSGQ - Specifies that a message is sent to the IBM i message queue of the Interested Party who has registered to receive the alert.
- EXTERNALMSGQ - Specifies a single IBM i message queue for alerts messages. The message queue is specified on the Authority Broker product settings panel. This option is useful if you want to consolidate all your alert messages in one queue that you monitor using a management console like HelpSystems' Robot CONSOLE.

> **NOTE:** Alert methods are case sensitive.

- EMAIL-PDF - Specifies that a PDF document containing the screen captures will be emailed to the interested party. The PDF will contain only screen captures and as such is useful only for interactive jobs. The interested party must have an email address configured using the options on the "Work with Interested Parties" panel.

Include on reports

Include the Interested Party on Event reports for this switch pair's activity. Enter an X to signify the interested party is to be included in the Interested Party reports.

Command Keys

- **F3 (Exit):** Exit the program without processing any pending changes.
- **F4 (Lookup):** Pressing F4 provides lookup capabilities when the cursor is on a promptable field. Press F4 with the cursor in the System User field to display a list of user profiles that you may select from. Press F4 with the cursor in the Switch Profile field to display a list of user profiles that you may select from. Press F4 with the cursor in the Interested Party list to display a list of user profiles that you may select from.
- **F5 (Refresh):** Refresh the screen.
- **F7 (Work with Day of Week Schedule):** Displays the screen used to set the Day of Week Schedule for a system user/switch profile combination. Not valid when adding an assignment.
- **F9 (Work with Date and Time Overrides):** Displays the screen used to override the Day of Week Schedule for a system user/switch profile combination. Not valid when adding an assignment.
- **F12 (Cancel):**Exit the screen without processing any pending changes.
- **F17 (Switch Pair Exit Points):** Displays the screen used to maintain switch pair exit points for a system user/switch profile combination.

Advanced Reporting Exceptions Sort & Search screen

```
Date:  7/28/15          PowerTech Authority Broker        Sys : HS42
Time: 13:53:11  Advanced Reporting Exceptions Sort & Search   Prog: PABR041
                                                          User: QSECOFR


Sort Order
Object name: _  Library name: _  Object type _  User profile: _  Filter: _

Search criteria   (Leave blank to select all)
Filter selections . . .: _ Active  _ Inactive

Object selections . . .: _____
                         _____
                         _____
Library selections  . .: _____
                         _____
                         _____
Object type selections.: _____
User profile selections: _____
                         _____
                         _____
                         _____


F3=Exit   F5=Refresh   F12=Cancel
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```

How to Get There

On the Basic Reporting Exceptions Sort & Search screen, press **F11**.

What it Does

The Reporting Exceptions Sort and Search feature is used to filter and sort the entries shown in the Reporting Exceptions screen.

Several options are available to filter and/or reorder the entries that are listed. The first of these options is the ability to sort the entries in the list by the values in one or more fields. Second, you can filter the information by specifying that you only want to see entries with specific values in certain fields. Lastly, you have the option of defining more advanced selection criteria using SQL syntax.

Options

Sort Order

The sorting sequence section provides the capability to order your results by the values in one or more fields. Possible values are 1 through 5 where 1 is highest and 5 is lowest. If left blank, the results are left in their original order.

Object name: Enter a value of 1 through 5 to specify the order of sorting for the Object Name field. If left blank, it is not used when sorting filter results.

Library name: Enter a value of 1 through 5 to specify the order of sorting for the Library Name field. If left blank, it is not used when sorting filter results.

Object type: Enter a value of 1 through 5 to specify the order of sorting for the Object Type field. If left blank, it is not used when sorting filter results.

User profile: Enter a value of 1 through 5 to specify the order of sorting for the User Profile field. If left blank, it is not used when sorting filter results.

Filter: Enter a value of 1 through 5 to specify the order of sorting for the User Profile field. If left blank, it is not used when sorting filter results.

Search Criteria

The Search Criteria section provides the capability to filter the entries in the Reporting Exceptions list based on the values in certain fields. Fields available for filtering are Filter, Object name, Library name, Object Type, and User Profile selections.

All fields, with the exception of the Filter field, can be filtered using generic values. The generic indicator is the % symbol. So, for example, the list of entries can be restricted to just those objects that start with the letters PAM by specifying PAM% in the object name field.

Filter selections: Active, Inactive

Use X to select to view just one filter or the other. If you wish to see entries that are both Active and Inactive, then leave both fields blank.

Object name, Library name, Object type, User profile selections:

Enter the object name/library name/object type/user profile that you wish to see in the Reporting Exceptions list. Leave the field blank if you wish to see all objects. You can also specify more advanced SQL syntax for selection by using sql terms like IN and BETWEEN to further limit your selection.

Command Keys

Enter (Accept): Press Enter twice to accept your entries. Otherwise, press F12 to cancel.

F3 (Exit): Exit the program without processing any pending changes.

F5 (Refresh): Clear the entries and start over.

F12 (Previous): Cancel processing for the current display and go back to the previous display.

Assign System Users to Switch Profiles screen

```
Date:  5/11/15          PowerTech Authority Broker        Sys : HS42
Time: 08:18:45     Assign System Users to Switch Profiles   Prog: PABR0100
                                                            User: QSECOFR


_____  Position to System User    _____  Position to Switch Profile

Options
 1=Add 2=Change 4=Delete 5=View 7=Day of Week Schedule 8=Override DOW Schedule
 15=Notification Information  17=Switch Pair Exit Points
     System                         Switch
Opt User        System User Desc    Profile    Switch Profile Desc   Type
__ _____     _____    _____
__  ALICE                           APMOD                             Timed




                                                                    Bottom
F3=Exit  F4=Lookup  F5=Refresh  F12=Cancel
Entry added to database.
```

How to Get There

From the Main Menu, choose option **1**.

> **NOTE:** Option 1 is only valid on the first row.

What it Does

Assign System Users to Switch Profile is used to list, add, change and remove user profiles allowed to switch. A system user must be assigned to a Switch Profile before the swap profile commands can be utilized.

Column Descriptions

Position to System User

Enter the System User you wish to begin the list with. The Position to Switch Profile may be used in conjunction with this value.

Position to Switch Profile

Enter the Switch Profile you wish to begin the list with. The Position to System User may be used in conjunction with this value.

Options

Type the option number you want and press Enter.

1 (Add): Add a new entry. This value is only valid on detail line 1. A System User and Switch Profile are entered to make the assignment. When Enter is pressed all known information about the System User is displayed.

2 (Change): Change an existing entry. This is valid against any existing entry. When Enter is pressed all known information is displayed.

4 (Delete): Delete an existing entry. This is valid against any existing entry. When Enter is pressed all known information is displayed.

5 (View): View an existing entry. This is valid against any existing entry. When Enter is pressed all known information is displayed.

7 (Day of Week Schedule): Displays the screen used to change a system user/switch profile combination's Day of Week Schedule.

8 (0verride Day of Week Schedule): Displays the screen used to override the Day of Week Schedule for a system user/switch profile combination.

15 (Notification Information): Displays the screen used to maintain Interested Party notifications.

17 (Switch Pair Exit Points): Displays the screen used to maintain switch pair level product exit points.

System User

The name of a valid user profile who will switch to other profiles. This must be a valid IBM user profile name.

System User Description

> **NOTE:** The System User Description and Switch Profile Description fields are not set in the Authority Broker product. Use the WRKUSRPRF command and change the text description field to make changes.

The text description from the system user's profile. System User Description and Switch Profile Description columns are automatically populated after entering the names of the System User and Switch Profile. Authority Broker shows the user profile text description that is defined for the user profile at the Operating System level. The description provides a convenient explanation of the user profile.

Switch to Profile

The name of a valid user profile that the system user will switch to. This must be a valid IBM user profile name.

Switch to Profile Description

The text description from the Switch to Profile user profile.

Type

The switch pair type.

No limit: A switch done by this pair has no time limit.

Timed: A switch done by this pair has a time limit.

FireCall: The pair is defined as only usable for FireCall events.

When working with large tables of user definitions, use the Position to System User option to quickly move to the desired location in the table. Use Position to Switch Profile to move to the desired switch profile location in the table.

Command Keys

F3 (Exit): Exit the program without processing any pending changes.

F4 (Lookup): Pressing F4 provides lookup capabilities when the cursor is on a promptable field. Press F4 with the cursor in the Position to System User field to display a list of user profiles that you may select one from. Press F4 with the cursor in the Position to Switch Profile field to display a list of user profiles that you may select one from.

F5 (Refresh): Refresh the screen.

F12 (Cancel): Exit the screen without processing any pending changes.

Basic Reporting Exceptions Sort & Search screen

```
Date:  7/28/15          PowerTech Authority Broker      Sys : HS42
Time: 13:52:35   Basic Reporting Exceptions Sort & Search   Prog: PABR041
                                                        User: QSECOFR

Select the sorting sequence: (Specify 1-5)

Object name: _  Library name: _  Object type: _  User profile: _  Filter: _


Select your search criteria:  (Leave blank to select all)

   Filter
       Active:   _
       Inactive: _

    Object name:  _____
    Library name: _____
    Object type:  _____
    User profile: _____                      _



F3=Exit   F5=Refresh   F11=Advanced Search   F12=Cancel
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```

How to Get There

On the Work with Reporting Exceptions screen, press **F14**.

What it Does

The Reporting Exceptions Sort and Search feature is used to filter and sort the entries shown in the Reporting Exceptions screen. Several options are available to filter and/or reorder the entries that are listed. The first of these options is the ability to sort the entries in the list by the values in one or more fields. Second, you can filter the information by specifying that you only want to see entries with specific values in certain fields. Lastly, you have the option of defining more advanced selection criteria using SQL syntax.

Options

Select the sorting sequence

The sorting sequence section provides the capability to order your results by the values in one or more fields. Possible values are 1 through 5 where 1 is highest and 5 is lowest. If left blank the results are left in their original order.

Object name: Enter a value of 1 through 5 to specify the order of sorting for the Object Name field. If left blank, it is not used when sorting filter results.

Library name: Enter a value of 1 through 5 to specify the order of sorting for the Library Name field. If left blank it is not used when sorting filter results.

Object type: Enter a value of 1 through 5 to specify the order of sorting for the Object Type field. If left blank it is not used when sorting filter results.

User profile: Enter a value of 1 through 5 to specify the order of sorting for the User Profile field. If left blank it is not used when sorting filter results.

Filter: Enter a value of 1 through 5 to specify the order of sorting for the User Profile field. If left blank it is not used when sorting filter results.

Select Your Search Criteria

The Search Criteria section provides the capability to filter the entries in the Reporting Exceptions list based on the values in certain fields. Fields available for filtering are Filter, Object Name, Library Name, Object Type and User Profile.

All fields, with the exception of the Filter field, can be filtered using generic values. The generic indicator is the % symbol. So, for example, the list of entries can be restricted to just those objects that start with the letters PAM by specifying PAM% in the object name field.

Filter; Active, Inactive

Use X to select to view just one filter or the other. If you wish to see entries that are both Active and Inactive, then leave both fields blank.

Object name, Library name, Object type, User profile

Enter the object name/library name/object type/user profile that you wish to see in the Reporting Exceptions list. Leave the field blank if you wish to see all objects. You can specify a generic list by specifying the starting characters followed by %. For example, PAM% would list all objects that start with the letters PAM.

Command Keys

F3 (Exit): Ends the current task and returns to the display from which the task was started. If changes have not been accepted prior to F3 being pressed, they will be lost.

F5 (Refresh): Restores the display to the values found in the database. Any changes will be lost.

F11 (Advanced Search): The Advanced Search option displays the Advanced Reporting Exceptions Sort & Search screen, which allows more advanced selection for data sorting and searching criteria.

F12 (Cancel): Returns to the previous menu or display. If changes have not been accepted prior to F12 being pressed they will be lost.

Calling Authority Broker from a Program

The LSWPPRF command can be called directly from programs.

Consider the following very simple example:

1. The user types in the PWRQRY command, and then supplies a User name that they wish to run Queries as.
2. The program does a LSWPPRF.
3. The program executes the IBM WRKQRY command – resulting in the user running query in a swapped environment.
4. When the user exits the WRKQRY screen, an LRLSPRF is performed, and then the program ends.
5. The user is returned to their original application.

Sample code for this example (without error checking) is as follows:

Command PWRQRY

```
CMD PROMPT('PowerTech Controlled Query')

PARM KWD(QUERYUSER) TYPE(*NAME) LEN(10) MIN(1) +

CHOICE('User Name') PROMPT('Query User Name')
```

Program PWRQRY

```
PGM PARM( &QryUser )

DCL &QryUser *Char 10


LSWPPRF TOUSER( &QryUser ) +

REASON( 'Start of PowerTech controlled Query process' ) +

CALLTICKET( *NONE )

WRKQRY

LRLSPRF TOUSER( &QryUser )


ENDPGM
```

Configuration Menu

```
Date:  7/28/15        PowerTech Authority Broker      Sys : HS42
Time: 13:06:26            Configuration Menu          Menu: CONFIGURE
                                                       User: QSECOFR


 Select one of the following:
  1. Assign System Users to Switch Profiles
  2. Work with Interested Parties
  3. Work with Product Exits Menu
  4. Work with Profile Switches

 10. Work with Programs to be excluded from reports
 11. Work with FireCall Control settings
 12. Work with Day of Week default settings
 13. Work with Authority Broker product settings
 14. Work with Authority Broker Customer License
 15. Configure Email Notification

 21. PowerTech Product Version Information

 Selection or command
 ===> _


F3=Exit       F4=Prompt      F5=Refresh     F9=Retrieve     F12=Cancel
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```

How to Get There

From the Main Menu, choose option **5**.

What it Does

Authority Broker's Configuration menu provides a single point where product configuration may be performed.

Options

> **NOTE:** If you choose to disable FireCall, the Authority Broker Configuration Menu does not display Option 11 (Work with FireCall Control settings). See Enable FireCall for more information about enabling or disabling FireCall.

(1) Assign System Users to Switch Profiles

This option presents the screen for associating a system user with a switch profile. See Assign System User to Switch Profile screen.

(2) Work with Interested Parties

This option presents the screen used to maintain the list of parties interested in profile switches. See Work with Interested Parties screen.

(3) Work with Product Exits Menu

This option presents a menu used to maintain methods that extend Authority Broker's functionality. These exit points include notifying interested parties a profile switch has occurred, additional validations

for a profile switch and customized process controls for individual jobs. See Work with Product Exits Menu.

(4) Work with Profile Switches

Work with Profile Switches lets you view and perform work against profile switches.

(10) Work with Programs to be excluded from reports

This option presents the screen used to maintain the list of programs to be excluded from Authority Broker reports. See Basic Reporting Exceptions Sort & Search screen.

(11) Work with FireCall Control Settings

This option presents the screen used to maintain FireCall's default setting. See Work with FireCall Control Settings screen.

(12) Work with Day of Week default settings

This option presents the screen used to maintain the template for Day of Week Restriction settings. See Day of Week Default Schedule.

(13) Work with Authority Broker product settings

This option presents the screen used to maintain Authority Broker's product settings. See Work with Authority Broker product settings screen.

(14) Work with Authority Broker Customer License

Used to enter in the license key for the product.

(15) Configure Email Notification

Configure Email Notification lets you to configure options for email notifications.

(21) Powertech Product Version Information

Displays the product version.

Configure Email Notification screen

```
Date:   7/28/15          PowerTech Authority Broker        Sys : HS42
Time: 13:08:47           Configure Email Notification      Prog: PAB3501
                                                           User: QSECOFR
SMTP Server
       Address . . . . :   SMTP.helpsystems.com

       Port  . . . . . :      25
       Timeout . . . . :      60    (seconds)         _

       Authentication? :   N
             User Name  :

             Password . :

  Confirm Password . :


Sender Email Address   :  HS69_AB@Helpsystems.com


Maximum Email Attachment Size :      10     (MB)

F3=Exit    F8=Reset Values
```

How to Get There

From the Main Menu, choose option **5**, then option **15**.

What it Does

The Configure Email Notification panel lets you configure options for email notifications.

Options

- **SMTP Server:** Options which pertain to communicating with an SMTP Server.
- **Address:** The IP address or DNS name for the SMTP server.
- **Port:** The port number on the SMTP server that will be used for SMTP communications.
- **Timeout:** Number of seconds before a timeout occurs.
- **Authentication?:** Indicates whether authentications is needed to log onto the SMTP Server.
- **User Name:** SMTP Server user name.
- **Password:** SMTP Server user password.
- **Confirm Password:** Confirm the SMTP Server user password that was changed.
- **Sender Email Address:** "From" address for emails sent from this system.
- **Maximum Email Attachment Size:** Maximum size in megabytes for an attachment.

Day of Week Schedule screen

```
Date:   5/11/15          PowerTech Authority Broker      Sys : HS42
Time: 15:53:35               Day of Week Schedule         Prog: PABR0200
                                                          User: QSECOFR


System user . . . . .: ALICE
Switch to profile .: APMOD


                Day of Week  Allow   Prevent   From Time   To Time
                Sunday          X       _        00:00      24:00
                Monday          X       _        00:00      24:00
                Tuesday         X       _        00:00      24:00
                Wednesday       X       _        00:00      24:00
                Thursday        X       _        00:00      24:00
                Friday          X       _        00:00      24:00
                Saturday        X       _        00:00      24:00




                        _


F3=Exit  F5=Refresh  F8=Work with Date and Time Overrides  F12=Cancel
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```

How to Get There

From the Main Menu, choose option **1**. Add a System User and Switch Profile and press ENTER. Add switch information and press ENTER.

What it Does

Authority Broker Day of Week allows you to control when a system user can switch to a specific profile. There is one entry for each day of a seven day week. Profile switching may be allowed or prevented during the specified timeframe.

Field Descriptions

System User

The name of a valid user profile who will switch to other profiles.

Switch to Profile

The name of a valid user profile that the system user will switch to.

Day of Week

The day of the week to allow or prevent profile switching.

Allow

Profile switching is allowed during the specified timeframe. An X is entered to signify profile switching is being allowed. Allow and prevent cannot both be selected for a specific day.

Prevent

Profile switching is prevented during the specified timeframe. An X is entered to signify profile switching is not being allowed. Prevent and allow cannot both be selected for a specific day.

From Time

The starting time to allow or prevent profile switching. Valid times are between 00:00 and 24:00.

To Time

The ending time for allowing or preventing profile switching. Valid times are between 00:00 and 24:00.

Command Keys

F3 (Exit): Ends the current task and returns to the display from which the task was started. If changes have not been accepted prior to F3 being pressed, they will be lost.

F5 (Refresh): Restores the display to the values found in the database. Any changes will be lost.

F8 (Work with Date and Time Overrides): Allows entry of Date and Time Overrides.

> **NOTE:** F8 is not functional when a new switch pair is being added.

F12 (Cancel): Returns to the previous menu or display. If changes have not been accepted prior to F12 being pressed, they will be lost.

Appendix I: Event Reports Output Options screen

```
Date:  5/26/15            PowerTech Authority Broker       Sys : HS42
Time: 09:07:16            Event Reports Output Options      Prog: PABR0300
                                                            User: QSECOFR


Reporting results method  . . . . . . .: X  Printer
 Direct printer output to . . . . . . .:  *DEV_____  Name
                                          _____  Library
 Print blank lines  . . . . . . . . . .:  _ Yes  X No

Reporting results method  . . . . . . .: _  Outfile
 Outfile name . . . . . . . . . . . . .:  PLAUTBKR01 File name   (Required)
                                          _____ Library name (Required)
                                          *FIRST_____ Member name  (optional)
   If the member already exists . . . . .:  _ Replace  X Append  _ Cancel
   *PUBLIC Authority  . . . . . . . . . .:  *EXCLUDE___ *USE, *CHANGE, ...

Reporting results method  . . . . . . .: _  Directory file
 Directory file name  . . . . . . . . .:  AuthorityBrokerReport.csv
                                          _____
   If the file already exists . . . . . .:  _ Replace  X Append  _ Cancel
   *PUBLIC Authority  . . . . . . . . . .:  *EXCLUDE___ *USE, *CHANGE, ...

F3=Exit   F5=Refresh   F12=Cancel
```

How to Get There

In the Event Reports screen, press Enter.

What it Does

The Event Report Selection screen is used to request a report of Authority Broker events. The options available allow you to specify which events you want and the format of the report.

> **NOTE:** The minimum requirement for Authority Broker reporting to operate is that you must have the IBM Security Audit Journal (QAUDJRN) configured on your system. In addition, you can get more meaningful information out of the product if you also turn on the Auditing Level (QAUDLVL) value of *SECURITY (at a minimum). Turn on additional QAUDLVL values as your company security policy dictates. Powertech Authority Broker handles all of the user level security logging tasks that are necessary to get full reporting on user activity.

Options

Printer
Enter an 'X' before the Printer field to send the report to a spooled file. If you select to print the report, you must specify the outq and Library below that you want the finished report placed in.

You can specify *DEV to send the report to the outq defined for this device. (If you did not select to print the report, this Name field is ignored.)

Outfile

Enter an 'X' before Outfile to send the report data to a database file. If this option is selected, you must specify the file name and library. You may optionally specify the member name within the database file that the data will be placed in. You can specify whether or not you wish to replace or append the data if this file already exists in the specified library. You can also specify either *EXCLUDE, *USE, or *CHANGE *PUBLIC Authority.

Directory File

Placing an X next to Directory file (directory file) signifies that the file will be written to comma separated value (.csv) format on the IFS. You can also specify either *EXCLUDE, *USE, or *CHANGE *PUBLIC Authority.

Appendix H: Event Reports screen

```
Date:  5/26/15          PowerTech Authority Broker      Sys : HS69
Time: 14:08:42                 Event Reports            Prog: PABR0300
                                                        User: MARKJ


Start date and time  . . . . . . . . . . . .:   05/25/15    Date  14:08:42 Time
End date and time  . . . . . . . . . . . . .:   05/26/15    Date  14:08:42 Time
Include switches based on  . . . . . . . . .:   X Start   _ End   _ Any
Omit activity outside the date/time range  .:   X Yes   _ No

User type  . . . . . . . . . . . . . . . . .:   X System User
                                                _ Switch Profile
                                                _ Interested Party

User . . . . . . . . . . . . . . . . . . . .:   *ALL        (Name, or *ALL)

Report type  . . . . . . . . . . . . . . . .:   X Commands      _ Summary
                                                _ All           _ Errors only

Omit CL program commands . . . . . . . . . .:   X Yes  _ No
Omit registered programs . . . . . . . . . .:   X Yes  _ No
Job depth  . . . . . . . . . . . . . . . . .:   0           (0-99, *NOMAX)


F3=Exit   F5=Refresh   F12=Cancel
```

How to Get There

From the Authority Broker Main Menu, select option **2** (Run Authority Broker Event Reports).

> **NOTE**: This is the same reporting program that can be accessed from the Reports Menu.

Time periods can be specified for reports. The time period refers to the time when the switch is first initiated. Specify a time range using the From Time and To Time columns. From Time and To Time must be a valid time, which is any value between 00:00:00 and 23:59:59. To Time must be later than From Time.

What it Does

The Event Report Selection screen is used to request a report of Authority Broker events. The options available allow you to specify which events you want and the format of the report.

Authority Broker Event Reports provide information of interest to auditors.

> **NOTE**: The minimum requirement for Authority Broker reporting to operate is that you must have the IBM Security Audit Journal (QAUDJRN) configured on your system. In addition, you can get more meaningful information out of the product if you also turn on the Auditing Level (QAUDLVL) value of *SECURITY (at a minimum). Turn on additional QAUDLVL values as your company security policy dictates. Powertech Authority Broker handles all of the user level security logging tasks that are necessary to get full reporting on user activity.

Options

> **NOTE**: **Switches that end after the End Time:** The reports include an end of job marker to show that the active switch has ended during the queried report period. If the report does not include this marker, the user should be aware that the switch continued past the time period covered by the report.

- **Start Date/Time:** The Start Date and Time fields specify the first [earliest] of the events to be included on the report. The Start Date and Time must specify a time before that of the To Date and Time.
- **End Date/Time:** The End Date and Time fields specify the last [latest] of the events to be included on the report. The End Date and Time must specify a time after that of the Start Date and Time.
- **Include Switches Based On:** Specifies how profile switches are selected to be on the report. Possible values are:
    - **Start:** Selecting Start will include profile switches that started during the selected date and time range.
    - **End:** Selecting End will include profile switches that ended during the selected date and time range.
    - **Any:** Selecting Any will include profile switches that had any activity during the selected date and time range.
- **Omit Activity Outside the Date/Time Range:** This parameter specifies if detail activity that falls outside the selected date & time range should be omitted from the report. Possible values are:
    - **Yes.** Detail activity that falls outside the requested date and time range will be omitted from the report.
    - **No.** Detail activity that falls outside the requested date and time range will be included on the report.
- **User Type:** This parameter determines the key element for reporting switches that have occurred. You must select one [and only one] field by placing an 'X' in the corresponding field. This field works with the User field to define what information is included on the events report and how it is sorted. There are three possible fields:
    - **System User** is the user profile who performed the switch.
    - **Switch Profile** is the profile into which a system user switched.
    - **Interested Party** users who have been registered that they wish to receive reports when specific profile switches occur.
- **User(s):** Enter the user profile you want to list events for. This field works with the User type field. For example, if you specify a user name in this field, and System User in the User type field, the resulting output will list all of the switches where the specified user was the System User on a switch. If you enter *ALL then all users will be selected. Possible values are:
    - **User-profile:** The specific user profile to report.
    - ***ALL:** All users are reported

- **Report Type:** Enter an X before the type of information you want on the report. Possible values are:

  - **Commands:** Selecting Commands will limit the audit activity shown on the report to the switch profile events and the commands run while the switch was effective. The command information is based on 'CD' type entries in the IBM security audit journal (QAUDJRN).
  - **Summary:** Selecting Summary will limit the information on the report to just showing when a user switched to another profile and when a profile switch was released. This selection provides the least amount of detail on the report.
  - **All:** Selecting All will show all of the switch and release activity, as well as all of the audited activity while the user[s] was(were) switched. This selection provides the most detail.
  - **Errors:** Selecting Errors Only will limit the information on the report to just showing attempted switches that failed for some reason. Some reasons that a switch may fail are a user was not defined to be allowed to swap to the user they attempted to swap to, or a user tried to swap to another profile during a restricted time, etc.

- **Omit CL Program Commands:** Enter an X before the Yes if you only want to see audit activity of commands that were not run from a CL program. Selecting Yes will eliminate commands that are run within CL programs. Enter an X before the No if you want to see all audit activity for commands.

- **Omit Registered Programs:** Enter an X before the Yes if you want to omit from the reports the programs and commands registered as ones to omit from reporting. Enter an X before the No if you do not want to omit them. To register programs and commands, use the "Work with Programs to be excluded from reports" option from the Configuration Menu.

- **Job Depth:** Enter the depth of jobs you wish to include with the report. A profile switch can start an unlimited number of additional jobs. Job depth provides the ability to report to a specific depth. For example, job A can submit job B, job B can submit job C, job C can submit job D, and so on. Jobs B, C, and D can be eliminated from the report by selecting a depth of 0. Selecting a depth of 2 will include activity for jobs A, B, and C. Selecting a depth of 3 will include jobs A, B, C, and D. Possible values are:

  - **0-99:** The depth of jobs to report. Value must be between 0 and 99. A value of 0 means no additionally started jobs are to be reported.
  - ***NOMAX:** All activity that occurred due to a profile switch is reported.

Once you have set up the report with your desired parameters, press Enter to get to the second screen ( ).

FireCall Assignment screen

```
Date:  7/28/15           PowerTech Authority Broker        Sys : HS42
Time: 13:11:19                FireCall Assignment           Prog: PABR0700
                                                            User: QSECOFR


Reason for FireCall . .:  _____
  _____
  _____
  _____
Call ticket . . . .:       _____
FireCall must start between 13:11 on 07/28/2015 and 13:41 on 07/28/2015
Position to System User: _____
Options
 1=Select
      System                              Switch to
 Opt User        System User Desc         Profile    Switch Duration

                      No entries to be displayed




F3=Exit  F5=Refresh  F12=Cancel
(C) COPYRIGHT The PowerTech Group, Inc.  2004 - 2012                  +
```

How to Get There

From the Main Menu, choose option **3**.

What it Does

FireCall Assignment is used to give a system user temporary access to an IBM i system. A system user must already have been assigned a FireCall profile before any FireCall assignment can be made.

Options

Reason for FireCall

The reason for providing a FireCall Assignment.

Call Ticket

The call ticket provided for this FireCall Assignment.

A call ticket is entered if required by the FireCall Control Settings. It can be any combination of letters and numbers (up to 20 characters) that corresponds to a ticket number from a help desk system such as Remedy. The ticket number will be displayed on the FireCall log.

FireCall must start between

The timeframe for a FireCall access. Before this time the FireCall access cannot be performed. After this time the FireCall access is no longer valid and cannot be performed. This timeframe cannot exceed 99999 minutes.

- The job's time separator (such as a colon) is used.
- Begin and end by dates will be placed in the job's format using the job's date separator (such as a slash).
- Job's separators will be placed in time fields regardless of what the user types in. Only the job's separators will be used.
- Begin and end time entry is to be in to whole minutes. A valid time is any value between 00:00 and 24:00. For ease of typing the seconds have been eliminated and 24:00 will be interpreted as 23:59:59.
- If a one digit time is entered it is presumed to be a minute. For example if 1 is entered it is assumed to be 00:01.
- If a two digit time is entered it is presumed to be in minutes. For example if 13 is entered it is assumed to be 00:13.
- If a three digit time is entered it is presumed digit 1 is the hour and digits 2 and 3 are minutes. For example if 311 is entered it is assumed to be 03:11.
- If a 4 digit time is entered it is presumed digits 1 and 2 are the hour and digits 2 and 3 are minutes. For example if 1311 is entered it is assumed to be 13:11.
- Start time and date are initially loaded with the current time and date.
- End date will be placed in the job's format using the job's date separator.
- Ending time entry is to be in whole minutes. A valid time is any value between 00:00 and 24:00. For ease of typing the seconds have been eliminated and 24:00 will be interpreted as 23:59:59.
- Ending time and date are initially loaded with the time and date calculated as (Begin date and time + FireCall Control setting for How many minutes before a FireCall Switch must begin).

Position to System User

Enter the System User you wish to begin the list with. The Position to Switch Profile may be used in conjunction with this value.

Field Descriptions

Available Options

The options available for selection:

1 (select): Select the System User/Switch Profile pair to allow FireCall access. Switch duration may be modified if the product is configured to allow it. Only one pairing may be selected. The first selection found in the list will be the selection allowed FireCall access.

System User

The user profile who will be assigned FireCall access.

System User Description

The text description from the system user's IBM user profile.

Switch to Profile

The user profile that the system user is being given FireCall access to.

Switch Duration

The number of minutes a FireCall Switch may stay active. A value between 1 and 99999 must be entered. This value may be increased for the selected system user if the FireCall Control Settings allow it to be overridden. Decreases in time after a FireCall Switch has already been set will not be honored.

The first selected entry is used to set up the FireCall authorization.

- Entries made to FireCall log file.
- Entries made to Day of Week Override file.

How Switch Duration is calculated:

Switch duration is defined as (Begin timeframe) + (Number of minutes allowed on the switch assignment) = end timeframe. For example: Begin timeframe (1:00 p.m.) + number of minutes allowed on the switch assignment (15 minutes) = your end timeframe (1:15 p.m.)

How Day of Week Override is calculated:

Start time = begin by date and time

End time = end by date and time + 5 seconds

Journal entry recording the request is written to journal QAUDJRN.

The Journal Code written to QAUDJRN will have a Journal Code of 'U' and a Journal Type of 'FC' for a FireCall request.

> **NOTE:** If a selection is made the page keys will not function.

Command Keys

F3 (Exit): Exit the program without processing any pending changes.

F5 (Refresh): Refresh the screen.

F12 (Cancel): Exit the screen without processing any pending changes.

FireCall Operator's Menu

```
Date:   7/28/15          PowerTech Authority Broker      Sys : HS42
Time: 13:14:37                  FireCall Menu            Menu: FIRECALL
                                                         User: QSECOFR


 Select one of the following:
   1. Give user FireCall access
   2. FireCall log







 Selection or command
 ===> _



 F3=Exit    F5=Refresh       F12=Cancel
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```

How to Get There

From any command line type, enter the following command:

`LFRCLLMNU`

> **NOTE:** An authorized Authority Broker Administrator cannot access the LFRCLLMNU command to display the FireCall menu (even though all of the same functions in the Authority Broker menus can be accessed) unless the Administrator has been added to FireCall authorization list POWERABFO. (The exception to this is if the user has *ALLOBJ special authority.)

> **NOTE:** The FireCall menu is available only if FireCall is activated. If the Powertech Authority Broker product setting to enable FireCall is set to 'No' this menu will not be viewable. To enable FireCall see the Enable FireCall section of this Guide.

What it Does

Authority Broker's FireCall menu provides the portal into Authority Broker's FireCall functionality. From this menu FireCall assignments and assignment reviewing are performed.

Options

(1) Give user FireCall access

This option allows a FireCall operator to give a specified user FireCall access. To use this option, from the FireCall Menu, the user must be on the Authority Broker FireCall operators authorization list

(POWERABFO). See [FireCall Assignment screen](#).

> **NOTE**: This functionality can also be accessed from the Authority Broker Main Menu. From there, select option **3** (Give a User FireCall Access to Authority). However, in order to use option 3 on the Authority Broker Main Menu, FireCall must be enabled, and the user must be on the Authority Broker FireCall operators authorization list (POWERABFO). The exception to this is if the user has *ALLOBJ special authority.

(2) FireCall Log

This option lets you set up and review your FireCall Logs. See [Work with FireCall Log screen](#).

To use this option from the FireCall Menu, the user must be on the Authority Broker FireCall Review authorization list (POWERABFL).

> **NOTE**: This functionality can also be accessed from the Authority Broker Reports Menu. From there, select option 2 (FireCall Log). However, in order to use option 2 on the Authority Broker Reports Menu, FireCall must be enabled, and the user must be on the Authority Broker FireCall review authorization list (POWERABFL). The exception to this is if the user has *ALLOBJ special authority.

Command Keys

- **F3 (Exit):** Ends the current task and returns to the display from which the task was started. If changes have not been accepted prior to F3 being pressed, they will be lost.
- **F5 (Refresh):** Restores the display to the values found in the database. Any changes will be lost.
- **F12 (Cancel):** Returns to the previous men or display. If changes have not been accepted prior to F12 being pressed, they will be lost.

Exit Point Methods Basic Sort & Search screen

```
Date:   7/28/15          PowerTech Authority Broker        Sys : HS42
Time: 13:18:30     Exit Point Methods Basic Sort & Search  Prog: PABR051
                                                           User: QSECOFR


Select the sorting sequence:

   Exit Point method _
   Program name . .: _
   Library name . .: _

Select your search criteria:    (Leave blank to select all)

   Exit Point method _____
   Program name . .: _____
   Library name . .: _____

Exit point method types:    (X to select)
  _ Before switch _ After switch _ Before release _ After release




F3=Exit    F5=Refresh    F11=Advanced Search    F12=Cancel
```

How to Get There

On the Work with Product Exits Menu, select option **2**, then press **F14**.

What it Does

The Sort and Search Exit Point Methods feature is used to select and order Authority Broker Exit Point Method entries. Several options are available to assist in reducing the amount of information you must view.

The first of these options is the ability to search exit point methods. Searching is performed by making selections in the "Search Criteria" section.

Second is the use of SQL syntax. For example, wild card character % may be placed at any position within any selection.

Lastly you may select the sort order you wish entries to be in. This is accomplished by entering a 1 through 3 next to the items in the "Select Sequence" section.

Options

Select the sorting sequence

The Sort by section provides the capability to order your search. Possible values are 1 through 3 where 1 is highest and 3 is lowest. If left blank the value is not used when sorting search results.

Exit Point method: Enter a value of 1 through 3 to specify the sort sequence you wish for Exit Point Method. If left blank, it is not used when sorting search results.

Program Name: Enter a value of 1 through 3 to specify the sort sequence you wish for Program Name. If left blank, it is not used when sorting search results.

Library Name: Enter a value of 1 through 3 to specify the sort sequence you wish for Library name. If left blank, it is not used when sorting search results.

Select your search criteria

The Search Criteria section provides the capability to select which exit point methods are to be listed. Supplied values are exit point method, program name, library name, and exit point method type.

Exit point method, program name, and library name may have any SQL syntax for a SELECT clause you require. For example an exit point method entry of %IS% will list only exit point methods with IS in them.

Exit Point method: Select the Exit Point Method you wish to see. Leave Exit Point Method blank if you wish to see all exit point methods. SQL syntax is supported for Exit Point Methods.

Program Name: Select the Program name you wish to see Exit Point Methods for. Leave Program name blank if you wish to see all objects. SQL syntax is supported for Program name.

Library Name: Select the Library name you wish to see Exit Point Methods for. Leave Library name blank to see all libraries. SQL syntax is supported for Library name.

Exit Point Method Types

Exit point methods may be used at four points. These points allow Authority Broker to be extended. Each exit point designates where its method will execute.

Before profile switch: The Before profile switch exit point is to be used for additional verification. It executes before a profile switch actually occurs.

After profile switch: The After profile switch exit point is used after a profile switch has occurred. It is intended to allow environment specific functions to be performed before processing control is released by profile switch command LSWPPRF.

Before profile release: The Before profile release exit point is used before a profile switch is released. It is intended to allow environment specific functions to be performed before processing control is released by profile release command LRLSPRF.

After profile release: After profile release exit point is used after the profile switch is released. It is intended to allow environment specific functions to be performed after processing control is released by profile release command LRLSPRF.

Command Keys

F3 (Exit): Exit the program without processing any pending changes.

F5 (Refresh): Refresh the screen.

F11 (Advanced Search): Use more advanced search capabilities. See Exit Point Methods Advanced Sort & Search.

F12 (Cancel): Exit the screen without processing any pending changes.

Advanced Search (F11) presents a screen (shown below) that allows more advanced selection for data sorting and searching criteria. SQL WHERE clause syntax is used to enter the criteria use in the search for Alert method, Object name, or Library name.

About the Before Switch Exit Point

Before Switch exit point is used to perform additional verifications before a profile switch actually occurs. This exit point is utilized after Authority Broker's switch verification but before the profile switch actually occurs. It is invoked for global and switch pair specific entries. This exit point may be used, for example, when a company requires call ticket be verified against their Help desk database.

The Before Switch exit point has the following functionality:

- Maximum of 50 global exit programs.
- Maximum of 50 switch pair specific exit programs.
- Global exit programs are processed first.

Each exit program is capable of the following actions:

- Allowing the switch to occur. If an exit program allows the switch to occur the next exit program in the sequence will be executed. Specific switch pair exit programs for this exit point will then be processed.
- Rejecting the switch. If an exit program rejects the switch all exit program processing is ended and the attempted switch is stopped. Specific switch pair exit programs for this exit point will not be processed.
- Allowing the switch to occur and bypass further global exit program processing. If an exit program allows the switch to occur but requests further processing of global exit program processing be halted the switch is allowed. The specific switch-pair exit programs for this exit point will then be processed.

The return code values are:

- **0** = Allowed (by this exit program, continue with the next exit program).
- **1** = REJECT
- **2** = ALLOWED, and don't check any more exit programs.

Required Parameter Group

Parameter	How Used	Data Type	Sequence	Notes	Parameter
Exit point name	Input	CHAR(20)	1	The name of the exit point being executed. This will always be PTG_AB_ BEFORESWITCH for the before switch exit point.	Exit point name
Exit point format name	Input	CHAR(10)	2	The format name of the exit point being executed. ABV0100 = Global PTG_AB_ BEFORESWITCH exit point. ABV0200 = Switch pair specific PTG_AB_ BEFORESWITCH exit point.	Exit point format name
System user	Input	CHAR(10)	3	The name of the user profile that switched to the application/resource ID.	System user
Application/Resource ID	Input	CHAR(10)	4	The name of the user profile the system user is switching to.	Application/Resource ID

Parameter	How Used	Data Type	Sequence	Notes	Parameter
Timed switch command	Input/Output	CHAR (128)	5	The command to be run when a timed switch is being performed. Only valid for switches having a specific number of minutes to remain switched. If a value is returned, the command is executed once the profile switch has occurred.	Timed switch command

Optional Parameter Group 1

Parameter	How Used	Data Type	Sequence	Notes	Parameter
Client IP address	Input	CHAR(15)	6	The client IP address returned from IBM's QUSRJOBI API in format JOBI0600.	Client IP address
System name	Input	CHAR(8)	7	The name of the system the profile switch took place on. This is the same name as shows in the "Current system name" parameter of IBM command DSPNETA.	System name

Parameter	How Used	Data Type	Sequence	Notes	Parameter
Job environment type	Input	CHAR(1)	8	The job's environment type. 0 – A value - If "0" indicates the job that performed the profile switch was running in batch mode. 1 – A value - If "1" indicates the job that performed the profile switch was running in interactive mode.	Job environment type
FireCall switch	Input	CHAR(1)	9	Specifies if the profile switch was for a FireCall. Y = FireCall switch N = Not a FireCall switch.	FireCall switch
Switch amount of time	Input	CHAR(6)	10	The number of minutes the switch is allowed to operate.	Switch amount of time
Call ticket number	Input	CHAR(20)	11	The number of minutes the switch is allowed to operate.	Call ticket number
Notification data	Input	CHAR (276)	12	The formatted data used when writing the switch audit journal entry. Format is for Authority Broker message PID8001. System user requested authority of Application/Resource ID for reason entered for the profile switch.	Notification data

Parameter	How Used	Data Type	Sequence	Notes	Parameter
Interested Party list	Input	Array of CHAR(10)	13	A list of parties interested in the profile switch. A maximum of 100 interested parties will be supplied.	Interested Party list
Number of array elements	Input	INT(10,0)	14	The number of entries in the Interested Party list.	Number of array elements

Optional Parameter Group 2

Parameter	How Used	Data Type	Sequence	Notes
Return code	Output	INT(10,0)	15	The code telling the exit point what action is to be taken. There are three possible values. Any other values will cause this parameter to default to 0.

About the After Switch Exit Point

Required Parameter Group

Parameter	How Used	Data Type	Sequence	Notes
Exit point name	Input	CHAR (20)	1	The name of the exit point being executed. PTG_AB_AFTERSWITCH is the exit point name.
Exit point format name	Input	CHAR (10)	2	The format name of the exit point being executed. ABAS0100 = Global After switch. ABAS0200 = Switch pair specific After switch.

Parameter	How Used	Data Type	Sequence	Notes
System user	Input	CHAR (10)	3	The name of the user profile that switched to the application/resource ID.
Application/Resource ID	Input	CHAR (10)	4	The name of the user profile the system user switched to.
Timed switch command	Input/Output	CHAR (128)	5	The command to be run when a timed switch is being performed. Only valid for switches having a specific number of minutes to remain switched. If a value is returned, the command is executed once the profile switch has occurred.

Optional Parameter Group

Parameter	How Used	Data Type	Sequence	Notes
Client IP address	Input	CHAR (15)	6	The client IP address returned from IBM's QUSRJOBI API in format JOBI0600.
System name	Input	CHAR(8)	7	The name of the system the profile switch took place on. This is the same name as shows in the "Current system name" parameter of IBM command DSPNETA.
Job environment type	Input	CHAR(1)	8	The job's environment type. 0 – A value - If "0" indicates the job that performed the profile switch was running in batch mode. 1 – A value - If "1" indicates the job that performed the profile switch was running in interactive mode.

Parameter	How Used	Data Type	Sequence	Notes
FireCall switch	Input	CHAR(1)	9	Specifies if the profile switch was for a FireCall. Y = FireCall switch N = Not a FireCall switch.
Switch amount of time	Input	CHAR(6)	10	The number of minutes the switch is allowed to operate.
Call ticket number	Input	CHAR (20)	11	The number of minutes the switch is allowed to operate.
Notification data	Input	CHAR (276)	12	The formatted data used when writing the switch audit journal entry. Format is for Authority Broker message PID8001. System user requested authority of Application/Resource ID for reason entered for the profile switch.
Interested Party list	Input	Array of CHAR (10)	13	A list of parties interested in the profile switch. A maximum of 100 interested parties will be supplied.
Number of array elements	Input	INT(10,0)	14	The number of entries in the Interested Party list.
Reserved	Input	INT(10,0)	15	This parameter is reserved for Powertech's use.

NOTE: The user is required to handle library list manipulation. If a user-written after-switch program alters the job's library list, it is the responsibility of the user's after-switch program to reinstate it before handing processing control back to Authority Broker.

Exit Point Methods Advanced Sort & Search screen

```
Date:  7/28/15          PowerTech Authority Broker      Sys : HS42
Time: 13:19:50   Exit Point Methods Advanced Sort & Search   Prog: PABR051
                                                        User: QSECOFR

Sort Order  Exit point method _ Program name: _ Library name: _

Search criteria   (Leave blank to select all)

Exit point method selection:  _____
                              _____
                              _____
Method types selections . .: _ Before switch   _ After switch
                             _ Before release  _ After release
Program name selections . .: _____
                             _____
                             _____
Library name selections . .: _____
                             _____
                             _____
                             _____



F3=Exit    F5=Refresh    F12=Cancel
```

How to Get There

On the Exit Point Methods Basic Sort & Search screen, press **F11**.

What it Does

The Sort and Search Exit Point Methods feature is used to select and order Authority Broker Exit Point Method entries. Several options are available to assist in reducing the amount of information you must view.

The first of these options is the ability to search exit point methods. Searching is performed by making selections in the "Search Criteria" section.

Second is the use of SOL syntax. For example, wild card character % may be placed at any position within any selection.

Lastly you may select the sort order you wish entries to be in. This is accomplished by entering a 1 through 3 next to the items in the "Select Sequence" section.

Options

Sort Order

The Sort Order section provides the capability to order your search. Possible values are 1 through 3 where 1 is highest and 3 is lowest. If left blank, the value is not used when sorting search results.

Exit Point method: Enter a value of 1 through 3 to specify the sort sequence you wish for Exit Point Method. If left blank, it is not used when sorting search results.

Program Name: Enter a value of 1 through 3 to specify the sort sequence you wish for Program Name. If left blank, it is not used when sorting search results.

Library Name: Enter a value of 1 through 3 to specify the sort sequence you wish for Library name. If left blank, it is not used when sorting search results.

Search Criteria

The Search Criteria section provides the capability to select which exit point methods are to be listed. Supplied values are exit point method, program name, library name, and exit point method type.

Exit point method, program name, and library name may have any SQL syntax for a SELECT clause you require. For example, an exit point method entry of %IS% will list only exit point methods with IS in them.

Exit point method selection: Select the Exit Point Method you wish to see. Leave Exit Point Method blank if you wish to see all exit point methods. SQL WHERE CLAUSE syntax is used to make Exit Point Method selections.

Sample entries for Exit Point Method.

= 'REPORTS'

IN ('UserDefinedMethod', 'USERMSGQ', 'EXTERNRLMSGQ')

LIKE(U%)

BETWEEN 'Email' AND 'Instant message'

Method types selections

Exit point methods may be used at four points. These points allow Authority Broker to be extended. Each exit point designates where its method will execute.

Before profile switch: The Before profile switch exit point is to be used for additional verification. It executes before a profile switch actually occurs.

After profile switch: The After profile switch exit point is used after a profile switch has occurred. It is intended to allow environment specific functions to be performed before processing control is released by profile switch command LSWPPRF.

Before profile release: The Before profile release exit point is used before a profile switch is released. It is intended to allow environment specific functions to be performed before processing control is released by profile release command LRLSPRF.

After profile release: After profile release exit point is used after the profile switch is released. It is intended to allow environment specific functions to be performed after processing control is released by profile release command LRLSPRF.

Program name selections:

Select the program name you wish to see Exit Point Methods for. Leave Program name blank if you wish to see all programs. SQL WHERE CLAUSE syntax is used to make Program Name selections.

Sample entries for Program Name.

= 'PGMA'

IN ('PGMA', 'PGMB', 'CMDA')

LIKE (R%)

BETWEEN 'PGMA' AND 'PGMR'

Library name selections:

Select the Library name you wish to see Exit Point Methods for. Leave Library name blank to see all libraries. SQL WHERE CLAUSE syntax is used to make Library name selections.

Sample entries for Library Name.

= 'LIBA'

IN ('LIBA', 'LIBB', 'LIBC')

LIKE(R%)

BETWEEN 'LIBA' AND 'LIBR'

Command Keys

F3 (Exit): Exit the program without processing any pending changes.

F5 (Refresh): Refresh the screen.

F12 (Cancel): Exit the screen without processing any pending changes.

Main Menu

```
Date:  7/28/15          PowerTech Authority Broker        Sys : HS42
Time: 13:21:05                 Main Menu                  Menu: MAIN
                                                          User: QSECOFR


 Select one of the following:
  1. Assign System Users to Switch Profiles
  2. Run Authority Broker Event Reports
  3. Give a user FireCall access to Authority Broker
  4. Use Authority Broker Reports Menu
  5. Use Authority Broker Configuration Menu




 Selection or command
 ===> _


 F3=Exit        F4=Prompt       F5=Refresh      F9=Retrieve    F12=Cancel
```

How to Get There

Enter the command **LWRKAUTBKR** to start the Powertech Authority Broker product.

> **NOTE**: Even if your current profile has *ALLOBJ Special authority, you must be on the POWERABADM authorization list to run the LWRKAUTBKR command.

If you chose to disable FireCall, the Authority Broker Main Menu does not display Option 3 (Give a user FireCall access to Authority Broker). See Enable FireCall for details on enabling and disabling FireCall.

What it Does

Authority Broker's main menu provides the portal into Authority Broker's product. From this menu product configuration and reporting are performed.

Options

(1) Assign System Users to Switch Profiles
This option presents the screen for associating a system user with a switch profile. See Assign System Users to Switch Profiles screen.

(2) Run Authority Broker Event Reports
This option presents the screen used to select what information you wish to see on a report. See Event Reports screen.

(3) Give a User FireCall Access to Authority Broker

This option provides the operator the ability to temporarily allow a system user to switch to a pre-defined switch profile. See Give a User FireCall Access to Authority Broker.

(4) Use Authority Broker Reports Menu

This option displays the Authority Broker Reports menu. Choose this option to view more detailed reporting options, including reports that show the configuration setup. See Reports Menu.

(5) Use Authority Broker Configuration menu

This option displays the Authority Broker Configuration menu. See Configuration Menu.

(6) Selection or Command

Selection or Command entry allows you to enter menu options or commands to be processed by the system.

Reports Menu

Authority Broker's Reporting menu provides the means for listing Profile Switch and Configuration events.

```
Date:  7/28/15          PowerTech Authority Broker      Sys : HS42
Time: 13:22:29               Reports Menu               Menu: REPORTS
                                                        User: QSECOFR


 Select one of the following:

Event Reports
  1. Event history
  2. FireCall log

Configuration Reports
 10. System User reports
 11. Switch Profile reports
 12. Interested party reports




Selection or command
===> _
                                                                      


F3=Exit        F4=Prompt        F5=Refresh      F9=Retrieve    F12=Cancel
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```

A system administrator may want to print reports that document the way that the system has been setup. The Reports Menu allows you to print reports that show all the user settings that have been configured in Authority Broker. These reports provide a useful record of the status of the system to present to auditors who are reviewing security on the system.

How to Get There

From the Main Menu, choose option **4**.

Running Selected Reports

From the Authority Broker Main Menu, select option **4** (Use Authority Broker Reports Menu).

The Reports Menu displays:

Event Reports

The Event Reports (options 1 & 2) list profile switch events. Either the actual switch events or FireCall activation information may be reported.

(1) Event history

The Event Report options also presents the screen used to select the events you wish to see on a report.

(2) FireCall log

This option presents the screen used to list the FireCall log. See [Work with the FireCall Log](#) for more details.

Configuration Reports

The Configuration Reports (options 10, 11, & 12) provide the capability to print configuration settings.

(10) System User reports
The System User reports lets you print the system users that have been associated with switch profiles.

(11) Switch Profile reports
The Switch Profile reports lets you print the system users that have been associated with system users.

(12) Interested party reports
The Interested Parties reports let you print the system users and switch profiles they are associated with.

System User Reports

The System User reports prints a report named PABR0150 that shows every user profile that has been configured with permission to switch to a switch profile. This report essentially shows the table of switch pairs ordered alphabetically by system user.

Switch Profile Reports

The Switch Profile reports prints a report named PABR0160 that shows every profile that has been configured as a switch profile. This report essentially shows that table of switch pairs ordered by system user.

Interested Party Reports

The Interested party reports prints a report named PABP0065 that shows every Interested Party along with the specific Switch Pairs in which they have registered an interest.

> **NOTE**: There are no required parameters for each of the above reports.

Alternate Method Of Accessing Reports

To present another entry point into the Event Reports setup screen, select Option **1** (Event History) from the Reports Menu.

```
Date:  4/17/17          PowerTech Authority Broker      Sys : OSCAR
Time: 10:17:29                Event Reports             Prog: PABR0300
                                                        User: QSECOFR


Start date and time  . . . . . . . . . . . .:  04/16/17   Date  10:17:29 Time
End date and time  . . . . . . . . . . . . .:  04/17/17   Date  10:17:29 Time
Include switches based on  . . . . . . . . .:  X Start  _ End  _ Any
Omit activity outside the date/time range  .:  X Yes  _ No

User type  . . . . . . . . . . . . . . . . .:  X System User
                                               _ Switch Profile
                                               _ Interested Party

User . . . . . . . . . . . . . . . . . . . .:  *ALL_____  (Name, or *ALL)

Report type  . . . . . . . . . . . . . . . .:  X Commands      _ Summary
                                               _ All           _ Errors only

Omit CL program commands . . . . . . . . . .:  X Yes  _ No
Omit registered programs . . . . . . . . . .:  X Yes  _ No
Job depth  . . . . . . . . . . . . . . . . .:  0_____       (0-99, *NOMAX)

F3=Exit   F5=Refresh   F12=Cancel
```

Select Interested Parties screen

```
Date:   7/28/15            PowerTech Authority Broker       Sys : MORPHEUS
Time:  14:23:04               Select Interested Parties     Prog: PAB3005
                                                            User: QSECOFR


Position to Interested Party . :  _____

Select one or more Interested Parties with a 1.


Opt   Party        Email Address
 __   BRENDA       BRENDA.PEROUTKA@HELPSYSTEMS.COM
 __   DROERS       DALE.ROERS@HELPSYSTEMS.COM
 __   GREGG        GREGG.BURY@HELPSYSTEMS.COM
 __   GREGGB       GREGG.BURY@POWERTECH.COM
 __   HAASE        SHAASE2011@GMAIL.COM
 __   HAAZ         SHAASE2011@GMAIL.COM
 __   JEAN         JEAN.MONSON@HELPSYSTEMS.COM
 __   SHAASE       STEVEN.HAASE@HELPSYSTEMS.COM



                                                                    Bottom


F3=Exit    F5=Refresh    F12=Cancel    F16=Subset
```

How to Get There

From the Work with Profile Switches, choose option **13**.

What it Does

The Select Interested Parties panel allows you to select Interested Parties.

Options

Use **1** to select one or more interested parties.

Field Descriptions

Party
The name of a party that is interested in a profile switch.

Email Address
The email address associated with an interested party.

Command Keys

F3 (Exit): Ends the current task and returns to the display from which the task was started. If changes have not been accepted prior to F3 being pressed they will be lost.

F5 (Refresh): Restores the display to the values found in the database. Any changes will be lost.

F12 (Cancel): Returns to the previous menu or display. If changes have not been accepted prior to F12 being pressed they will be lost.

F16 (Subset): Displays parameters to subset the list to a more manageable number of items.

Showing Current Profile Command

Users may want a convenient reminder of their current profile. The command, LWHOAMI, provides a quick and easy means to show the current profile.

Looking Up Current Profiles

Type **LWHOAMI** at a command prompt:

```
PPL9820                        PowerTech                    06:55:51
                               Main Menu                    CYBRKING

Select one of the following:

      1.  PowerAdmin                  (R01M00)
      2.  Network Security           (Not installed)
      3.  Authority Broker           (R04M00)
      4.  DataThread                 (R03M00)
      5.  Command Security           (R01M00)
      6.  Interact                   (R03M00)




     80.  Central Administration
     81.  Work with Licenses

Selection or command
===> LWHOAMI_

 F3=Exit    F4=Prompt    F9=Retrieve    F13=Information Assistant
 F16=System Main Menu    F22=Status
 (c) Copyright The PowerTech Group, Inc. 2012
```

Press Enter.

A message displays at the bottom of the screen confirming that the System User switched into the QSECOFR Switch Profile and currently is running with QSECOFR's authority.

Switch Options for System User screen

```
Date:  7/28/15          PowerTech Authority Broker      Sys : HS42
Time: 13:28:26          Switch Options for System User  Prog: PABRO500
                                                        User: QSECOFR


Reason for Switching: _____
_____

_____

Call Ticket  . . . .: _____

Options
  1=Select to Switch
    Switch to                                       Number of Minutes
Opt Profile    Switch Profile Desc                  Switch is Active

                      No entries to be displayed




F3=Exit    F5=Refresh    F12=Cancel
```

How to Get There

At a command line, enter **LSWPPRF** (the Powertech command for switching from one profile to another) and press Enter.

What it Does

Switch User Authority provides a method of conferring special authority to a job, authority it normally would not have. Once a profile switch has occurred, the job runs under the new profile's authority. Any open files and objects allocated by the original profile are accessible to the new profile.

No other attributes associated with the user or group profile are replaced. The qualified job name does not change to reflect the new user profile. However, any object created by the job while running under the new profile is owned by the new profile or its group profile.

If you use this API to begin running under a specific profile, any spooled files created are owned by that profile. This is done by putting the file under a QPRTJOB iob. Any spooled file command that references the spooled file with the job special value * will only access those files that were created before the profiles were swapped.

Field Descriptions

Reason for Switching

Up to 256 characters long, this is the "reason" that will be sent to Interested Parties in alerts and reports. This is a required parameter. Typical "reasons" may include:

"I need elevated authority to reset the DST password"

"Using higher authority account to modify value in payroll file at HR's request"

> **NOTE:** The reason for switching cannot be left blank. The user can enter a weak reason or nonsense characters, so it is incumbent upon the customer to set, and enforce, a policy that requires meaningful information. Individuals who are registered as Interested Parties may be best suited to administer that policy.

Call Ticket

A Call Ticket is the reference number associated with the reason for switching profiles (if applicable). It can be used to enter ticket numbers from a help system such as Remedy.

The Call Ticket field is not currently validated.

Options

Type the option number you want and press Enter.

1 (Select to Switch)

Select Switch Profile. Switch to or release a profile. If this option is placed next to the very first entry it signals the current profile switch is to be released. Placed against any other entry it means a new profile switch is being requested.

Column Descriptions

Switch to Profile

The name of a user profile that the user starting the job can switch to.

Switch to Profile Description

The text description from the Switch to Profile user profile.

Number Minutes Switch is Active

The number of minutes a profile switch may stay active.

In the screen cap above, ROB is logged in and running under his normal profile, but he has been configured with options to switch to QSECOFR or QSYSOPR.

- Number of Minutes Switch is Active always defaults to NOLIMIT for a regular switch pair. A FireCall Switch Pair must have a number of minutes specified in this field.
- Timed switch command - The command to be run for any profile switch that is for a specific duration. Authority Broker executes this command for any profile switch with a limited duration.

Possible values are:

command

- The command to be executed after the profile switch occurs. This value may be typed in by the user or supplied via either Authority Broker's Before Switch exit point or After Switch exit point.

When typed in by the user a command must be enclosed within single quotes if the command contains case-sensitive values.

*DEFAULT

- The default command configured by the Authority Broker administrator is executed for timed switches.

> **NOTE**: A message similar to the one shown below will be displayed in the message queue for both the 'signed on' profile, and the 'swapped to' profile:

Job 025473/PLABOWN/TOF025468 completed normally on 03/19/07 at 12:50:05.

The message is an i5/OS message.

Switch Pair Notifications screen

```
Date:  5/11/15           PowerTech Authority Broker      Sys : HS42
Time:  08:29:26              Switch Pair Notifications    Prog: PABR062
                                                          User: QSECOFR


System User: ALICE          Switch to profile: APMOD

Switch Notifications
  Interested party    Method
  FRANK               EXTERNALMSGQ
  JOAN                EMAIL-PDF
  _____          _____
  _____          _____
                                                              More...

Interested Parties Included on Event Reports
  Interested party   Interested party   Interested party
  FRANK              _____         _____
  _____         _____         _____
  _____         _____         _____
  _____         _____         _____
                                                              More...


F3=Exit  F4=Lookup  F5=Refresh  F12=Cancel  F17=Product exit points
```

How to Get There

In the Assign System Users to Switch Profiles screen, enter **15** for a Switch Pair.

What it Does

The Switch Pair Notification screen is used to list, add, and remove Interested Parties associated with a switch pair. The screen is divided into two sections - Switch Notifications and Interested Parties included on Event reports. Interested Parties placed in the Switch Notifications section will be informed, via the given method, each time the System User switches to the Switch to Profile. Interested Parties placed in the Interested Parties included on Event reports section will be incorporated into the Event reports.

Options

The name of the user profile that will switch to the Switch to Profile.

Switch to Profile
The name of the user profile that the system user will switch to.

Switch Notification
The Switch Notification section lists, by interested party, the methods to be executed. A method is executed each time a profile switch is performed. Entries are added by placing new information on a line. Remove entries by blanking out all fields on a line.

Interested Party

The individual interested when this system user switches to the Switch to Profile. Possible values are:

user profile

The IBM user profile for the party interested in profile switches of this switch pair.

*NONE

Special value *NONE may be used in conjunction with alert method EXTERNALMSGQ.

Method

The method by which an interested party wishes to be notified a profile switch, or a profile release, has occurred.

> **NOTE:** Special value *NONE is used when the Interested Party for a Switch Pair is to only be included in Event report distributions.

The default methods shipped with the product are:

USERMSGQ

USERMSGQ specifies that a message is sent to the IBM i message queue of the Interested Party who has registered to receive the notification.

EXTERNALMSGQ

EXTERNALMSGQ specifies a single IBM i message queue for notification messages.

> **NOTE:** Alert methods are case sensitive.

More

More Switch notification entry lines are available.

Include on Event Reports

The Include on Event Reports section lists interested parties to be included in Event Report distributions.

Interested parties are added by entering their user profile on a blank line. Remove an interested party by blanking out the user profile.

Interested Party

The individual interested in having Event reports generated for them.

More

More Interested Parties Included on Event Reports lines are available.

Command Keys

F3 (Exit)

Exit the program without processing any pending changes.

F4 (Lookup)

Pressing F4 provides lookup capabilities when the cursor is on a promptable field. Press F4 with the cursor on an Interested party field to display a list of user profiles that you may select from. Press F4 with the cursor on an alert method to display a list of alert methods you may select from.

F5 (Refresh)

Refresh the screen.

F12 (Cancel)

Exit the screen without processing any pending changes.

Work with Alert Methods screen

```
Date:   7/28/15        PowerTech Authority Broker     Sys : HS42
Time: 13:30:30            Work with Alert Methods      Prog: PABR050
                                                       User: QSECOFR


Options
 1=Add   4=Delete

Option   Method                  Program name    Library name
  _      _____        _____     _____
  _      EMAIL-PDF               PRODUCT         *PRODUCT
  _      EXTERNALMSGQ            PABRO011        *PRODUCT
  _      USERMSGQ               PABRO010        *PRODUCT





                                                              Bottom
F3=Exit    F5=Refresh    F12=Cancel    F14=Sort and Search
```

How to Get There

From the Configuration Menu, select option **3** (Work with Product Exits). Then, select option **1** (Work with Alert Methods).

What it Does

The Work with Alert Methods panel is used to list, add, and remove methods for alerting interested parties that a profile switch occurred. Authority Broker includes three predefined alert methods, but you also have the option to create and add your own special alerts.

Options

Options are provided to initiate processing for a particular item. Type the option corresponding to the action you wish to perform next to the item you wish to use.

- Enter option **1** (Add), followed by the method, program name, and library name of the method you want to add. Valid for line one only.
- Enter option **4** (Delete) next to the method you want to delete.

Column Descriptions

Method

Specifies the name of the alert method. Interested parties are assigned alert methods when they are to be alerted a profile switch has occurred. This is the name that is entered next to the Interested Party when Assigning System Users to Switch Profiles or setting up the Interested Parties.

Program name

Specifies the name of the program to be executed. The name must conform to IBM's naming conventions.

Library name

Specifies the name of the library the program resides in. Possible values are:

- **Library-name:** The name of the library the program resides in. It must conform to IBM's naming conventions.
- **PRODUCT:** Specifies the program is an Authority Broker supplied object.

When you first enter the Work with Alert Methods screen, there are already three alert methods available in Authority Broker. The library name *PRODUCT indicates that the program resides in the same library where the product is installed.

Alert Methods

- EXTERNALMSGQ specifies a single IBM i message queue where alerts are sent. This option is useful if you want to consolidate all your alert messages in one queue, which you monitor using a management console like VISUAL Message Center™ from Tango/04. The actual location of the message queue is defined in the product System Values screen.
- USERMSGQ specifies that a message is sent to the IBM i message queue of the Interested Party who has registered to receive the alert.
- *NONE specifies an interested party is only interested in being included on Event reports.
- EMAIL-PDF specifies that a email is sent to the email address of the interested party who has registered to receive the alert. The email will contain a PDF attachment of the screens captured during the switch.

System Management software like Robot SCHEDULE can be used to monitor the message queues and send e-mail alerts or pager notifications anytime there is a new message generated by Authority Broker.

Sort and Search (**F14**) presents a screen (shown below) that allows selection of basic data sorting and searching criteria. This option is useful if you are searching for a specific program, but are unsure of the exact name or library location.

The sequence defines the way the results of the search are displayed. Valid options are 1, 2, or 3, where 1 is displayed first and 3 is displayed last.

Wildcard method % is supported for Alert method, Object name, and Library name. These options may also be left blank if you don't want to consider the option during a search.

Advanced Search (**F11**) presents a screen (shown below) that allows more advanced selection for data sorting and searching criteria. SQL WHERE clause syntax is used to enter the criteria use in the search for Alert method, Object name, or Library name.

Work with Authority Broker Product Settings screen

```
Date:   5/26/15          PowerTech Authority Broker        Sys : HS69
Time: 14:01:53  Work with Authority Broker product settings  Prog: PABR019
                                                           User: MARKJ
Product owner  . . . . . . . . . . . . : PLABOWN
Product library  . . . . . . . . . . . : PTABLIB
Product administrator  . . . . . . . . : PLABADM

Error message queue name . . . . . . . : QSYSOPR      Library   . : QSYS
External message queue name  . . . . . : *NONE        Library   . : _____

Default Switch duration  . . . . . . . : *NOMAX      (Minutes, *NOMAX)
Enable FireCall  . . . . . . . . . . . : X Yes  _ No
Timed switch command . . . . . . . .: . : GO MENU(MAIN)
_____
Switch end warning interval  . . . . . : 10
Switch end action for batch jobs . . . : *NOTIFY     F4 for list
Switch end action for interactive jobs : *NOTIFY     F4 for list

Switch History data retention period . : *NOMAX      10-99999 days, *NOMAX
Screen capture data retention period . : *NOMAX      10-99999 days, *NOMAX

F3=Exit   F4=Lookup   F5=Refresh   F12=Cancel
```

> **NOTE:** The Powertech installation procedure creates libraries, profiles, authorization lists, commands, objects, and, in some cases, exit points on your system. Changing the configuration of any of these installed application components may result in product failure.

The Work with Product Settings screen allows you to set the initial system values for Authority Broker.

How to Get There

From the Authority Broker Main Menu, select option **5**.

From the Authority Broker Configuration Menu, select option **13**.

> **NOTE:** The Product Owner, Product Library, and Product Administrator system values cannot be changed after Authority Broker has been installed. However all other system values can be changed at any time.

What it Does

Work with Authority Broker Product Settings allows you to maintain product level settings for Authority Broker. Changes to these values take effect immediately. Values for Product owner, Product library, and Product administrator are for informational purposes only and are set at install/upgrade time.

Options

Product Owner

The user profile owns most of the objects comprising the Authority Broker product. The install process will create the PLABOWN profile.

Product Library

The product library is the library that contains all of the Authority Broker objects.

Product Administrator

The name of the user profile whose authority is used to administer the product. This profile (PLABADM) will be granted authority to update Authority Broker files and to run Authority Broker programs. Authorized administrators of Authority Broker will adopt this profile's authority.

All users who you want to be able to administer Authority Broker must be added to the POWERABADM authorization list using the following command:

ADDAUTLE AUTL(POWERABADM) USER(MYUSER) AUT(*USE)

> **NOTE:** Even user profiles with *ALLOBJ authority must be added to the authorization lists if they wish to administer Authority Broker and run reports.

Once authorized to the POWERABADM authorization lists, a user will have all the authorities needed to administer Powertech Authority Broker. Product administrators will dynamically receive *CHANGE authority to Authority Broker data and *USE authority to Authority Broker programs at the time this authority is needed.

> **NOTE:** The Product Administrator must have the following special authority: *JOBCTL.

Special Information for Authority Broker Reporting

Users without *ALLOBJ Special Authority, who will be allowed to run Authority Broker reports, must be granted the POWERABRPT authorization list.

ADDAUTLE AUTL(POWERABRPT) USER(MYUSER) AUT(*USE)

Note for users who do NOT have *ALLOBJ special authority in their profile:

- If you are only on the POWERABADM authorization list, you can administer the product but not run reports.
- However, if you are on the POWERABADM authorization list and the POWERABRPT authorization list, you can administer the product and run reports.
- If only on the POWERABRPT authorization list, you only have access to LEVENTRPT.

Error Message Queue Name

The message queue name specifies the message queue and library where Authority Broker sends messages. Messages are sent to this queue when an unknown error causes Authority Broker to fail. Most installations specify QSYSOPR in library QSYS.

External Message Queue Name

The Authority Broker-supplied alert method EXTERNALMSGQ sends messages to this External message queue. Messages are sent to this message queue when it exists.

Possible values are:

- **NONE:** Signifies that there is no external message queue being used.
- **message-queue-name** The name of the external message queue. It must conform to IBM's object naming standards.

Default Switch Duration

The default number of minutes a system user is allowed to stay swapped to a switch user. This value can be overridden at the switch pair level.

Valid values are:

- **minutes:** The number of minutes [1 - 99999] that a switch is allowed to remain in effect. Specifying a number of minutes here results in *TIMED switches.
- ***NOMAX** The switch will not be timed and will remain in effect until released by the user or the job ends.

Enable FireCall

Enable FireCall controls the FireCall facility within Authority Broker.

Possible values are:

> **NOTE**: FireCall must be enabled for any FireCall functions to work.

- **No** Select No to prevent usage of the FireCall facilities.
- **Yes** Select Yes to enable usage of the FireCall facilities.

About Authorization lists for FireCall: There are two authorization lists for FireCall (POWERABFO and POWERABFL):

1) POWERABFO

It is required that a FireCall Operator be added to the Authority Broker FireCall Operators authorization list (POWERABFO) in order to use the LFIRECALL and LFRCLLMNU commands. (The LFIRECALL command displays the FireCall Assignment screen and the LFRCLLMNU command displays the FireCall Menu.) The exception to this requirement is if the user has *ALLOBJ special authority.

A FireCall Operator must be on the POWERABFO authorization list in order to MAKE any FireCall Assignments via the following 'FireCall Access' option:

- 'Give user FireCall access' (option '1' on the FireCall Menu).

The exception to this is if the user has *ALLOBJ special authority.

2) POWERABFL

It is required that a FireCall Operator be added to the Authority Broker FireCall Review authorization list POWERABFL in order to use the LFRCLLMNU command.

A FireCall Operator must be on the POWERABFL authorization list in order to REVIEW any FireCall Assignments via the following two 'FireCall Log' options:

- 'FireCall log' (option '2' on the FireCall Menu).
- 'FireCall Log' (option '2' on the Authority Broker Reports Menu). The exception to this is if the user has *ALLOBJ special authority.

Timed switch command

Important Note for Users of FireCall and Switch Time-Outs

Authority Broker version 3 introduced the powerful capability to automatically revoke access to powerful user accounts after a predetermined time period. Authority Broker administrators can set limits on the duration of the profile switch and can even configure the action that is taken when the time expires. IBM has introduced job handling features (into V5R3 and later) that required a design change to the handling of timed switches. Powertech has implemented this in a way that will be transparent to most users. However, timed switch users, if you use F3 or F12 to back up beyond the timed switch command starting point, the switch will be released.

Any switch that has a time limit now goes to a command menu that is specified by the administrator in the product settings screen. For a new install, the default command menu for timed switches is 'GO MENU(MAIN)', the main IBM i command line menu. Please contact Powertech support if you have any questions about how this impacts your specific environment.

Switch end warning interval

Interval to notify switch time is coming to an end: The amount of time (in number of minutes) prior to the scheduled end of a Profile Switch when a user and the interested parties should be notified that the switch time is expiring.

Valid values are:

- Between 1 and 10

Switch end action for batch jobs

The action that is to be taken against a batch job when a Profile Switch's end time is reached.

Valid values are:

- *NONE - no action is to be taken
- *HLDJOB - places the job on hold
- *ENDJOB - ends the job controlled
- *NOTIFY - sends a break message to the user and sends out alerts to the parties interested in this profile switch.
- *ENDSWITCH - runs LRLSPRF against the switched job.

Switch end action for interactive jobs

The action that is to be taken against an interactive job when a Profile Switch's end time is reached.

Valid values are:

- *NONE - no action is to be taken
- *DSCJOB - disconnects the job
- *ENDJOB - ends the job controlled
- *NOTIFY - sends a break message to the user and sends out alerts to the parties interested in this profile switch.
- *ENDSWITCH - runs LRLSPRF
- *HLDJOB - places the job on hold

Switch History data retention period

> **NOTE:** When setting a number of days for "Switch History data retention period" or "Screen Capture data retention period" all data saved prior to the number of days specified will be purged. Switch History data that has been purged will not appear on Authority Broker or Compliance Monitor reports. In order to include purged Switch History data in a report, it would need to be restored from a backup copy and you would risk losing more recent log data collected since the last save of the file.

Specify the number of days of switch history you would like to keep on-line. This does not affect the retention of the security audit journal data; rather, it controls the age of the on-line lookup data stored in Authority Broker. Possible values are:

- **10-99999 days** Specify a number of whole days for which switch history will be available on-line.
- ***NOMAX** Switch history is kept on-line forever. This is the default.

Screen capture data retention period

Specify the number of days of screen captures you would like to keep on-line. This does not affect the retention of the security audit journal data; rather, it controls the age of the on-line lookup data stored in Authority Broker.

> **NOTE:** Screen capture data belongs to, and cannot exist without, a particular switch occurrence; therefore, this value cannot be greater than the value specified for Switch History data retention period.

Possible values are:

- **_10-99999 days** Specify a number of whole dags for which screen captures will be available on-line.
- ***NOMAX** Screen captures are kept on-line forever. This is the default.

Command Keys

F3 (Exit): Ends the current task and returns to the display from which the task was started. If changes have not been accepted prior to F3 being pressed, they will be lost.

F4 (Lookup): Provides lookup capabilities when the cursor is on a promptable field.

F5 (Refresh): Restores the display to the values found in the database. Any changes will be lost.

F12 (Cancel): Returns to the previous menu or display. If changes have not been accepted prior to F12 being pressed they will be lost.

Work with Date and Time Overrides screen

```
Date:  4/17/17            PowerTech Authority Broker        Sys : OSCAR
Time: 10:23:41          Work with Date and Time Overrides   Prog: PABRO210
                                                            User: QSECOFR

 System user . . . .: P53067512  John Johnson - Finance
 Switch to profile .: P63009999  Finance Operations
 Position to date :    _____


Date_____   Allow   Prevent  From Time  To Time
_____   MM/DD/YYYY      _        _      _____      _____


                     No entries to be displayed




F4=View Calendar  F5=Refresh  F6=Day & Time Restrictions  F12=Cancel
```

How to Get There

From the Assign System Users to Switch Profiles screen, select option **8** (Override DOW Schedule).

> **NOTE:** You can also view Date and Time Overrides for FireCall only switch pairs using this option.

What it Does

The Authority Broker Day of Week Overrides screen allows you to override the Day of Week Schedule. There is one entry for each calendar day. Profile switching may be allowed or prevented during the specified time frame.

Column Descriptions

System User

The name of a valid user profile who will switch to other profiles.

Switch to Profile

The name of a valid user profile that the system user will switch to.

Position to date

The date to begin listing from.

Options

Date

Enter the date for which you wish to override the day and time settings in the Date column, using the same date format as the current running job. (The date formats are shown here in MM/DD/YY format, but Authority Broker will use the date format you have specified in your IBM i System Value QDATFMT).

Allow • Prevent

Allow and Prevent are mutually exclusive options. Only one can be selected for a specific day.

- ALLOW means profile switching is allowed during a specific timeframe. An X is entered to signify profile switching is being allowed. Outside this time period, profile switching is prevented.
- PREVENT means profile switching is prevented during the specified timeframe. An X is entered to signify profile switching is not being allowed. Outside this time period profile switching is allowed.

From Time • To Time

The starting or ending time to allow or prevent profile switching. Valid times are between 00:00 and 24:00.

Command Keys

F4 (Lookup Date): Use the calendar to select a date.

F5 (Refresh): Restores the display to the values found in the database. Any changes will be lost.

F6 (Day & Time Restrictions): F6 expands the screen to show all the specific date and time restrictions in place for the current week (shown below). This table is based on the day and time settings that exist for the profile. You can use the Page Up and Page Down options to move to different weeks.

F12 (Cancel): Returns to the previous menu or display. If changes have not been accepted prior to F12 being pressed they will be lost.

Work with Exit Point Methods screen

```
Date:  1/06/16          PowerTech Authority Broker          Sys : OHM
Time:  09:37:47          Work with Exit Point Methods        Prog: PABR050
                                                             User: MARKJ


Options
  1=Add  4=Delete
                                                    ---Switch--- - Release --
Option Method               Program name Library name Before After Before After

   _                         _            _            _      _      _      _
   _    AfterRelease         ABAFTRLS     ABPROD1                            X
   _    AfterSwap            ABAFTSWP     ABPROD1              X
   _    AftSwap&BfrRelease   ZZAFTSB4R    QGPL                 X      X
   _    BeforeRelease        ABBFRRLS     ABPROD1                     X
   _    BeforeSwap           ABBFRSWP     ABPROD1       X
   _    BfrSwap&AftRelease   ZZB4SAFTR    QGPL          X                    X




                                                                   Bottom
F3=Exit    F5=Refresh    F12=Cancel    F14=Sort and Search
```

How to Get There

From the Configuration Menu, select option **3** (Work with Product Exits).

From the Work with Exit Point Methods screen, select option **2** (Work with Exit Point Methods) to define a set of exit point methods for your system.

What it Does

Work with Exit Point Methods is used to list, add, and remove custom exit points to Authority Broker. There are four exit points available. The Before Switch exit point may be used for additional verification. The After Switch exit point is intended to allow environment specific functions to be performed before processing control is released by profile switch command LSWPPRF. The Before Switch Release exit point is intended to allow environment specific functions to be performed before processing control is released by profile release command LRLSPRF. The After Switch Release exit point is intended to allow environment specific functions to be performed after processing control is released by profile release command LRLSPRF.

Exit Point Considerations

- All parameters are passed to the exit program.
- Optional pertains to the user's usage of a parameter group.
- The user is required to control exit program computing environments.
- Any needed libraries must be supplied by the user.

- If an exit point is removed from a switch pair prior to release, and there is an exit program for the release, the exit program will no longer be in effect.

> **EXAMPLE:** Set user PTUSER21A with exit programs CHGLIBLIST for After Switch, and RPLLIBLIST for Before Switch Release. If the above exit programs have been removed while the switch is in effect, then the RPLLIBLIST will no longer be active. If you allow the library PAYROLL on the library list during the switch, the library PAYROLL will then still be on the library list after the switch is released and the user still may have access to the PAYROLL library (at least until that profile logs off).

- If an exit point entry is added prior to release, the new exit program will be in effect. This is true for both global and specific switch-pair Profile Release exit point entries.

> **NOTE:** This could cause unpredictable results depending upon what the exit program does. Unpredictable results can occur when Release Switch exit point methods and entries are deleted while profile switches are active. Deleting Release Switch methods deletes global and specific switch pair exit points. Any user-defined functionality expected to occur when a profile switch is released will not occur since the link to this functionality has been deleted.

- Deleting a switch pair while it is active can also result in unpredictable results. When a switch pair is deleted the pair's specific exit point entries are also deleted.

The 'Work with Exit Point Methods' screen is used to list, add and remove methods for alerting interested parties that a profile switch occurred.

Four alert methods are provided in Authority Broker:

- USERMSGQ sends a message to the message queue defined in an interested party's user profile.
- EXTERNALMSGQ sends a message to the message queue defined in Authority Broker's product settings.
- *NONE specifies an interested party is only interested in being included on Event reports.
- EMAIL-PDF specifies that a email is sent to the email address of the interested party who has registered to receive the alert. The email will contain a PDF attachment of the screens captured during the switch.

Field Descriptions

Method

Specifies the name of the Exit Point Method. This name will be used when specifying what an exit point is to run.

Program Name

Specifies the name of the program to be executed. The name must conform to IBM's naming conventions.

Library name

Specifies the name of the library the program resides in. It must conform to IBM's naming conventions.

Switch

Exit Point Methods may be used at four points. These points allow Authority Broker to be extended. Each exit point method must designate where it is to execute.

- **Before Switch Profile:** This exit point is to be used for additional verification. It executes before a profile switch actually occurs. An example of its use is to verify the entered call ticket matches a Help desk's entry. Place an X in the Switch Before column to select it. Leave Switch After, Release Before, and Release After columns blank.
- **After Switch Profile:** This exit point is used after the profile switch has occurred. It is intended to allow environment-specific functions to be performed before processing control is released by profile switch command LSWPPRF. An example of its use is to change the job's library list. Place an X in the Switch After column to indicate the program is to be executed by the After Profile Switch Exit Point program. Leave the Switch Before column blank.

Release

- **Before Profile Release:** This exit point is used before the profile switch is released. It is intended to allow environment specific functions to be performed before processing control is released by profile release command LRLSPRF. An example of its use is to reinstate the job's library list. Place an X in the Release Before column to indicate the program is to be executed by the Before Profile Release Exit Point program. Leave the Switch Before column blank.
- **After Profile Release:** This exit point is used after the profile switch is released. It is intended to allow environment specific functions to be performed after processing control is released by profile release command LRLSPRF. An example of its use is to reinstate the job's library list. Place an X in the Release Before column to indicate the program is to be executed by the Before Profile Release Exit Point program. Leave the Switch Before column blank.

> **NOTE**: At least one column must be selected (i.e., Switch Before, Switch After, Before Profile Release, or After Profile Release).

Command Keys

F3 (Exit): Exit the program without processing any pending changes.

F5 (Refresh): Refresh the screen.

F12 (Cancel): Exit the screen without processing any pending changes.

F14 (Sort and Search): Pick the sequence and what you want listed. See Exit Point Methods Basic Sort & Search screen.

About the Before Switch Exit Point

Before Switch exit point is used to perform additional verifications before a profile switch actually occurs. This exit point is utilized after Authority Broker's switch verification but before the profile switch actually occurs. It is invoked for global and switch pair specific entries. This exit point may be used, for example, when a company requires call ticket be verified against their Help desk database.

The Before Switch exit point has the following functionality:

- Maximum of 50 global exit programs.
- Maximum of 50 switch pair specific exit programs.
- Global exit programs are processed first.

Each exit program is capable of the following actions:

- Allowing the switch to occur. If an exit program allows the switch to occur the next exit program in the sequence will be executed. Specific switch pair exit programs for this exit point will then be processed.
- Rejecting the switch. If an exit program rejects the switch all exit program processing is ended and the attempted switch is stopped. Specific switch pair exit programs for this exit point will not be processed.
- Allowing the switch to occur and bypass further global exit program processing. If an exit program allows the switch to occur but requests further processing of global exit program processing be halted the switch is allowed. The specific switch-pair exit programs for this exit point will then be processed.

The return code values are:

- **0** = Allowed (by this exit program, continue with the next exit program).
- **1** = REJECT
- **2** = ALLOWED, and don't check any more exit programs.

Required Parameter Group

Parameter	How Used	Data Type	Sequence	Notes
Exit point name	Input	CHAR (20)	1	The name of the exit point being executed. This will always be PTG_ AB_BEFORESWITCH for the before switch exit point.
Exit point format name	Input	CHAR (10)	2	The format name of the exit point being executed. ABV0100 = Global PTG_ AB_ BEFORESWITCH exit point. ABV0200 = Switch pair specific PTG_AB_ BEFORESWITCH exit point.

Parameter	How Used	Data Type	Sequence	Notes
System user	Input	CHAR (10)	3	The name of the user profile that switched to the application/resource ID.
Application/Resource ID	Input	CHAR (10)	4	The name of the user profile the system user is switching to.
Timed switch command	Input/Output	CHAR (128)	5	The command to be run when a timed switch is being performed. Only valid for switches having a specific number of minutes to remain switched. If a value is returned, the command is executed once the profile switch has occurred.

Optional Parameter Group 1

Parameter	How Used	Data Type	Sequence	Notes
Client IP address	Input	CHAR(15)	6	The client IP address returned from IBM's QUSRJOBI API in format JOBI0600.
System name	Input	CHAR(8)	7	The name of the system the profile switch took place on. This is the same name as shows in the "Current system name" parameter of IBM command DSPNETA.

Parameter	How Used	Data Type	Sequence	Notes
Job environment type	Input	CHAR(1)	8	The job's environment type. 0 – A value - If "0" indicates the job that performed the profile switch was running in batch mode. 1 – A value - If "1" indicates the job that performed the profile switch was running in interactive mode.
FireCall switch	Input	CHAR(1)	9	Specifies if the profile switch was for a FireCall. Y = FireCall switch N = Not a FireCall switch.
Switch amount of time	Input	CHAR(6)	10	The number of minutes the switch is allowed to operate.
Call ticket number	Input	CHAR(20)	11	The text entered in the Call Ticket field when requesting the switch (or, for switch requests requested by batch, the value provided for the Call Ticket argument).
Notification data	Input	CHAR(276)	12	The formatted data used when writing the switch audit journal entry. Format is for Authority Broker message PID8001. System user requested authority of Application/Resource ID for reason entered for the profile switch.
Interested Party list	Input	Array of CHAR (10)	13	A list of parties interested in the profile switch. A maximum of 100 interested parties will be supplied.
Number of array elements	Input	INT(10,0)	14	The number of entries in the Interested Party list.

Optional Parameter Group 2

Parameter	How Used	Data Type	Sequence	Notes
Return code	Output	INT(10,0)	15	The code telling the exit point what action is to be taken. There are three possible values. Any other values will cause this parameter to default to 0.

About the After Switch Exit Point

Required Parameter Group

Parameter	How Used	Data Type	Sequence	Notes
Exit point name	Input	CHAR (20)	1	The name of the exit point being executed. PTG_AB_AFTERSWITCH is the exit point name.
Exit point format name	Input	CHAR (10)	2	The format name of the exit point being executed. ABAS0100 = Global After switch. ABAS0200 = Switch pair specific After switch.
System user	Input	CHAR (10)	3	The name of the user profile that switched to the application/resource ID.
Application/Resource ID	Input	CHAR (10)	4	The name of the user profile the system user switched to.

Parameter	How Used	Data Type	Sequence	Notes
Timed switch command	Input/Output	CHAR (128)	5	The command to be run when a timed switch is being performed. Only valid for switches having a specific number of minutes to remain switched. If a value is returned, the command is executed once the profile switch has occurred.

Optional Parameter Group

Parameter	How Used	Data Type	Sequence	Notes
Client IP address	Input	CHAR (15)	6	The client IP address returned from IBM's QUSRJOBI API in format JOBI0600.
System name	Input	CHAR(8)	7	The name of the system the profile switch took place on. This is the same name as shows in the "Current system name" parameter of IBM command DSPNETA.
Job environment type	Input	CHAR(1)	8	The job's environment type. 0 – A value - If "0" indicates the job that performed the profile switch was running in batch mode. 1 – A value - If "1" indicates the job that performed the profile switch was running in interactive mode.
FireCall switch	Input	CHAR(1)	9	Specifies if the profile switch was for a FireCall. Y = FireCall switch N = Not a FireCall switch.
Switch amount of time	Input	CHAR(6)	10	The number of minutes the switch is allowed to operate.

Parameter	How Used	Data Type	Sequence	Notes
Call ticket number	Input	CHAR (20)	11	The text entered in the Call Ticket field when requesting the switch (or, for switch requests requested by batch, the value provided for the Call Ticket argument).
Notification data	Input	CHAR (276)	12	The formatted data used when writing the switch audit journal entry. Format is for Authority Broker message PID8001. System user requested authority of Application/Resource ID for reason entered for the profile switch.
Interested Party list	Input	Array of CHAR (10)	13	A list of parties interested in the profile switch. A maximum of 100 interested parties will be supplied.
Number of array elements	Input	INT(10,0)	14	The number of entries in the Interested Party list.
Reserved	Input	INT(10,0)	15	This parameter is reserved for Powertech's use.

NOTE: The user is required to handle library list manipulation. If a user-written after-switch program alters the job's library list, it is the responsibility of the user's after-switch program to reinstate it before handing processing control back to Authority Broker.

Work with Global Switch Exit Points screen

The Work with Global Switch Exit Points screen is used to list, add, and remove global switch exit points. The screen is divided into two sections - Before Switch Exit Point methods and After Switch Exit Point methods.

Before Switch Exit Point methods are the exit point methods to be executed before a profile is actually switched. These exit point methods are used to perform validation functions not provided by Powertech. This validation process can prevent a profile switch from occurring. A maximum of 50 exit point methods may be defined.

After Switch Exit Point methods are the exit point methods to be executed after a profile switch has occurred. These exit point methods are used to perform functions not provided by Powertech. Saving and changing a job's library list is an example of how these exit point methods mag be utilized. A maximum of 50 exit point methods may be defined.

```
Date:  7/28/15          PowerTech Authority Broker        Sys : HS42
Time:  13:42:13        Work with Global Switch Exit Points  Prog: PABR0081
                                                           User: QSECOFR

Before Switch Exit Point:

   Run Seq.   Method _____   Run Seq.  Method _____
      01       _____        04       _____
      02       _____        05       _____
      03       _____        06       _____
                                                              More...

After Switch Exit Point:

   Run Seq.   Method _____   Run Seq.  Method _____
      01       _____        04       _____
      02       _____        05       _____
      03       _____        06       _____
                                                              More...


F3=Exit F4=Lookup F5=Refresh F7=Resequence F12=Cancel F17=Release exit points
(C) COPYRIGHT The PowerTech Group, Inc.  2004 - 2012
```

How to Get There

From the Work with Product Exits Menu, choose option **10**.

Options

Before Switch Exit Point

Before Switch Exit Point methods are the exit point methods to be executed before a profile is actually switched. These exit point methods are used to perform validation functions not provided by Powertech. This validation process can prevent a profile switch from occurring.

Rules for assigning Before Switch Exit Point methods:

Maximum entries: A maximum of 50 exit point methods may be defined. Each exit point method must be assigned a run sequence number between 1 and 50. Duplicate exit point methods are allowed.

Run Sequence: Each exit point method must be assigned a run sequence between 1 and 50.

Exit point method: Each exit point method must be defined before it may be entered. Pressing **F4** while the cursor is on an exit point method will pop up the Exit Point Method Lookup window.

More for Before Switch

More exit point method entry lines are available.

After Switch Exit Points

After Switch Exit Point methods are the exit point methods to be executed after a profile switch has occurred. These exit point methods are used to perform functions not provided by Powertech. Saving and changing a job's library list is an example of how these exit point methods may be utilized.

Rules for assigning After Switch Exit Point methods:

Maximum entries: A maximum of 50 exit point methods may be defined. Each exit point method must be assigned a run sequence number between 1 and 50. Duplicate exit point methods are allowed.

Run Sequence: Each exit point method must be assigned a run sequence between 1 and 50.

Exit point method: Each exit point method must be defined before it may be entered. Pressing **F4** while the cursor is on an exit point method will pop up the Exit Point Method Lookup window.

More for After Switch

More exit point method entry lines are available.

Work with Global Switch Release Exit Points screen

```
Date:   7/28/15          PowerTech Authority Broker        Sys : HS42
Time:  13:43:31   Work with Global Switch Release Exit Points   Prog: PABR0082
                                                                User: QSECOFR

Before Release Exit Point

 Run Seq.  Method               Run Seq.  Method
    01      _____           04      _____
    02      _____           05      _____
    03      _____           06      _____
                                                             More...

After Release Exit Point

 Run Seq.  Method               Run Seq.  Method
    01      _____           04      _____
    02      _____           05      _____
    03      _____           06      _____
                                                             More...



F3=Exit F4=Lookup F5=Refresh F7=Resequence F12=Cancel F17=Switch exit points
```

How to Get There

From the Work with Product Exits Menu, choose option **11**.

What it Does

The Work with Global Release Exit Points screen is used to list, add, and remove global release exit points. The screen is divided into two sections - Before Release Exit Point methods and After Release Exit Point methods.

Before Release Exit Point methods are the exit point methods to be executed before a profile switch is actually released. These exit point methods are used to perform functions not provided by Powertech. Reinstating a job's library list is an example of how these exit point methods may be used. A maximum of 50 exit point methods may be defined.

After Release Exit Point methods are the exit point methods to be executed after a profile release has occurred. These exit point methods are used to perform functions not provided by Powertech. Sending tracking entries to a Help system is an example of how these exit point methods may be utilized. A maximum of 50 exit point methods may be defined.

Options

Before Release Exit Point

Before Release Exit Point methods are the exit point methods to be executed before a profile switch is actually released. These exit point methods are used to perform functions not provided by Powertech.

Rules for assigning Before Release Exit Point methods:

Maximum entries: A maximum of 50 exit point methods may be defined. Each exit point method must be assigned a run sequence number between 1 and 50. Duplicate exit point methods are allowed.

Run Sequence: Each exit point method must be assigned a run sequence between 1 and 50.

Exit point method: Each exit point method must be defined before it may be entered. Pressing **F4** while the cursor is on an exit point method will pop up the Exit Point Method Lookup window.

More for Before Release

More exit point method entry lines are available.

After Release Exit Points

After Release Exit Point methods are the exit point methods to be executed after a profile switch has occurred. These exit point methods are used to perform functions not provided by Powertech.

Rules for assigning After Switch Exit Point methods:

Maximum entries: A maximum of 50 exit point methods may be defined. Each exit point method must be assigned a run sequence number between 1 and 50. Duplicate exit point methods are allowed.

Run Sequence: Each exit point method must be assigned a run sequence between 1 and 50.

Exit point method: Each exit point method must be defined before it may be entered. Pressing **F4** while the cursor is on an exit point method will pop up the Exit Point Method Lookup window.

More for After Release

More exit point method entry lines are available.

Required Parameter Group

Parameter	How Used	Data Type	Sequence	Notes
Exit point name	Input	CHAR (20)	1	The name of the exit point being executed. PTG_AB_BEFORERELEASE is the exit point name used for the Before switch exit point. PTG_AB_AFTERRELEASE is the exit point name used for the After switch exit point.
Exit point format name	Input	CHAR (10)	2	The format name of the exit point being executed. ABRL0100 = Global Before switch release. ABRL0200 = Switch pair specific Before switch release. ABAR0100 = Global After switch release. ABAR0200 = Switch pair specific After switch release.
System user	Input	CHAR (10)	3	The name of the user profile that switched to the application/resource ID.
Application/Resource ID	Input	CHAR (10)	4	The name of the user profile the system user is switching to.
Reserved		CHAR (128)	5	Reserved.

Optional Parameter Group

Parameter	How Used	Data Type	Sequence	Notes
Client IP address	Input	CHAR(15)	6	The client IP address returned from IBM's QUSRJOBI API in format JOBI0600.
System name	Input	CHAR(8)	7	The name of the system the profile switch took place on. This is the same name as shows in the "Current system name" parameter of IBM command DSPNETA.
Job environment type	Input	CHAR(1)	8	The job's environment type. 0 – A value - If "0" indicates the job that performed the profile switch was running in batch mode. 1 – A value - If "1" indicates the job that performed the profile switch was running in interactive mode.
FireCall switch	Input	CHAR(1)	9	Specifies if the profile switch was for a FireCall. Y = FireCall switch N = Not a FireCall switch.
Switch amount of time	Input	CHAR(6)	10	The number of minutes the switch is allowed to operate.
Call ticket number	Input	CHAR(20)	11	The number of minutes the switch is allowed to operate.
Interested Party list	Input	Array of CHAR(10)	12	A list of parties interested in the profile switch. A maximum of 100 interested parties will be supplied.
Number of array elements	Input	INT(10,0)	13	The number of entries in the Interested Party list.

> **NOTE:** The user is required to handle library list manipulation. If a user-written post-switch program alters the job's library list it is the responsibility of the user's post-switch program to reinstate it before handing processing control back to Authority Broker.

Command Keys

- **F3 (Exit):** End the current task and returns to the display from which the task was started. If changes have not been accepted prior to F3 being pressed, they will be lost.
- **F4 (Lookup):** Displays the 'Lookup Methods' window and provides lookup capabilities when the cursor is on an exit point method.

> **NOTE:** Each exit point method must be defined before it may be entered.)

F5 (Refresh): Restores the display to the values found in the database. Any changes will be lost.

F7 (Resequence): Provides list resequencing capabilities (shown below). The cursor must be on an editable field.

F12 (Cancel): Returns to the previous menu or display. If changes have not been accepted prior to F12 being pressed they will be lost.

F17 (Release exit points): Displays the Switch exit points screen. Entries must be correct before the Switch exit points screen will redisplay.

```
Date:   6/13/12           PowerTech Authority Broker       Sys : CYBRKING
Time: 09:39:33        Work with Global Switch Exit Points  Prog: PABR0081
                                                           User: JRICHARDS

Before Switch Exit Point:

 Run Seq.  Method                 Run Seq.  Method
    01     _____           04     _____
    02     _____           05     _____
    03     _____           06     _____
                                                          More...

After Switch Exit Point:

 Run Seq.  Method                 Run Seq.  Method
    01     _____           04     _____
    02     _____           05     _____
    03     _____           06     _____
                                                          More...


 F3=Exit F4=Lookup F5=Refresh F7=Resequence F12=Cancel F17=Release exit points
```

Work with Interested Parties screen

```
Date:   7/28/15           PowerTech Authority Broker        Sys : HS42
Time:  13:44:46            Work with Interested Parties      Prog: PABR060
                                                             User: QSECOFR


Options
  1=Add an interested party   2=Change  4=Delete  5=Display  6=Add Email


            Interested System      Switch to
Option      Party      User        Profile    Method                  Include on reports
  _         _____ _____  _____ _____     _


                         No entries to be displayed






F3=Exit    F5=Refresh    F12=Cancel    F14=Sort and Search
```

How to Get There

From the Configuration Menu, select option **2** (Work with Interested Parties).

The Work with Interested Parties screen displays:

What it Does

Work with Interested Parties is used to list, add, and remove Interested Parties. The listed Interested Party[s] will be informed, via the given Alert Method, each time the System User switches to the Switch to Profile.

Options

1 = Add an interested party: This value is only valid on detail line 1 and is used to add an interested party.

2 = Change: This value is used to change an interested party's detail information.

4 = Delete: This is used to delete an interested party.

5 = Display: This value is used to display detail information.

6 = Add Email: This value is used to attach an email address to the interested party. It can also be used to remove the attached email address from the Interested Party. This email address is used for the alert method of EMAIL-PDF

Interested Party

This is the name of the user profile that is interested in the profile switch associated with this switch pair.

System User

This is the name of the user profile performing the switch.

Switch to Profile

This is the name of the profile into which the system user can switch.

Method

This is the name of the alert method to run when a system user switches to run under the switch profile. This must be an alert method that already exists.

> **NOTE**: Special value *NONE in combination with method EXTERNALMSGQ is a valid combination. Special value *NONE may be used when the Interested Party for a Switch Pair is to be included in Event report distributions.

The product comes preconfigured with three types of alert methods:

- USERMSGQ indicates that a message is sent to the IBM i message queue of the Interested Party who has registered to receive the alert.
- EXTERNALMSGQ defines a specific IBM i message queue where alerts are sent. This option is useful if you want to consolidate all your alert messages in one queue, which you monitor using a management console like HelpSystems' Robot CONSOLE. The actual location of the message queue is defined in the product System Values screen.
- EMAIL-PDF specifies that an email is sent to the email address of the interested party who has registered to receive the alert. The email will contain a PDF attachment of the screens captured during the switch.

User defined alert methods can be added in the Work with Alert Methods screen.

Include on Reports - Place an 'X' to specify the interested party is to be included when Event reports are run.

Command Keys

- Sort and Search (**F14**) presents the screen (shown below) that can be used to filter and search for specific entries on this table when there are a large number of entries. For example, you may want to display a list of profiles with a specific alert method like USERMSGQ.
- Sort and Search (**F11**) presents the advanced sort and search screen. SQL syntax can be used to specify search criteria. For example, wild card character % may be placed at any position within any selection.

Work with Product Exits Menu

```
Date:   7/28/15          PowerTech Authority Broker      Sys : HS42
Time:  13:46:16          Work with Product Exits Menu    Menu: EXITS
                                                         User: QSECOFR


 Select one of the following:
  1. Work with Alert methods
  2. Work with Exit Point methods

 10. Work with Global Switch exit points
 11. Work with Global Switch Release exit points







 Selection or command
 ===>  _

F3=Exit        F4=Prompt       F5=Refresh      F9=Retrieve     F12=Cancel
(C) COPYRIGHT The PowerTech Group, Inc.  2004 - 2012
```

How to Get There

From the Configuration Menu, choose option **3**.

What it Does

Authority Broker's Work with Product Exits menu provides a single point where product exit point configuration may be performed.

Options

1 (Work with Alert Methods)

This option presents a screen used to maintain methods used to notify interested parties a profile switch has occurred. See Work with Alert Methods screen.

2 (Work with Exit Point methods)

This option presents a screen used to maintain methods that extend Authority Broker's profile switch and release functionality. See Work with Exit Point Methods screen.

10 (Work with Global Switch exit points)

This option presents a screen used to maintain methods that extend Authority Broker's profile switch (LSWPPRF) functionality. These exit points include additional validations, for a profile switch, notifying interested parties a profile switch has ended and special process controls for individual jobs. See Work with Global Switch Exit Points screen.

11 (Work with Global Switch Release exit points)

This option presents a screen used to maintain methods that extend Authority Broker's profile switch release [LRLSPRF] functionality. These exit points include additional validations, for a profile switch, notifying interested parties a profile switch has ended and special process controls for individual jobs. See Work with Global Switch Release Exit Points screen.

Command Keys

- **F3 (Exit):** Ends the current task and returns to the display from which the task was started. If changes have not been accepted prior to F3 being pressed, they will be lost.
- **F4 (Prompt):** Provides assistance in entering or selecting a command.
- **F5 (Refresh):** Restores the display to the values found in the database. Any changes will be lost.
- **F9 (Retrieve):** Displays the last command you entered on the command line and any parameters you included. Pressing this key once, shows the last command you ran. Pressing this key twice, shows the command you ran before that and so on.
- **F12 (Cancel):** Returns to the previous menu or display. If changes have not been accepted prior to F12 being pressed they will be lost.

Work With Profile Switches screen

```
Date:   4/11/17          PowerTech Authority Broker        Sys : OSCAR
Time: 13:57:12           Work with Profile Switches        Prog: PABR0090
                                                            User: QSECOFR
Options
  4=End Switch     5=Display Switch Pair    7=Display Job ...


      System      Switch      Switch                  Time
Opt   User        Profile     Type        Status      Limit    Start Date/Time
__    LCHEN       BANDERSON   *FIRECALL   *ENDED      30       03/15/17 09:06:52
__    LCHEN       F113375     *NORMAL     *ENDED      *NOMAX   03/15/17 09:04:08
__    P53067512   P63009999   *NORMAL     *ENDED      *NOMAX   03/15/17 09:00:57
__    M725167     QSECOFR     *FIRECALL   *TIMEDOUT   5        03/15/17 08:52:26
__    AHALVORSON  P63009999   *TIMED      *ENDED      60       03/15/17 08:46:59
__    SMALLEY     P63009999   *FIRECALL   *ENDED      30       03/15/17 08:44:59
__    SMALLEY     P63009999   *FIRECALL   *ENDED      30       03/15/17 08:37:25
__    M725167     M72009999   *TIMED      *ENDED      60       03/15/17 08:34:58
__    LCHEN       F113375     *NORMAL     *ENDED      *NOMAX   03/15/17 08:32:44
__    M725167     M73008282   *TIMED      *ENDED      60       03/15/17 08:31:03
__    LCHEN       F113375     *NORMAL     *ENDED      *NOMAX   03/15/17 08:29:25

                                                                    Bottom

F3=Exit    F5=Refresh    F11=View Status/End    F12=Cancel
F16=Subset              F23=More Options
```

> **NOTE:** It is important for Administrators to verify that there are no active switches when uninstalling the product. The "Work with Active Profile Switches" screen allows administrators to verify if there are currently any active switches.

How to Get There

From the Configuration Menu, select Option **4** (Work with Profile Switches).

What it Does

The work with Profile Switches panels are used to view, and perform work against, profile switches.

Options

Several options are available to use for performing some type of work related to a profile switch.

Allowed options include:

4 (End Switch)
Force a timed profile switch to end.

End a normal profile switch if the job is no longer active.

5 (Display Switch Pair)
Display the switch pair's properties.

7 (Display Job)

Display the job using IBM's DSPJOB command. You must have enough authority to display the job.

8 (Send Break Message)

Send a break message to the job. The job must be interactive and currently active.

9 (View Time Remaining)

View the time remaining on a switch. This is only valid for timed switches.

10 (Work with Screen Captures)

View the screens captured during the switch, if any were captured. See Work with Screen Captures screen.

11 (Watch Session)

Watch an interactive switch in virtual real-time. You can only view real-time switches if the Status is *ACTIVE and you select the option to capture screens on the Change Switch Information screen.

13 (Email Screen Captures)

Email the screens captured during the switch, if any were captured, to interested parties. See Select Interested Parties screen.

Column Descriptions

- **System User:** The name of a valid user profile who switched to another profile.
- **Switch Profile:** The user profile whose authority the system user was granted.
- **Switch Type:** The type of switch that was performed.
    - ***NORMAL:** This type of switch has no time limit.
    - ***TIMED:** This switch has a time limit.
    - ***FIRECALL:** The switch was done as in response to a FireCall. The switch has a time limit.
- **Status:** Indicates the status of the switch.
    - ***STARTING:** This status is set initially when a switch is just getting started. At this time, the job is running as a system user.
    - ***ACTIVE:** This status is set immediately after the switch has occurred. At this time, a job is running as the switch profile.
    - ***FAILED:** This status is set when a failure prevents a switch from occurring.
    - ***TIMEDOUT:** This status is set when a timed switch is ended forcefully using the *ENDJOB or *ENDSWITCH actions.
    - ***ENDED:** The switch has ended. This status indicates a more normal ending than a time-out-forced ending.
- **Time Allotted:** The time allotted to the switch in minutes.
- **Switch Date/Time:** The date and time the switch began.

About Timed Switches

Timed switches in Authority Broker version 3.1 are different from previous versions due to IBM process changes. The 3.1 version of the product now requires a command be supplied.

Two special values are available - *ENDSWITCH and *ERROR. Special value *ENDSWITCH is the default. When these values are encountered the profile switch is reversed. Data area PABSWDFLT is provided to allow a user to set a default command.

Authority Broker version 3.1 adds a new RUNCMD parameter to the LSWPPRF command:

LSWPPRF TOUSER(NSADMIN) +
REASON('I need to give Alice FTP access to the Payroll file') +
CALLTICKET(*NONE) +
RUNCMD(POWERLOCK)

In this example, the end user FireCall swaps to the user profile NSADMIN and starts Network Security.

Any profile switch with a time limit other than *NOMAX will flow through the new process. Profile switches with a time limit of *NOMAX will continue to work as they do in Authority Broker version 3.0. For Profile switches with a time limit of *NOMAX the RUNCMD parameter is ignored.

The timed switches RUNCMD parameter defaults to the special value *ENDSWITCH. If no command is provided the *ENDSWITCH value releases the switch.

- A command may be provided in several ways:
- A command may be entered by the user.
- A data area is provided so users can set their own default. If a command is entered in the command the contents of the data area are ignored. If special value *ENDSWITCH is the entered command the contents of the data area are used as the command.
- A Before Switch exit program can provide a command.
- An After Switch exit program can provide a command.
- If a blank command is encountered the default *ENDSWITCH is used.

*ERROR can be placed in the PABSWDFLT data area if a user prefers using a less abrupt method versus using *ENDSWITCH. When using *ERROR, the user performing a timed switch is reminded that they need to supply a command. The message returned is, 'No command supplied for the switch'.

Command Keys

F3 (Exit): Ends the current task and returns to the display from which the task was started. If changes have not been accepted prior to F3 being pressed, they will be lost.

F5 (Refresh): Restores the display to the values found in the database. Any changes will be lost.

F11 (View Status/Start) ● (View Status/End) ● (View Job/Start) ● (View Job/End) ● (View Ticket/Start) ● (View Ticket/End): Displays job information, including the Status, Job, and Ticket Start and End Times.

F12 (Cancel): Returns to the previous menu or display. If changes have not been accepted prior to F12 being pressed they will be lost.

F23 (More Options): Displays additional options.

Work with Reporting Exceptions screen

```
Date:   5/15/15            PowerTech Authority Broker       Sys : HS69
Time:  08:52:46          Work with Reporting Exceptions     Prog: PABR040
                                                            User: MARKJ


Options
 1=Add   4=Delete


        Filter
Option  From Rpt  Object name    Library     Object type  User profile
 _         Y                                              _____
 _         N        CHKOBJ       QSYS            *CMD        *ALL
 _         N        DLYJOB       QSYS            *CMD        *ALL
 _         Y        LNUC001      *PRODUCT        *PGM        *ALL
 _         Y        LNUC002      *PRODUCT        *PGM        *ALL
 _         Y        LNUC003      *PRODUCT        *PGM        *ALL
 _         Y        LNUR300      *PRODUCT        *PGM        *ALL
 _         Y        LRLSPRF      QGPL            *CMD        *ALL
 _         Y        LSWAPPRF     QGPL            *CMD        *ALL
 _         Y        LSWITCH      QGPL            *CMD        *ALL
 _         Y        LSWPPRF      QGPL            *CMD        *ALL
 _         Y        LWHOAMI      QGPL            *CMD        *ALL
                                                             More...
F3=Exit    F5=Refresh    F12=Cancel    F14=Sort and Search
```

How to Get There

From the Authority Broker Configuration Menu, select option **10**.

What it Does

Work with Report Exceptions is used to list, add, change, and remove programs to be skipped during Powertech Authority Broker reporting. Program names need to be defined to Authority Broker before a reporting function can identify them as items to ignore.

Options

1=Add

Add an exception. Valid for line one only.

4=Delete

Delete an exception entry.

Field Descriptions

The Filter from Rpt

Specifies whether the program is to be excluded from reports not. Possible values are:

Y Yes the entry is active. Exclude the program from reports.

N No the entry is inactive. Include the program on reports.

Object name

Specifies the name of the object to be excluded. The name must conform to IBM's naming conventions.

Library

Specifies the name of the library the object resides in. Possible values are:

Library—name The name of the library the object resides in. It must conform to IBM's naming conventions.

*PRODUCT Special value *PRODUCT specifies the program is an Authority Broker object.

> **NOTE**: *PRODUCT library name indicates that the program can be found in the Powertech Authority Broker install library. When you first enter this screen, certain Authority Broker programs are already excluded from printing on the Event Reports by default.

Object type

Specifies the type of object being excluded from reports. Possible values are:

*PGM The object is a program object.

*CMD The object is a command object.

User profile

Specifies the user profile associated to the program at run—time. Possible values are:

user—profile The name of the user profile that used the program. It must conform to IBM's naming conventions.

 *ALL Special value *ALL specifies user profile is to be ignored when determining if a report should exclude a program.

For all of the above options, the only verification Authority Broker performs, relative to the entry, is to ensure the name entered conforms to IBM's naming conventions for libraries or user profiles, etc. It does not check for the existence of the object entered. This is to permit you to exclude object names that may no longer exist on the system.

Command Keys

F3 (Exit): Ends the current task and returns to the display from which the task was started. If changes have not been accepted prior to F3 being pressed, they will be lost.

F5 (Refresh): Restores the display to the values found in the database. Any changes will be lost.

F12 (Cancel): Returns to the previous menu or display. If changes have not been accepted prior to F12 being pressed they will be lost.

F14 (Sort and Search): Sort and Search displays the Basic Reporting Exceptions Sort & Search screen, which allows selection of basic data sorting and searching criteria. This option is useful if you are searching for a specific program, but are unsure of the exact name or library location.

```
Date:   6/12/12         PowerTech Authority Broker      Sys : CYBRKING
Time: 10:20:31    Basic Reporting Exceptions Sort & Search   Prog: PABR041
                                                         User: JRICHARDS

Select the sorting sequence: (Specify 1-5)

Object name: _  Library name: _  Object type: _  User profile: _  Filter: _


Select your search criteria:   (Leave blank to select all)

    Filter
        Active:   _
        Inactive: _

    Object name:  IS%_____
    Library name: _____
    Object type:  _____
    User profile: _____



F3=Exit    F5=Refresh    F11=Advanced Search    F12=Cancel
```

The above example shows an example of the Sort and Search screen filled out for a search of objects beginning with the letter "IS." The resulting output is sorted in the order defined by Object name.

In the above example, we selected our search results to be sorted by and in the following order:

1. Object type

2. Library name

3. User profile

4. Status

The Filter option specifies whether the program is to be excluded from the program or not. An entry may be either active or inactive. Enter an X next to each filter to be included in the search. If left blank, the filter is not be considered during the search.

Wild card character '%' is supported for Library name, Object name, and User profile. For example, an object name entry of IS% will list only programs with names from IS through IS99999999.

The Advanced Search (F11) option displays a screen (shown below) that allows more advanced selection for data sorting and searching criteria.

```
Date:   6/12/12          PowerTech Authority Broker          Sys : CYBRKING
Time: 10:46:43   Advanced Reporting Exceptions Sort & Search  Prog: PABR041
                                                              User: JRICHARDS


Sort Order
Object name: _   Library name: _   Object type  _   User profile: _   Filter: _

Search criteria   (Leave blank to select all)
Filter selections . . .: _ Active  _ Inactive

Object selections . . .: _____
                         _____
                         _____
Library selections  . .: _____
                         _____
                         _____
Object type selections.: _____
User profile selections: _____
                         _____
                         _____
                         _____


F3=Exit    F5=Refresh    F12=Cancel
```

Work With Screen Captures screen

```
Date:   7/28/15          PowerTech Authority Broker        Sys : MORPHEUS
Time: 14:21:07            Work with Screen Captures         Prog: PAB3401
                                                            User: QSECOFR


System User . . :   SHAASE      Job . . . . . . . :   753702/SHAASE/HAAZA1
Switch Profile  :   QSECOFR     Started . . . . :    06/22/15 09:12:01
Switch Status . :   *ENDED      Ended . . . . . :    06/22/15 09:12:23


Options
  5=Display Screen Capture


Opt  Capture Date/Time          Screen Snippet
 _    06/22/15 09:12:17.594      System i Main Menu
 _    06/22/15 09:12:23.211      System i Main Menu




                                                                  Bottom

F3=Exit   F5=Refresh   F7=Top   F8=Bottom   F12=Cancel
F13=Playback  F14=Watch Session
```

How to Get There

From the Work with Profile Switches screen, choose option **10** for a System User.

What it Does

The Work with Screen Captures panel allows you to view the captured screens for a given profile swap.

Field Descriptions

System User
The user who requested this profile swap.

Switch Profile
The system profile that the user switched to.

Switch Status
The status of this profile swap. The possible statuses are:

*__STARTING__ The profile swap is starting, but is not yet active.

*__ACTIVE__ The profile swap is currently active.

*__ENDED__ The profile swap has ended.

*__TIMEDOUT__ The profile swap has timed out.

*__FAILED__ The profile swap has failed. The reason is not listed on this panel.

*UNKNOWN The profile swap is in an unknown state.

Job

The job which was running during the profile swap.

Started

The time that the profile swap started.

Ended

The time that the profile swap ended, if the swap has completed.

Options

Enter a valid option from the list of options provided on the panel.

5 (Display Screen Capture)

Choose this option to display the screen capture image.

Column Descriptions

Capture Date/Time

This detail field shows the date and time at which this particular screen was captured.

Screen Snippet

This detail field shows a subset of the top line of the captured screen to help determine what this screen may contain.

Command Keys

F3 (Exit): Ends the current task and returns to the display from which the task was started. If changes have not been accepted prior to F3 being pressed they will be lost.

F5 (Refresh): Restores the display to the values found in the database. Any changes will be lost.

F7 (Top): Positions the panel to the first captured screen of this profile swap.

F8 (Bottom): Positions the panel to the last captured screen of this profile swap.

F12 (Cancel): Returns to the previous menu or display. If changes have not been accepted prior to F12 being pressed they will be lost.

F13 (Playback): Plays back the captured screens of this profile swap. While in playback mode "Page Up" and "Page Down" allows you to scroll through each screen that has been captured for that session. F12 will end the playback of the images.

F14 (Watch Session): If this profile swap is currently active, then the screens of this profile swap are played back in real time. While watching a session you can use the F12 key to end watch mode.

Work with Switch Pair Switch Exit Points

```
Date:  5/11/15          PowerTech Authority Broker        Sys : HS42
Time: 08:33:09    Work with Switch Pair Switch Exit Points   Prog: PABRO111
                                                             User: QSECOFR

System User: ALICE        Switch to profile: APMOD

   Before Switch Exit Point:

    Run Seq.  Method                Run Seq.  Method
      01      _                       04
      02                              05
      03                              06
                                                               More...
   After Switch Exit Point:

    Run Seq.  Method                Run Seq.  Method
      01                              04
      02                              05
      03                              06
                                                               More...


 F3=Exit F4=Lookup F5=Refresh F7=Resequence F12=Cancel F17=Release exit points
```

How to Get There

In the Assign System Users to Switch Profiles screen, enter **17** for a Switch Pair.

What it Does

The Work with Switch Exit Points screen is used to list, add, and remove exit point methods for specific switch pairings. The screen is divided into two sections - Before Switch Exit Point methods and After Switch Exit Point methods.

Before Switch Exit Point methods are the exit point methods executed before a profile is actually switched. These exit point methods are used to perform validation functions not provided by Powertech. This validation process can prevent a profile switch from occurring. A maximum of 50 exit point methods may be defined.

After Switch Exit Point methods are the exit point methods executed after a profile switch has occurred. These exit point methods are used to perform functions not provided by Powertech. Saving and changing a job's library list is an example of how these exit point methods may be utilized. A maximum of 50 exit point methods may be defined.

Field Descriptions

System User
The user profile name who will switch to other profiles.

Switch To Profile

The user profile name that the system user will switch to.

Before Switch Exit Point

Before Switch Exit Point methods are the exit point methods executed before a profile is actually switched. These exit point methods are used to perform validation functions not provided by Powertech. This validation process can prevent a profile switch from occurring. Rules for assigning Before Switch Exit Point methods:

Maximum entries

A maximum of 50 methods may be defined. Each exit point method is assigned a run sequence number between 1 and 50. Duplicate exit point methods are allowed.

Run sequence

Each exit point method is assigned a run sequence between 1 and 50.

Exit point method

Each method must be defined before it may be entered. Pressing F4 while the cursor is on an exit point method will pop up the Exit Point Method Lookup window.

More for Before Switch

More method entry lines are available.

After Switch Exit Point

After Switch Exit Point methods are the exit point methods executed after a profile switch has occurred. These exit point methods are used to perform functions not provided by Powertech. Saving and changing a job's library list is an example of how these exit point methods mag be utilized.

Rules for assigning After Switch Exit Point methods:

Maximum entries

A maximum of 50 methods mag be defined. Each exit point method is assigned a run sequence number between 1 and 50.

Run sequence

Each exit point is assigned a run sequence between 1 and 50.

Exit point method

Each method must be defined before it mag be entered. Pressing F4 while the cursor is on an exit point method will pop up the Exit Point Method Lookup window.

More for After Switch

More method entry lines are available.

Command Keys

F3 (Exit)

Exit the program without processing any pending changes.

F4 (Lookup)

Pressing F4 provides lookup capabilities when the cursor is on a promptable field. Press F4 with the cursor on an exit point method field to display a list of Exit Point Methods you may select from.

F5 (Refresh)

Refresh the screen.

F7 (Re-sequence)

Exit Points Displays the screen used to re-sequence exit point methods.

F12 (Cancel)

Exit the screen without processing any pending changes.

F17 (Product Exit Points)

Displays the Switch Release exit points screen.

Work Management System

Powertech installs a work management subsystem with Powertech Authority Broker called PTWRKMGT so that Powertech products can submit long running batch jobs without interfering with customer job queues. (This same work management subsystem is also used by other Powertech products. If you already have an instance of PTWRKMGT on your system, another instance will not be created.)

PTWRKMGT allows a customer to tune Powertech batch processes – to add or reduce memory, time-slice, priority, etc. Specifically for Authority Broker, when a profile switch with a time limit is started, a job is started in the PTWRKMGT subsystem to monitor the length of the switch. (PTWRKMGT is started automatically as needed when a user initiates a switch with a time limit.)

The PTWRKMGT library installs when Authority Broker is installed. It consists of a subsystem description, a class description, job queue descriptions for various Powertech products, and features and job descriptions for Powertech products and features. PTWRKMGT is first activated when features need to use it.

All jobs currently intended for PTWRKMGT are submitted jobs. There are no prestart or auto-start jobs. There is however, a maximum limit on the number of jobs. The maximum limit is set to 1000. This limit may be changed at your discretion.

> **NOTE:** PTWRKMGT sub-system must be running for reports to work.

To start PTWRKMGT, use the following command:

STRSBS PTWRKMGT/PTWRKMGT

Appendix

The topics in this section include additional information about Authority Broker.

Appendix A: Enabling and Disabling FireCall

> **NOTE:** FireCall is automatically installed when Powertech Authority Broker is installed and by default, FireCall is already enabled upon installation. (However, should you elect to turn off the FireCall feature and/or later decide to enable FireCall, refer to the instructions below.)

From the Authority Broker Main Menu, select Option **5** (Use Authority Broker Configuration Menu).

Then, from the Authority Broker Configuration Menu, select Option **13** (Work with Authority Broker product settings).

The following screen displays:

Disabling FireCall

To disable FireCall enter an **X** next to No for the Enable FireCall option in the above image and press Enter. The message Entry Changed displays at the bottom of the screen confirming that FireCall has been disabled. (Should you later decide to enable FireCall, enter **X** next to Yes and press Enter.)

> **NOTE:** FireCall does NOT operate unless it is enabled.

Timed Switch Options

In addition to the Enable FireCall option, timed switch options are also available in the Work with Product Settings screen (shown above). Timed switch options can be used with FireCall.

The timed switch options include:

- Default Switch duration
- Timed switch command
- Interval to notify switch time is coming to an end
- Action to take for batch jobs when switch time ends
- Action to take for interactive jobs when switch time ends

See System Values for full details on each of these options.

Appendix B: Excluding Programs in Authority Broker

> **NOTE:** Changes to Authority Broker may require you to contact the Authority Broker administrator for your organization to request access.

In Authority Broker, there is an option to exclude a defined list of programs and commands from the audited data that is included on the reports. This is useful when you want to exclude common programs or commands of no concern from the list of audited data. Cutting down on the number of programs can make the audit data much simpler and easier to read.

> **NOTE:** Changes to Authority Broker may require you to contact the Authority Broker administrator for your organization to request access.

Excluding Programs

From the Authority Broker Configuration Menu, select option **10** (Work with Programs to be Excluded from Reports).

The Work with Reporting Exceptions screen displays:

Options:

- Enter **1** in the **Option** column to add a program to the list. This is only valid when you enter the name of a new program in the first row. Enter **4** to delete an entry. Any other change requires

addition of new programs to the list.

- The **Filter from Rpt** column signifies a program is to be recognized as an item to exclude from event reporting. This value is always set to 'Y' for new entries.
- **Object name** is the name of the program to be excluded from event reports.

> **NOTE:** *PRODUCT library name indicates that the program can be found in the Powertech Authority Broker install library. When you first enter this screen, certain Authority Broker programs are already excluded from printing on the Event Reports by default.

- **Library** is the name of the library where the program to be excluded resides.
- **Object type** designates the object as either a command or a program.
- **User profile** is the user profile that used the program to be excluded. Generic versions of user profiles names are accepted, such as Dev*. *ALL signifies the program is to be excluded from the event reports for all users of the program.

For all of the above options, the only verification Authority Broker performs, relative to the entry, is to ensure the name entered conforms to IBM's naming conventions for libraries or user profiles, etc. It does not check for the existence of the object entered. This is to permit you to exclude object names that may no longer exist on the system.

Available Function Keys

Sort and Search (F14) displays a screen (see below) that allows selection of basic data sorting and searching criteria. This option is useful if you are searching for a specific program, but are unsure of the exact name or library location.

```
Date:   6/12/12           PowerTech Authority Broker        Sys : CYBRKING
Time: 10:20:31      Basic Reporting Exceptions Sort & Search    Prog: PABR041
                                                            User: JRICHARDS

Select the sorting sequence: (Specify 1-5)

Object name: _   Library name: _   Object type: _   User profile: _   Filter: _


Select your search criteria:    (Leave blank to select all)

    Filter
         Active:    _
         Inactive:  _

    Object name:   IS%_____
    Library name:  _____
    Object type:   _____
    User profile:  _____




F3=Exit    F5=Refresh    F11=Advanced Search    F12=Cancel
```

The above example shows an example of the Sort and Search screen filled out for a search of objects beginning with the letter "IS." The resulting output is sorted in the order defined by Object name.

In the above example, we selected our search results to be sorted by and in the following order:

1. Object type

2. Library name

3. User profile

4. Status

The Filter option specifies whether the program is to be excluded from the program or not. An entry may be either active or inactive. Enter an X next to each filter to be included in the search. If left blank, the filter is not be considered during the search.

Wild card character '%' is supported for Library name, Object name, and User profile. For example, an object name entry of IS% will list only programs with names from IS through IS99999999.

The Advanced Search (F11) option displays a screen (shown below) that allows more advanced selection for data sorting and searching criteria.

```
Date:   6/12/12          PowerTech Authority Broker        Sys : CYBRKING
Time: 10:46:43  Advanced Reporting Exceptions Sort & Search  Prog: PABR041
                                                             User: JRICHARDS

Sort Order
Object name: _  Library name: _   Object type  _   User profile: _   Filter: _

Search criteria   (Leave blank to select all)
Filter selections . . .: _ Active  _ Inactive

Object selections . . .: _____
                         _____
                         _____
Library selections  . .: _____
                         _____
                         _____
Object type selections.: _____
User profile selections: _____
                         _____
                         _____
                         _____


 F3=Exit    F5=Refresh    F12=Cancel
```

Appendix C: Work with FireCall Control Settings

Authority Broker FireCall Control Settings allow you to control what the individual giving FireCall access may do.

```
Date:  7/28/15           PowerTech Authority Broker         Sys : HS42
Time: 13:35:22         Work with FireCall Control Settings   Prog: PABR030
                                                             User: QSECOFR


Can a FireCall operator change switch duration?  . . . . .:  X Yes  _ No

Default minutes allowed to start a FireCall  . . . . . . .:    30 (1 - 99999)



Must the FireCall operator enter a reason for switching?:  X Yes  _ No

Is a Call ticket required for FireCall?  . . . . . . . . .:  _ Yes  X No





F3=Exit   F5=Refresh   F12=Cancel
```

How to Get There

From the Authority Broker Configuration Menu, select option **11**.

Options

Can a FireCall Operator change switch Duration?

A FireCall operator can change the switch duration when a FireCall is entered. Place an X next to either Yes or No. Both options cannot be selected.

An X next to Yes indicates that the FireCall Operator has discretion as to how long a given user may stay switched to a switch profile.

Default minutes allowed to start a FireCall

The number of minutes used to calculate the time frame a FireCall access is valid. This value indicates the default amount of time that the FireCall user has to initially activate a Switch Pair. After this amount of time has expired, a FireCall Switch Pair would also expire.

A minimum of 1 minute and a maximum of 99999 minutes may be entered. If a value is not supplied, a default value of 30 minutes is assumed.

Must the FireCall operator enter a reason for switching?

The FireCall operator is required to supply a reason when granting FireCall access. Place an X next to either Yes or No. Both options cannot be selected.

Is a Call ticket required for FireCall?

The FireCall operator is required to supply a call ticket when granting FireCall access. The person performing a profile switch for a FireCall will also be required to supply a call ticket number.

Place an X next to either Yes or No. Both options cannot be selected. No automated validation is done to ensure that the call yicket number is valid.

Command Keys

F3 (Exit): Ends the current task and returns to the display from which the task was started. If changes have not been accepted prior to F3 being pressed, they will be lost.

F5 (Refresh): Restores the display to the values found in the database. Any changes will be lost.

F12 (Cancel): Returns to the previous menu or display. If changes have not been accepted prior to F12 being pressed they will be lost.

Appendix D: Commands

Command	Description
LWRKAUTBKR	Start the configuration and reporting options.
LSWPPRF	Switch to a profile
LRLSPRF	End a switch
LWHOAMI	Display the active profile
LFIRECALL	Display the FireCall assignments
LFRCLLMNU	Display the FireCall menu
LPRDVRM	Display product version number
LEVENTRPT	Run event reports from the command line

Appendix F: QAUDJRN

Prerequisite to Installation

QAUDJRN is the default IBM Security Audit Journal, located in QSYS. This is the journal name and library where user activity is logged. QAUDJRN must be configured on your system in order for Powertech Authority Broker to function correctly.

Creating the QUADJRN Journal

Use the Change Security Auditing command:

`CHGSECAUD`

The CHGSECAUD command creates the secured journal QAUDJRN, if it doesn't already exist, and sets the system values QAUDCTL and QAUDLVL to a set of values that provide a basic level of system auditing. This command also creates and attaches the journal receiver QGPL/AUDRCV0001 to the QAUDJRN journal.

```
                    Change Security Auditing (CHGSECAUD)

 Type choices, press Enter.

 QAUDCTL system value . . . . . .   *AUDLVL      *SAME, *ALL, *NONE...
           + for more values
 Auditing values  . . . . . . . .   *CREATE      *SAME, *ALL, *DFTSET...
                                     *DELETE
                                     *OBJMGT
                                     *SAVRST
           + for more values        *SECURITY
 Initial journal receiver . . . .   AUDRCV0001   Name
   Library  . . . . . . . . . . .       QGPL     Name, *CURLIB




                                                                  Bottom
 F3=Exit   F4=Prompt   F5=Refresh   F12=Cancel   F13=How to use this display
 F24=More keys
```

Appendix G: Work with FireCall Log screen

The FireCall Log allows the FireCall Operator to review the list of FireCall access given to a particular system user.

```
Date:   4/11/17          PowerTech Authority Broker        Sys : OSCAR
Time:  13:45:53              Work with FireCall Log         Prog: PABR0720
                                                            User: QSECOFR


Options
 5=View detail   6=Report Events

      FireCall                 Switch to   FireCall    FireCall
Opt  Operator     System User  Profile     Date        Time     Call ticket
 _   AA789108     SMALLEY      P63009999   03/15/2017  08:36   TK# 36790
 _   QSECOFR      LCHEN        BANDERSON   03/15/2017  09:06   PO for Deliveries
 _   RLARSON      M725167      QSECOFR     03/15/2017  08:52   TK#7632




                                                              Bottom


F3=Exit  F5=Refresh  F12=Cancel  F14=Sort & Search  F21=Print List Details
```

How to Get There

From the FireCall Menu, select option **2** (FireCall Log).

> **NOTE**: This screen can also be accessed from the Authority Broker Reports Menu. Select Option: **2** (FireCall Log). However, in order to use option '2' on the Authority Broker Reports Menu; FireCall must be enabled, and the user must be on the Authority Broker FireCall review authorization list (POWERABFL). (The exception to this is if the user has *ALLOBJ special authority.)

The Work with FireCall Log screen displays:

Options

The value typed next to individual FireCall access to signify the operation that is to occur.

5=View detail

Allows for viewing a specific FireCall. (See the FireCall Assignment Log Detail section in this Guide for more information.)

6=Report Events

Prompts the Events Reports screen. Known data on the prompt will be filled in. (See the Report Setup section in this Guide for more details on this screen.)

FireCall Operator

The IBM user profile name of the user enabling the FireCall access.

System user

The IBM user profile name of the user given FireCall access.

Switch to Profile

The IBM user profile name for the FireCall access that was switched to.

FireCall Date and Time

The date and time the FireCall access was assigned.

Call Ticket

The user-supplied reference number to the FireCall access. It can be any combination of letters and numbers (up to 20 characters) that corresponds to a ticket number from a help desk system such as Remedy.

Command Keys

- **F3 (Exit):** Ends the current task and returns to the display from which the task was started. If changes have not been accepted prior to F3 being pressed they will be lost.
- **F5 (Refresh):** Restores the display to the values found in the database. Any changes will be lost.
- **F12 (Cancel):** Returns to the previous menu or display. If changes have not been accepted prior to F12 being pressed they will be lost.
- **F14 (Sort & Search):** Presents a screen that allows selection of basic data sorting and searching criteria. The returned SQL string is used to select the data to be displayed. (See the Basic Sort & Search FireCall Log section in this Guide for more details.)

  > **NOTE:** When selecting F21=Print List Details from the Work with FireCall Log screen, the message, 'Report has been submitted for batch processing' will be displayed at the bottom of the screen confirming report processing.

- **F21 (Print List Details):** Prints the detail FireCall Assignment information for the selected FireCall assignments.

Appendix H: FireCall Log Basic Sort & Search screen

```
Date:   4/11/17           PowerTech Authority Broker      Sys : OSCAR
Time:  14:39:18          FireCall Log Basic Sort & Search  Prog: PABRO721
                                                           User: QSECOFR


Select the sorting sequence:
 FireCall Operator: 1
 System User . . .: 2
 Switch Profile  .: 3
 Assignment Date .: 4
 Assignment Time .: 5
 Call Ticket . . .: 6

Select your search criteria:   (Leave blank to select all)
 FireCall Operator selection: _____
 System User selection . . .: _____
 Switch Profile selection  .: _____
 Assignment Date selection .: _____
 Assignment Time selection .: _____
 Call Ticket selection . . .: _____



F3=Exit   F5=Refresh   F11=Advanced Search   F12=Cancel
```

How to Get There

In the Work with FireCall log screen, press **F14**.

What it Does

The Sort and Search FireCall Logs feature is used to select and order Powertech Authority Broker FireCall Logs. Several options are are available to assist in reducing the amount of information you must view. The first of these options is the ability to search FireCall logs. Searching is performed by making selections in the "Search Criteria" section. Second is the use of SQL syntax. For example, wild card character % may be placed at any position within any selection. Lastly you may select the sort order you wish logs to be in. This is accomplished by entering a 1 through 6 next to the items in the "Select Sequence" section.

Options

Select the Sorting Sequence

Provides the capability to order the search results. Possible values are 1 through 6 where 1 is highest and 6 is lowest. If an item is left blank, it will not to be used when sorting the search results.

- FireCall Operator: The IBM name of the user profile that enabled the profile switch to occur.
- System user:The IBM name of the user profile that performed the profile switch.
- Switch Profile: The name of the IBM user profile the system user switched to.

- Assignment Date: The calendar date the system user was authorized to perform the FireCall switch.
- Assignment Time: The time the FireCall switch was authorized to perform the FireCall switch. Military time is used.
- Call Ticket: Call Ticket is the user-supplied reference number to the FireCall access. It can be any combination of letters and numbers (up to 20 characters) that corresponds to a ticket number from a help desk system such as Remedy.

Select the Search Criteria

Provides the capability to limit the amount of information listed.

FireCall Operator selection: Select the FireCall Operator you wish to see. Leave FireCall Operator blank if you wish to see all FireCall Operators. SQL syntax is supported for FireCall Operators.

- Wild card character '%' is supported. For example, a system user entry of AR% will list only system users from AR through AR99999999.
- The entry will be all upper case.

System User selection: Select the System User you wish to see FireCall Logs for. Leave System User blank if you wish to see all FireCall Logs. SQL syntax is supported for System User.

- Wild card character '%' is supported. For example, a system user entry of AR% will list only system users from AR through AR99999999.
- The entry will be all upper case.

Switch Profile selection: Select the Switch Profile you wish to see FireCall Logs for. Leave Switch Profile blank to see all Switch Profiles. SQL syntax is supported for Switch Profile.

- Wild card character '%' is supported. For example, a Switch Profile entry of IS% will list only switch profiles between IS and IS99999999.
- The entry will be all upper case.

Assignment Date selection: Select the Assignment Date you wish to see FireCall Logs for. Leave Assignment Date blank to see all Assignment Dates. SQL syntax is supported for Assignment Date. Dates must be entered in ISO format YYYY-MM-DD.

- Wild card character '%' is not supported.
- When a date is selected it is always built to select dates greater than or equal to the selected date (date >= searchfordate).

Assignment Time selection: Select the Assignment Time you wish to see FireCall Logs for. Leave Assignment Time blank to see all Assignment Times. SQL syntax is supported for Assignment Time. Times must be entered in format HH.MM.

- Wild card character '%' is not supported.
- When a time is selected it is always built to select times greater than or equal to the selected time (fromtime >= searchforfromtime).

Call Ticket selection: Select the Call Ticket you wish to see FireCall Logs for. Leave Call Ticket blank if you wish to see all Call Tickets. SQL syntax is supported for Call Tickets.

- Wild card character '%' is supported. For example, a Call Number entry of HELPDESK% will list only Call Tickets between helpdesk and HELPDESK99999999999.
- The entry will be case insensitive (UCASE() used when building the WHERE).

Command Keys

F3 (Exit): Ends the current task and returns to the display from which the task was started. If changes have not been accepted prior to F3 being pressed they will be lost.

F5 (Refresh): Restores the display to the values found in the database. Any changes will be lost.

F11 (Advanced Search): Presents a screen that allows more advanced selection for data sorting and searching criteria. (See Advanced Sort & Search FireCall Log for more details.)

F12 (Cancel): Returns to the previous menu or display. If changes have not been accepted prior to F12 being pressed they will be lost.

Appendix I: FireCall Log Advanced Sort & Search screen

```
Date:  4/11/17           PowerTech Authority Broker      Sys : OSCAR
Time:  14:41:57        FireCall Log Advanced Sort & Search    Prog: PABRO721
                                                           User: QSECOFR


Sort Order
1 FC Operator 2 System User 3 Switch Profile 4 Date 5 From Time 6 Call ticket
Search criteria   (Leave blank to select all)
FireCall Operator selections: _____
System User selections . . .: _____
                              _____
                              _____
Switch Profile selections  .: _____
                              _____
                              _____
Assignment Date selections .: _____
(dates must be in ISO format  _____
yyyy-mm-dd)                   _____
Assignment Time selections .: _____
Call Ticket selections . . .: _____
                              _____
                              _____


F3=Exit   F5=Refresh   F12=Cancel
```

How to Get There

1. From the FireCall Menu, select option **2** (FireCall Log).
2. From the Work with FireCall Log screen, select option **F14** (Sort & Search) .
3. From the FireCall Log Basic Sort & Search screen, select option **F11** (Advanced Search) .

What it Does

This feature provides the capability to order advanced sort and search results. (The sort and search function builds an SQL statement based upon the selections made.)

Options

Sort Order

Provides the capability to order the search results. Possible values are 1 through 6 where 1 is highest and 6 is lowest. If an item is left blank it will not to be used when sorting the search results.

- FC Operator – The IBM name of the user profile that enabled the profile switch to occur.
- System User – The IBM name of the user profile that performed the profile switch.
- Switch Profile – The name of the IBM user profile the system user switched to.
- Date – The calendar date the system user was authorized to perform the FireCall switch.

- From Time – The time the FireCall switch was authorized to perform the FireCall switch. Military time is used.
- Call Ticket – The call ticket is the user-supplied reference number to the FireCall access. It can be any combination of letters and numbers (up to 20 characters) that corresponds to a ticket number from a help desk system such as Remedy.

Search Criteria

FireCall Operator selections: Select the FireCall Operator you wish to see. Leave FireCall Operator blank if you wish to see all FireCall Operators. SQL WHERE CLAUSE syntax is used to make FireCall Operator selections.

Sample entries for FireCall Operator:

= 'HELPDESK1'
IN ('HELPDESK1', 'HELPDESK2', 'SECURITY1')
LIKE(U%)
BETWEEN 'HELPDESK1' AND 'SECURITY1'

Wild card character '%' is supported. For example, an system user entry of AR% will list only system users from AR through AR99999999.

The entry will be all upper case.

System User selections: Select the System User you wish to see FireCall Logs for. Leave System User blank if you wish to see all System Users. SQL WHERE CLAUSE syntax is used to make System User selections.

Sample entries for System User:

= 'USER1'
IN ('USER1', 'USER2', 'USER3')
LIKE('R%')
BETWEEN 'USERA' AND 'USERR'

- Wild card character '%' is supported.
- The entry will be all upper case.

Switch Profile selections: Select the Switch Profile you wish to see FireCall Logs for. Leave Switch Profile name blank to see all Switch Profiles. SQL WHERE CLAUSE syntax is used to make Switch Profile selections.

Sample entries for Switch Profile:

= 'PRF1'
IN ('PRF1', 'PRF2', 'PRF3')
LIKE('R%')
BETWEEN 'PRFA' AND 'PRFR'

- Wild card character '%' is supported.
- The entry will be all upper case.

Assignment Date selections: Select the Assignment Date you wish to see FireCall Logs for. Leave Assignment Date blank to see all Assignment Dates. SQL WHERE CLAUSE syntax is used to make Assignment Date selections. Dates must be entered in ISO format YYYY-MM-DD.

Sample entries for Assignment Date:

= '2005-04-28'
IN ('2005-04-28', '2005-05-28', '2005-06-28')
LIKE('2005%')
BETWEEN '2005-04-28' AND '2005-05-28'

Wild card character '%' is supported.

Assignment Time selections: Select the Assignment Time you wish to see FireCall Logs for. Times must be entered in format 'HH.MM' or 'HH.MM.SS'. Leave Assignment Time blank to see all Assignment Times. Use SQL WHERE CLAUSE syntax to make Assignment Time selections.

Sample entries for Assignment Time:

= '12.35'
IN ('12.35', '13.33', '18.21')
LIKE('12%')
BETWEEN '01.01.00' AND '24.00'

Wild card character '%' is supported.

Call Ticket selections: Select the Call Ticket you wish to see FireCall Logs for. Leave Call Ticket blank to see all Call Tickets. SQL WHERE CLAUSE syntax is used to make Call Ticket selections.

Sample entries for Call Ticket:

= 'HC1211'
IN ('PMR3345', 'HC3341')
LIKE('PMR%')
BETWEEN 'HC3341' AND 'HC5522'

- Wild card character '%' is supported.
- The entry will be case insensitive (UCASE() used when building the WHERE).

Command Keys

F3 (Exit): Ends the current task and returns to the display from which the task was started. If changes have not been accepted prior to F3 being pressed they will be lost.

F5 (Refresh): Restores the display to the values found in the database. Any changes will be lost.

F12 (Cancel): Returns to the previous menu or display. If changes have not been accepted prior to F12 being pressed they will be lost.

# Appendix J: Authority Broker Dashboard Asset Descriptions

Assets represent the type of Authority Broker data for which you can generate a visual representation within an Insite Dashboard, via a widget.

While defining *Dashboard Widgets* in Insite (see the Insite help), once a Data Source has been selected, you can then select the asset that the widget will represent. Only the assets from the selected Data Sources are available. If the required asset is not displayed, it must first be created in the Data Source before it is available within Insite. See *Assets* in the Insite help for more details.

Authority Broker Assets

Operational Status - Count of Active Switches

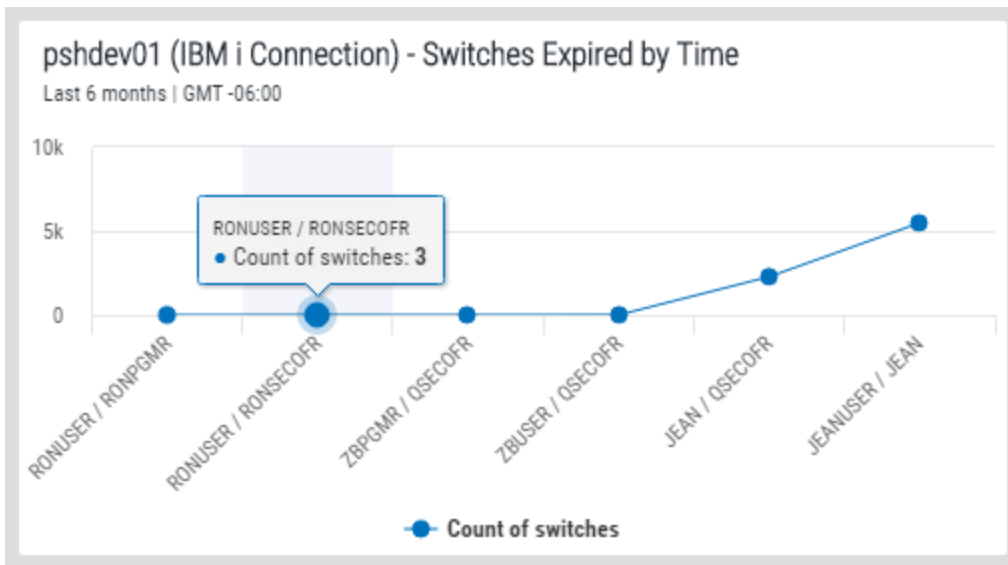This asset allows you to view the number timed, Firecall, and normal profile switches that are currently active.
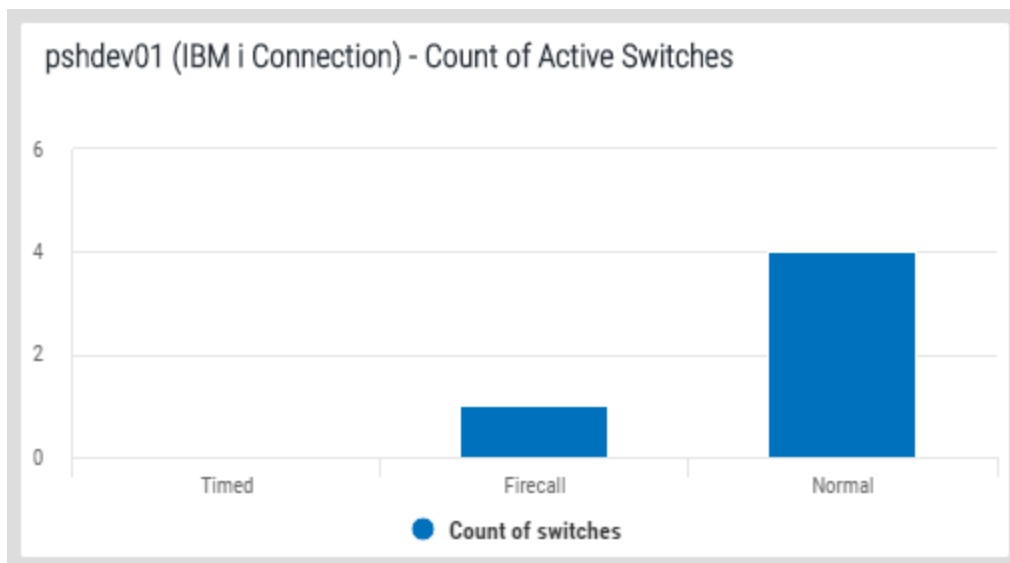
Available Metrics

- **Count of Switches:** The number of profile switches in the three categories.

Switches Expired by Time

This asset allows you to display the number and identity of profile switches whose time has expired.
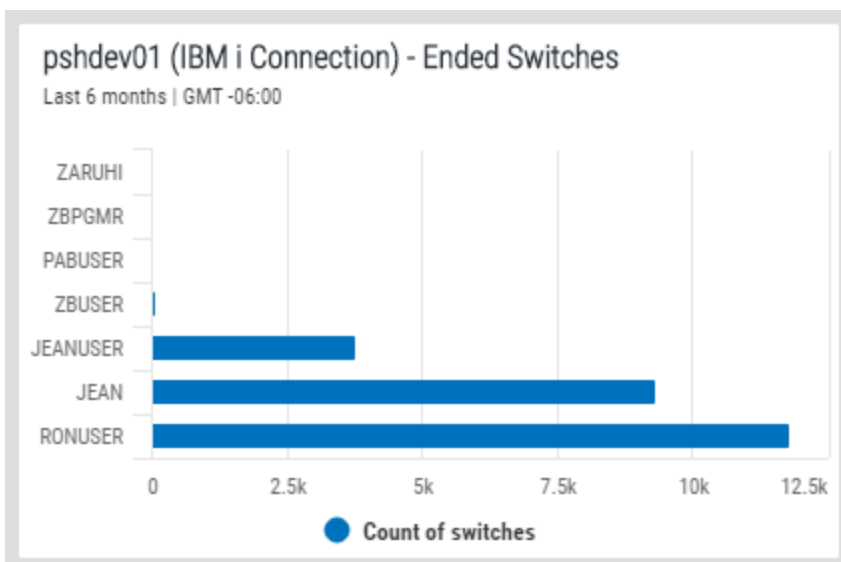
Available Metrics

- **Group by From User:** Group results by the originator of the switch pair.
  - **Count of Switches:** Include the number of expired profile switches.
- **Group by To User:** Group results by the destination profile of the switch pair.
  - **Count of Switches:** Include the number of expired profile switches.
- **Group by Pair:** Group results by a listing of both profiles in the switch pair.
  - **Count of Switches:** Include the number of expired profile switches.

Ended Switches

This asset allows you to display the number and identity of profile switches that have been ended.

Available Metrics

- **Group by From User:** Group results by the originator of the switch pair.
  - **Count of Switches:** Include the number of ended profile switches.
- **Group by To User:** Group results by the destination profile of the switch pair.
  - **Count of Switches:** Include the number of ended profile switches.
- **Group by Pair:** Group results by a listing of both profiles in the switch pair.
  - **Count of Switches:** Include the number of ended profile switches.

Active Switches

This asset allows you to display the number and identity of profile switches that are currently active.
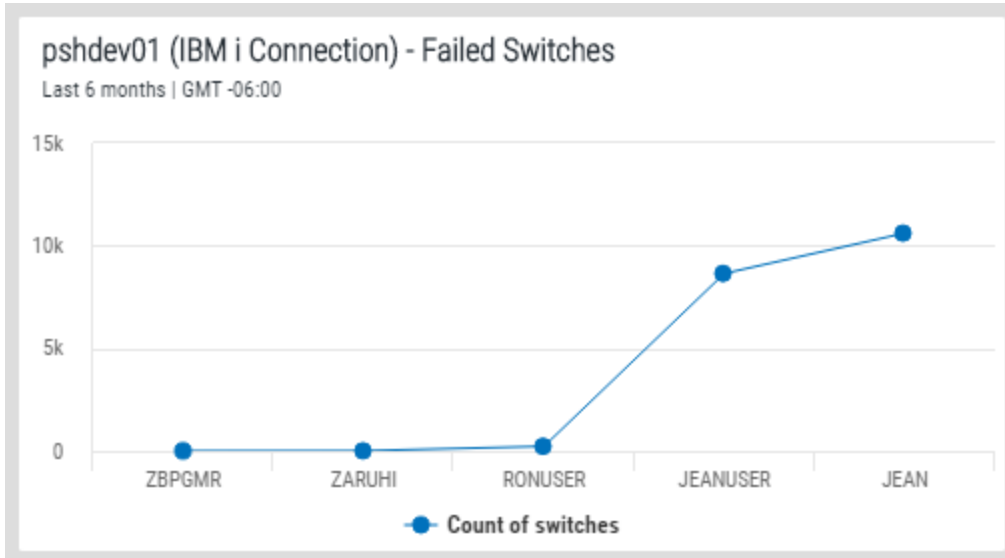

Available Metrics

- **Group by From User:** Group results by the originator of the switch pair.
  - **Count of Switches:** Include the number of active profile switches.
  - **From User:** Include the origin profile of the switch pair.
- **Group by To User:** Group results by the destination profile of the switch pair.
  - **Count of Switches:** Include the number of active profile switches.
  - **To User:** Include the destination profile of the switch pair.

- **Group by Pair:** Group results by a listing of both profiles in the switch pair.
  - **Count of Switches:** Include the number of active profile switches.
  - **From User / To User:** Include the profiles in the switch pair.
- **Without any grouping applied:** Do not group results by user or switch pair. (List Widget type only.)
  - **End Time:** Include the time the switch ended.
  - **From User:** Include the origin profile of the switch pair.
  - **Start Time:** Include the time the switch started.
  - **Switch Type (Timed / Untimed):** Include whether the switch was a timed or untimed switch.
  - **To User:** Include the destination profile in the switch pair.

Failed Switches

This asset allows you to display the number and identity of profile switches that have failed.

Available Metrics

- **Group by From User:** Group results by the originator of the switch pair.
  - **Count of Switches:** Include the number of failed profile switches.
- **Group by To User:** Group results by the destination profile of the switch pair.
  - **Count of Switches:** Include the number of failed profile switches.
- **Group by Pair:** Group results by a listing of both profiles in the switch pair.
  - **Count of Switches:** Include the number of failed profile switches.

Switch History

This asset allows you to show the number, type, and date of profile switches.
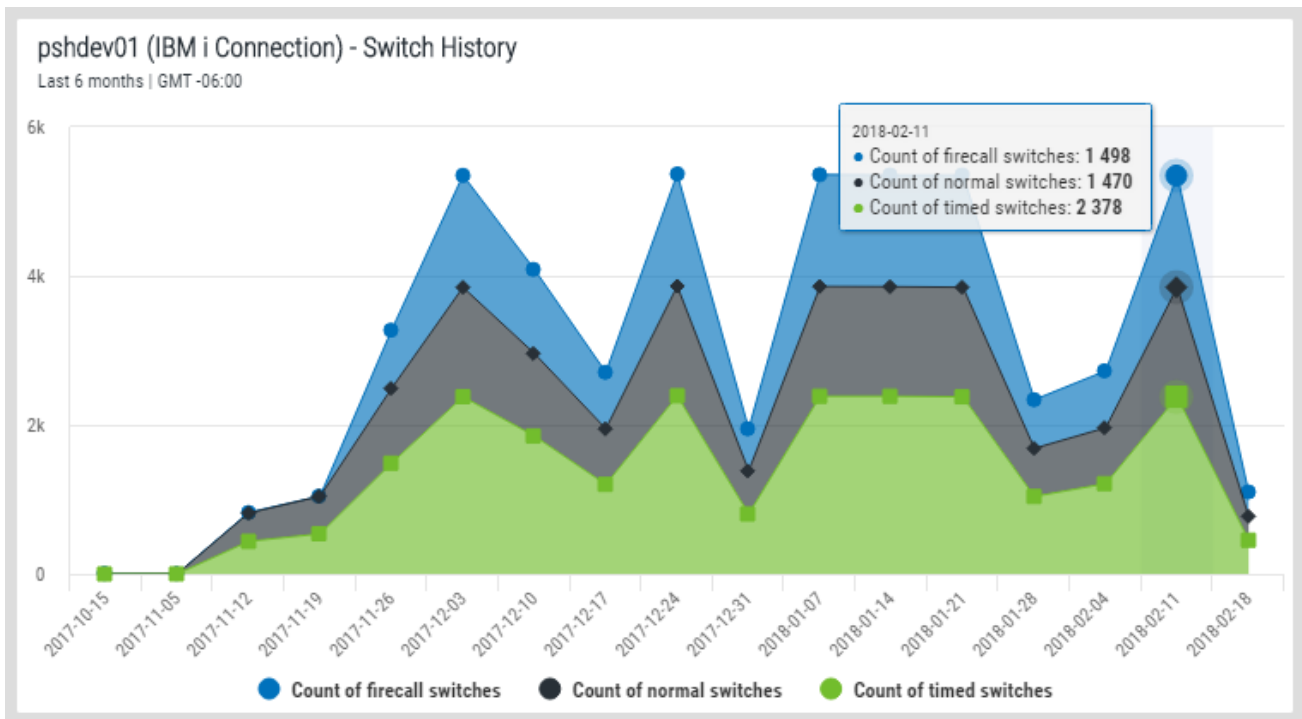
Available Metrics

- **Count of Firecall Switches:** Include the number of Firecall switches.
- **Count of Normal Switches:** Include the number of normal switches.
- **Count of Times Switches:** Include the number of Timed switches.

Switch Duration in Seconds

This asset allows you to display the average, maximum, and/or minimum duration of overall profile switches.

Available Metrics

- **Avg:** Include the average duration of profile switches.
- **Max:** Include the duration of the longest profile switch.
- **Min:** Include the duration of the shortest profile switch.

Switch Duration by Switch Pair in Seconds

This asset allows you to select the average, maximum, and/or minimum duration of profile switches for users.

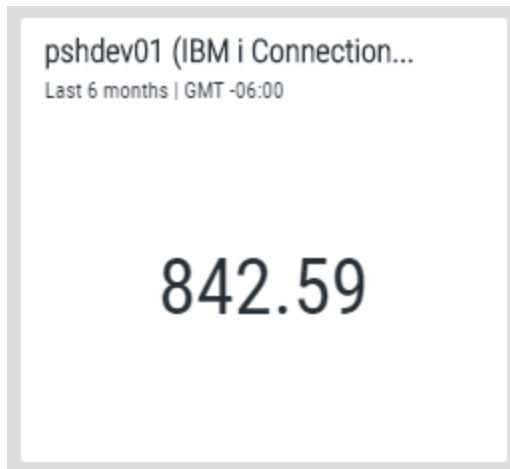pshdev01 (IBM i Connection...
Last 6 months | GMT -06:00

842.59

Available Metrics

- **Avg:** Include the average duration of profile switches.
- **Max:** Include the duration of the longest profile switch.
- **Min:** Include the duration of the shortest profile switch.

Sample Code Usage

General considerations

- The user of an exit program must be authorized to the program and the objects it uses.
- If an exit program requires special library list handling to run, it is the user's responsibility to set and reset a job's library list.
- If any special authorities are required by an exit program it is the user's responsibility to provide those authorities.

The following sample code usage tables are provided below for your convenience:

Check with system operator to see if switch is allowed

The following sample is supplied to show how a program can be used to extend Authority Broker's authorization processes.

Object Name	Object Description	Assign to Exit Point
CHECKMSG program	Sends an inquiry message to system operator requesting authorization to allow switch.	Before profile switch.

> **NOTE:** The ability of an exit program to accept or reject a profile switch is per swap. It is only available with the Before Switch Exit Point.

0 - Allow the switch to occur. The switch is allowed to occur and the next exit program in the sequence will be executed.

1 - Reject the switch. The switch is to be rejected, exit program processing is ended and the attempted switch is stopped.

2 - Allow the switch to occur and bypass further exit program processing. The switch is allowed to occur and no further exit program processing occurs.

Verify user allowed to switch

The following sample is supplied to show how a program can be used to extend Authority Broker's authorization processes.

Object Name	Object Description	Assign to Exit Point
CHECKUSER program	Disallows switch when job is a batch job. Disallows switch if user switching is QSECOFR. If command to run is not QYS/CALL QCMD, it is set to QYS/CALL QCMD.	Before profile switch.

Changing Accounting Code

The following samples are supplied to show how a job's accounting code can be set after a profile switch has occurred and reinstated after the switch is released.

Object Name	Object Description	Assign to Exit Point
ACCTCDESTR program	1. Saves job's current accounting code. 2. Sets the job's accounting code to "Payroll Switch."	After profile switch.
ACCTCDEEND program	1. Retrieve initial accounting code saved by ACCTCDESTR. 2. Sets the job's accounting cvode back to its initial value.	After profile switch.

Change job's library list

The following samples are supplied to show how a job's library list can be altered as part of a profile switch.

Object Name	Object Description	Assign to Exit Point
CHGLIBLIST program	Adds library PAYROLL to the user portion of the job's library list.	After profile switch.

Object Name	Object Description	Assign to Exit Point
RPLLIBLIST program	Removes library PAYROLL to the user portion of the job's library list.	Before profile switch release.

List commands run with an "N" in the CD journal entry

The following samples are supplied to show how to use the LEVENTRPT to generate a temporary database file and then report from it.

Object Name	Object Description	Assign to Exit Point
SAVESTASRT program	Saves the start date used when running command LEVENTRPT.	After profile switch.
NONCLCMDS program	Submits the job to generate a report listing commands run with an "N" in the CD journal entry.	After profile switch release.
GENABRPT program	1. Runs the LEVENTRPT command. Results are put to an out file in QTEMP. 2. Print the report.	Not attached to an exit point.
ABOUTFILE physical file	Output file for results of LEVENTRPT	Not attached to an exit point.
COMMANDLST printer file	Printer file used to list commands from ABOUTFILE.	Not attached to an exit point.
LISTNONCL	Report commands run with an "N" in the CD journal entry. ABOUTFILE is the data source.	Not attached to an exit point.

Collect and list request messages by sequence number

The following sample is supplied to show how request messages can be collected and reported on. Collection is sequenced numerically.

Object Name	Object Description	Assign to Exit Point
MSGTRACKED physical file	Request messages collection.	Not attached to an exit point.
REPORTCMDS printer file	Printer file used to list commands from MSGTRACKED.	Not attached to an exit point.
SETCMDSTRT program	1. Writes a Begin collection record. 2. Sends and receives a starting point request message.	After profile switch.
SETCMDEND program	1. Retrieve switch start time from Begin collection record. 2. Collect request messages sent since Begin point.	Before profile switch release.
CMDSRUNLST program	Printer file used to list commands from ABOUTFILE.	Not attached to an exit point.
LISTNONCL	List collected messages.	After profile switch.

Collect and list request messages by time run

The following sample is supplied to show how request messages can be collected and reported on. Collection is sequenced by message date and time.

Object Name	Object Description	Assign to Exit Point
TRACKMSGS physical file	Request messages collection.	Not attached to an exit point.

Object Name	Object Description	Assign to Exit Point
REPORTCMDS printer file	Printer file used to list commands from TRACKMSGS.	Not attached to an exit point.
SETSTART program	Write a Begin collection record.	After profile switch.
SETEND program	Retrieve switch start time from Begin collection record. Collect request messages sent since Begin point. Uses message API QMHRCVPM to get date and time message was sent.	Before profile switch release.
LISTCMDS	List collected messages.	Not attached to an exit point.

Glossary

Term	Definition
Product Administrator	The system administrator who has the full authority to configure and setup users in Powertech Authority Broker.
System User	An IBM i ID (user profile) that can use Authority Broker to switch to another ID.
Switch Profile	An IBM i ID (user profile) into which the system user can switch (or assume the authority of).
Switch Pair	A combination of System User and Switch Profile that has been configured to allow switching to occur.
Interested Party	An IBM i ID (user profile) that can be configured to be notified when a particular Switch Pair is used.
Alert Method	The tool or procedure that Authority Broker will use to send Alerts in the event of a switch.
FireCall	A unique feature that temporarily grants a System User emergency access to a Switch Profile. The use of FireCall Switch Pairs is usually controlled by a help desk or an operations department.

Appendix D: Commands

Command	Description
LWRKAUTBKR	Start the configuration and reporting options.
LSWPPRF	Switch to a profile
LRLSPRF	End a switch
LWHOAMI	Display the active profile
LFIRECALL	Display the FireCall assignments
LFRCLLMNU	Display the FireCall menu
LPRDVRM	Display product version number
LEVENTRPT	Run event reports from the command line

Other Help

For help with other Insite components and products supported by HelpSystems Insite, refer to the following resources:

Authority Broker Administrator's Guide

AutoMate Ops Console User Guide

AutoMate Schedule Ops Console User Guide

Crypto Complete for Insite User Guide

Deployment Manager User Guide

Event Manager for Insite User Guide

GoAnywhere MFT for Insite User Guide

HelpSystems Insite User Guide

Insite Analytics User Guide

Network Security Administrator's Guide

Password Self Help for Insite User Guide

Robot Network for Insite User Guide

Robot Schedule for Insite User Guide

Vityl IT & Business Monitoring for Insite User Guide