

EspMenu

User Manual





READ ME FIRST

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1. INTRODUCTION

1.1 Purpose

To provide users system access in a controlled and secure manner.

1.2 Product Overview

EspMenu is the **Cronus** menu system that provides secure and controlled access to the ESP product suite. **EspMenu** has embedded security on menu, function, and option level. Allocation of menus and functions to individual users or groups can easily be done using the **EspMenu** administrator account "**MENUADM**".

Multiple users can be assigned to one or more groups thus simplifying the task of granting user access.

There is no limitation to the number of levels of menus. Security is provided down to the function option level. A maximum of 20 options can be defined at function level.

Security at function level is provided in a hierarchical manner. The top-level user "**MENUADM**" has access to all menus, functions, and their respective options. This top-level user can assign menus and functions to other users/groups. A user/group can then distribute those menus and functions allocated to him/her to other users/groups of whom he/she is the owner.

All multiple-choice fields are validated using a help-and-fill facility. If an entered field is incorrect a window is displayed with the possible values. The value selected from the list is pulled into the corresponding field value.

EspMenu provides the following functionality:

- Access to ESP product suite and user defined functions.
- Security based on user and O/S (operating system) groups.
- Online printer definitions.
- Dynamic generation of menus and functions provided that the standard ESP flowerbox is used.



2. DEFINITIONS AND SECURITY

2.1 Accessing EspMenu

The **EspMenu** system is invoked by typing "**FAST**" on the Natural command line in library **ESPSOFT**.

Menu structures are dynamically generated based on the access granted by the menu administrator. The menu administrator has unrestricted access to all the defined menus and functions.

User access to menus and functions is controlled based on the O/S groups that the user belongs to. A user has access to all menus, functions and options that have been assigned to his/her User Id and any of the operating system groups that he/she belongs to.

To access **EspMenu** as the administrator one of the following must be true:

- User belongs to operating system group **cronus**.
- User belongs to the admin group defined using function **MA001 Maintain - EspMenu Setup**. In addition, the user or any of the groups that he/she belongs to must have the **MENUADM Account** set to 'Y' on function **MA002 Maintain - Users/Groups**.

Additional security exists at function level where certain users do not necessarily have full access to all the options for a specific function.

The following message is displayed when a user attempts to access **EspMenu** and does not have an **EspMenu** user account.

At this point the user can continue with available defaults (menus and functions allocated to the O/S group(s) he/she belongs) or press **PF9** to automatically generate a user account and define online printers.

```
User ID: CRONUS

You are not defined on EspMenu

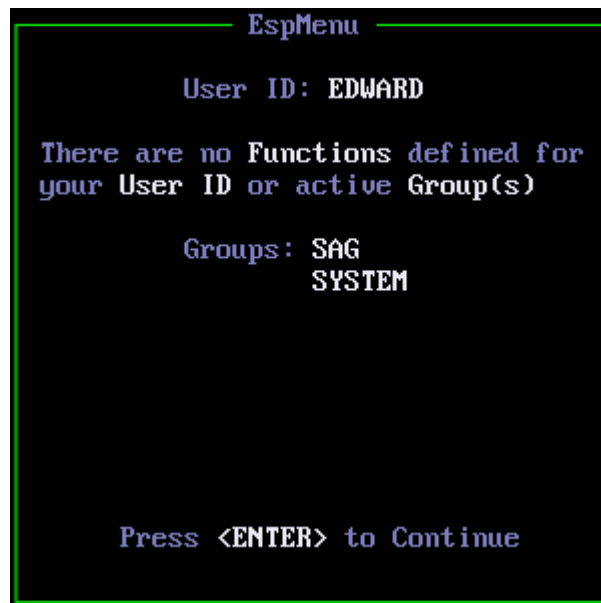
Using available default account access

Press <ENTER> to Continue using defaults or
<PF9> to define default printer information
and generate User ID
```



The information message displayed, is contained in the user-exit program **ESPUDEF**, and can be modified for a specific site installation.

If no Menus/Functions have been assigned to the user and groups that he/she belongs to the following message is displayed after which the Natural session is terminated. The display is limited to the first 8 operating system groups that the user belongs to.



For the purpose of this document, we assume that the user has administrator access.



2.2 User Exits

All user exits are located in Natural library ESPSOFT.

ESPUDEF:

ESPUDEF is invoked from the **EspMenu** startup program **ESPSETUP**. **ESPUDEF** can be customized to define default user settings such as printers and online work files.

ESPUX001:

This user exit is invoked from EspMenu by pressing function key **PF2 (Uexit)**. It should contain code that transfers the user to the correct system location after exiting EspMenu. Access to this user exit can be disabled by setting the value of "Enable User Exit" to **No** using function **MA001 Maintain - EspMenu Setup**.

ESPUX005:

This user exit is invoked at the startup of EspMenu and each time a function is executed. It should be used to populate site/function specific global variables.



MENU OVERVIEW AND FUNCTION SELECTION

Once a user has logged on to the **EspMenu** system – the main system menu will be displayed with all menus/functions that the user has access to.

The following information is displayed on the menu screen:

```

CRONUS01
MAP901      *** Cronus Consulting - DEV *** V7.2.1      09:31:24.3
MAM901      - Real Time System Menu -                  2022/09/20

CC          EspControl - Change Control System (I.S.R)
CJ          EspConvert - Convert JCL to SCL
CN          ESPConnect - Con-nect Main Menu -
JS          EspBatch   - Job Scheduler
MA          EspMenu    - Menu Administration
PK          EspPeek    - Adabas File Utility (Editor)
UT          EspUtils   - EspSoft Utilities

*** End of Data ***                                UDB.: 31
Printer.: PRT01                                     User: MENUADM
Function:  Data:                                     PID.: 1185491
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
          Uexit                                     PgDn SetPr Logof
  
```

Screen Layout:

- Top line - Object name, main heading, EspSoft version and system time.
- Second line - Object name, menu name and system date.
- Lines 4 to 18 - Available menus/functions.
- Line 19 - Current value of Natural UDB parameter.
- Line 20 - Default Printer (If the user has not specified a default printer, then the value of Printer 1 defined on **JS002 Maintain - EspBatch Codes** with Code Type/Value **REPORT/DEFAULTS** is displayed).
The User Id of the current user. **MENUADM** is displayed if the user has administrator privileges.
- Line 21 - Function selection area and O/S process id or terminal id.
- Line 22 and 23 - Available function keys.



The users default printer(s) can be updated by pressing function key **PF9**, this will open a window where online printers 1 to 30 can be specified (where printer nn corresponds to the output(nn) statement in your natural source). Only printers that have been defined using EspBatch function **JS004 Maintain - EspBatch Printers** may be specified.

The setup of online printers by a user can be restricted by setting “**Allow Printer Change**” to “**N**” on function **MA002 Maintain – Users**.

```

MAP901          *** Cronus Consulting - DEV *** V7.2.1          09:40:32.6
MAM901          - Real Time System Menu -          2022/09/20

CC      User Defined Printers (Online)
CJ
CN      01 laser1  02      03      04      05
JS
MA      06 [green bar] 07      08      09      10
PK
UT      11      12      13      14      15
      16      17      18      19      20
      21      22      23      24      25
      26      27      28      29      30

*** End of Data ***          UDB.: 31
Printer.: PRT01          User: MENUADM
Function:      Data:          PID.: 1191781
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
Exit
  
```



Partial list of functions when menu **MA (EspMenu - Menu Administration)** is selected.

```

CRONUS01
MAP902      *** Cronus Consulting - DEV *** V7.2.1      09:41:15.5
MAM902      - MA : EspMenu      - Menu Administration - 2022/09/20

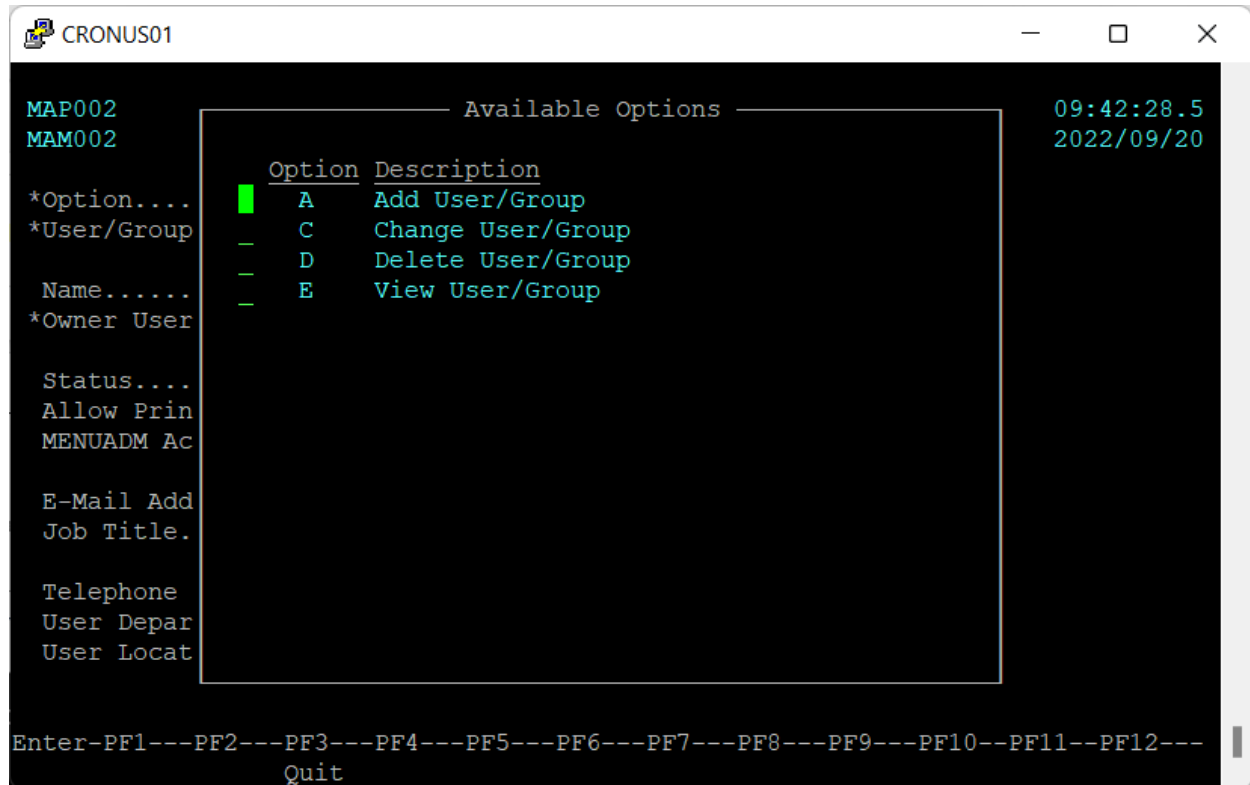
MA001      Maintain - EspMenu Setup
MA002      Maintain - Users/Groups
MA003      Maintain - Functions
MA004      Maintain - Menus
MA005      Maintain - User Preferences
MA011      Link     - Menus to Menus
MA012      Link     - Menus to Users/Groups
MA013      Link     - Functions to Users/Groups
MA014      Link     - Functions to Users/Groups (Menu Tree)
MA021      View     - Users/Groups linked to Owner
MA022      View     - Users/Groups linked to Menu
MA023      View     - Users/Groups linked to Function
MA024      View     - Menus/Functions linked to a User/Group
MA031      View     - Unused Menus
MA032      View     - Unused Functions
                ** Start of Data **
Printer.: PRT01
Function:  Data:
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10---PF11---PF12---
                Uexit Quit                PgDn  SetPr                Logof
  
```

Function keys:

- PF2 - Invoke user exit **ESPUX001**. This user exit can be customized for your environment. It should contain code that transfers the user to the correct system location after exiting EspMenu. Function key is enabled if **"Enable User Exit"** is set to **Yes** using function **MA001 Maintain - EspMenu Setup**.
- PF3 - Return to Main/Previous Menu
- PF7 - Page Backward
- PF8 - Page Forward
- PF9 - Set up default printers
- PF12 - Logoff

Function / Menu selection can be done as follows:

- All menu and function selection are cursor sensitive and can be accomplished by positioning the cursor on the line containing the desired menu or function and then pressing <ENTER>.
- Typing the menu or function name in the function selection area. Parameters required by the function can be typed in the data area, which will be passed to the function.



Once a function is selected that contains an OPTION field, the user will be required to enter a valid option, the option entered by the user will be validated against the predefined access set up for that user, thus only allowing the user to perform actions at function level according to his/her security profile. If the option field is omitted and the <ENTER> key is pressed, a window containing valid options will be displayed allowing the user to choose the desired option. Option selection can be accomplished by entering the desired option or by placing the cursor in the line containing the option and pressing <ENTER>.



3. FUNCTION OVERVIEW

3.1 MA001 Maintain - EspMenu Setup

This function is used to define global values that are used throughout EspMenu and should not be assigned to all users.

```

CRONUS01
MAP001      *** Cronus Consulting - DEV ***      09:44:41.6
MAM001      Maintain - EspMenu Setup            2022/09/20

*Option.....: C

Main Heading.....: *** Cronus Consulting - DEV ***
Admin Group.....: system
Enable User Exit...: Y (ESPUX001)
Terminal/Process ID: P
EspSoft Version....: V7.2.1
Installation User...: SYSTEM

Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10---PF11---PF12---
                               Quit      Upd
  
```

Function Options:

- C** - Change Setup
- E** - View Setup

Parameters:

- **Main Heading:** Main heading displayed at the top of all EspSoft menus and functions. After modifying the current session must be terminated for the change to take effect.
- **Admin Group:** Administrator group for menu access. This group must be defined on the Unix/Linux O/S level, users that are linked to this O/S group will have administrator access if the user or any of the groups that they belong to have **MENUADM Account** set to 'Y' on function **MA002 Maintain - Users/Groups**.



-
- **Enable User Exit:** Valid values are **Yes** and **No**. If yes is specified function key **PF2** is enabled which invokes user exit **ESPUX001**.
 - **Terminal/Process ID:** Valid values are **Terminal ID** or **Process ID**. The set value determines if the terminal id or operating system process id must be displayed beneath the User ID on the menu screen. Note that **Process ID** must be selected if you are running **EspMenu** via **Applinx**.
 - **EspSoft Version:** Displays the current EspSoft version no. This parameter is not modifiable.



3.2 MA002 Maintain - Users

This function is used to maintain user/group accounts. After selecting this function, the required option and user/group id must be supplied. Fields are validated using a help-and-fill facility.

A screenshot of a terminal window titled "CRONUS01". The screen displays a menu-driven interface for maintaining user and group accounts. At the top, it shows the user "MAP002" and "MAM002", the system name "Cronus Consulting - DEV", and the date "2022/09/20". The main menu lists options: "Option.....: C", "User/Group ID: MENUADM_", and "Copy from User/Group ID:". Below this, the details for the selected user "Menu Administrator" are shown, including "Owner User/Group ID: MENUADM_", "Status: 1 (1 - Active, 9 - Suspended)", "Allow Printer Change: Y", "MENUADM Account: Y", "E-Mail Address: info@cronus.co.za", "Job Title", "Telephone Number", "User Department", and "User Location". At the bottom, there are instructions for using function keys: "Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10---PF11---PF12---", with "Quit" under PF1, "Upd" under PF5, and "SetPr" under PF8.

Function Options:

- A - Add User/Group
- C - Change User/Group
- D - Delete User/Group
- E - View User/Group

When adding a user/group an existing users/groups profile can be copied by entering the user/group id in the "Copy from User/Group ID" field. If an invalid user/group id is specified a list of available users/groups will be displayed and the desired user/group can be selected.



User/Group Information:

Required Fields

- Copy from - When creating a new user/group an existing user/group id can be specified (The new user/group will inherit all menu(s) and function(s) assigned to the user/group specified in the Copy from field). You may only specify your user/group id or the user/group id of your children unless you have administrator privileges.
- Name - The users/groups name or a description of the user/group.
- Owner - This is the owner of this user/group id. (Normally MENUADM). You may only specify your user/group id or the user/group id of your children unless you have administrator privileges.
- Status - 1 – Active
9 - Suspended
- Allow Printer Change - This option will allow the user/group to change his/her default printer(s) by pressing **PF9**.
- MENUADM Account - If the user/group belongs to the admin group specified on function **MA001 Maintain - Maintain - EspMenu Setup** and the user/group id or one of the groups that it belongs to has the “**MENUADM Account**” value set to **Yes** then the user/group will be assigned administrator privileges.

Optional Fields

- E-Mail Address - Users/Groups e-mail address.
- Job Title - Users/Groups job title.
- Telephone Number - Users/Groups telephone number.
- User Department - Users/Groups department
- User Location - Users/Groups location.
- Default Printer(s) (**PF9**) - Assignment of default printer(s) for a user/group. Printers are maintained with function **JS004 Maintain - EspBatch Printers**.

Group Access Control

Access to **EspMenu** can be controlled by using O/S groups. A user/group will have access to all menus and functions allocated to its user/group and the O/S groups that it belongs to.

If a user/group belongs to the O/S group **cronus** it will be granted administrator privileges within **EspMenu**.



3.3 MA003 Maintain - Functions

This function is used to maintain functions within **EspMenu**. After selecting this function the required option and function id must be supplied. Fields are validated using a help-and-fill facility.

```

CRONUS01
MAP003          *** Cronus Consulting - DEV ***          10:01:44.3
MAM003          Maintain - Functions                    2022/09/20

*Option..: C
*Function: MA002___

EspMenu Flowerbox: ☒ Used Menu/Function ID specified in flowerbox
FUSER Path.....: /opt/softwareag/Natural/fuser_natd
*Menu ID.....: MA___
Description.....: Maintain - Users/Groups_____
Library Name.....: ESPSOFT_
Program Name.....: MAP002___
Suspend.....: _

Options.....: ACDE

Last Access Date.: 20220920
Access Count.....: 86_____

Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10---PF11---PF12---
Quit          Upd

```

Function Options:

- A** - Add Function
- C** - Change Function
- D** - Delete Function
- E** - View Function

Function Attributes:

- EspMenu Flowerbox: Valid values are **Yes** and **No**. If **Yes** is specified the flower box of the program specified in the "**Program Name**" field which resides in library specified in the "**Library Name**" field will be scanned to determine the menu id, function id, description, and available options.
- FUSER Path: Location of the Natural FUSER file. The library and program name specified must reside in the specified FUSER.
- Menu ID: The id of the menu to which the function must be added. Menu id may only be specified if "**EspMenu Flowerbox**" is set to **No**.



- **Description:** Function description that will be displayed. If "**EspMenu Flowerbox**" is set **Yes**, the description will be obtained from the program's flowerbox.
- **Library Name:** The name of the library in which the functions program resides.
- **Program Name:** The name of program that the function executes.
- **Suspend:** Valid values are **Yes** and space. If **Yes** is specified the function is still displayed on the relevant menu, but the function description is replaced by "**SUSPENDED**" and cannot be executed.
- **Options:** Available options for specified function.
- **Last Access Date:** Date that the function was last executed.
- **Access Count:** Number of times that the function has been executed.

Format of EspMenu Flowerbox:

```
*****
* NAME           : MAP002                                     *
* AUTHOR         : Copyright: Cronus Consulting               *
* DESCRIPTION    : Maintain - Users/Groups                   *
* MENU LINK      : MA                                         *
* FUNCTION       : MA002                                       *
* OPTIONS        :                                           *
*                A - Add User/Group                           *
*                C - Change User/Group                        *
*                D - Delete User/Group                        *
*                E - View User/Group                          *
* END-OPTIONS    :                                           *
*****
```

When a function is added, the function is automatically added to user "**MENUADM**" under the specified menu. Use function **MA013 Link - Functions to Users/Groups** to grant users/groups access to the new function.



3.4 MA004 Maintain - Menus

This function is used to maintain menus within **EspMenu**. After selecting this function, the required option and menu id must be supplied. Fields are validated using a help-and-fill facility.

A screenshot of a terminal window titled "CRONUS01". The screen displays the following text:

```
MAP004          *** Cronus Consulting - DEV ***          10:04:26.5
MAM004          Maintain - Menus                        2022/09/20

*Option.....: C
*Menu ID:....: MA_____

Description:  EspMenu    - Menu Administration_____

Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10---PF11--PF12---
                               Quit      Upd
```

Function Options:

- A - Add Menu
- C - Change Menu
- D - Delete Menu
- E - View Menu

Function Attributes:

- Description: Menu's description

When a menu is added, the menu is automatically added to user "**MENUADM**". Use function **MA012 Link - Menus to Users/Groups** to grant users/groups access to the new menu.



3.5 MA005 Maintain - User Preferences

This function allows you to define user preferences for EspSoft products EspBatch and EspControl. After selecting this function, the required option and user id must be supplied. Fields are validated using a help-and-fill facility.

```

MAP005          *** Cronus Consulting - DEV ***          10:10:57.5
MAM005          Maintain - User Preferences              2022/09/20

*Option.....: C
*User.....: ESPBATC  *Copy from User ID: _____

User Name.....: EspBatch User _____

EspBatch
SCL User Library....: CRONUS_          Auto Update: Y
Submit User ID.....: ESPBATC          Auto Update: Y
Report Viewer.....: R

EspControl
ISR No.....: _____ Auto Update: Y
Filter on Originator: Y

Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10---PF11---PF12---
Quit          Upd
  
```

Function Options:

- A** - Add User Preferences
- C** - Change Preferences
- D** - Delete Preferences
- E** - View Preferences

Function Attributes:

- **SCL User Library:** Defines the default value to populate the “SCL User Library” in EspBatch functions.
- **Auto Update:** Valid values are **Yes**, **No** and **Fixed**. If **Yes** is specified the default value is updated to the last SCL User Library entered within the EspBatch function. If **No** is specified, the value of “SCL User Library” must be empty and EspBatch will make use of the global “SCL User Library”



-
- defined within EspBatch. If **Fixed** is specified, the default “SCL User Library” is not updated with the last SCL User Library entered within the EspBatch function.
- **Submit User ID:** Defines the default value to populate the “User ID” in EspBatch functions.
 - **Auto Update:** Valid values are **Yes**, **No** and **Fixed**. If **Yes** is specified the default value is updated to the last User ID entered within the EspBatch function. If **No** is specified, the value of “User ID” must be empty and EspBatch will make use of natural system variable *INIT-USER. If **Fixed** is specified, the default “User ID” is not updated with the last User ID entered within the EspBatch function.
 - **Report Viewer:** Valid values are **Report** and **File**. Determines the viewer that is used within EspBatch to view reports and work files.
 - **ISR No:** Contains the last ISR No used within EspControl.
 - **Auto Update:** Valid values are **Yes** and **No**. If **Yes** is specified the default value is updated to the last ISR No entered within EspControl.
 - **Filter on Originator:** If this field contains a value all EspControl screens that have the “Filter on Originator” option will be populated with the specified User ID.



3.6 MA011 Link - Menus to Menus

This function allows you to link sub menus to menus. The user/group id and menu id are required to which the menu must be linked. These values can be selected from the help-and-fill facility.

```

CRONUS01
MAP011      *** Cronus Consulting - DEV ***      10:54:44.2
MAM011      Link      - Menus to Menus          2022/09/20

User ID: MENUADM_ Menu Administrator              Owner: MENUADM
Menu ID: CC_____ EspControl - Change Control System (I.S.R)

  Menu      Seq Description
X CC500     100 ISR Control and Profiles
X CC501     101 ISR Transfer
X CC502     102 ISR Maintenance
X CC503     103 Display ISR Information
X CC504     104 ISR Return and Restore
- CJ        _____ EspConvert - Convert JCL to SCL
- CN        _____ ESPConnect - Con-nect Main Menu -
- CN101     _____ Cabinet Maintenance
- CN102     _____ ESPConnect Codes
- CN103     _____ Document Maintenance
- CN104     _____ Calendar
                                ** Start of Data **
Restart at Menu: █_____

Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10---PF11--PF12---
                                Quit                                PgDn

```

After the user/group id and menu id is entered a list of menus that the user/group has access to will be displayed.

This function allows for the creation of sub menus that can be grouped to suit user requirements. MA A sequence number allows for a specific order in which the menus will appear for a given user/group.

Linking Menus:

- Menu - A menu can be linked by entering an "X" in the preceding column next to the menu id. To unlink a menu, remove the "X"
- Sequence - The sequence number determines in which order the linked menus will be displayed. By default, menus are displayed in ascending alphabetical order.



3.7 MA012 Link - Menus To Users/Groups

This function is used to link menus to a user/group. If the user/group id is omitted a list of valid user/group id's will be displayed.

```

CRONUS01
MAP012      *** Cronus Consulting - DEV ***      10:55:15.7
MAM012      Link      - Menus to Users/Groups    2022/09/20

User/Group ID: MENUADM_ Menu Administrator      Owner: MENUADM

  Menu      Main Children Description
X CC        Y      -      EspControl - Change Control System (I.S.R)
X CC500     -      -      ISR Control and Profiles
X CC501     -      -      ISR Transfer
X CC502     -      -      ISR Maintenance
X CC503     -      -      Display ISR Information
X CC504     -      -      ISR Return and Restore
X CJ        Y      -      EspConvert - Convert JCL to SCL
X CN        Y      -      ESPConnect - Con-nect Main Menu -
X CN101     -      -      Cabinet Maintenance
X CN102     -      -      ESPConnect Codes
X CN103     -      -      Document Maintenance
X CN104     -      -      Calendar
                        ** Start of Data **

Restart at Menu: █

Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10---PF11--PF12---
                        Quit                        PgDn

```

After selecting the user/group id, a list of previously assigned menus will be displayed. Only menus that have been assigned to the user/group by its parent are displayed.

Linking Menus:

- Menu - By removing the "X" in the preceding column next to the menu id the menu will be removed from the specified user/group and its children.
- Main - Valid values are: **Y**es and space. If **Y**es is specified, the menu is displayed on the main menu.
- Children - Valid values are: **M**enu and **F**unctions. If **M**enu or **F**unctions is specified a selection window is displayed providing options to copy the menu/functions to a given child or level (**N**ext or **A**ll). Specify **M**enu if you only want to copy the specified menu or



Functions to copy the menu and all menus/functions that are linked to it.

```
— Copy Functions to Children —  
  
Menu ID: CC  
  
Copy to Child ID: █  
Level.....: _ (N)ext or (A)ll
```

If a user/group id is specified in the “**Copy to Child ID**” field the level may not be specified. If **Next** is specified, then the menu/function(s) are copied to the users/groups direct children. If **All** is specified, then the menu/function(s) are copied to all the users/groups children.



3.8 MA013 Link - Functions To Users/Groups

This function is used to link functions to a user/group. If the user/group id or menu id is omitted a list of valid user/group id's and/or menu id's will be displayed.

```

CRONUS01
MAP013          *** Cronus Consulting - DEV ***          10:57:09.8
MAM013          Link      - Functions to Users/Groups    2022/09/20

User/Group ID: MENUADM_ Menu Administrator              Owner: MENUADM
Menu ID.....: MA_____ EspMenu      - Menu Administration

  Function  Seq  Ch  Options      Description
X MA001    100  -   CE              Maintain - EspMenu Setup
X MA002    100  -   ACDE             Maintain - Users/Groups
X MA003    100  -   ACDE             Maintain - Functions
X MA004    100  -   ACDE             Maintain - Menus
X MA005    100  -   ACDE             Maintain - User Preferences
X MA011    100  -               Link      - Menus to Menus
X MA012    100  -               Link      - Menus to Users/Groups
X MA013    100  -               Link      - Functions to Users/Groups
X MA014    100  -               Link      - Functions to Users/Groups (Menu
X MA021    100  -               View      - Users/Groups linked to Owner
X MA022    100  -               View      - Users/Groups linked to Menu

                        ** Start of Data **

Restart at Function: █

Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10---PF11--PF12---
                        Quit                        PgDn

```

After selecting the user/group id, a list of previously assigned functions will be displayed. Only functions that have been assigned to the user/group by its parent are displayed.

Linking Functions:

- Function - By removing the "X" in the preceding column next to the function id the function will be removed from the specified user/group and its children.
- Seq - The sequence number determines in which order the linked functions will be displayed. By default, functions are displayed in ascending alphabetical order.
- Ch - Valid values are: Yes. If Yes is specified a selection window is displayed providing options to copy the function to a given child or level (Next or All).



```
Copy Function to Children

Menu ID....: MA
Function ID: MA001

Copy to Child ID: █
Level.....: _ (N)ext or (A)ll
```

If a user/group id is specified in the “Copy to Child ID” field the level may not be specified. If **N**ext is specified, then the function is copied to the users/groups direct children. If **A**ll is specified, then the function is copied to all the users/groups children.

- Options - Displays a list of available options for the function. If an option is removed it will also be removed from all the users/groups children.



3.9 MA014 Link - Functions to Users/Groups (Menu Tree)

This function is used to link functions to a user/group. If the user/group id is omitted a list of valid user/group id's will be displayed. If a function is assigned to a user/group the relevant menu tree structure is automatically added if the user did not previously have access to it.

```

CRONUS01
MAP014      *** Cronus Consulting - DEV ***      10:57:36.5
MAM014      Link      - Functions to Users/Groups (Menu Tree)  2022/09/20

User/Group ID: MENUADM_ Menu Administrator      Owner: MENUADM

  Function Seq Ch Options      Description
X CC001   100 -      Maintain ISR Control Variables
X CC002   100 - ACDE      Maintain ISR Profiles
X CC010   100 - ACDE      ISR Code Maintenance
X CC025   100 -      ISR Profile Enquiry
X CC030   100 - ACE       ISR Request Capture
X CC035   100 - ACE       ISR Request and Approval
X CC040   100 - CELU      IT Request Maintenance
X CC050   100 -      Select Objects for Transfer
X CC051   100 -      Transfer an ISR
X CC053   100 -      Mark Objects for Return to Previous Environm
X CC054   100 -      Copy to an ISR
                        ** Start of Data **

Restart at Function: █

Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10---PF11---PF12---
                        Quit                        PgDn

```

After selecting the user/group id, a list of previously assigned functions will be displayed. Only functions that have been assigned to the user/group by its parent are displayed.

Linking Functions:

- Function - By removing the "X" in the preceding column next to the function id the function will be removed from the specified user/group and its children.
- Seq - The sequence number determines in which order the linked functions will be displayed. By default, functions are displayed in ascending alphabetical order.
- Ch - Valid values are: Yes. If Yes is specified a selection window is displayed providing options to copy the function to a given child or level (Next or All).



```
Copy Function to Children
Menu ID....: CC500
Function ID: CC001
Copy to Child ID: █
Level.....: _ (N)ext or (A)ll
```

If a user/group id is specified in the "Copy to Child ID" field the level may not be specified. If **N**ext is specified, then the function is copied to the users/groups direct children. If **A**ll is specified, then the function is copied to all the users/groups children.

- Options
 - Displays a list of available options for the function. If an option is removed it will also be removed from all the users/groups children.



3.10 MA021 View - Users/Groups linked to Owner

This function displays all users/groups that are linked to the specified owner. If the owner is omitted a list of valid user/group id's will be displayed.

```

CRONUS01
MAP021          *** Cronus Consulting - DEV ***          11:01:03.4
MAM02101        View          - Users/Groups linked to Owner 2022/09/20

Owner ID: MENUADM Menu Administrator                      Lvl: 1

  ID      Name      Status      MENUADM
- ADAUTIL ADABAS    Suspended    N
- APX712  Applinx User Active        Y
- DEVUSER Deveopment Group Active        Y
- EY712   EY712 (Generated User) Active        N
- GM712   Gail      Active        Y
- HP712   Hentie    Active        Y
- SAG     EspSoft Install User Active        Y
- SYSTEM  Admin Group Active        Y

*** End of Data ***

Restart at User/Group ID: █

Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
          Quit                               PgDn

```

This function provides a drill down option whereby a user/group id can be selected by entering an "X" in the preceding column next to the user/group id. The current level is displayed next to the "Lvl:" field that is located at the top right.



3.11 MA022 View - Users/Groups linked to Menu

This function displays all users/groups that have access to the specified menu. If the menu is omitted a list of valid menus will be displayed.

```
CRONUS01
MAP022          *** Cronus Consulting - DEV ***          11:01:41.0
MAM022          View      - Users/Groups linked to Menu  2022/09/20

Menu ID: MA_____ EspMenu      - Menu Administration

User/Group Name                               Status      MENUADM
APX712      Applinx User                       Active       Y
EY712      EY712 (Generated User)              Active       N
MENUADM     Menu Administrator                 Active       Y

*** End of Data ***

Restart at User/Group ID: █_____

Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
                               Quit                               PgDn
```



3.12 MA023 View - Users/Groups linked to Function

This function displays all users/groups that have access to the specified function. If the function is omitted a list of valid functions will be displayed.

A screenshot of a terminal window titled "CRONUS01". The window displays the output of the MA023 View function. At the top, it shows "MAP023" and "MAM023 View" followed by "*** Cronus Consulting - DEV ***" and a timestamp "11:02:07.1 2022/09/20". Below this, it says "Function ID: MA003___ Maintain - Functions". A table follows with four columns: ID, Name, Status, and MENUADM. The table lists three users: APX712 (Applinx User), EY712 (Generated User), and MENUADM (Menu Administrator). All three are marked as "Active". Below the table, it says "*** End of Data ***" and "Restart at User/Group ID: " followed by a green cursor. At the bottom, there are instructions for navigation: "Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---" and "Quit PgDn".

```
CRONUS01
MAP023          *** Cronus Consulting - DEV ***          11:02:07.1
MAM023          View          - Users/Groups linked to Function 2022/09/20

Function ID: MA003___ Maintain - Functions

ID      Name      Status      MENUADM
APX712   Applinx User   Active      Y
EY712    EY712 (Generated User) Active      N
MENUADM  Menu Administrator Active      Y

*** End of Data ***
Restart at User/Group ID: 
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
Quit PgDn
```



3.13 MA024 Menus/Functions linked to a User/Group

This function displays all menus/functions that have been assigned to a user/group. If the user/group is omitted a list of valid users/groups will be displayed.

```

CRONUS01
MAP024      *** Cronus Consulting - DEV ***      11:02:44.5
MAM024      View      - Menus/Functions linked to a User/Group      2022/09/20

User/Group ID: APX712__ Applinx User

Menu ID  Menu/Function ID  Type  Description
CC       CC500           M     ISR Control and Profiles
CC       CC501           M     ISR Transfer
CC       CC502           M     ISR Maintenance
CC       CC503           M     Display ISR Information
CC       CC504           M     ISR Return and Restore
CC500    CC001            M     Maintain ISR Control Variables
CC500    CC002            M     Maintain ISR Profiles
CC500    CC010            M     ISR Code Maintenance
CC500    CC025            M     ISR Profile Enquiry
CC500    CC300            M     Scan Program Source-code (Initial Scan ONLY)
CC500    CC330            M     Scan SCL's for Transfer (Initial Scan ONLY)
CC500    CC350            M     Run Initial Backup Routine
          *** Start of Data ***
Restart at Menu ID:  Menu/Function ID:
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
          Quit                      PgDn

```

The “**Type**” column can contain an “**M**” or a blank. An “**M**” indicates that the value displayed in the “**Menu/Function ID**” column is a menu.



3.14 MA031 View - Unused Menus

This function displays unused menus. Menus are deemed to be unused if they are not assigned to any users/groups.

A screenshot of a Windows application window titled "CRONUS01". The window has a black background with green text. At the top, it displays "MAP031" and "MAM031" on the left, "*** Cronus Consulting - DEV ***" in the center, and the date and time "11:04:36.2" and "2022/09/20" on the right. Below this, there is a table with two columns: "Menu ID" and "Description". The table contains one row with "ED" and "EspSoft Demo". At the bottom, it says "Restart at Menu ID: " followed by a green cursor. Below that, it says "Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10---PF11---PF12---" and "Quit" and "PgDn".

```
CRONUS01
MAP031      *** Cronus Consulting - DEV ***      11:04:36.2
MAM031      View      - Unused Menus            2022/09/20

Menu ID  Description
ED       EspSoft Demo

*** End of Data ***

Restart at Menu ID: 
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10---PF11---PF12---
Quit                                           PgDn
```




3.15 MA032 View - Unused Functions

This function displays unused functions. Functions are deemed to be unused if they are not assigned to any users/groups.

A screenshot of a terminal window titled "CRONUS01". The window has a black background with green text. At the top, it shows "MAP032" and "MAM032" on the left, "*** Cronus Consulting - DEV ***" in the center, and the time "11:06:14.0" and date "2022/09/20" on the right. Below this, a table lists unused functions. The table has four columns: "Function ID", "Description", "Library", and "Program". One row is visible: "JS070", "View - Run Times per Batch Job", "ESPSOFT", and "JSP070". At the bottom, it says "*** End of Data ***", "Restart at Function ID: " followed by a green cursor, and a footer with "Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10---PF11---PF12---" and "Quit" and "PgDn" at the bottom.



3.16 MA033 View - Inactive Users/Groups

This function displays all inactive users/groups. A users/groups status can be updated using function **MA002 Maintain - Users/Groups**.

A screenshot of a terminal window titled "CRONUS01". The screen displays a menu with options "MAP033" and "MAM033". The "MAM033" option is selected, leading to a screen titled "*** Cronus Consulting - DEV ***" and "View - Inactive Users/Groups". The date and time "2022/09/20 11:06:38.4" are shown in the top right. A table lists inactive users/groups, with columns for "User/Group", "Name", "Owner", and "MENUADM". The table contains one entry: "ADAUTIL" with "ADABAS" as the name, "MENUADM" as the owner, and "N" as the menu code. Below the table, the text "*** End of Data ***" is displayed. At the bottom, there is a prompt "Restart at User/Group ID:" followed by a green cursor. The bottom of the screen shows function key shortcuts: "Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10---PF11--PF12---", with "Quit" under PF4 and "PgDn" under PF12.

```
CRONUS01
MAP033      *** Cronus Consulting - DEV ***      11:06:38.4
MAM033      View      - Inactive Users/Groups    2022/09/20

User/Group  Name                                Owner      MENUADM
ADAUTIL     ADABAS                                MENUADM    N

*** End of Data ***

Restart at User/Group ID: █

Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10---PF11--PF12---
                               Quit                               PgDn
```



3.17 MA034 View - MENUADM Users/Groups

This function displays all admin users/groups ("MENUADM Account" specified as Yes). Use function MA002 Maintain Users/Groups to update admin users/groups.

A screenshot of a terminal window titled "CRONUS01". The window displays a menu and a table of users/groups. The menu shows "MAP034" and "MAM034 View - MENUADM Users/Groups" with a timestamp of "11:07:22.8" and date "2022/09/20". The table lists users/groups with their names, owners, and statuses. At the bottom, there is a prompt "Restart at User/Group ID:" followed by a green cursor, and a footer with function key shortcuts: "Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12--- Quit PgDn".

```
CRONUS01
MAP034          *** Cronus Consulting - DEV ***          11:07:22.8
MAM034          View      - MENUADM Users/Groups        2022/09/20

User/Group  Name                               Owner      Status
APX712      Applinx User                         MENUADM    Active
DEVUSER     Deveopment Group                      MENUADM    Active
GM712       Gail                                   MENUADM    Active
HP712       Hentie                                MENUADM    Active
MENUADM     Menu Administrator                    MENUADM    Active
SAG         EspSoft Install User                 MENUADM    Active
SYSTEM      Admin Group                          MENUADM    Active

*** End of Data ***
Restart at User/Group ID: █

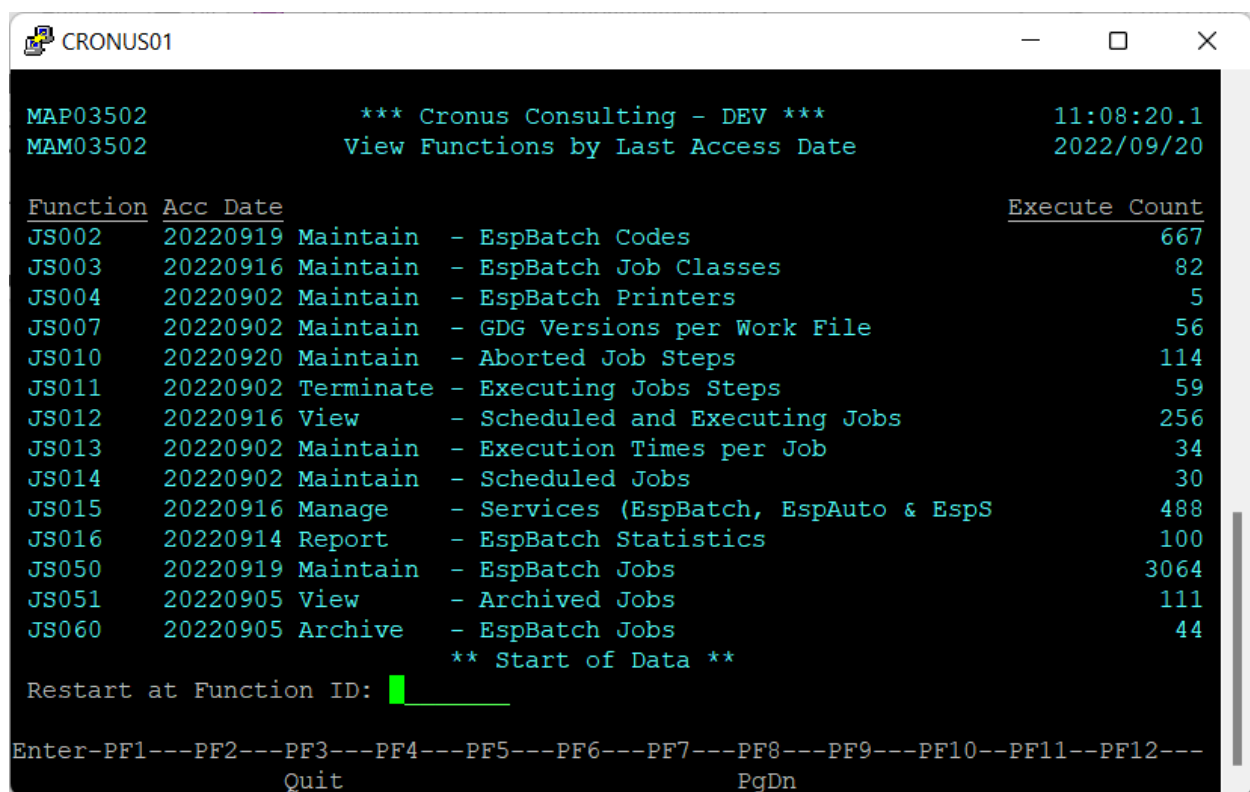
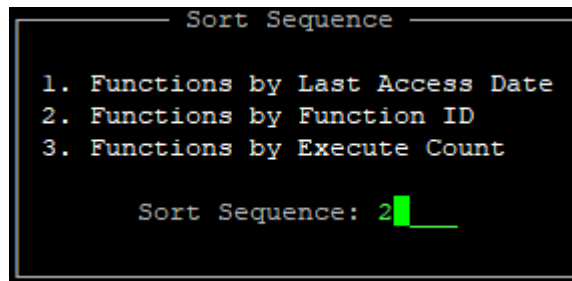
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
                               Quit                               PgDn
```



3.18 MA035 View - Functions by Access Date/Execute Count

This function provides audit access info per function. The number of times a given function has been executed and the last access date is displayed.

Upon function selection a window is displayed that allows the user to specify their sort preference:



The access date and execute count can be updated/reset with function **MA003 Maintain - Functions**.



3.19 MA036 View - Functions with invalid Program

This function displays all functions that execute a program that does not exist. The function must be run per library.

A screenshot of a terminal window titled "CRONUS01". The window has a black background with green and white text. The output shows the function ID "MAP036" and "MAM036", the title "View - Functions with invalid Program", the date "2022/09/20", and the time "11:09:55.7". It also displays the "FUSER Path" and "Library" information. A table of functions is shown with columns for "Function ID", "Name", and "Program". The table contains one entry: "ED001", "Demo Online to Batch submission", and "EDP001". The output ends with "*** End of Data ***" and a prompt to "Restart at Function ID:". At the bottom, there are navigation instructions: "Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10---PF11---PF12---" and "Quit" and "PgDn".

```
CRONUS01
MAP036          *** Cronus Consulting - DEV ***          11:09:55.7
MAM036          View      - Functions with invalid Program 2022/09/20

FUSER Path: /opt/softwareag/Natural/fuser_natd_____
Library...: ESPSOFT_

Function ID Name                                     Program
ED001      Demo Online to Batch submission          EDP001

*** End of Data ***

Restart at Function ID: █

Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10---PF11---PF12---
                               Quit                               PgDn
```

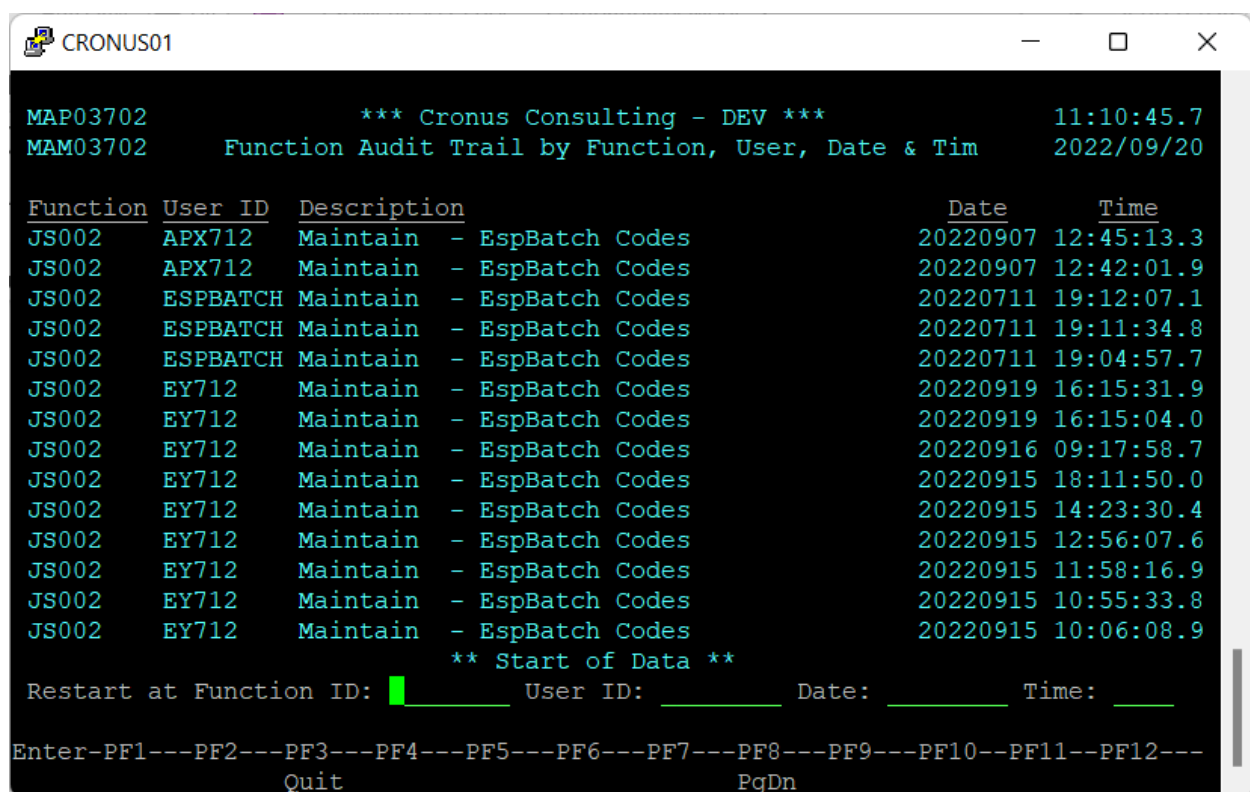
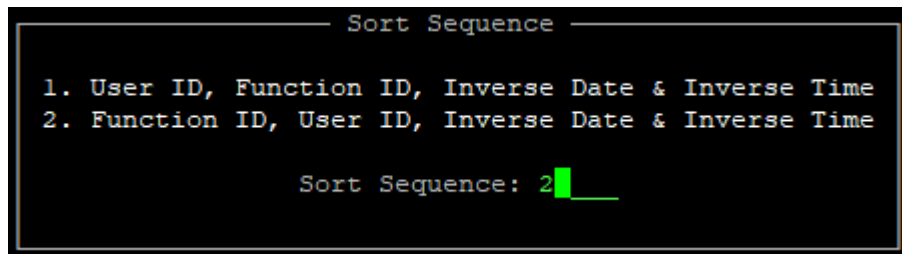
When a function is added using function **MA003 Maintain – Functions** the specified library/program is validated, if the program is subsequently deleted/renamed and the function is not deleted/corrected it will be picked up by this function.



3.20 MA037 View - Function Audit Trail

This function provides an audit trail consisting of the user id, date, and time that a function was executed.

Upon function selection a window is displayed that allows the user to specify their sort preference:



The audit history can be deleted with function **MA041 Delete - Function Access Audit Trail**.



3.21 MA038 View - Function Tree Structure

This function displays menu tree that a specified function is linked to. If the function is omitted a list of valid functions will be displayed.

A screenshot of a terminal window titled "CRONUS01". The window has a black background with green text. At the top, it shows "MAP038 *** Cronus Consulting - DEV *** 11:11:14.9" and "MAM038 View - Function Tree Structure 2022/09/20". Below this, it says "*Function: CC050___ Select Objects for Transfer". Then, it displays a table with three columns: "Level", "Menu ID", and "Description". The table has two rows: Level 2 with Menu ID CC501 and Description "ISR Transfer", and Level 1 with Menu ID CC and Description "EspControl - Change Control System (I.S.R)". At the bottom, it shows "Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---" and "Quit".

```
CRONUS01
MAP038      *** Cronus Consulting - DEV ***      11:11:14.9
MAM038      View      - Function Tree Structure  2022/09/20

*Function: CC050___ Select Objects for Transfer

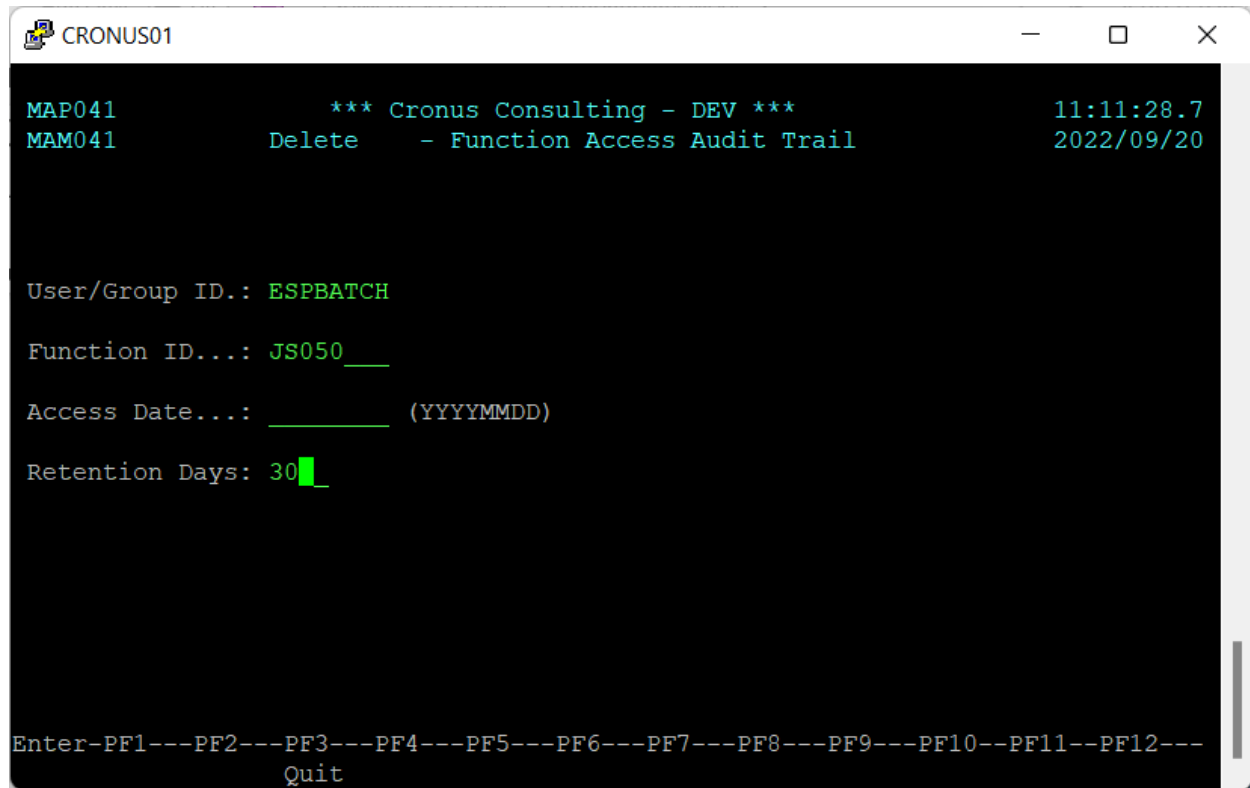
Level Menu ID Description
  2   CC501   ISR Transfer
  1    CC     EspControl - Change Control System (I.S.R)

Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
Quit
```



3.22 MA041 Delete - Function Access Audit Trail

This function allows for the deletion of function access audit trail history.



Deletion criteria:

- User/Group ID: Specify user/group id or leave blank to delete for all users/groups.
- Function ID: Specify function id or leave blank to delete all function history.
- Access Date: Specify access date to delete all history prior to and including the date specified. Either "**Access Date**" or "**Retention Days**" must be specified.
- Retention Days: Specify the number of day's history to retain. Either "**Access Date**" or "**Retention Days**" must be specified.



3.23 MA051 View - Audit Trail by User ID

This function provides an audit trail of users/groups that were added, deleted, and suspended. The Audit User, Date, Time, and Action is provided.

```

MAP051      *** Cronus Consulting - DEV ***      11:13:59.7
MAM051      View      - Audit Trail by User ID      2022/09/20

  User ID  Audit Date  Audit Time  Audit Action  Audit User
-  EY712    20220919    16:12:19.7  Deleted      EY712
-  EY712    20220919    16:12:38.5  Created      EY712
-  EY712    20220919    16:44:19.7  Deleted      EY712
-  GM712    20210429    09:51:49.5  Created      GM712
-  HP712    20210416    12:08:28.3  Created      HP712
-  MENUADM  20210416    10:47:15.2  Created      EY712
-  SAG      20210416    10:50:04.8  Created      EY712
-  SYSTEM   20220906    22:26:38.5  Created      EY712
-  XX712    20220110    13:55:24.0  Created      SAG
-  XX712    20220920    11:00:47.3  Deleted      EY712

*** End of Data ***
Restart at User ID:  Date:      (YYYYMMDD) Time:      (HHMMSSST)
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10---PF11--PF12---
          Quit                      PgDn
  
```



3.24 MA052 View - Audit Trail by User ID and Function

This function provides an audit trail of function that were added or deleted for a user/group. The Audit User, Date, Time, and Action is provided.

```

CRONUS01
MAP052      *** Cronus Consulting - DEV ***      11:14:40.9
MAM052      View      - Audit Trail by User ID and Function      2022/09/20

User ID  Function  Audit Date  Audit Time  Audit Action  Audit User
APX712   MA031    20220728   08:47:05.2  Created      HP712
APX712   MA032    20220728   08:47:05.3  Created      HP712
APX712   MA033    20220728   08:47:05.3  Created      HP712
APX712   MA034    20220728   08:47:05.3  Created      HP712
APX712   MA035    20220728   08:47:05.3  Created      HP712
APX712   MA036    20220728   08:47:05.3  Created      HP712
APX712   MA037    20220728   08:47:05.3  Created      HP712
APX712   MA038    20220728   08:47:05.3  Created      HP712
APX712   MA041    20220728   08:47:05.3  Created      HP712
APX712   MA100    20220728   08:47:05.3  Created      HP712
APX712   PKP001   20220728   08:47:05.3  Created      HP712
APX712   UT001    20220728   08:47:05.3  Created      HP712
EY712    CC001    20220106   17:23:18.2  Created      EY712
EY712    CC001    20220107   10:14:22.2  Deleted      EY712

Restart at User ID:  Function:  Date:  Time:
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10---PF11---PF12---
Quit          PgUp  PgDn
  
```



3.25 MA100 Report - Functions linked to Users/Groups

This function produces a report of menus and functions that the specified user/group has access to.

The extract type determines whether the output is extracted to a comma delimited file, emailed, or printed.

A screenshot of a terminal window titled "CRONUS01". The window has a black background with green text. At the top, it displays "MAP100" and "MAM100" on the left, "*** Cronus Consulting - DEV ***" in the center, and the time "11:15:13.2" and date "2022/09/20" on the right. Below this, it says "Report - Functions linked to Users/Groups". The main area of the screen shows configuration options: "Start - User/Group ID: ESPBATCH", "End - User/Group ID: ESPBATCH", "Extract Type.....: E (C)sv, (E)mail or (R)eport", "Email Address.....: info@cronus.co.za", "Sub System.....: ", "File Name.....: ", and "Default Printer.....: PRT01". At the bottom, it lists function keys: "Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10---PF11---PF12---" and "Quit".

```
CRONUS01
MAP100      *** Cronus Consulting - DEV ***      11:15:13.2
MAM100      Report    - Functions linked to Users/Groups  2022/09/20

Start - User/Group ID: ESPBATCH
End   - User/Group ID: ESPBATCH

Extract Type.....: E (C)sv, (E)mail or (R)eport

Email Address.....: info@cronus.co.za
Sub System.....: 
File Name.....: 
Default Printer.....: PRT01

Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10---PF11---PF12---
Quit
```



3.26 MA101 Report - Audit Trail by User ID

This function provides an audit report of users/groups that were added, deleted, and suspended. The Audit User, Date, Time, and Action is provided.

The content of the audit report can be filtered by specifying values for the input fields provided.

A screenshot of a terminal window titled "CRONUS01". The window displays a menu for the "MA101 Report - Audit Trail by User ID". The menu options are: "User ID.....: [redacted] (Blank for all)", "Audit User ID: ESPBATCH (Blank for all)", "Audit Action.: _ (Blank for all)", "Start Date....: 20220101 (YYYYMMDD)", and "End Date.....: 20220831 (YYYYMMDD)". At the bottom, there is a prompt "Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---Quit".

```
CRONUS01
MAP101      *** Cronus Consulting - DEV ***      11:16:26.7
MAM10101    Report    - Audit Trail by User ID    2022/09/20

User ID.....: [redacted] (Blank for all)
Audit User ID: ESPBATCH (Blank for all)
Audit Action.: _ (Blank for all)
              (1 - Created)
              (2 - Deleted)
              (3 - Suspended)
              (4 - Re-Activated)
Start Date....: 20220101 (YYYYMMDD)
End Date.....: 20220831 (YYYYMMDD)

Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
Quit
```

