



NUMENU

Menu Driver Facility for the iSeries

An overview

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www.navan.co.uk

NUMENU - iSeries Menu Driver facility

The NUMENU Menu Development System is designed to simplify the creation of security conscious menus for an application. Menu Headings and options are stored on a data file. Menus can then be generated for specific users based on these file details. Once standard menus are defined, individually tailored user menus can be generated for those users allowed full or partial access to the application.

Prior to authorising users, all menus are available to all users. Once the menu driver is locked into the restricted state, only authorised users may access menu options.

For each user, you can request whether to log accesses to a particular menu option. The resulting report can be listed at any time, showing which users requested which menu options, in date time sequence.

A 'hold' facility is available for a specific menu option, so a temporary lock may be placed to stop all users accessing that option until the hold is released.

The design of the menu development system allows it to be moved into the actual application under development. Thus each application can have its own menu options files, allowing security throughout all user applications.

Source code for all menu driver objects is available for purchase (at a nominal value), so the application can be tailored to your own requirements.

A Menu Identifier is 10 characters long, must be a valid name (within OS/400 rules) and must be unique within the menu driver environment.

A menu option identifier is 3 characters long and is unique within a menu.

Example of a menu

Menus created by the Menu Driver will take the format something similar to the following:

```
DEPT_NAME          Order Entry User Menu          System: NAVAN
OEMENU

Type choices, press Enter:

  1  Order Entry          5  Current Orders List
  2  Order Maintenance   6  Current Backorders List
  3  Backorder Review    7  Customer Enquiry
  4  Release Backorders  8  Part Enquiry

  ENQ  Enquiries Menu

Selection or command
===>

F3=Exit  F4=Prompt  F6=Messages  F14=WRKSBMJOB  F9=Retrieve  F12=Previous

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```

The menu driver is available for access:

1. Providing the menu driver is not 'locked' (meaning no users may access it)
2. Providing PWRDWNSYS or ENDSBS is not in progress.
3. Providing a user defined delay time has not been exceeded between uses of the menu screen.

The sections of the menu panel are:

- The Workstation ID, current date and time
- The Menu Header contains Menu Identifier ("OEMENU"), the Menu Title ("Order Entry Main Menu") and the column start positions (in this case 5 and 25) for the menu options.
- The Menu Details are the menu options (options 1 thru 8) listed. When an option is selected by the user, the associated CALL is performed.
- The command entry line, which can be used to enter one of the menu options shown. If the user accessing the menu driver does not have limited capabilities (LMTCPB = *NO defined on the user profile) the line can also be used to enter commands.
- Command key functions

Example of a menu using only one option column

Any single menu can have up to 24 options, 12 in column 1 (the left side of the screen) and 12 in column 2 (the right side). If only one column is needed you can define column 1 only, then define the column start position (on the menu header) as 20, which will centre column 1 on the menu. For example:

```
DEPT_NAME          Order Entry Main Menu          System: NAVAN
OEMAIN
Select one of the following:

                1  Order Entry
                2  Order Maintenance
                3  Backorder Review
                4  Release Backorders

                ENQ  Enquiries Menu

Selection or command
====>

F3=Exit  F4=Prompt  F6=Messages  F14=WRKSBMJOB  F9=Retrieve  F12=Previous

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```

Standard menu command keys

The menu driver has standard command keys defined, which operate as follows:

- F1= Display help information
- F4= If a command has been entered, prompt for command parameters (LMTCPB = *NO).
- F6= Display messages
- F9= Retrieve the last command entered (LMTCPB = *NO).
- F10= Display the menu request log for this session. An example of the session log display is shown below.
- F12= Return to the previous menu.
- F14= Work with submitted jobs.
- F18= Work with spool files.
- HELP= Display help information.
- ATTN= Display the 'Attention' menu associated with the menu currently being displayed.

The normal 'escape' function keys are as follows:

- F3= Exit from the menu driver.
- F12= Return to the previous menu.

however, the keys that are used to provide these escape functions may be user-configured.

Example of the DSPLOG display panel

DSPLOG		Menu Request Log				
Workstation: DSP010306						
User ID: QPGMR		F12= Return				
Date	Time	Menu	Option	Description	Submit /Call	
22/05/18	8:31:56	IM010	1	Parts Master File Maint	C	
22/05/18	8:38:53	IM020	2	Part Info - Specific Branch	C	
22/05/18	8:39:04	IM150	15	B/O Report By Order Type	S	
22/05/18	8:39:20	IM150	1	Backorder Maintenance	C	
22/05/18	9:03:57	IM010	1	Parts Master File Maint	C	
22/05/18	9:04:14	IM020	2	Part Info - Specific Branch	C	
22/05/18	9:04:34	MNUDEV	2	Menu Detail Maintenance	C	
22/05/18	9:04:45	MNUDEV	1	Menu Header Maintenance	C	
22/05/18	9:04:48	IM020	2	Part Info - Specific Branch	C	
22/05/18	9:04:55	IM020	1	Customers Enquiry	C	

If the request logging control is switched on, all user requests from the menu driver are logged to an audit file. This file can be interrogated from the DSPLOG screen, or via report options supplied with the menu driver.

Menu 'windows' using the attention key

An optional facility provided in MENU is the enabling of the 'Attention' key. If used, this allows a menu 'window' to appear *at any time*, on any program called by the menu driver.

At any time, the 'Attention' key may be pressed (top left hand corner of keyboard), which will display a submenu at the top of the screen. The options on this menu may be taken at any time, providing you have security to run the option. So you can be entering a customer order, then press 'Attention' to obtain a part enquiry while still in the order.

Sample screen showing the use of the attention key menu

DEPT_NAME MNUDEV	Menu Development	Attention Key Options
Type choices, press Enter:		CMD Command Entry C Calculator
1. Menu Header Maintenance		
2. Menu Detail Maintenance		
3. Define Users to Menu system		
4. Define menus for secured us		
5. Workstation Overrides Mtce		
6. Hold/Release Menu options		
7. Print Menu Formats		
8. Work with Applications		
		Option: _____ F6=DSPMSG F14=WRKSBJOB F18=WRKSPLF F12=Previous
HLP. Edit HELP screen text		
Selection or command ====>		
F3=Exit F4=Prompt F6=Messages F14=WRKSBJOB F9=Retrieve F12=Previous		

If an attention key menu is defined for the menu you are currently on, that menu will be displayed whenever the attention key is pressed. If no attention key menu is specified, nothing will happen.

The attention menu environment runs 'Group Jobs', so that a user request is processed as a TFRGRPJOB (Transfer to another Group Job). If the user exits the attention menu option using the normal exit method for that program, the group job will be ended and the screen will return to the function the user was performing prior to pressing the attention key.

If the user exits the attention menu option using the Attention key, the group job will remain open and the screen will return to the function the user was performing prior to pressing the attention key.

If the user exits the Attention menu window using the 'exit' function key, the window will be closed and the screen will return to the underlying task.

Attention menu standard options and command keys

The following options are pre-defined on any attention menu:

C - Displays a simple calculator in a window. The calculator can be used to add, subtract, multiply and divide to a 5 decimal precision. F3 will exit the calculator, but the value accumulated will remain, so that the next time you request the calculator within your work session, the retained value will be redisplayed. F12 allows you to reset the accumulated value.

D - Displays a calendar in a window. The first time shown it will display the current month, with today's date highlighted. You may display any month/year by entering values in the input fields provided. F3 will exit the calendar display.

The following function keys are pre-defined on any attention menu:

F6 = Display messages
F14= Work with submitted jobs
F18= Work with spool files

Contacts

This program product is supplied as Freeware and, as such, no warranty is implied or expressed. The following contacts (preferably done via email) are provided to assist you in resolving initial installation difficulties.

We are interested in receiving your feedback and comments on the product, which can be sent to either of the addresses mentioned below.

Ideas, additions and enhancements to the product are always welcomed. If you have developed functions that you think may benefit other installations we would be happy to host them for distribution at our website - provided the function (both source code and object code) is released as freeware by the author. But fear not, authoring credit will be given where credit is due!

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