

NonStop NET/MASTER Tips and Techniques
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Introduction

This is an ongoing column with NonStop NET/MASTER tips and techniques. Each column is also accessible from <http://www.greshamsoftwarelabs.com.au/> (Gresham Software Labs). Please send all comments and suggestions to John New at jnew@greshamsoftwarelabs.com.au.

Biography

John New is a technical writer. He has written and updated various Tandem manuals. He currently writes hard-copy, online, and web documents for a variety of software products.

NonStop NET/MASTER Tips and Techniques

Giving Access to TACL Macros From NonStop NET/MASTER

This column discusses how to execute TACL macros from NonStop NET/MASTER Management Services (MS). This includes simple and complex TACL macros. It includes macros that run programs by using the /INLINE/ option, macros that use variables, and macros that load other procedures from TACL. For all TACL macros, the procedures to make them accessible from NonStop NET/MASTER MS are the same.

Background Information

TACL is defined to NonStop NET/MASTER MS as an external utility (in the same way as many other Guardian utilities, such as FUP and PERUSE). The utility definition record for TACL is distributed with NonStop NET/MASTER MS in the distributed utility definition database. Each TACL command is defined in the database with an authority level from 0 through 255 (FILEINFO is 0; OBEY is 255; SEGINFO is 4; and so on).

The definition record for TACL (as for other Guardian utilities) also includes an entry for undefined commands, represented by an asterisk (*) with an authority level of 255. This effectively limits access to any TACL command not explicitly listed; the asterisk gives the authority level required to use any TACL command not explicitly assigned an authority level.

Each NonStop NET/MASTER MS user also has an authority level from 0 through 255. This is defined in the user ID definition record for each user. Only NonStop NET/MASTER MS users with an authority level greater than or equal to the authority level of the TACL command can execute the command.

To NonStop NET/MASTER MS, executing a TACL macro is treated in the same way as executing a TACL command. Therefore, a NonStop NET/MASTER MS user must have the appropriate authority level to execute a TACL macro.

You (the NonStop NET/MASTER MS system manager or security administrator) can make TACL macros accessible to NonStop NET/MASTER MS users

(including NonStop NET/MASTER MS system and network operators) by using three different techniques. First, you can raise the command authority level of the users to be given access to TACL macros to 255. This will give the users explicit access to all TACL commands and macros. However, it will also give the users access to all NonStop NET/MASTER MS commands, which may not be desirable for security reasons.

Second, you can lower the command authority level of undefined TACL commands, represented by the asterisk. Users with an authority level greater than or equal to the authority level of undefined TACL commands will be able to execute TACL macros. You may want to do this if you have many TACL macros that you want to make generally available and you do not want to explicitly define an authority level for each macro. Or you may want to do this if you want to allow users to create and execute their own macros and you do not need to know the name of each macro.

Third, you can explicitly assign an appropriate command authority level to selected TACL macros. This gives you precise control over the macros that users can execute from NonStop NET/MASTER MS.

All three techniques require that you have full User ID Management Services (UMS) authority. That is, the value of the UMS Management field on the UMS : Access Authorities panel in your user ID definition record must be Y. The second and third options additionally require access to the Utility Maintenance Services panels, which you select by typing W or Y from the User ID Management Services : Primary Menu panel. That is, your user ID must be listed in the UMS : Utility Maintenance Users panel, which you select by typing Z from the User ID Management Services : Primary Menu panel.

Techniques

After logging on to NonStop NET/MASTER MS, follow these steps to raise the command authority level of a user allowed to execute TACL macros to 255:

1. From the NonStop NET/MASTER MS Primary Menu, type M in the Select Option field and press the Enter key. The User ID Management Services : Primary Menu appears.
2. Type U in the Select Option field, type the user ID in the User field, type USER in the Definition Type field, and press the Enter key. The UMS : User Details panel appears.
3. Press the PageDown or F7 function key. The UMS : User Attributes panel appears.
4. Type 255 in the Authority Level field.
5. Press F3 to save the record. The User ID Management Services : Primary Menu appears.

After logging on to NonStop NET/MASTER MS, follow these steps to lower the command authority level of the asterisk for TACL:

1. From the NonStop NET/MASTER MS Primary Menu, type M in the Select Option field and press the Enter key. The User ID Management Services : Primary Menu appears.
2. Type W in the Select Option field and press the Enter key. The UMS : Utility Command Set Maintenance Menu appears.
3. Type U in the Select Option field, type TACL in the Enter Utility Name field, type O in the OPSYS or PROGRUN field, and press the Enter key. The UMS : Utility Command Set Details panel for TACL appears.

4. Locate the entry for the asterisk in the Command column. Use the Tab key to position the cursor in the Authority column next to the asterisk.
5. Type the new authority level for the asterisk, overtyping 255 if necessary.
6. Press F3 to save the record. The UMS : Utility Command Set Maintenance Menu appears.

After logging on to NonStop NET/MASTER MS, follow these steps to explicitly assign an appropriate command authority level to a selected TACL macro.

1. From the NonStop NET/MASTER MS Primary Menu, type M in the Select Option field and press the Enter key. The User ID Management Services : Primary Menu appears.
2. Type W in the Select Option field and press the Enter key. The UMS : Utility Command Set Maintenance Menu appears.
3. Type U in the Select Option field, type TACL in the Enter Utility Name field, type O in the OPSYS or PROGRUN field, and press the Enter key. The UMS : Utility Command Set Details panel for TACL appears.
4. Locate the last command in the Command column (the entries are sorted in alphabetic order). Use the Tab key to position the cursor in the blank field in the Command column below the last command.
5. Type the name of the TACL macro.
6. Use the Tab key to position the cursor in the blank field in the Authority column next to the macro name.
7. Type the authority level for the macro.
8. Press F3 to save the record. The UMS : Utility Command Set Maintenance Menu appears.

Executing a TACL Macro

After you have insured that a NonStop NET/MASTER MS user has the authority level to execute a TACL macro, you must also insure that the macro is available for the user to execute. Users typically execute commands, including TACL commands, from Operator Control Services (OCS). The following commands from the OCS command input line start a TACL process and execute <macro-name>:

```
OPSYS SEND TACL <macro-name>
```

or (using the shortened form of the preceding OPSYS command):

```
TACL <macro-name>
```

The TACL process is started with the Guardian user ID (GUID) currently defined for the user in OCS (for example, 255,100). Therefore, the TACL macro, <macro-name>, must be available to that GUID after the TACL process is started. Starting the TACL process includes the execution of the user's TACLCSTM to load macros and attach segments. Therefore, you could use the user's TACLCSTM to make <macro-name> automatically available when the user executes a TACL command from OCS. Any output from executing the macro is displayed on the OCS screen.

After a TACL process is started, all subsequent TACL commands and macros are processed by the same running TACL; that is, executing multiple macros under the same GUID does not cause multiple TACL processes to be started. A future NonStop NET/MASTER Tips and Techniques column will discuss how a NonStop NET/MASTER MS user can start multiple TACLs under

different GUIDs and send commands and macros to the correct TACL process as required.