Monitor Defaults

This section covers the following topics:

- Setting Defaults for the Monitor
- Monitor Task Profile

Setting Defaults for the Monitor

- Special PF Key: Monitor Defaults
- Field Descriptions: Monitor Defaults

You can define defaults for the Entire Operations Monitor. The defaults must be set before the first start of the Monitor.

To set defaults for the Monitor

- Select the option **Monitor Defaults** from the System Services Menu.

  The Monitor Defaults screen appears with a table of all current defaults:

```
20.11.01               *** Entire Operations 4.1.1 ***               16:25:42
 Owner REQUEST                  Monitor Defaults
--------------------------------------------------------------------------------
  EOR Monitor Files      DBID   FNR              Monitor Node ==> 146
  EOR System File 1 ==>     9    12                      Type ==> _
  SAT     Log       ==>     9    13    Monitor Subtask Userid ==> _____________
       EOR     Fnat ==>     9   240    Monitor Subtask Prefix ==> E01
       EOR    Fuser ==>     9    14
       EOR     Fsec ==>     9   125    Global Monitor Wait Time ==> ___30 sec.
       EOR  Library ==> EOR411__           Log Monitor Activity ==> N

          CON-NECT ==>   177    12
 Entire Output Mgmt ==>     9   246

        Monitor JCL ==> ____________________________________________________

     OS Spool Class ==> X           Submit Security User Type ==> U


 Command => ____________________________________________________________

Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
      Help        End         Save                    Tasks             Menu
```

  The Database ID’s (DBID) and File numbers (FNR) of Entire Operations files at the top left of the screen are for your information and cannot be modified.

Special PF Key: Monitor Defaults

Key	Name	Function
PF9	Tasks	Define a Monitor task profile.

Field Descriptions: Monitor Defaults

The following table explains the modifiable fields on this screen:

Field	Meaning	
Monitor Node	The Entire Operations Monitor runs under this node. The node can be the same as the default Entire System Server node.	
Type	Monitor node type. This field has a meaning for **UNIX nodes only**.	
	L	The Monitor node is local. It must reside on the same machine as the Entire Operations Monitor.
	Note:	In this case, your Natural executable must be authorized to access the operating system objects used by Entire Operations. If objects with different UNIX users and groups must be accessed, you must issue the following commands: • chdir $NATDIR/$NATVERS/bin • chown root natural • chmod +s natural
	other	The Monitor node can reside on any machine which can be accessed via Entire Net-Work.
Monitor Subtask User ID	This user ID is used for Monitor actions which are not dependent on any job. Default: SYSEORnnn01, where *nnn* is the Monitor node. This field is not used, if the Monitor node is a UNIX node.	
Monitor Subtask Prefix	This prefix is used for the internal generation of Monitor subtask names. The NOP Monitor subtask names are now using the syntax: `EOR<subtask-prefix><task-number>` **Example:** If the subtask prefix is ’E01’ and the task number is 2, the subtask name will be ’EORE0102’. Default for the subtask prefix: EOR For further information, see also Monitor Task Name in the section Entire Operations Monitor. **Notes:** 1. If you want to run **several** NOP Monitors under one ESY node, you must define a different Monitor subtask prefix for each monitor. 2. Monitor tasks of the same Monitor use the same prefix, but different task numbers. 3. For OS/390, the subtask ESY event names also use these subtask names. **OS/390 event name syntax:** `EOR`*`pppnn`* where *ppp* is the subtask prefix, as defined in this case. The default is ’EOR’. *nn* is the task number within the monitor. **Example:** Monitor 1 has an empty task prefix. The events are then ’EOREOR01’ thru ’EOREOR99’. Monitor 2 has the task prefix ’A01’. The events are then ’EORA0101’ thru ’EORA0199’.	

EOR Library	Natural library containing the Entire Operations modules. Default name is SYSEOR.	
Global Monitor Wait Time	The Wait Time between two monitor cycles. This parameter sets the monitor frequency. **Example:** **30** The monitor will wait **30** seconds until it will begin the next cycle. **Note:** This value is a default for all monitor tasks. An individual wait time can be defined for each task. These **individual wait times** can also be **modified** while the monitor tasks are running, and for the current monitor session only. For details, see Field Descriptions: Monitor Task Profile.	
Log Monitor Activity	If you enter **Y** in this case, additional information about Monitor activity, in particular about the activities of each Monitor task, is written to the Log periodically. Default: **N**.	
	Note:	The above option increases the amount of Log data.
Con-nect	This field is read-only.	
Entire Output Mgmt	This field is read-only.	
Monitor JCL	(**For BS2000/OSD only.**) The name of a BS2000/OSD Enter job to start the Monitor. (**For UNIX only.**) The full path name of the shell script to be used for starting the Monitor. Usually the script generated during the installation procedure should be used for this purpose. For further information, see the subsection Natural Parameter Module Creation in the section Installation and Customization on UNIX Platforms.	
OS Spool Class	(**For OS/390 only.**) The Spool Class to be used by the Monitor for all background printouts.	
Submit Security User Type	(**For OS/390 systems with external security system such as RACF only.**) The Monitor performs a Entire System Server logon to the submit user ID. This parameter allows you to specify which user ID is to be taken. Possible values:	
	M	Default. User ID of Entire Operations Monitor. If the field Monitor Subtask User ID (above) is left blank and **M** is specified in this case, then SYSEORnnn1 is taken as submit user ID.
	O	Network owner.
	U	User ID of the person who defined the job or who made the last modification (even in the active queue).
	A	Submit User ID must be the same as for the network owner.
	B	Submit User ID must be the same as for the last modifying user.
	Notes:	With **M**, no specific security profiles are possible for the submitted jobs. This setting is a global default. You may define the submit security user type individually for any node, if this is necessary.

Monitor Task Profile

- Using the Monitor Task Profile
- Field Description: Monitor Task Profile
- Main Task, Task 1

- Other General-Purpose Tasks, 2-50
- Natural Tasks, 51-99
- Task Names
- Monitor Tasks and NPR
- Dynamic Task Profile Reconfiguration
- How Monitor Tasks Are Executed

Using the Monitor Task Profile

You can divide the Monitor into several tasks in order to:

- perform some Monitor actions in parallel,
- execute Natural jobs (NAT-type jobs) asynchronously.

If you want to run the Entire Operations Monitor in several tasks, you must define how the Monitor functions are to be distributed on the different Monitor tasks.

To do this

- Press PF9 (Tasks) on the Monitor Defaults screen.

  The following screen appears with a list of all Monitor functions:

```
20.11.01              *** Entire Operations 4.1.1 ***              16:14:04
                             Monitor Task Profile
 ------------------------------------------------------------------------------
 Task #                   1   2   3   4   5   6   7   8   9  10
 Schedule Extraction      X   _   _   _   _   _   _   _   _   _
 Activation               _   X   _   _   _   _   _   _   _   _
 JCL Loading              X   _   _   _   _   _   _   _   _   _
 Prerequisite Check       _   _   _   X   _   _   _   _   _   _
 Submission               _   _   X   _   _   _   _   _   _   _
 Submission, SAP R/3      X   _   _   _   _   _   _   _   _   _
 Job Execution            _   _   X   _   _   _   _   _   _   _
 EOJ Check                _   _   X   _   _   _   _   _   _   _
 EOJ Actions              X   _   _   _   _   _   _   _   _   _
 Message Sending          X   _   _   _   _   _   _   _   _   _
 Special Actions          X   _   _   _   _   _   _   _   _   _
 Cleanup                  _   _   X   _   _   _   _   _   _   _
 Deactivation             _   _   X   _   _   _   _   _   _   _
 Task wait time (sec.)  _40 ___ _20 ___ ___ ___ ___ ___ ___ ___   global  30

 Max. Number of Natural Tasks     ===> __3
 Max. Idle Time of a Natural Task ===> _30 min.
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
      Help        End         Save                                     Menu
```

  You must mark one and only one column (task) in each row. The default for all functions is the main task, Task **1**.

Field Description: Monitor Task Profile

Field	Meaning
Max. Number of Natural Tasks	This is the maximum number of tasks for the parallel execution of asynchronous Natural programs (NAT-type). Increase this number if you want to run longer Natural programs in parallel. Default = **0**: (Natural programs are executed synchronously by Task **1**).
Max. Idle Time of a Natural Task	A Natural task can remain active for some time after it has performed the last Natural program in its queue. This can be useful if there are many Natural programs with short execution times, and it eliminates some overhead for the starting and stopping of (sub)tasks. Default = **0**: (A Natural task terminates immediately if its queue is empty).
Task Wait Time (sec.)	The Wait Time between two monitor task cycles. This value can be defined individually for each monitor task. The value **Global Monitor Wait Time** from the Monitor Defaults will be used if no value is specified here. **Note:** In this case, you modify the default settings only. If you want to modify the settings of the current monitor session, you must do this under Entire Operations Monitor / Tasks.
global	The global monitor wait time.

Main Task, Task 1

Task **1** is a general-purpose task and must always exist. It performs all functions for which no other task is defined. It is the only task which can start other tasks.

Other General-Purpose Tasks, 2-50

The other tasks in the top row (Numbers **2** to **50**) are called general purpose tasks. This means that each of them is capable of performing all functions. These tasks are all started at Monitor startup time. Each function can and must be performed by exactly one task.

Do not define too many Monitor tasks. If Task 1 is not sufficient for your needs, then the figure above offers an example of a possible alternative. You should not exceed **2** to **4** tasks, since resources for administration of the individual tasks must always be considered.

Natural Tasks, 51-99

Natural programs (NAT-type jobs; Numbers **51** to **99**) can be performed asynchronously in their own dedicated tasks. In the field **Max. Number of Natural Tasks**, you can specify how many of them can be active in parallel. In the field **Max. Idle Time of a Natural Task**, you can specify how long they should remain idle if their input queue is empty. These tasks are started if necessary.

Task Names

The (sub)task names are SYSEORttnnn, where *tt* is the task number and *nnn* is the ESY node number.

Monitor Tasks and NPR

Before you specify several Monitor tasks or allow several Natural tasks, you should check the value of NATNUMSUB in the Entire System Server startup parameters.

If not enough (sub)tasks are allowed for Entire System Server, a message will be issued by Entire Operations after an attempted task start, and the task activity is taken over by the main task (Task **1**). This could decrease Monitor performance.

Dynamic Task Profile Reconfiguration

The task profile can be modified (in the Task definition), while the Monitor is running. All tasks stop briefly, then the unused tasks are stopped and the newly-defined tasks are started.

This permits adaptation to different workloads in the running Monitor.

How Monitor Tasks Are Executed

The execution of Monitor (sub)tasks is internally controlled by the Entire System Server view Natural-SUB-TASK.

In OS/390 and VSE/ESA, subtasks run under the Monitor Entire System Server node.

In BS2000/OSD, one batch job is run for each Monitor task.

In UNIX, each Monitor task uses a separate process.

Each task has an internal control record in the database. To display the current status of the tasks, press PF9 (Tasks) in the Entire Operations Monitor window (see the subsection Display Monitor Task Status).

Note:
All tasks use the same database files.

