т	
CODES	Description
SM32	Maintain Table Parameter ID TAB
AL01	Alert Monitor
AL02	Database alert monitor
AL03	Operating system alert monitor
AL04	Monitor call distribution
AL05	Monitor current workload
AL06	Performance: Upload/Download
AL09	Data for database expertise
SAR3	Customizing Archiving
SAR4	Define Archiving Class
SAR5	Assign Archiving Class
SAR6	Archiving Time Generator
SARA	Archive management
SARL	Call of ArchiveLink Monitor
AL11	Display SAP Directories
AL13	Display Shared Memory (Expert mode)
AL15	Customize SAPOSCOL destination
AL16	Local Alert Monitor for Operat.Syst.
AL17	Remote Alert Monitor for Operat. Syst.
AL18	Local File System Monitor
AL19	Remote File System Monitor
AL20	EarlyWatch Data Collector List
AL21	ABAP Program analysis
AL22	Dependent objects display
BSVW	Linkage Status Update-Workflow Event
DB01	Analyze exclusive lock waits
DB02	Analyze tables and indexes
DB03	Parameter changes in database
DB11	Early Watch Profile Maintenance

- **DB12** Overview of Backup Logs
- DB13 Database administration calendar
- **DB15** Data Archiving: Database Tables
- DB17 DB System Check: Configuration
- DB20 DB Cost-Based Optimizer: Tab. Stats
- DB21 DB Cost-Based Optimizer: Config.
- DB24 Database Operations Monitor
- DB26 DB Profile:Monitor and Configuration
- DB2J Manage JCL jobs for OS/390
- DMIG Start Transaction for Data Migration
- **OAA3** Archive Link protocols
- OAA4 ArchiveLink applic.maintenance
- OAAD ArchiveLink Administration Documents
- OS01 LAN check with ping
- OS03 O/S Parameter changes
- **OS04** Local System Configuration
- **OS05** Remote System Cconfiguration
- **OS06** Local Operating System Activity
- OY08 Development Class Overview
- OY18 Table history
- PFCG Activity Group
- **PFUD** Authorization Profile comparison
- **RLOG** Data migration logging
- RZ01 Job Scheduling Monitor
- RZ02 Network Graphics for SAP Instances
- **RZ03** Presentation, Control SAP Instances
- RZ06 Alerts Thresholds Maintenance
- **RZ10** Maintenance of profile parameters
- **RZ11** Profile parameter maintenance
- RZ20 CCMS Monitoring
- RZ21 Customize CCMS Alert Monitor
- SA38 ABAP/4 Reporting

- SAD0 Address Management call
- SAIN T Plug-in Installation
- SALE Display ALE Customizing
- SARP Reporting (Tree Structure): Execute
- **SB01** Business Navigator Component View
- SC38 Start Report Immediately
- SCAT Computer Aided Test Tool
- SCC0 Client Copy
- SCC1 Client Copy Special Selections
- SCC2 Client transport
- SCC3 Client Copy Log
- SCC4 Client administration
- SCC5 Client Delete
- SCC6 Client Import
- SCC8 Client Export
- SCC9 Remote Client Copy
- SCCL Local Client Copy
- SCMP View / Table Comparison
- **SCPF** Generate enterprise IMG
- SCU0 Table Analyses And Comparison
- SCU1 Table Comparison Export to Tape
- SCU2 Table Comparison Against Tape
- SCU3 Table History
- SCUG Central User Administration Structure Display
- SCUM Central User Administration Field Selection
- **SDBE** Explain an SQL Statement
- SE01 Transport and Correction System
- SE02 Environment Analyzer
- SE06 Set up Workbench Organizer
- SE07 Transport System Status Display
- **SE09** Workbench Organizer (Initial Screen)
- SE10 Customizing Organizer

- SE11 Data Dictionary Maintenance
- **SE13** Technical Settings (Tables)
- SE14 Convert Data Dictionary tables on Database Level
- SE15 Repository Info System
- SE16 Display Table Content
- SE17 Generate Table Display
- SE30 ABAP Objects Runtime Analysis
- SE32 ABAP Text Element Maintenance
- SE35 ABAP/4 Dialog Modules
- SE36 Logical databases
- SE37 ABAP Function Modules
- SE38 ABAP Editor
- SE39 Splitscreen Editor: Program Compare
- SE40 MP: Standards Maint. and Translation
- SE41 Menu Painter
- SE51 Screen Painter
- SE52 Parameterized screenpainter call
- SE54 Generate table view
- SE55 Internal table view maintenance call
- SE56 internal call: display table view
- SE57 internal delete table view call
- SE62 Industry Utilities
- SE63 Translation: Initial Screen
- SE71 SAPscript form
- SE72 SAPscript Styles
- SE73 SAPscript font maintenance (revised)
- SE74 SAPscript format conversion
- SE75 SAPscript Settings
- SE76 SAPscript: Form Translation
- SE77 SAPscript Translation Styles
- SE78 SAP script: Graphics administration

- SE80 Object Navigator
- SE81 Application Hierarchy
- SE82 Application Hierarchy
- SE84 R/3 Repository Information System
- SE85 ABAP/4 Repository Information System
- SE86 ABAP Repository Information System
- SE88 Development Coordination Info System
- SE92 New SysLog Msg Maintenance as of 46A
- SE93 Maintain Transaction Codes
- SE94 Customer enhancement simulation
- SECR Audit Information System
- SEPS SAP Electronic Parcel Service
- SERP Reporting: Change Tree Structure
- SF01 Client-Specific File Names
- SFAW Field Selection Maintenance
- SHDB Record Batch Input
- **SICK** Installation Check
- SINA SAPBPT: Maintain Standard Config.
- SLG0 Application Log: ObjectMaintenance
- SLIN ABAP: Extended Program Check
- SM01 Lock Transactions
- SM02 System Messages
- SM04 User Overview
- SM12 Display and Delete Locks
- SM13 Display Update Records
- SM14 Update Program Administration
- SM23 System Log Analysis
- SM29 Model Transfer for Tables
- SM30 Call Up View Maintenance
- SM31 Table maintenance
- SM35 Batch Input Monitoring
- SM36 Batch request

- SM37 Background job overview
- SM38 Queue Maintenance Transaction
- SM39 Job analysis
- SM49 Execute Logical Commands
- SM50 Work Process Overview
- SM51 List of SAP Servers
- SM54 TXCOM maintenance
- SM55 THOST maintenance
- SM56 Number Range Buffer
- SM58 Asynchronous RFC Error Log
- SM59 RFC Destinations Display
- SM63 Display/Maintain Operating Mode Sets
- SM64 Release of an event
- SM65 Background Processing Analysis Tool
- SM66 System-wide Work Process Overview
- SM67 Job scheduling
- SM68 Job administration
- **SMGW** Gateway Monitor
- SMLG Maintain Logon Group
- SMLI Language import utility
- SMLT Language transport utility
- SMX Display Own Jobs
- SNRO Number Range Objects
- SO02 SAPoffice: Outbox
- **SO03** SAPoffice: Private Folders
- SO05 SAPoffice: Private Trash
- SO06 SAPoffice: Substitutionon/off
- SO07 SAPoffice: Resubmission
- SO10 SAPscript: Standard Texts
- SO12 User Master
- SO13 Substitute
- SO15 DistributionLists

- SO17 Delete Shared Trash
- SO18 Shared Trash
- SO21 Maintain PC Work Directory
- SO31 Reorganization (daily)
- SO36 Create Automatic Forwarding
- **SO38** SAP office: Synchr. of Folder Auths.
- SO40 SAPoffice: Cust. LayoutSet MAIL
- SO41 SAPoffice: Cust. LayoutSet TELEFAX
- SO70 Hypertext: Display/Maint. Structure
- SO71 Test plan management
- SO72 Maintain Hypertext Module
- SO73 Import graphic into SAPfind
- **SO95** Pre generated Search Queries Selec.
- **SOA0** ArchiveLink Workflow document types
- **SOBJ** Attribute Maintenance Objects
- **SOPE** Exclude Document Classes
- SOTD SAP office: Maintain Object Types
- SOY1 SAP office: Mass Maint. Users
- **SOY2** SAP office: Statistics data collect.
- SOY5 SAP office: Inbox overview
- SOYA SAPoffice: Change folder owner
- SP00 Spool and Relate Area
- SP02 Display output Requests
- SP03 Spool: Load Formats
- SP11 TemSe Contents
- SP12 TemSe Administration
- SPAD Spool Management
- SPAM SAP Patch Manager (SPAM)
- SPAU Display Modified DE Objects
- SPCC Spool Consistency check
- SPHA Telephony administration
- SPIC Spool : Installation Check

- SPRM Current Customizing
- SPRO IMG Customizing
- **SQ01** SAP Query: Maintain queries
- SQ02 SAP Query: Maintain funct. areas
- SQ03 SAP Query: Maintain user groups
- **SQ07** SAP Query: Language comparison
- SSAA System Administration Assistant
- SSCA Appointment Diary: Administration
- **SSM1** Session Manager generation call
- SSM5 Create Activity Group
- ST02 Setups/Tune Buffers
- **ST03** Performance, SAP Statistics, Workload
- ST04 Select activity of the databases
- **ST07** Application monitor
- **ST10** Table Call Statistics
- ST11 Display Developer Traces
- ST22 ABAP Runtime Error Analysis
- ST22 ABAP/4 Runtime Error Analysis
- **ST62** Create industry short texts
- **STAT** Local transaction statistics
- **STUN** Performance Monitoring
- **STW1** Test Workbench: Test catalog
- STW2 Test workbench: Test plan
- STW3 Test workbench: Test package
- STW4 Test Workbench: Edit test package
- SU01 Maintain User
- SU02 Maintain Authorization Profiles
- SU03 Maintain Authorizations
- SU11 Maintain Authorizations
- SU12 Mass Changes to User Master Records
- SU20 Maintain Authorization Fields
- SU21 Maintain Authorization Objects

- SU22 Auth. object usage in transactions
- SU24 Disables Authorization Checks
- SU25 Imports SAP Check Indicators defaults
- SU26 Adjust Authorization checks
- **SU30** Total checks in the area of auth.
- SU52 Maintain own user parameters
- SU53 Display check values
- SU54 List for Session Manager
- SU56 Analyze User Buffer
- SUMM Global User Manager
- **SUPC** Profiles for activity groups
- SUPF Integrated User Maintenance
- SUPO Maintain Organization Levels
- SWDC Workflow Definition
- **SXDA** Data Transfer Workbench

SAP Basis Daily Monitoring Tcodes

Proactive monitoring of the SAP systems, will help to understand issues in advance & helps us to take corrective actions and thus will lead to lesser downtime of the systems, improving profitability of the business organisation.

Monitoring can be focused on ABAP stack(including database checks), Java Stack and Oslevel checks.

ABAP Stack Checks :

SM50 : (Process Overview)

This transaction code will be useful to view the processes that are running currently in an sap insance. In this view you can check whether there are free workprocesses to execute the processes. If all the workprocesses are in running state and no work process is idle it means that wait times will increase for the processes that are waiting in the dispatcher queue leading to performance degradation. If you find that there are no free workprocesses for maximum times that you may consider, increasing the number of workprocesses.

How to increase the number of work processes

SM66 : (Global process overview)

This transaction code will be useful to view the processes that are running across all instances/application servers of a SAP system. Similar to SM50 checks can be done in this transaction as well.

SM51 : (Application servers status)

This transaction code will be useful to view all the hostnames and application servers status. If any application server is down, the same can be identified using status of the server column. We can also figure out different Message types (Dialog, Batch, Update, Upd2, Spool, ICM etc) configured for the respective servers.

SM12 : (Lock entry list)

This transaction code will be useful to view all the sap locks that are present in the system. As part of monitoring, we need to look for any old sap locks that are more than 1 day. If any such locks, we need to analyse the reason for that lock for such longer duration and take actions accordingly. A lock can be set for such a long duration due to a long running background job or a lock is not released due to an application error or a program terminated abruptly but lock not released etc.

How to delete a sap lock?

ST22 : (ABAP Dumps)

This transaction code will be useful to view all the abap dumps that have occured in the system on a given day. As part of daily monitoring, it is the responsibility of the basis administrator to analyse the dumps and take necessary actions to avoid issues.

Some of the examples of abap dumps are timeout issue, database space issue, spool overflow issue etc

SM21 : (System log)

This transaction is useful to view the log of the sap system for various operations. This log will be very useful to identify various issue in advance and to take necessary measures. System log is the place to check out for any timeout, network issues, database space issues, message server issues, spool overflow, locktable overflow etc issues.

Additional

details

SAP System log

SM13 : (Update Requests overview)

This transaction is useful to figure the status of update system. Incase an update is inactive we can figure out the same from this transaction and necessary action can be taken and update can be activated again.

Update got deactivated. what is the reason for update deactivation? How to activate the update ?

SM14 transaction can be called internally from SM13. These both transactions are useful for update administration.

In SM13, you can select status (canceled, to be updated, v1 executed, v2 executed, all) and time interval during which you would like to view the status execute to check the overview of updates as per the status and time interval selected.

In case of canceled updates, analysis to be done whether to repeat update.

ST02 : (Tune summary)

This transaction will be used to monitor

- Buffer statistics like hitratio, swaps, db access details, size of buffer and free size of buffer etc
- Important statistics related to Roll area, Page area, Extended memory and heap memory
- Call statistics like select, insert, update and delete

As a basis administrator, it is our responsibility to ensure there is more hit ratio for the buffers and less swaps to ensure efficient performance of the sap system. In case you see there are more swaps and less hit ratios for most of the buffers, then tuning buffers to be carried out to ensure optimal performance.

DB12 (Backup logs) : This transaction is useful to check the details of

- last successful backup
- overview of database backups (Success / failure of backup with log details)
- Archiving directory status (Free space of oraarch)
- Overview of redolog files (Number of redologs that are not yet backed up)
- overview of redolog backups (Success / failure of backup with log details)

DB13 (DBA Planning calender) :

This transaction will be useful to schedule various database backups & clean up jobs like (whole database backup offline/online, Full backup online/offline, incremental backup offline/online, redolog backup, update statistics, check db, cleanup logs, compress database, verify database, initialize tape and validate structure jobs).

In this transaction, you can also check the status of every job that was scheduled and can reschedule in case of failures.

DB14 (DBA operations log) :

This transaction will be useful to check the status of following :

- Database backup
- Redolog backup
- BRSPACE log (extend tablespace issues etc)
- BRCONNECT operations (Update optimiser statistics , database check etc)

As an sap basis administrator it is our responsibility to check and ensure backups and other cleanup jobs are successful everyday. Incase of failures, should figure out root cause and take actions like rescheduling and ensure these jobs are successful.

SM37 (Job status overview) :

This transaction will be useful to have an overview of jobs with different statuses. As part of daily monitoring, SAP basis administrator should use this transaction to findout canceled jobs and active jobs(for eg: long running - more than 24hrs etc).

Incase of canceled jobs, root cause for the failure to be figured out from the logs of the respective job and to be actioned by rescheduling etc.

Incase of long running jobs, we need to figure out the reason for long running and action them accordingly.

In SM37, using extended job selection option, we can even select the jobs based on start condition, steps (like abap program, external command or external program), period etc

How to identify long running jobs in sap ?

How to troubleshoot a background job running for long duration in sap?

ST04 (Database alert logs and performance) :

This transaction will be useful for (oracle) database administration. In this screen, goto Alerts and drill down further. Click on "Database Check" to find out any errors or warnings related to database like MISSING_STATISTICS, STATS_TOO_OLD, LAST_BACKUP_FAILED, LAST_ARCHIVE_FAILED etc. After going through the error or warning in details take necessary corrective actions based on the error like running update stats again, re-triggering backup etc

Under Alerts, you can view Alert monitor which will summarize status of the database under different heads like

- Space Management
- Performance
- Backup/restore
- SAP Consistency
- Health

Drill down on each of these to find out potential problems. These are color coded for ease of administrator (Red for errors, yellow for Warnings and Green for OK status)

For Eg: If PSAPSR3 tablespace is >90%, you can see Space management in red color. Then it is the responsibility of Basis administrator to take necessary actions on the same.

SP01 (Check Spool status) :

This transaction is useful to find out the status of spool request and output request. In SP01 transcation, you can list the spool requests or output requests between a given interval.

In the list generated, you can check out the status of spool requests and findout any errors by drilling down further.

For eg: if so many spools are in waiting status, find out whether output device is available or not.

If many spool are in error status, figure out if there is any network issue and take necessary actions.

What are the different Spool statuses and their significance?

If customers complain that they are not able print anything from SAP, check out whether there is any spool overflow.

What is spool overflow? How to troubleshoot spool overflow issue?

<u>SXI Cache</u>: This Tcode is specific to XI or PI system. This Tcode is used to findout whether cache refresh is happening or not. Incase if cache refresh is happening successfully, it will indicate the same in green color. Otherwise it will be in red indicating a problem with cache refresh.

If there is a problem with cache refresh then basis administrator has to troubleshoot the same.

SLDCHECK : This Tcode will be useful to figure out whether connection to the SLD system from the system on which you are testing is fine or not. In case the connection is fine, all checks will appear in green. Incase of any issues, it will appear in red or yellow and then basis administator has to troubleshoot it and make sure SLDCHECK is working fine.

Ensuring SLDCHECK is working fine is important to keep all systems in the landscape in sync.

SXI_MONITOR: This TCode is specific to XI or PI system. This transaction will be useful to figure out any errors or warnings in the processing of XI or PI messages. In case of any issues, this needs to be informed to functional team and should be troubleshooted accordingly with the functional team inputs.

<u>DB01</u>: This transaction code is useful to findout the database locks that are present in the SAP system.

As part of daily monitoring, SAP Basis administrator has to figure out if there are any long pending locks more than 1 day etc and analyse reasons for the same. Sometimes if programs/jobs got terminated abruptly without removing the database locks set, this will lead to performance issues as other programs which needs that lock cannot set etc and they have to wait indefinitely as these locks won't get released automatically. In case of any long pending locks, Basis administrators should contact DBA team if any an dfigure out the reason for these locks and action accordingly

Jack Stack Checks : Please refer below links to understand Daily Java monitoring of SAP Landscape:

SAP Java monitoring check list 1

SAP Java monitoring check list 2

To monitor live Cache system, please refer below link :

Live Cache Monitoring in SAP

Please find below table which summarizes daily monitoring tasks that are to be performed by the SAP Basis Administrator :

Sno	Task
	ABAP Stack Checks
	1Check process overview(SM50)
	2Check overall system process overview(SM66)
	3Check application servers status(SM51)
	4Check for any pending locks (SM12)
	5Check for Dumps in the system(ST22)
	6Check System log for any errors(SM21)
	7Check for any hanged updates or update status(SM13)
	8Check for excessive swapping (ST02)
	9Check for critical job status like backup, updatestats, checkdb etc(DB13)
	10Check for longrunning/failed jobs status(SM37)
	11Check database alertlogs and performance(ST04)
	12Check spool job status (SP01)
	13Check cache status (sxi_cache) for PI System
	14Check SLD functionality(SLDCHECK)
	15Check SXI_MONITOR for PI system
	16Check for Database locks(DB01)
	Java Stack Checks
	1Check java portal accessibility using link
	2Check server0 log for java system for critical errors
	3Check accessibility of management console
	4Check server node status
	5Check default trace for critical java errors
	6Check java reports for memoryconsumption/swapping

Os level checks