

# **Eden Server Technical Information**

Version 4.0 Level U

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## System Components

Eden Server is designed to allow organizations running mainframe based Batch and CICS COBOL applications to migrate those application systems off the mainframe and operating system and onto the Microsoft Windows platform. In order to accomplish task, and to provide a suitable environment in which to operate, maintain and extend the original COBOL applications, Eden Server includes a wide variety of tools and features.

The primary components of Eden Server are:

**Eden Server** is a multi-threaded, multi process, TCP based server capable of supporting 5 CICS regions with up to 1,000 concurrent users and 50 concurrent batch jobs. Eden Server may be run as either a desktop application or a system service.

**Eden Remote Console** is a TCP based user interface that provides remote administrators access to the Eden Server system console. The remote console is also used when Eden Server is executing as a system service.

**Eden Client** is an advanced 3270 capable client interface which may be run in distributed or thin modes on your intranet or the internet.

**Eden Web Client** is a web based version of the standard Eden Client interface which runs on the internet and provides a number of methods for integrating CICS applications with new or existing web pages. Note all Eden Client software runs in both traditional 3270 'green screen' and enhanced GUI modes.

**Eden Region Manager** is a point-and-click configuration tool for defining all settings of a CICS region.

**Eden Web Manager** is a point and click tool for defining and publishing applications for the Eden Web Client.

**Eden Screen Editor** is a WYSIWYG editor for BMS maps, capable of producing BMS maps that include advanced GUI's such as check-boxes, radio buttons and the like.

**COBOL and BMS Assembler preprocessors** capable of compiling native mainframe source code for use with the Eden Server system.

**The Eden JOBS interface** is a complete series of advanced CICS transactions which provide both user and system-administrator access to the batch subsystem of Eden Server.

**The Eden User Security interface** is a complete series of advanced CICS transactions which allow system administrators to manage Eden Server user access rights.

**RMSFILE** and **RMSSORT** are batch utilities designed to provide functionality equivalent to the mainframe IDCAMS utility as well as SORT/MERGE capabilities.

## **Distributed Processing**

In order to provide the throughput required for robust CICS applications as well as high user work loads, the Eden Server system is implemented as a distributed processing environment where system functions and application work are split across the server and client CPU's.

This design not only reduces network traffic, it also minimizes server CPU and RAM requirements, thus significantly improving overall transaction processing rates.

User programs, i.e., CICS application programs, are executed on the client machine. Execution of logic to support individual EXEC CICS commands is command dependent and will take place on either the client or the server machine depending upon the individual commands.

CICS command execution and whether the required logic is client or server based is dependent upon the resources being accessed or updated. Commands related to global resources are executed on the server while resources that are transaction specific are executed locally on the client machine.

Other significant benefits of implementing CICS applications in a distributed environment are increased reliability and availability of the CICS region itself. In a traditional CICS region, CICS system data areas, CICS system programs, User programs and data areas all reside within the same address space. In such an environment, the possibility of a system crash is increased. This is due to user code and system code being intermingled and each having the ability to corrupt the other. The nature of such an arrangement allows that one errant user program can easily bring down an entire CICS region.

These issues are irrelevant in a distributed environment because the CICS system areas and programs are completely isolated from the user programs and data – the CICS system is based on the server and access to all data contained therein is controlled by the server. The result of Eden's distributed approach is an extremely stable CICS region, even during program development activities.

## **Clustered Server Capabilities**

For those installations that prefer to maintain a centralized installation of server and client processes, instead of using a distributed 'Thick Client' approach, Eden Server may be installed in a clustered server environment.

An Eden Server cluster consists of one Master Server installed on one server machine and one or more Process Servers installed on one or more additional machines.

Use of an Eden cluster is recommended for installations that intend to run large numbers of Thin and/or Web Clients and the expected workload is very high.

Through the use of a cluster of servers, Eden can distribute the application work to process servers which should be directly connected to the Master Server via gigabit Ethernet. By using this approach, Eden can easily scale to meet the processing requirements of even the most demanding applications.

Note that use of process servers in the Eden environment does require one extra 'Process Server' license for each process server machine, however there are no other special hardware or software requirements.

## **Plug-in based architecture**

The design of both EServer and EClient are that of a framework within which plug-in modules are executed as threads to perform functions.

To understand the plug-in concept, a little knowledge of Eden's internal architecture is required.

The concept of a main EXE that uses plug-in modules is very similar in nature to that of a standard COBOL mainline that calls sub-routines. Or, from a PC programmer's perspective, the concept is that of an EXE and multiple serial DLL's that communicate via shared memory.

Essentially at the core of both client and server are buffer pools created at start up that serve as the shared memory mentioned above.

The construct of the buffer pools is implemented as a set of thread dispatch lists. By using this architecture, Eden Server not only runs exceptionally fast, but it is also very scalable.

Buffers are made up of a header area and a data area. The header area contains items used internally by the server/client and their associated buffer management routines. The data area is user definable and is based on the needs of the sending / receiving plug-ins. The data area is the equivalent of the program call stack used in traditional single threaded mainline – subroutine architectures.

Access to buffers, sending and receiving inter-thread requests are all handled by RMS routines and, unless there is a need to develop special purpose client or server plug-in modules, all aspects of writing applications to function within Eden's multi-threaded frameworks are completely transparent. See the section titled 'User Developed System Logic', later in this document for more information on adding user logic to Eden Server.

## Standard Eden Server Functionality

### Eden Server modules

Module	Description
RMS0002	TCP/IP receiver
RMS0003	TCP/IP sender
RMS0004	Firewall and security
ESERVICE	Eden Server controller (when running as a Windows Service)
ESERVER	Eden Console GUI (when running as a desktop application)
RMS0006	TCP/IP Asynchronous Manager
RMS0007	Delayed Buffer Manager
RMS0008	Console Log File IO Driver
RMS0009	CICS Region 1 Manager
RMS0010	CICS Region 1 Temporary IO Driver
RMS0011	CICS Region 2 Manager
RMS0012	CICS Region 2 Temporary IO Driver
RMS0013	CICS Region 3 Manager
RMS0014	CICS Region 3 Temporary IO Driver
RMS0015	CICS Region 4 Manager
RMS0016	CICS Region 4 Temporary IO Driver
RMS0017	CICS Region 5 Manager
RMS0018	CICS Region 5 Temporary IO Driver
RMS0019	CICS Region 1 Indexed (VSAM KSDS) IO Driver
RMS0020	CICS Region 1 Sequential (VSAM ESDS) IO Driver
RMS0021	CICS Region 1 Relative (VSAM RRDS) IO Driver
RMS0022	CICS Region 2 Indexed (VSAM KSDS) IO Driver
RMS0023	CICS Region 2 Sequential (VSAM ESDS) IO Driver
RMS0024	CICS Region 2 Relative (VSAM RRDS) IO Driver
RMS0025	CICS Region 3 Indexed (VSAM KSDS) IO Driver
RMS0026	CICS Region 3 Sequential (VSAM ESDS) IO Driver
RMS0027	CICS Region 3 Relative (VSAM RRDS) IO Driver
RMS0028	CICS Region 4 Indexed (VSAM KSDS) IO Driver
RMS0029	CICS Region 4 Sequential (VSAM ESDS) IO Driver
RMS0030	CICS Region 4 Relative (VSAM RRDS) IO Driver
RMS0031	CICS Region 5 Indexed (VSAM KSDS) IO Driver
RMS0032	CICS Region 5 Sequential (VSAM ESDS) IO Driver
RMS0033	CICS Region 5 Relative (VSAM RRDS) IO Driver
RMS0034	Background Manager
RMS0035	Job Scheduler
RMS0036	Thin Client Manager
RMS0037	Registration Manager
RMS0038	File Transfer Manager
RMS0039	Spool Manager
RMS0040	Printer Driver

RMS0041	CICS Region 1 Transient Data Queue Driver
RMS0042	CICS Region 2 Transient Data Queue Driver
RMS0043	CICS Region 3 Transient Data Queue Driver
RMS0044	CICS Region 4 Transient Data Queue Driver
RMS0045	CICS Region 5 Transient Data Queue Driver
RMS0046	Server MAPI Email Sender
RMS0047	Tape Manager
RMS0048	Performance Monitor
RMS0049	Host Manager
RMSMODF	File transfer driver program
RMSSERV	TCP/IP support module driver program
RMSW32	Miscellaneous WIN32 support
RMSCALLS	Eden Server API support module (version 2.61 or higher systems only)
RMSFORMS	Forms processing utility
RMSS9999	Standard Dialog box driver
RMSDVC01 Through RMSDVC16	Low level Tape device controllers for devices TAPE0 through Tape15
RMSSMTP	Outgoing (only) SMTP mail client
RMPROC	Background Manager support module
RMSW32	Miscellaneous WIN32 support
RMSWINDB	GUI Dialog Box Manager (multi Threaded, Windows version)

All modules in the above list are DLL files, except ESERVER and ESERVICE which are EXE files.

### Server side Thin Client modules

<b>Module</b>	<b>Description</b>
ICLIENT	Base internal client shell
RMSTCPR	TCP/IP receiver (internal client to server)
RMSTCPS	TCP/IP sender (internal client to server)
RMSTCPR2	TCP/IP receiver (internal client to thin client)
RMSTCPS2	TCP/IP sender (internal client to thin client)
RMS3270	3270 Data Stream interpreter
RMSCRYPTO	Data compression and encryption
RMSSRVR	Low level TCP/IP server support
RMSFMTM	EXEC CICS FORMATTIME support
RMSCLNT	Low level TCP/IP client support
RMSSCRN	Screen manager
RMSCICS	CICS client manager
RMSDELAY	CICS support
RMSKEY1	Keyboard emulation
RMSW32	Miscellaneous WIN32 support
RMSLOAD	CICS LOAD PROGRAM support
RMSS9999	Standard Dialog box driver
RMSUCALL	EPI/ECI API support

All modules in the above list are DLL files, except ICLIENT which is an EXE file.

### Server side Printer Client modules

<b>Module</b>	<b>Description</b>
PCLIENT	Base internal printer client shell
RMSTCPR	TCP/IP receiver (internal client to server)
RMSTCPS	TCP/IP sender (internal client to server)
RMSLOAD	CICS LOAD PROGRAM support module
RMSCLNT	TCP/IP support
RMSLOAD	CICS LOAD PROGRAM support
RMSFMTM	EXEC CICS FORMATTIME support
RMSCRYPTO	Data compression and encryption
RMSLOAD	CICS LOAD PROGRAM support
RMS3270	3270 Data Stream interpreter
RMSSCRN	Screen manager
RMSCICS	CICS client manager
RMSDELAY	CICS support
RMSKEY1	Keyboard emulation
RMSUCALL	EPI/ECI API support module
RMSS9999	Standard Dialog box driver
RMSDLGB	Thin client to Eden console interface

All modules in the above list are DLL files, except ICLIENT which is an EXE file.

### Client side Thin Client modules

Module	Description
ECLIENTT	Thin Client shell
RMSTCPR	TCP/IP receiver (internal client to server)
RMSTCPS	TCP/IP sender (internal client to server)
RMSCLNT	TCP/IP support
RMSCRYPTO	Data compression and encryption
RMSPRNT	Character screen printer driver
RMSTCALL	EPI/ECI API support module
RMSLOAD	CICS LOAD PROGRAM support module
RMSDLGP	Print Setup Dialog Box driver
RMSW32	Miscellaneous WIN32 support
EPISHELL	GUI Client interface
RMSUPGR	Software auto-update manager
TCLIENT	Internal Client core
RMSS9999	Standard Dialog box driver

All modules in the above list are DLL files, except ECLIENTT which is an EXE file.

### Eden Client modules

Module	Description
ECLIENT	Stand-alone client shell
UCLIENT	Callable EPI/ECI client module
RMSTCPR	TCP/IP receiver
RMSTCPS	TCP/IP sender
RMSCICS	CICS support
RMSLOAD	CICS LOAD PROGRAM support module
RMSSCRN	Screen manager, BMS map support
RMSKEY1	Keyboard manager
RMSPRNT	Formatted Screen print
RMSCLNT	TCP/IP support driver program
RMSDLGP	Print Setup Dialog Box driver
RMSMODF	File transfer driver
RMSS9999	General purpose GUI dialog box support
RMSUPGR	Software auto-update manager
RMSCRYPTO	Data compression and encryption
RMSUCALL	EPI/ECI API support module (version 2.61 or higher systems only)
RMSDELAY	CICS support
RMSS9999	Standard Dialog box driver

All modules in the above list are DLL files except ECLIENT which is an EXE file.

### Eden Manager modules

Module	Description
EMANAGER	TCP/IP receiver
MAKEUSR	User Plug-in builder / Preprocessor
MAKEFIO	High Performance File IO builder / Preprocessor
RMSS9999	GUI Dialog Box support

All modules in the above list are DLL files except EMANAGER which is an EXE file.

### Integrated Preprocessors

Module	Description
BMSPREP	BMS Assembler preprocessor
RMSFGEN2	High Performance File IO preprocessor
RMSPPNE	Cobol CICS preprocessor

All modules in the above list are DLL files.



## **User developed system logic**

The need for processing not provided in Eden Server's standard functionality may arise. In this event, there are several methods for the user to incorporate custom features and processes into Eden Server and / or Eden Client.

Custom server plug-ins may be developed by the user to perform whatever functions the user desires. Through the use of a plug-in shell and programming instruction (available from RMS), the user can develop a plug-in that can perform any or all of the following:

- Dynamic creation, display and use of a properties notebook on the server console screen. Information maintained in the notebook will be stored in the EServer.INI file.
- Access to server data areas.
- Access to CICS region and user information.
- Ability to send and receive commands to and from other system plug-ins.
- Ability to submit commands to the system console input queue for processing.
- Ability to start Batch jobs.

The shell plug-in program performs all processing required to allow the program itself to function as an Eden Server plug-in, while providing points within the program for the programmer to either insert their own logic developed in COBOL or to call programs developed in other languages. This provides the user with an effective way to include pre-existing logic from other systems in their Eden Server installation.

Note: such existing logic routines may be written in any language. Routines can be loaded dynamically as DLL's or statically by linking the plug-in shell OBJ file with the subroutine OBJ to produce a DLL.

It should especially be noted that the Eden Server provides an open framework from which new functions can easily be added through new plug-in development. Links to external data sources and communications systems are easily possible using the standard plug-in routines available from RMS.

## System Specifications

### Eden Server hardware / OS requirements

Operating system	Windows NT version 4.0 or higher. Windows 2000 (all versions), Windows XP and Windows Server 2003 (all versions) in workstation or server versions. Winsock version 2.0
CPU	At least one Pentium 3 (333Mhz or higher). Multi-CPU configurations are supported. Multiple Pentium 4 recommended.
Memory	Minimum 512 Meg. One Gigabyte or higher recommended.

### Eden Server system limitations

Maximum Users	Up to 1,000 Users per Eden Server are allowed.
CICS Regions	Up to five regions may be run concurrently per Eden Server. Multiple servers are recommended for program development and production environments.
Transient Data Queues	Up to 500 intra-partition TD queues per CICS region.
Temporary Storage	Up to 10,000 TS queues per CICS region may be open concurrently. Individual TS queue size limited only by disk space.
CICS Resource ENQ's	Up to 1,000 outstanding ENQ's and or ENQ waits per CICS region at a time.
File Handling	Up to 450 high performance file-IO DLL's per Eden Server, with one file per high-performance DLL and up to 1500 additional open files per CICS region (500 indexed, 500 sequential and 500 relative) using standard performance file-IO DLLs. Maximum (per file) browses and locks are configurable from 1 to 100 per file.
BMS Maps	Up to 99 maps per BMS mapset are supported. No limit on the number of BMS mapsets, unless program caching is in effect at which time the limit is 2000 BMS mapsets per CICS region.
CICS application programs	256 Meg W/S per program maximum, 4.0 Gig Ram maximum per CICS session/process. No limit on number of programs per region unless program caching is in effect, at which time the limit is 2000 programs per CICS region.
Timer Events / Task Control	Up to 100 unique task control and / or timer events may be active per CICS region concurrently.
Background Processes	Up to 50 concurrent background processes (batch jobs) may be active under Eden Server control.

### **Eden Thick Client hardware / OS requirements**

Operating system	Windows 95 (latest version only) or later (2000, 2003, XP, etc). Winsock version 2.0
CPU	Pentium 3 or higher. Multi-CPU configurations are supported, however they are not required.
Memory	Minimum 128 Meg, 256 Meg is recommended.

### **Eden Thin Client hardware / OS requirements**

Operating system	Windows 95 (latest version only) or later (2000, 2003, XP, etc). Winsock version 2.0
CPU	Pentium 3 or higher. Multi-CPU configurations are supported, however they are not required.
Memory	Minimum 64 Meg, 128 Meg is recommended.

### **Eden Web Client hardware / OS requirements**

Operating system	Any version of Windows 2000 or Windows 2003. Winsock version 2.0
Web Server	Microsoft IIS or Apache
Web Browser	Any version of Microsoft IE, Netscape, Mozilla, Firefox
Web Server CPU	Pentium 3 or higher. Multi-CPU configurations are supported, however they are not required.
Web Server Memory	Minimum 512 Meg
Web Browser machine	Any OS, Any memory

## Server Configurable Items

Eden Server and its various components are all configurable by using various EServer tabbed notebook displays. The configuration notebooks and items that may be configured for Eden Server are as follows:

### System Preferences Notebook

Startup Tab	TCP/IP, the Console Log screen, the Background Manager, the Job Scheduler each of the available five CICS regions and all EServer monitor screens may be selected to be auto-started during EServer startup.
Initialize Mode Tab	A quick or full start-up mode may be selected as standard for each of the three types of shutdowns, i.e., normal shutdown, unknown shutdown and abnormal shutdown.
System Log Tab	Selections for when the console log disk file is to be reset (at EServer start-up, start of new day, or when a specified file size has been reached) may be made. Whether or not to maintain archive copies of old log entries and where to maintain them may also be set. The display mode for the system log screen may also be set for a default view of time of day or message code.
Regions Tab	Each of the five available region slots may be configured for a particular region name. Quick access to the EManager utility is also provided.
UPS Tab	Fully configurable for system warnings and automatic shutdown due to AC power related events.

### TCP/IP Notebook

Server Tab	The TCP/IP server's listen to port may be set to any available port number.
Async Tab	Activation of asynchronous, i.e., overlapping, TCP/IP output. If activated, the type of termination processing, either one pass or multi pass, may also be specified.
Ping Tab	Activation of client ping processing and the duration, in seconds, of a ping / no response disconnect loop. Note: ping and disconnect

processing are not affected by long running transactions or other client side activities.

## Firewall Notebook

IP Access Tab	Allowed and Disallowed IP address may be specified. Addresses may be entered singly, or in pairs to represent ranges (i.e., "0.0.0.0:255.255.255.255"). Address entries are restricted to numeric addresses; URL's are not allowed. Allowed addresses for ECOMM and Web Server connections may also be specified on this tab.  Entry of allowed addresses for the EComm remote access utility may also be made.
Licensing Tab	System serial number and RMS supplied license key settings must be entered here.
EConsole Tab	Activation of the EConsole remote console feature, login type settings as well as Allowed IP addresses for EConsole connections.
Miscellaneous	Activation of Windows Authentication using a named Master Domain Controller. Control of automatic or manual expired passwords as well as the ability to propagate password changes across CICS regions.

## Background Notebook

Job Logging Tab	Activation of job logging and specification of log file location and file name extension may be specified. The contents of job logs may be specified to include console log entries, detail job process entries, debug aids, and SYSOUT listings.
Run Shells Tab	For installations that use a run time environment (RTE) to execute command line programs, the name and command delimiter may be specified. These optional entries allow the background manager to more accurately report program names.
Console Tab	Limitations on the ability of jobs run through the background manager to send display or other information to the system console may be specified. Maximum number of lines allowed per job and disposition of job if exceeded may be specified.
Misc. Tab	Configuration for enforcing CPU usage limits on batch jobs and load balancing between jobs may be specified for each of the 1 to 50 available PID's

Settings may be used to control JCL processing to ensure no single jobs or set of jobs are able to monopolize the background managers resources.

Settings used to control how batch jobs that use the RMSFH file handler report file IO statistics at step end may also be made here.

## Scheduler Settings

- Disk Cleanup Tab** Specification of disk space cleanup and file deletion schedules, including separate definitions for jobs, job logs and reports and job log file name extension may be specified.
- PID Job Class** Class settings for each of the system managed process areas, a.k.a. PID's may be set. Job classes may be set to any alpha value, A through Z. PID's may also be defined with specific CPU time limits and run time execution priorities.
- Calendar Tab** Entry of upcoming holiday dates may be made on this tab. The Job Scheduler queries the Calendar tab entries once per day, or whenever the entries are changed.

## Client Settings

- Thin Updates** The name of the setup file used to update back-dated Thin Clients that connect to Eden Server. If enabled, thin client connections will always be automatically updated after new versions of Eden Server have been installed.
- Thick Updates** The name of the setup file used to update back-dated Thick Clients that connect to Eden Server. If enabled, thick client connections will always be automatically updated after new versions of Eden Server have been installed.
- CPU Usage** The control of CPU usage by thin clients, which execute in part as Eden Server based processes, may be controlled by specifying monitoring criteria for thin client connections. Errant thin client connections may be configured to have their priority reduced, or to be abended by the server.
- Idle Disconnect** The length of time during which a client session may be inactive, that is, not keyboard, mouse or other input being received prior to the server disconnecting the client session. Separate idle times may be specified for each different client connection type.
- Web Settings** This tab allows for the configuration of the web browser 'keep alive' feature, which ensures that clients accessing Eden via their web browser remain active and attached to Eden.

## **File Manager settings**

- GDG Catalog      The GDG catalog tab provides quick point and click access to the systems GDG catalog and the GDG entries therein. Catalog entries may be created, changed and maintained using the settings and fields on this tab.
- Catalog Options      The Catalog Options tab provides startup settings for the File Manager's verification processes to ensure the GDG catalog and all entries are intact. On demand catalog checks may also be requested from this tab.

## **Spool Manager settings**

Print Queue	The location of the Eden Server main print queue as well as print file extensions and associations may be specified.
Printers	Selection and configuration of printers that will be used by Eden Server for printing batch jobs may be made. Printers may be assigned unique class codes allowing customized routing of reports to specific printers based on JCL encoded class values for reports.
FCBs	Specification of forms layouts, using printer channel / line numbers may be entered, providing support for reports that use ANSI carriage control characters in columns 1.

## **Email Manager settings**

Driver tab	The type of underlying mail driver to use may be set to either a MAPI interface, or the Eden SMTP driver. Mail account information, if required by the associated mail server, may also be entered on this tab.
Accounts tab	Entry of the email account under which Eden Server sends email may be set.
Notiications tab	Selection and configuration of automatic email notification processing may be made on this tab.

## **Tape Manager settings**

Devices Tab	The devices which are configured for the current hardware profile may be viewed, selected for use. For changer devices, the cleaning slot may also be specified.
Media Tab	Catalogued media may be viewed, media contents may be listed and restore selections may also be made.
System Tab	Configuration for batch PID access to tape devices as well as maximum wait time for media mounts may be specified.
Changers Tab	Configuration and inventories of changer slots in a changer may be made.

## **Host Manager settings**

Server tab	Displays the license type, and indicates the type of server being run which is either a Master Server or a Process Server.
Host Server	For Process Servers, this tab is used to define the Master Server to which this process server should connect and accept commands from.
Process Servers	For Master Servers, this tab is used to establish a list of known and expected process servers which this Master Server may ship client run requests to.

## Region Configurable items

Through the EManager utility, CICS region information and EClient configurations are set. Items that can be specified are as follows:

**Data Files** EManager provides a complete GUI for defining indexed, sequential and relative files for use with EServer. Indexed file support is provided the EXTfH Net Express file handler. Sequential and relative files are supported through faster, low-level disk access routines.

Data files are configurable for exclusive or shared access, read only or read/write access. The number of concurrent browse operations per region and record locks per file / per transaction may be defined for all file types. Additionally, indexed files may be configured for automatic rebuilds in the event a corrupt index is found.

Indexed files may optionally be configured to include up to five alternate indexes.

All files managed by EServer are compatible with Net Express and are processed with the ASCII codeset only.

**Server Access** The IP address and port number where EServer can be found is configured for each region. Also configurable is the duration in seconds (0-99999) that EClient will wait for a response from EServer prior to issuing a NORESPONSE ABEND to the CICS transaction.

The following items that affect how a user's terminal session behaves and appears are configurable for each region:

**Y2K dates** For applications being migrated to Eden Server from older CICS products or emulators that were not updated for Y2K compliant EIBDATE formats, this configuration item allows EClient's EIBDATE to be formatted as the application expects it to be.

**JCL** The location (directory) of JCL (BAT files) used to process batch jobs for this region. This configuration item is used in conjunction with the background manager and job scheduler plug-ins supplied with EServer.

Spool	<p>The location (directory) of where report output produced by BAT files from above should be spooled. The background manager will automatically create public and individual user spool sub-directories under this directory.</p> <p>Note: The JCL and Spool items are also used by the EClient "JOBS" transaction which is supplied with EClient.</p>
File Opens	Files handled by EServer may be configured for opening as part of the region start up procedure or on demand as IO requests are issued for them.
Disk controls	EServer will monitor the available disk space in each region's default data file directory to ensure that system failures do not occur due to disk spaces shortages. Two levels of control are available: Console warnings only and a failsafe mode that gracefully shuts down the region when a minimum disk space threshold is exceeded.
Initial TranID	An initial transaction ID can be specified so that each EClient session starts with an application display instead of a blank screen.
BMS	The location of compiled and linked BMS maps used by applications in the region.
Programs	The location of compiled and linked COBOL programs used by the applications in the region.
Data Files	The location for data files that EServer will manage for this region. Note: each file may specify an override location if desired.
System Items	Transaction ID and application program definitions.
Program Caching	The method by which distributed (i.e., LAN attached) clients perform application program loads may be set for caching which enables clients to run without any network drive mappings, or without caching via network drive mappings.
Report File IO	Access to and file IO on report files may be configured to be performed locally on the server, or remotely on the client workstation, depending upon the availability of a network drive mapping to the print queue directory.
Pseudo Devices	The number of pre-allocated processes to start for use in running non-terminal associated tasks may be configured from 1 to 99, thus eliminating the potential for user wait time while such processes are started at the beginning of the day.

Security	Settings for region security requirements and abilities including Operator sign-on and security level information.
Transient Data	Information on the regions available Transient Data Queues and each queues specific settings.
Terminal Printers	Information on which attached printer devices are to be used as which terminal printers.