



APPENDIX **B**

Configuration Files Descriptions

This module describes each of the configuration files used by the CM along with the configuration parameters in each file.

Each configuration file is divided into sections. Each section is identified by a heading; for example, **[config]**.

Any parameter that is not required in your configuration can be commented out by placing a **#** at the start of the line.

After changing any of the configuration file, the CM must be restarted to effect a change in the CM behavior.



Note

The configuration files supplied with the CM software installation contain tested valid settings. A user is not expected to change the settings. If it is necessary to change the configuration settings, care should be taken when making the changes.

General Configuration Files

This section describes the **cm.conf** and **queue.conf** configuration files.

- [CM Configuration, page B-1](#)
- [Queue Configuration, page B-5](#)

CM Configuration

This section describes the CM configuration file: **cm.conf**.

- [\[adapter\] Section, page B-2](#)
- [\[adapter_mem\] Section, page B-2](#)
- [\[adapter_start_timeout\] Section, page B-3](#)
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- [\[csv_adapter\] Section, page B-4](#)

[adapter] Section

The **[adapter]** section contains the following parameters:

- **automatic_start**
Defines whether starting or resetting the CM will start the adapters automatically.
Possible values for this parameter are **true** and **false**. The default value is **true**.
- **port**
Defines the adapter manager server port number. Possible values for this parameter are 1024-65535.
The default value is **33001**.
- **timeout**
Defines the timeout value in seconds for client adapters. Setting this parameter to **0** will disable the timeout.
- **connections**
Defines the maximum number of client connections per adapter.
Possible values for the parameter are 2-100. The default value is **20**.
- **directory**
Defines the location to save buffered RDR data. You can use the **~/** prefix for this parameter. The default value is **~/cm/adapters**.
- **adapter.<number>**
Defines the full class name of the adapter, where **<number>** is a unique id number. The adapter definitions must match the **adapter_id** parameters of the queues defined in the queue configuration file. See [Queue Configuration, page B-5](#).
- **parestart_start**
Defines the time in 24-hour format to start the periodic restart of the adapters. An example value for this parameter is **23:30**. The default value is **03:45**.
- **parestart_interval**
Defines the interval in minutes between periodic adapter restarts. Possible values for this parameter are 0-2147483647 (0 to $2^{31} - 1$), where **0** disables this functionality. The default value for this parameter is **10080** minutes (18 hours).

[adapter_mem] Section

The **[adapter_mem]** section contains the following parameter:

- **<Adapter class name>**
Defines the maximum heap size allocated to an adapter. The following is an example of setting this parameter:

```
com.cisco.scmscm.adapters.topper.TAAdapter=-Xmx512M
```



Note To run with Solaris JRE 64-bit, you must set the **-d64** flag.

```
com.cisco.scmscm.adapters.topper.TAAdapter= -d64 -Xmx4096M
```

You must include a definition of the memory allocated for an adapter if the necessary heap size is different from JVM's default maximum heap size.



Note The maximum value of this parameter is 2 GB for an installation on a Linux platform and 3.5 GB for an installation on a Solaris platform.
When running on Solaris JRE 64-bit you can set higher values for this parameter.

[adapter_start_timeout] Section

The [adapter_start_timeout] section contains the following parameter:

- <Adapter class name>

Defines the number of seconds the CM should wait for a specific adapter to start. The default value is 200 seconds. The following is an example of setting this parameter:

```
com.cisco.scmscm.adapters.topper.TAAdapter=600
```

[buffer] Section

The [buffer] section contains the following parameters:

- size
Defines the minimum number of accumulated bytes in the queue before a buffer dequeue.
Possible values for this parameter are 1-262144. The default value is **128000**.
- time
Defines the minimum number of milliseconds between buffer dequeues.
Possible values for this parameter are 0-10000. The default value is **1050**.
- file_limit
Defines the maximum number of files to store in each adapter's queue.
Possible values for this parameter are 1-49999. The recommended value is **10000**.

[queue] Section

The [queue] section contains the following parameters:

- upper_hysteresis
Defines the upper hysteresis level as a fraction of the total queue size.
Possible values for this parameter range from 0-1. The default value is **0.11**.
- lower_hysteresis
Defines the lower hysteresis level as a fraction of the total queue size.
Possible values for this parameter range from 0-1. The default value is **0.12**.
- config
Defines the queue configuration file. The file name defined for this parameter is the name of the queue configuration file described in [Queue Configuration, page B-5](#). The default value is **queue.conf**.

[categorizer] Section

The **[categorizer]** section contains the following parameters:

- **use_table**
Defines whether to categorize RDRs by using the table or by decoding the tag bits.
Possible values for this parameter are **true** and **false**. The default value is **true**.
- **rate_period_msec**
Defines the number of milliseconds between updates of incoming RDR rate calculation.
Possible values for this parameter are 5000-30000. The default value is **5000**.

[server] Section

The **[server]** section contains the following parameters:

- **port**
Defines the RDR server port number.
Possible values for this parameter are 1024-65535. The default value is **33000**.
- **connections**
Defines the maximum number of client connections.
Possible values for this parameter are 1-50. The default value is **50**.
- **timeout**
Defines the client timeout in seconds. The default value is **600**.
- **allow_multi**
Defines whether to allow concurrent connections from the same IP.
Possible values for this parameter are **true** and **false**. The default value is **false**.

[collector] Section

The **[collector]** section contains the following parameters:

- **notification_level**
Defines the length of time in milliseconds between successive UM notifications.
Possible values for this parameter are 0-60000. The default value is **10**.
- **log_directory**
Defines the directory to store log files. You can use the `~/` prefix for this parameter. The default value is `~/cm/logs`.

[csv_adapter] Section

The **[csv_adapter]** section contains the following parameter:

- **csvdir**
Defines the parent directory for CSV files. The default value for this parameter is `~scmscm/cm/adapters/CSVAdapter/csvfiles`.

Queue Configuration

This section describes the queue configuration file. The name of the queue configuration file is defined in the [\[queue\] Section](#) of the **cm.conf** configuration file.

Each section of the queue configuration file defines a queue. The section names, and hence the queue names, are all user defined. Each queue section has the following parameters:

- **adapter_id**
Defines a unique adapter id number. The id number must match the adapters defined in the **adapter.<number>** parameter in the **[adapter]** section of the **cm.conf** configuration file. See [\[adapter\] Section, page B-2](#).
- **priority**
Defines the priority level of the queue. Possible values for this parameter are 1-3. This parameter is deprecated and should not be changed.
- **warning_size**
Defines the number of RDRs that can be present in the queue before a warning is sent.
- **maximum_size**
Defines the maximum size of the queue.
- **tags**
Defines a list of RDR tag numbers that will be sent to this queue by the categorizer. The same tag can be sent to multiple queues.

The following is an example of a queue defined in the queue configuration file:

```
# Topper/Aggregator Adapter
[topper-hi]
adapter_id=3
priority=3
warning_size=40000
maximum_size=50000
tags=4042321920
```

Adapter Configuration Files

This section describes the configuration files for all of the possible adapters.

- [Topper/Aggregator Adapter, page B-5](#)
- [CSV Adapter, page B-9](#)
- [JDBC Adapter, page B-9](#)
- [RAG Adapter, page B-11](#)

Topper/Aggregator Adapter

This section describes the TA adapter configuration file: **taadapter.conf**.

- [\[config\] Section, page B-6](#)
- [\[rdr\] Section, page B-6](#)

- [\[csv\] Section, page B-7](#)
- [\[state save\] Section, page B-7](#)
- [\[db\] Section, page B-8](#)
- [\[app\] Section, page B-8](#)

[config] Section

The **[config]** section contains the following parameters:

- **num_top_entries**
Defines how many top entries are reported. The default value is **50**.
- **num_services**
Defines the maximum number of recognized services (including service 0). The default value is **32**.
- **all_services_index**
Provides an index that marks the "all subscribers" entry in the database/CSV files. The default value is **-1**. This parameter should not be changed.
- **agg_lengths**
Defines the length in minutes of each aggregation cycle. Each cycle must be divisible by the preceding one, or it will be rounded on startup.
- **time_base**
Defines the phase (time skew) of the aggregation cycles. The default value is **00:00**.

[rdr] Section

The **[rdr]** section contains the following parameters:

- **divide_1024**
Defines whether to divide all consumptions by 1024.
Possible values for this parameter are **true** and **false**. The default value is **false**.
- **table_name**
Specifies the logical name of the NUR table as it appears in **tables.xml**. The default value is **NUR**.
- **field_subs**
Defines the name(s) of the subscriber-id field as it appears in **tables.xml**. The default value is **SUBSCRIBER_ID**.

- **field_svc**
Defines the name(s) of the service counter id field as it appears in **tables.xml**. The default value is **SERVICE_ID,SUBS_USG_CNT_ID**.
- **field_up**
Defines the name(s) of the upstream volume field as it may appear in **tables.xml**. The default value is **UPSTREAM_VOLUME**.
- **field_down**
Defines the name(s) of the downstream volume field as it may appear in **tables.xml**. The default value is **DOWNSTREAM_VOLUME**.
- **field_sess**
Defines the name(s) of the sessions field as it may appear in **tables.xml**. The default value is **SESSIONS**.
- **field_sec**
Defines the name(s) of the seconds field as it may appear in **tables.xml**. The default value is **SECONDS**.

[csv] Section

The [csv] section contains the following parameters:

- **active**
Defines whether to activate CSV file creation.
Possible values for this parameter are **true** and **false**. The default value is **true**.
- **file_name_format**
Defines the format for CSV file names. The default value is **yyyy-mm-dd_hh-mm-ss'.csv'**.
- **dir_name**
Defines the storage location for CSV files. The default value is **~/cm/adapters/TAAdapter/csvfiles**.
- **write_headers**
Defines whether to write a descriptive header at the top of each csv file.
Possible values for this parameter are **true** and **false**. The default value is **false**.
- **metric_separator**
Defines the character to separate the metrics in the CSV file. The default value is **','**.
- **service_separator**
Defines the character to separate the services in the CSV file. The default value is **','**.

[state save] Section

The [state save] section contains the following parameters:

- **active**
Defines whether to activate state saving/loading.
Possible values for this parameter are **true** and **false**. The default value is **true**.
- **file_name**

Defines the name of the state file to be used for saving/loading. The default value is **taadapter.sav**.

[db] Section

The **[db]** section contains the following parameters:

- **name_of_total_subs**
Defines the designation of "all subscribers" in the database.
- **db_template_dir**
Defines the location of the main database configuration template relative to the CM config directory. The configuration file contains default values for each of the three possible databases; however, only one database can be configured at any one time. The possible values are:
 - Oracle: **dbpacks/oracle/9204e**
 - Sybase: **dbpacks/sybase/ase12.5.1**
 - MySQL: **dbpacks/mysql/4.0.20**The default value is **dbpacks/sybase/ase12.5.1**.
- **db_template_file**
Defines the name of the main database configuration template. The default value is **main.vm**. This parameter should not be changed.
- **operations_timeout**
Defines the maximum time in seconds allowed for the completion of database operations such as connecting, insertion, etc. The default value is **60**.
- **blocking_connects**
Defines whether to block connection attempts to the database.
Possible values for this parameter are **true** and **false**. The default value is **false**.
- **connection_timeout**
Defines the number of seconds to allow connection attempts to the database. The default value is **900**.
This parameter is not relevant if **blocking_connects** is set to **true**.
- **connection_wait_period**
Defines the number of seconds to wait between connection attempts. The default value is **10**.

[app] Section

The **[app]** section contains the following parameters:

- **app_conf_file**
Defines the name of the application configuration XML file. The default value is **dbtables.xml**.
- **app_dtd_file**
Defines the name of the application configuration DTD file. The default value is **dbtables.dtd**.

- `app_conf_dir`
Defines the location of the application configuration XML and DTD files relative to CM configuration directory. The default value is **apps/scasbb/3.5.0**.

CSV Adapter

This section describes the CSV adapter configuration file: **csvadapter.conf**.

[csvadapter] Section

The **[csvadapter]** section contains the following parameters:

- `maxCSVFiles`
Defines the maximum number entries in a CSV file. When reaching this number the counting will wrap back to 1.
Possible values for this parameter are 1-9999. The default value is **9999**.
- `rdrLimit`
Defines the maximum number of RDRs that can be written to a single file.
Possible values for this parameter are 1-1000. The default value is **1000**.
- `backupPreviousFiles`
Defines whether to back up existing CSV files before overwriting them.
Possible values for this parameter are **true** and **false**. The default value is **false**.
- `includeRecordSource`
Defines whether to include the record source (SCE IP) in each RDR line.
Possible values for this parameter are **true** and **false**. The default value is **false**.
- `escapeNonPrintables`
Defines whether to escape non-printable characters.
Possible values for this parameter are **true** and **false**. The default value is **false**.

**Note**

Setting **escapeNonPrintables** to **true** may negatively impact adapter performance.

JDBC Adapter

This section describes the JDBC adapter configuration file: **jdbcadapter.conf**.

- [\[bench\] Section, page B-9](#)
- [\[db\] Section, page B-10](#)
- [\[app\] Section, page B-10](#)

[bench] Section

The **[bench]** section contains the following parameter:

- `rate_period_msec`
Defines the time period between insert rate updates in milliseconds. The default value is **5000**.
Set this parameter to **0** to disable the insertions.

[db] Section

The **[db]** section contains the following parameters:

- `db_template_dir`
Defines the location of the main database configuration template relative to the CM config directory. The configuration file contains default values for each of the three possible databases; however, only one database can be configured at any one time. The possible values are:
 - Oracle: **dbpacks/oracle/9204e**
 - Sybase: **dbpacks/sybase/ase12.5.1**
 - MySQL: **dbpacks/mysql/4.0.20**
 The default value is **dbpacks/sybase/ase12.5.1**.
- `db_template_file`
Defines the name of the main database configuration template. The default value is **main.vm**. This parameter should not be changed.
- `batch_size`
Defines how many inserts can be made in a single batch. The default value is **10**.
- `transaction_size`
Defines how many batches can be made in a single transaction. The default value is **15**.
- `commit_interval`
Defines the maximum time in seconds between database commits. The default value is **6**.
- `operations_timeout`
Defines the maximum time in seconds allowed for the completion of database operations such as connecting, insertion, etc. The default value is **60**.
- `blocking_connects`
Defines whether to block connection attempts to the DB.
Possible values for this parameter are **true** and **false**. The default value is **true**.

[app] Section

The **[app]** section contains the following parameters:

- `app_conf_file`
Defines the name of the application configuration XML file. The default value is **dbtables.xml**.
- `app_dtd_file`
Defines the name of the application configuration DTD file. The default value is **dbtables.dtd**.
- `app_conf_dir`
Defines the location of the application configuration XML and DTD files relative to CM configuration directory. The default value is **apps/scasbb/3.5.0**.

RAG Adapter

This section describes the RAG adapter configuration file: **ragadapter.conf**.

- [\[config\] Section, page B-11](#)
- [\[housekeeper\] Section, page B-11](#)
- [\[db\] Section, page B-11](#)
- [\[app\] Section, page B-12](#)

[config] Section

The **[config]** section contains the following parameter:

- `xml_filename`

Defines the location of the application configuration XML and DTD files that define the real-time aggregation to be done by the RAG adapter. The default value is `~/cm/config/ragadapter.xml`.

[housekeeper] Section

The **[housekeeper]** section contains the following parameter:

- `interval_sec`

Defines the interval for the scheduled task to perform aggregation/sink operations. The default value is **10**.

[db] Section

The **[db]** section contains the following parameters:

- `db_template_dir`

Defines the location of the main database configuration template relative to the CM config directory. The configuration file contains default values for each of the three possible databases; however, only one database can be configured at any one time. The possible values are:

- Oracle: **dbpacks/oracle/9204e**
- Sybase: **dbpacks/sybase/ase12.5.1**
- MySQL: **dbpacks/mysql/4.0.20**

The default value is **dbpacks/sybase/ase12.5.1**.

- `db_template_file`

Defines the name of the main database configuration template. The default value is **main.vm**. This parameter should not be changed.

- `batch_size`

Defines how many inserts can be made in a single batch. The default value is **10**.

- `transaction_size`

Defines how many batches can be made in a single transaction. The default value is **15**.

- `commit_interval`

Defines the maximum time between database commits. The default value is **6**.

- `operations_timeout`
Defines the maximum time allowed for the completion of database operations such as connecting, insertion, etc. The default value is **60**.
- `blocking_connects`
Defines whether to block connection attempts to the DB.
Possible values for this parameter are **true** and **false**. The default value is **true**.

[app] Section

The **[app]** section contains the following parameters:

- `app_conf_file`
Defines the name of the application configuration XML file. The default value is **dbtables.xml**.
- `app_dtd_file`
Defines the name of the application configuration DTD file. The default value is **dbtables.dtd**.
- `app_conf_dir`
Defines the location of the application configuration XML and DTD files relative to CM configuration directory. The default value is **apps/scasbb/3.5.0**.