

## What is new in Enterprise Manager 10.2?

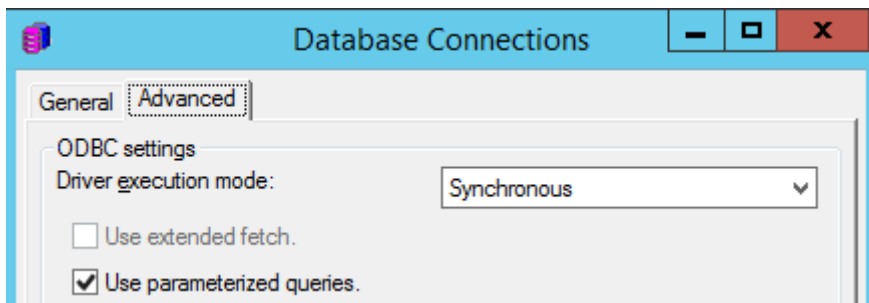
Enterprise Manager 10.2 is not dependent on Operations Manager and Health Center and can be controlled through MicroStrategy Command Manager. The operations that can be performed from Operations Manager > Enterprise Manager such as creating environment, creating data load and running data load etc., can now be done through Command Manager.

### Pre-requisites for setting up Statistics and data load in 10.2:

1. The DSN for Statistics logging and Enterprise Manager Warehouse (Statistics and Enterprise Manager Warehouse are in the same database) should be created using a certified driver. Check the following technical document for information on supported configurations:

TN258578: Certified Database and ODBC configurations for MicroStrategy 10.2 Secure Enterprise Platform

2. The statistics database instance > database connection should be configured to use parameterized inserts (this requirement exists in version 10.0 and 10.1 as well). This requirement was added since Parameterized queries helps with performance of the Data Load process



3. Even in a clustered environment, the Intelligence Server for which a data load is created should be running. Currently, there is no failover for the data load process in 10.2. If the Intelligence Server on which the DL was created has stopped responding, a new DL has to be created and used for execution using an Intelligence Server in the cluster that is up and running.
4. The Intelligence server name, project name, data load name etc., should be entered without any typos when creating/running the data load. In certain situations, typos in these names can result in data load execution inconsistencies. And the EM service can become unstable in the process. Follow the steps in TN268204 to reset the EM Service.

## How to upgrade to Enterprise Manager 10.2?

### Software Upgrade

At the time of software upgrade (to version 10.2), on machines where Enterprise Manager 9.x or 10.x – 10.1 is installed, Command Manager will also be installed on the same machine. For new installations of Enterprise Manager 10.2, when a user chooses the Enterprise Manager product, Command Manager will be installed as well.

### Enterprise Manager Warehouse/Statistics Upgrade

There is no Enterprise Manager/Statistics upgrade for users upgrading from versions 10.x/10.1 to version 10.2. However, users upgrading from 10.0, 10.0 Hotfix 1 or 10.1 should refer to the following Knowledge Base document and apply the fix provided in the workaround section:

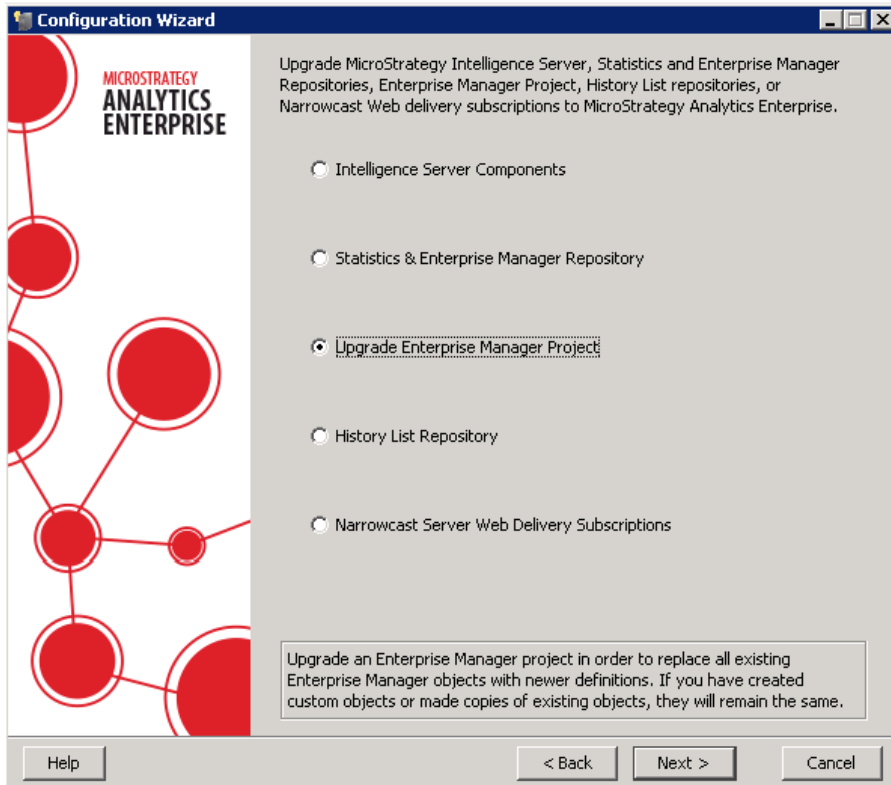
[TN269588](#): Newly created attributes are not added to the IS\_ATT table after running a data load in MicroStrategy Enterprise Manager 10.0 - 10.1

Users upgrading from versions 9.3.x/9.4.x to 10.2 should perform the upgrade of the Enterprise Manager Warehouse and Statistics from the Configuration Wizard. Refer to the following MicroStrategy Knowledge Base documents for details about the DML upgrade:

- TN214847: Data Manipulation Language (DML) Upgrade for Statistics Repository in MicroStrategy 10.0
- TN214848: Data Manipulation Language (DML) Upgrade for Statistics Repository in an Oracle database with Partitioning in MicroStrategy 10.0
- TN214849: Data Manipulation Language (DML) Upgrade for Enterprise Manager Warehouse in MicroStrategy 10.0

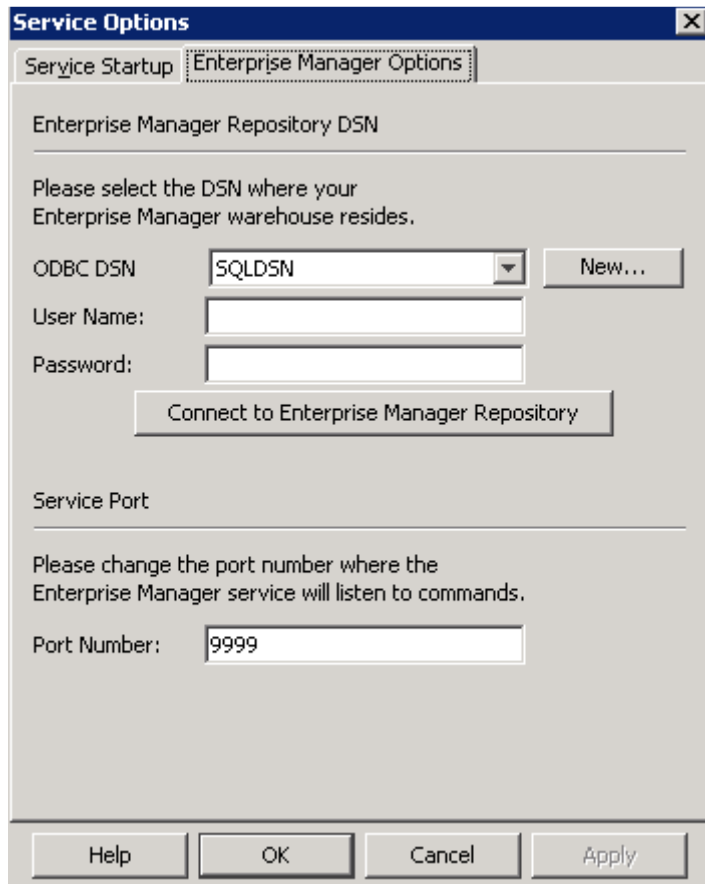
## Enterprise Manager Project Upgrade

The Enterprise Manager project can be upgraded to version 10.2 from MicroStrategy Configuration Wizard using the option below, which is available under 'Upgrade existing environment to MicroStrategy Analytics Enterprise'.



## How to access and configure Enterprise Manager Data Loader Service 10.2

The MicroStrategy Enterprise Manager Service will be controlled from MicroStrategy Service Manager like in versions 10.0 and 10.1. The Enterprise Manager Data Loader service can be started after setting up the Warehouse DSN and the required port under the service options as shown below:



The screenshot shows a dialog box titled "Service Options" with a close button (X) in the top right corner. The dialog has two tabs: "Service Startup" and "Enterprise Manager Options", with the latter being selected. The "Enterprise Manager Options" tab contains the following fields and controls:

- Enterprise Manager Repository DSN:** A section header.
- Instructions:** "Please select the DSN where your Enterprise Manager warehouse resides."
- ODBC DSN:** A dropdown menu showing "SQLDSN" and a "New..." button to its right.
- User Name:** A text input field.
- Password:** A text input field.
- Connect to Enterprise Manager Repository:** A button below the password field.
- Service Port:** A section header.
- Instructions:** "Please change the port number where the Enterprise Manager service will listen to commands."
- Port Number:** A text input field containing the value "9999".

At the bottom of the dialog, there are four buttons: "Help", "OK", "Cancel", and "Apply".

Refer to the following MicroStrategy Knowledge Base document in cases where users don't have access to a GUI to control and configure the data loader service:

- TN250929: How to start the Enterprise Manager Service through command line in MicroStrategy 10 on Linux/UNIX
- TN272905: How to set up the Enterprise Manager Repository for the 10.x Enterprise Manager Service in a UNIX/Linux environment without a GUI

## How to connect to Enterprise Manager Server 10.2 using Command Manager

GUI Action: Connect to EM server by clicking on Connect button

Connect to

### Enterprise Manager

#### Command Manager command:

```
CONNECT TO ENTERPRISE MANAGER "<em_machine>" IN PORT <port>;
```

#### Example:

```
CONNECT TO ENTERPRISE MANAGER "MSTR101.TEST.MICROSTRATEGY.COM" IN PORT 9999;
```

#### Related command to List EM Properties

```
LIST PROPERTIES FOR ENTERPRISE MANAGER "<em_machine>" IN PORT <port>;
```

#### Example

```
LIST PROPERTIES FOR ENTERPRISE MANAGER  
"MSTR101.TEST.MICROSTRATEGY.COM" IN PORT 9999;
```

**NOTE:** This command to connect is optional, as it just pings the server to check if it is up and running. On the GUI, this command is necessary to keep track of the current EM Server, as OM + EM GUI allows only one EM Server at a time. For using Enterprise Manager through Command Manager, users don't have to run this command.

## How to configure data load in Enterprise Manager 10.2

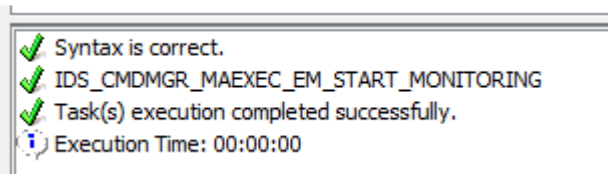
### Pre-requisite: Create an environment to be monitored:

This command has to be called for every environment for which a data load needs to be created.

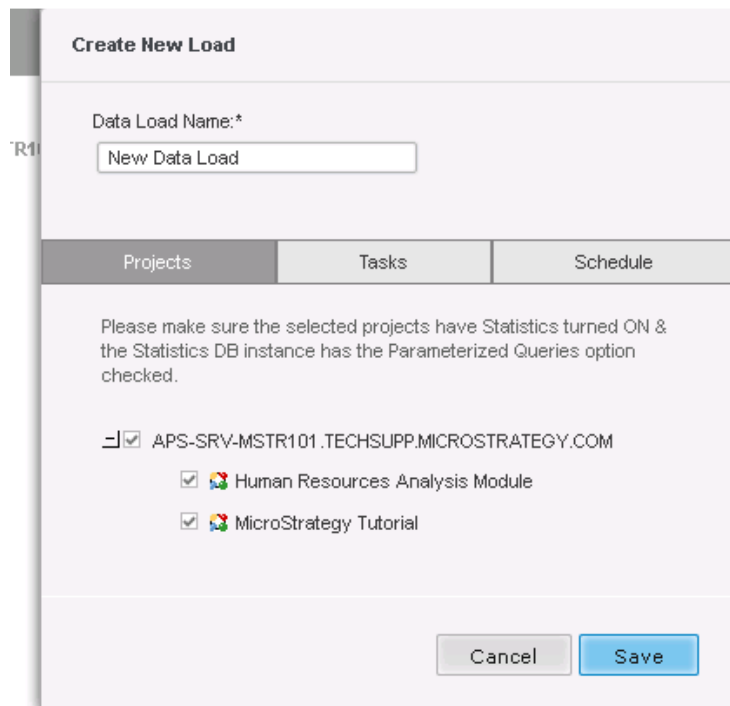
```
START MONITORING SERVER "<I-Server_machine_name>" IN PORT  
<port_number> USING USERNAME "<username>" PASSWORD "<password>" FOR  
ENTERPRISE MANAGER "<em_machine>" IN PORT <em_port>;
```

### Example:

```
START MONITORING SERVER "MSTR101_2.TEST.MICROSTRATEGY.COM" IN PORT  
34952 USING USERNAME "ADMINISTRATOR" PASSWORD "" FOR ENTERPRISE  
MANAGER "MSTR101.TEST.MICROSTRATEGY.COM" IN PORT 9999;
```



### Creating data load through the GUI:



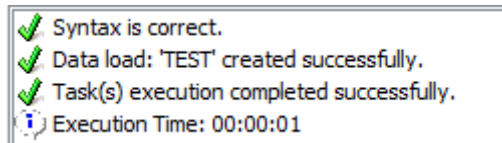
The screenshot shows the 'Create New Load' dialog box in Enterprise Manager. At the top, the title is 'Create New Load'. Below the title, there is a text input field labeled 'Data Load Name:\*' containing the text 'New Data Load'. Below the input field, there are three tabs: 'Projects', 'Tasks', and 'Schedule'. The 'Projects' tab is selected. Below the tabs, there is a message: 'Please make sure the selected projects have Statistics turned ON & the Statistics DB instance has the Parameterized Queries option checked.' Below the message, there is a list of projects with checkboxes. The first project is 'APS-SRV-MSTR101.TECHSUPP.MICROSTRATEGY.COM', which is checked. Underneath it, there are two sub-projects: 'Human Resources Analysis Module' and 'MicroStrategy Tutorial', both of which are also checked. At the bottom of the dialog, there are two buttons: 'Cancel' and 'Save'.

### Command Manager Command to create Data Load:

```
CREATE DATA LOAD "<name>" FOR ENVIRONMENT "<server_name>" AND PROJECT
"<project_name>" [, ENVIRONMENT "<server_name>" AND PROJECT
"<project_name>" ...] DO ACTION [UPDATEWAREHOUSE] [CLOSESESSIONS]
[REPOPULATETABLES] [UPDATESTATS] [UPDATEOBJECTDELETIONS] BEGIN DATE
<date> [TO <date>] FREQUENCY (DAILY | WEEKLY ON [MONDAY] [TUESDAY]
[WEDNESDAY] [THURSDAY] [FRIDAY] [SATURDAY] [SUNDAY] | MONTHLY ON DAY
<number>) (AT <time> | FROM <time> TO <time> EVERY <number> (MINUTES |
HOURS)) (ENABLED | DISABLED) IN ENTERPRISE MANAGER "<em_machine>" IN
PORT <port>;
```

### Example:

```
CREATE DATA LOAD "TEST" FOR ENVIRONMENT
"MSTR101_2.TEST.MICROSTRATEGY.COM" AND PROJECT "MICROSTRATEGY
TUTORIAL", ENVIRONMENT "MSTR102.TEST.MICROSTRATEGY.COM" AND PROJECT
"MICROSTRATEGY TUTORIAL" DO ACTION UPDATEWAREHOUSE CLOSESESSIONS
UPDATEOBJECTDELETIONS BEGIN DATE "10/22/2015 22:00:00 +0000" TO
"10/25/2015 22:00:00 +0000" FREQUENCY WEEKLY ON SATURDAY SUNDAY FROM
02:00:00 TO 06:00:00 EVERY 2 HOURS ENABLED IN ENTERPRISE MANAGER
"MSTR101.TEST.MICROSTRATEGY.COM" IN PORT 9999;
```



### Mandatory parameters:

- Projects (with Environments)
- Tasks/Actions (UPDATEWAREHOUSE, UPDATEOBJECTDELETIONS, REPOPULATETABLES, CLOSESESSIONS, UPDATESTATS)
- Schedule (Recurrence: Daily/Weekly/Monthly, Time Range, Date Range)

## How to setup data load for a clustered environment using Command Manager in 10.2?

### Symmetric Cluster

Consider a symmetric cluster of Intelligence Servers IS1 and IS2 with projects P1 and P2 loaded on both the nodes. To setup a data load for this environment, the following commands can be used. Note that the data load will be setup **ONLY** for one node of the cluster.

```
START MONITORING SERVER "IS1" IN PORT 34952 USING USERNAME  
"Administrator" PASSWORD "" FOR ENTERPRISE MANAGER "localhost" IN PORT  
9999;
```

```
CREATE DATA LOAD "TEST" FOR ENVIRONMENT "IS1" AND PROJECT "P1",  
ENVIRONMENT "IS1" AND PROJECT "P2" DO ACTION UPDATEWAREHOUSE  
CLOSESESSIONS UPDATEOBJECTDELETIONS BEGIN DATE "10/22/2015 22:00:00  
+0000" TO "10/25/2015 22:00:00 +0000" FREQUENCY WEEKLY ON SATURDAY  
SUNDAY FROM 02:00:00 TO 06:00:00 EVERY 2 HOURS ENABLED IN ENTERPRISE  
MANAGER "LOCALHOST" IN PORT 9999;
```

### Asymmetric Cluster

Consider an asymmetric cluster of Intelligence Servers IS1 with project P1, P2 and IS2 with projects P3, P4 loaded on each the node. To setup a data load for this environment, the following commands can be used. Note that the data load will be setup **ONLY** for one node of the cluster.

```
START MONITORING SERVER "IS1" IN PORT 34952 USING USERNAME  
"Administrator" PASSWORD "" FOR ENTERPRISE MANAGER "localhost" IN PORT  
9999;
```

```
CREATE DATA LOAD "TEST" FOR ENVIRONMENT "IS1" AND PROJECT "P1",  
ENVIRONMENT "IS1" AND PROJECT "P2", ENVIRONMENT "IS1" AND PROJECT  
"P3", ENVIRONMENT "IS1" AND PROJECT "P4" DO ACTION UPDATEWAREHOUSE  
CLOSESESSIONS UPDATEOBJECTDELETIONS BEGIN DATE "10/22/2015 22:00:00  
+0000" TO "10/25/2015 22:00:00 +0000" FREQUENCY WEEKLY ON SATURDAY  
SUNDAY FROM 02:00:00 TO 06:00:00 EVERY 2 HOURS ENABLED IN ENTERPRISE  
MANAGER "LOCALHOST" IN PORT 9999;
```

If users need to setup the data load against a different node of the cluster (after setting up a data load against one node), the 1<sup>st</sup> data load should be deleted and a new data load be created for the required I-Server.

**Note:** The start monitoring command has to be issued for that Intelligence Server, which will be used in the create data load command. If the Intelligence Server for which the data load is created is down, the



data load process cannot run. This is a current limitation with running a data load in a clustered environment. An enhancement request (US35649) has been modify this behavior.

### How to list all available data loads in an EM WH?

```
LIST ALL DATA LOADS IN ENTERPRISE MANAGER "<em_machine>" IN PORT  
<port>;
```

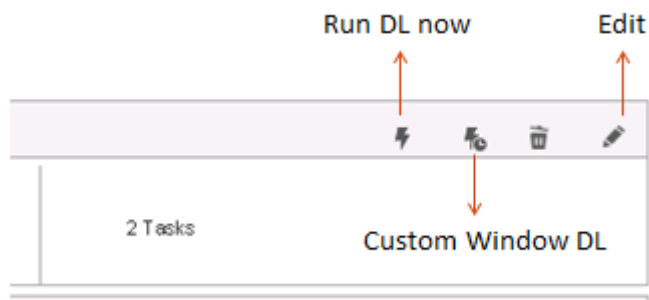
Example:

```
LIST ALL DATA LOADS IN ENTERPRISE MANAGER "localhost" IN PORT 9999;
```

```
ⓘ Data Load ID = 71FE6E4015126A0024E5073506262482  
ⓘ Data Load name = TEST  
ⓘ Data Load Type = Weekly  
ⓘ Next Execution = November 22, 2015 3:00:00 AM GMT  
ⓘ Enable = True  
ⓘ Start Date = November 20, 2015 12:00:00 PM GMT  
ⓘ End Date = August 17, 292278994 7:12:55 AM GMT  
ⓘ Execution days = *-----  
ⓘ Recurrence = 120  
ⓘ Begin Time = January 1, 1970 3:00:00 AM GMT  
ⓘ End Time = January 1, 1970 7:00:00 AM GMT  
ⓘ Monitored Environments  
  ⓘ Machine Name = localhost  
  ⓘ User Name = Administrator  
  ⓘ Port Number = 34952  
  ⓘ Projects  
    ⓘ Project = B19DEDCC11D4E0EFC000EB9495D0F44F  
ⓘ Selected Commands  
  ⓘ Command = UpdateWarehouse  
  ⓘ Command = CloseOrphanSessions  
=====
```

## How to run/execute data load in 10.2 using Command Manager

Data load options seen through the GUI are shown below:



### Manual Data Load/Run Data Load now

```
EXECUTE DATA LOAD "<data_load_name>" IN ENTERPRISE MANAGER  
"<em_machine>" IN PORT <port>;
```

Date format example: 10/25/2015 22:00:00 +0000

Example:

```
EXECUTE DATA LOAD "New Data Load" IN ENTERPRISE MANAGER "localhost" IN  
PORT 9999;
```

### Custom Time Window Data Load

```
EXECUTE DATA LOAD "<data_load_name>" WITH DATA FROM <start_date> TO  
<end_date> IN ENTERPRISE MANAGER "<em_machine>" IN PORT <port>;
```

Example:

```
EXECUTE DATA LOAD "New Data Load" WITH DATA FROM "10/25/2015 22:00:00  
+0000" TO "10/26/2015 22:00:00 +0000" IN ENTERPRISE MANAGER  
"localhost" IN PORT 9999;
```

### How to check the status of a data load?

LIST PROPERTIES FOR CURRENT DATA LOAD IN ENTERPRISE MANAGER "EM MACHINE" IN PORT <PORT NO>;

Example:

LIST PROPERTIES FOR CURRENT DATA LOAD IN ENTERPRISE MANAGER "localhost" IN PORT 9999;

```
=====
Data Load name = TEST
Progress = 6.95
Start Date = November 20, 2015 8:46:43 PM GMT
End Date =
Steps = MType=DEFAULT Finished DSS Migration for PROJECT in
=====
=====
```

To check the status of the most recent data load:

LIST PROPERTIES FOR **LAST** DATA LOAD IN ENTERPRISE MANAGER "EM MACHINE" IN PORT <PORT NO>;

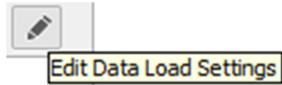
A successful data load shows up as:

```
=====
Data Load name = TEST
Progress = -2.0
Start Date = November 20, 2015 8:47:59 PM GMT
End Date = November 20, 2015 8:48:46 PM GMT
Steps =
=====
=====
```

**Note:** A value of -2 for the property 'Progress' indicates a successful data load. A value of -1 indicates a failed data load. For a failed data load, the property 'Steps' will have a finite value instead of no value, as in the case of a successful data load.

## How to edit a data load in 10.2

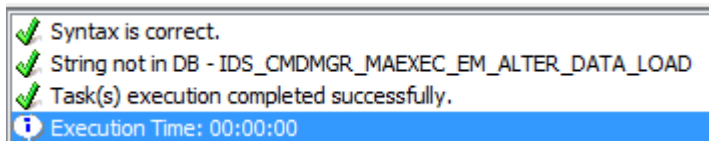
GUI ACTION: Edit data load by clicking on the button on the data load title bar



```
ALTER DATA LOAD "<name>" [NEW NAME "<new_name>"] [FOR ENVIRONMENT
"<server_name>" AND PROJECT "<project_name>" [, ENVIRONMENT
"<server_name>" AND PROJECT "<project_name>" ...]] [DO ACTION
[UPDATEWAREHOUSE] [CLOSESESSIONS] [REPOPULATETABLES] [UPDATESTATS]
[UPDATEOBJECTDELETIONS]] [BEGIN DATE <date> [TO <date>]]
[FREQUENCY (DAILY | WEEKLY ON [MONDAY] [TUESDAY] [WEDNESDAY]
[THURSDAY] [FRIDAY] [SATURDAY] [SUNDAY] | MONTHLY ON DAY <number>)]
(AT <time> | FROM <time> TO <time> EVERY <number> (MINUTES | HOURS)]
[(ENABLED | DISABLED)] IN ENTERPRISE MANAGER "<em_machine>" IN PORT
<port>;
```

### Example: Command to just alter the name of the data load

```
ALTER DATA LOAD "NEW TEST" NEW NAME "TEST" FOR ENVIRONMENT "localhost"
AND PROJECT "MicroStrategy Tutorial" IN ENTERPRISE MANAGER "localhost"
IN PORT 9999;
```



### Example: Command to alter the definition of a data load – DISABLE the data load

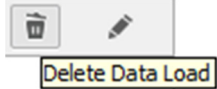
```
ALTER DATA LOAD "TEST" FOR ENVIRONMENT "localhost" AND PROJECT
"MicroStrategy Tutorial" DO ACTION UPDATEWAREHOUSE DISABLED IN
ENTERPRISE MANAGER "localhost" IN PORT 9999;
```

### Example: Command to modify the actions for a data load

```
ALTER DATA LOAD "TEST" FOR ENVIRONMENT "localhost" AND PROJECT
"MicroStrategy Tutorial" DO ACTION UPDATEWAREHOUSE CLOSESESSIONS
REPOPULATETABLES ENABLED IN ENTERPRISE MANAGER "localhost" IN PORT
9999;
```

## How to delete a data load in 10.2

GUI ACTION: Delete data load by clicking on button on the data load title bar.




### Command Manager Command

```
DELETE DATA LOAD "<data_load_name>" FROM ENTERPRISE MANAGER  
"<em_machine>" IN PORT <port>;
```

### Example:

```
DELETE DATA LOAD "New Data Load" FROM ENTERPRISE MANAGER "localhost"  
IN PORT 9999;
```

## Modify Global settings

GUI action: Add/modify global settings for all data loads by clicking on  button and changing parameters mentioned below in the Global Settings dialog.

A screenshot of the "Global Settings" dialog box. The dialog has a title bar with the text "Global Settings" and a close button. The main area is divided into sections. The first section is "Data Load Log File" and contains a text box labeled "Location". Below this are three checkboxes: "Log migration SQL" (unchecked), "Purge log file every 51200 MB" (checked), and "Populate EM\_LOG table and purge every 10000 Rows" (checked). The second section is "Error handling" and contains two dropdown menus: "On error during data load:" set to "Skip project" and "On data load overlap:" set to "Wait for next scheduled data load". At the bottom of the dialog are two buttons: "Cancel" and "Save".

1. Log file location (textbox)
2. Backup log every <n> (textbox) MB (checkbox)
3. Populate EM\_LOG table and purge every <n> (textbox) rows (checkbox)
4. Error action (when data load errors out): Continue/Stop/Skip
5. Overlap action (when multiple data loads execute during same time window): Start/Wait

## 6. DB log: Enabled/Disabled (for the log Migration SQL setting)

### Command Manager Command:

```
SET [LOGGING LOCATION "<logging_location>"] ERROR ACTION (CONTINUE |  
STOP | SKIP) OVERLAP ACTION (START | WAIT) DB LOG (ENABLED | DISABLED)  
PURGE DB LOG AFTER <num_lines> LINES PURGE XML LOG AFTER <size> BYTES  
IN ENTERPRISE MANAGER "<em_server>" IN PORT <em_port>;
```