

A large, light blue wireframe sphere is positioned on the left side of the cover, partially overlapping the title area. It features a grid of lines that create a three-dimensional effect, with a small blue dot at its center.

AVEVA

MARINE

Monitor Reference Manual

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MONITOR Reference Manual

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1 Introduction

The MONITOR module is available to Marine users. It controls your entry into the system which is normally done via the Interface.

1.1 Who Should Use This Guide

Users who need to customise their interface or write macros.

1.2 Assumptions

Users have a valid license and the software has been installed.

Users have completed the AVEVA Basic Training Course.

1.3 How The Manual is Organised

[Access Rights](#) is an introduction to Outfitting access rights, and how these affect users, teams, databases and modules.

[Using MONITOR](#) is an overview of the commands available in MONITOR.

[Command Summary](#) is a Command Summary. It contains an alphabetical list of commands. Each command has a detailed description, and examples and syntax graphs are given.

[Error Messages](#) is a list of MONITOR error messages, with short explanations.

[Menu Maps](#) displays the options available from the main MONITOR menu bar.

2 Access Rights

This chapter describes what is happening at each stage of entering Outfitting. It explains the way access to Outfitting data and modules is controlled when the System Administrator sets up projects, users, teams and databases. Then it describes how you can use MONITOR commands to query information about access rights to databases and modules, and about who is using Outfitting at the moment.

System Administrators who have access to Outfitting ADMIN should refer to the [Administrator Command Reference Manual](#) for further information.

2.1 Entering Outfitting

When you start up Outfitting, you must first give the name of the project you will be working on using the PROJECT command. You can query the projects available. Then you specify a user name and password by giving the USERNAME command. You can query the users, and the MDBs, available in the Project before they are set.

Note: When working in non-graphics mode, it is recommended that you enter the USERNAME command on its own, and you will then be prompted to enter the username and password, which will not be echoed on the screen. Do not follow the command immediately by the username and password, as this may be a security risk.

When you have entered the username and password correctly, you will be in MONITOR.

You will be able to use the facilities described in this manual, or start up another Outfitting module.

2.2 Databases

All Outfitting data is stored in **databases**, and if you want to work on design data you will specify the name of a **Multiple Database (MDB)** before you enter another Outfitting module. An MDB is a collection of databases with defined access rights. Specifying an MDB sets your access rights to the databases.

Although an MDB may contain up to 8000 DBs, only 300 of these can be accessed at one time. Databases which can be accessed are described as **current**. Databases which cannot be accessed are described as **non-current** or **deferred**. The status of a DB can be changed to **Current** or **Defer** at any time. Refer to [Current and Non-current Databases](#).

MONITOR checks that an MDB has been selected before it will allow you to enter another module (except ADMIN).

Note: When you select an MDB and enter a design module, UNITS settings are taken from the **first** current catalogue DB. Connection compatibility (COCO) tables in **all** the current catalogue DBs are available to the designer.

2.2.1 Database Types

An Outfitting project can contain the following types of database:

System Databases

- The SYSTEM database itself, which holds the access control data for the model data and modules.
- The COMMS (Communications) database, which stores information about who is using which module and which model databases are available.
- The MISC database which store inter-user messages, and inter-database macros.
- In a Global project there will also be the Global database and a transaction database.

Model Databases

- The Outfitting Design database which contains all the design information for the project
- The CATALOGUE database where the project catalogue and specifications are stored.
- The PADD database which contains data about drawings produced by Outfitting Draft.
- The PROPERTIES database which can contain material properties, and can be referenced by the catalogue
- The DICTIONARY database which holds the definitions of user-defined attributes (UDAs), as set up in LEXICON.
- The ISOD database holds spool drawings generated by SPOOLER.

In Marine projects there are also

- SCHE database holds schematics data used in P&ID modules.
- MANU database holds manufacturing data.
- NSEQ database holds name sequence data.

2.2.2 Database Access Control

Users have one of the following types of access to a DB:

Read/Write	You can change the data held in the DB.
Read-only	You can interrogate the contents of the DB (for example, by using ISODRAFT to produce an isometric), but you cannot alter it.
None	You have no access to the DB.

Each database is set up with UPDATE, CONTROLLED or MULTIWRITE access rights, where:

UPDATE	The database can be accessed by many users with Read-only rights, but only one user with Read/Write right
--------	-----------------------------------------------------------------------------------------------------------

CONTROLLED	Controlled by an external system.
MULTIWRITE	The database can be accessed by many users with Read/Write rights.

You can see the access rights to a database by using the **LIST DB** command.

2.2.3 Foreign Databases

Foreign databases are databases which have been included from a different project. This is often used for Catalogue databases, so that many users can have Read access to the same database without needing multiple copies. For example, in the Sample project supplied with the product, there are several databases shared with the Master project. Foreign databases are listed as such when databases are queried. Refer to [QUERY](#).

2.2.4 Teams

A **team** is a user or a group of users who have read-write access to a database (and read access to several other databases). The database must be named as:

teamid/identifier

teamid is the name of the team which is given full Read/Write access to the DB

identifier is the name of the DB. This is a normal Outfitting name beginning with a slash (/).

For example, the PIPING team would have read-write access to design databases containing piping design, the STRUCTURES team would have read-write access to databases containing steelwork design, but they would both have read-only access to a catalogue database. So, the MDB for the PIPING team could contain the following databases (and normally several others):

PIPING/PIPING-A	A Design database PIPING-A, to which the PIPING team will have read/write access.
MASTER/CATALOGUE-1	A Catalogue database CATALOGUE-1, to which the PIPING team will have read-only access.

2.2.5 Access Rights of Users to Databases

Each user has a level of access assigned by the System Administrator:

- **Free** users have read-write access to all databases.
- **General** users have read-write access to databases owned by their team in the current MDB, and read-only access to other copies of databases in the current MDB.

2.3 Module Access Control

Any Outfitting module can be classified as Free, or Restricted. Whether a user has access to a module will depend on the user's access rights and the access classification of the module, as follows:

- Only a Free user may use a Restricted module

- A General user may use Free modules

In the system configuration as supplied, only ADMIN and LEXICON are Restricted. All the other modules are Free.

Refer to [Command Summary](#).

You can change your password from that allocated to you by the System Administrator. The command **PASS** is followed by a slash and then the new password, consisting of up to fifteen characters, excluding l'@\$/*".

The **STATUS** command outputs information about your current status and the databases to which you have access. Refer to [STATUS](#) for a detailed description of the status command.

The **SYSTAT** (System Status) command outputs information about the current **active** status of the project. It lists all users who are accessing the project at that time, the modules and databases which they are using, and whether they are examining (Read-only status) or modifying (Read/Write status) the database. It also gives the unique identifier of each user. Refer to [SYSTAT](#) for a detailed description of the SYSTAT command.

The **SET** command sets the specified team as the current one. Once a team has been set, DBs owned by that team can be referred to by using the name part only. For example, after the command

SET TEAM SAMPLE

You could give the command

0 DB /DESI

Instead of the command

0 DB SAMPLE/DESI

3.5 Listing and Querying

The **LIST** and **QUERY** commands can be used to display information about Users, Teams, MDBs and Databases. **LIST** outputs general information, and **QUERY** outputs information about a named item. Note that there are many other options in the **QUERY** command available in other modules; the ones described here are those available in MONITOR.

The **LIST** command outputs information about:

- Users
- MDBs
- DBs
- Teams
- Copies of databases
- Modules

3.5.1 LIST USERS

An example of typical output from the command **LIST USERS** is shown below. It lists all the users in the project, with their access level (Free or General), and the teams they belong to.:

```
List of USERS for project SAM
=====
SYSTEM      (Free)
Teams : MASTER  SAMPLE  DEMO    HANGERS  HVAC  PIPE
        DRAFTADMIN  ISOADMIN HSADMIN  ADMIN
        SAMPLE    (General)
        Teams : SAMPLE
        DEMO      (General)
        Teams : DEMO
        HANGERS   (General)
        Teams : HANGERS
                (General)
        Teams : HVAC
        PIPE      (General)
        Teams : PIPE
```

3.5.2 LIST TEAMS

An example of typical output from the command **LIST TEAMS** is shown below. It lists all the teams in the project, with the users who are members of the teams and the DBs associated

with them.

```

List of TEAMS for project SAM
=====
MASTER
USERS: SYSTEM
DBS: /PIPECATA /PIPEOLD /STLCATA /HVACCATA /SUPPCATA
      /PADD      /DICT      /PROP

SAMPLE
USERS: SYSTEM    SAMPLE
DBS: /DESI      /PADD      /COMP

DEMO
USERS: SYSTEM    DEMO
DBS: /DESI      /PADD      /COMP

...
...

ADMIN
USERS: SYSTEM
DBS: /PADD

```

3.5.3 LIST MDB

The command **LIST MDB** lists the MDBs in the project. For each MDB it lists the databases it contains, their types (DESI, CATA, etc.), access level (for example, UPDATE), and the current and deferred databases. For example:

```

List of MDBS for project SAM
=====
MDB: /SAMPLE
Current DBS:
  1  SAMPLE/DESI          DESI Update
  2  SAMPLE/PADD          PADD Update
  3  ADMIN/PADD           PADD Update
  4  SAMPLE/COMP          COMP Update
  5  MASTER/PIPECATA      CATA Update Foreign
  6  MASTER/PIPEOLD       CATA Update Foreign
  7  MASTER/STLCATA       CATA Update Foreign
  8  MASTER/HVACCATA      CATA Update Foreign
  9  MASTER/SUPPCATA      CATA Update Foreign
 10  MASTER/PADD          PADD Update Foreign
 11  MASTER/DICT          DICT Update Foreign
 12  MASTER/PROP          PROP Update Foreign
Deferred DBS:
**NONE**

MDB: /DEMO
Current DBS:
  1  DEMO/DESI            DESI Update
  2  DEMO/PADD            PADD Update
  ...

```

3.5.4 LIST DB

The command LIST DB lists all the databases in the project, their types (DESI, CATA, etc) and the MDBs which contain them. For example:.

```
List of DBS for project SAM
=====
MASTER/PIPECATA      CATA FOREIGN      Number 8101 Update
      Size 7623 pages
MDBS: /SAMPLE /DEMO      /HANGERS /HVAC      /PIPE
MASTER/PIPEOLD      CATA FOREIGN      Number 8105 Update
      Size 4861 pages
MDBS: /SAMPLE /DEMO      /HANGERS /HVAC      /PIPE
ADMIN/PADD           PADD      Number 8013 Update
      Size  51 pages
MDBS: /SAMPLE /DEMO
...
...
```

3.5.5 LIST COPIES

The command **LIST COPIES** displays the names of all DBs which have been copied from a different project and the names under which the copies are filed. For example:

```
List of sets of copied DBS for project ABC
=====
Database PIPING-A/DESI has copies:
      PIPING-X/DESI
```

3.5.6 LIST MODULES

The **LIST MODULES** command lists information about modules in the current project. It may be useful if you are having difficulty accessing a module for some reason, but you will need access to ADMIN to make any changes. Refer to [Administrator Command Reference Manual](#).

```
List of modules for project SAM
=====
Module 0  MONITOR
          Security Free
          Imacro  /%PDMSUI%/MON/ADMIN/START
          Open   Attlib  /%PDMSEXE%/attlib.dat
          Open   Message /%PDMSEXE%/message.dat
          Resume /%PDMSEXE%/mon
Module 1  ADMIN
          Security Restricted
          Buffer  2560000
          Resume /%PDMSEXE%/adm
...

```

3.5.7 QUERY

The **QUERY** command outputs information about named administration elements. You can query:

- Users
- Teams
- DB
- Copies of databases
- MDBs
- Projects
- Inter-database connection macros, which are created when you need to write information to a database which you do not have Write access, for example, connecting to an element in a different database. Such macros must be run (by a suitable user) in Design.

Refer to [QUERY](#) for the full syntax of the QUERY command available in MONITOR, together with examples of the commands and output. Note that the information output when you query databases is mainly of interest to System Administrators, and is described in the [Administrator User Guide](#).

3.6 Temporarily Changing Access Rights

The **PROTECT** command allows you to alter your access rights to specified DBs for the current session of Outfitting. You can only reduce your access rights from the set state, never increase them. This command can be used on the current MDB. Refer to [PROTECT](#) for a detailed description of the PROTECT command.

3.7 Current and Non-current Databases

Although an MDB may contain up to 8000 DBs, only 300 of these can be accessed at one time. Databases which can be accessed are described as **current**. Databases which cannot be accessed are described as **non-current** or **deferred**.

EXCHANGE replaces a current DB by a non-current DB. The DB names do not need to be listed in a particular order, since the MDB knows which are current and which are non-current, but they must be paired correctly if more than two names are listed.

CURRENT includes the specified DB at a given position in the Current list.

DEFER removes the specified DB from the Current list and makes it non-current.

For example, assume that an MDB contains the following DBs as shown by a **LIST** command:

```
/DESIGN
Current DBS:   PIPING/PIPING-A   PIPING/PIPINGC
MASTER/CATA-D
Deferred DBS:  PIPING/PIPING-B   MASTER/PIPING-
```

The command

```
EXCHANGE PIPING/PIPING-A PIPING/PIPING-B MASTER/PIPING-
E MASTER/CATA-D
```

would result in the new configuration

```

/DESIGN
Current DBS:  PIPING/PIPING-B    PIPING/PIPING-C
MASTER/PIPING-E
Deferred DBS: PIPING/PIPING-A    MASTER/CATA-D

```

Note: The current DBs PIPING/PIPING-A and MASTER/CATA-D are replaced by the DBs PIPING/PIPING-B and MASTER/PIPING-E respectively, even though they are listed out of sequence in the **EXCHANGE** command.

The effect of the command

```
CURRENT PIPING/PIPING-A 1  MASTER/CATA-D 4
```

after the **EXCHANGE** command is to insert the named DBs at positions 1 and 4 respectively in the Current list, resulting in

```

/DESIGN
Current DBS: PIPING/PIPING-A PIPING/PIPING-B PIPING/
PIPING-C          MASTER/CATA-D
MASTER/PIPING-E
Deferred DBS: **NONE**

```

Note that the position specified for each DB to be added to the Current list applies **after** the previous insertions have been made.

3.8 Sending Messages to Other Users

You can send messages to other users of the project using the **MESSAGE** command.

Messages sent using the **MESSAGE** command will only be displayed to users already in Outfitting when the command is given, and then only when they next change modules. You can send messages to

- An individual user, specified by name or identifier
- All members of a specified team
- All active project users
- All users logged into a given host
- All users with a given line number

The text of the message must be enclosed in quotes. For example:

```
MESS TEAM PIPING 'LATEST PIPE ROUTING HAS BEEN APPROVED'
```

Note: The message must be enclosed in quotes.

3.9 Output Destination

The data output by the commands described in this chapter can be sent to the screen or to a file. By default, the data is sent to the screen, but it can be directed to a file using the **ALPHA FILE** or **FILE** command. These commands also specify the number of characters in a line and the number of lines on a page, and whether the file should be overwritten if new data is sent to it.

If you have specified that output should be sent to a file using the **ALPHA FILE** command, you can return to output being sent to the screen by giving the **ALPHA FILE END** command. If you have specified that output should be sent to a file using the **FILE**

command, you must use the **TERMINAL** command to send output to the screen. **ALPHA FILE** is recommended for normal use.

The default is **TERMINAL WITH 80 CHARACTERS**.

3.10 Output Devices

You will normally have a default output device set. The default output devices for both text and graphics are shown in a message which is displayed when Outfitting is started up. You can use the **DEVICE** command to change your output device, for example, if you do not want any graphics to be displayed.

3.11 Changing Modules

You can enter any Outfitting module which is installed on your system and to which you have access by typing its name.

You can return to MONITOR from any other module by giving the command

MONITOR

3.12 Deleting Inter-database Connection Macros

The **DELETE** command is used to delete inter-DB connection macros, which are created in an Outfitting Design module when connections are made across databases.

3.13 Leaving Outfitting

The **FINISH** command terminates the current Outfitting session and returns you to the operating system.

3.14 Running Outfitting in Batch Mode

To run jobs in batch mode, Outfitting must be started up in batch mode using the entry script. This starts up Outfitting in a Read-only mode. See the *Outfitting Installation Guide* for more details.

To set up a batch job, you must create a file containing all the commands which you would normally enter at the keyboard, and possibly add other commands required by the computer's batch system. Then run the file using the normal command in your operating system. Refer to [BATCH](#).

4 Command Summary

This section lists the MONITOR commands, with a brief description of each.

BATCH	Specifies commands for running Outfitting in batch mode.
CURRENT	Makes a database current.
DEFER	Makes a database non-current (deferred).
DELETE	Deletes inter-DB connection macros.
DEVICE	Specifies a device type.
EXCHANGE	Replaces a current database by a deferred one.
FINISH	Exits from Outfitting.
LIST	Lists information about the project.
MESSAGE	Sends a message to other Outfitting users.
PASSWORD	Changes your password.
PROJECT	Specifies the current project.
PROTECT	Changes your access rights to databases.
QUERY	Outputs information about named administration elements (Users, Teams, etc).
RUN	Runs modules which are not available through the normal module-changing commands.
SYSTAT	Outputs status information about the current project.
USERNAME	Specifies a username and password.

4.1 Conventions Used in the Syntax Graphs

The commands described in this chapter are presented in the form of **syntax graphs**.

Commands are shown in a combination of uppercase and lowercase letters, where the capital letters indicate the minimum abbreviation.

Note: This convention does not mean that the second part of the command must be typed in lowercase letters; commands may be entered in any combination of uppercase and lowercase letters.

For example, the command

Query

can be input in any of the following forms:

Q
QU
QUE
QUER
QUERY

- Commands shown in all uppercase letters cannot be abbreviated.
- Command arguments are shown in lowercase italic letters. For example:

PASSWORD *password*

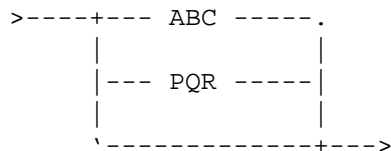
means that to set a password to secret, you enter:

PASSWORD /SECRET

Command arguments are just descriptions of what you need to enter, and the description shown should be replaced by the text or value required. The following table shows some examples:

Name	Definition	Example
<i>name</i>	An Outfitting element name	PIPE-A63
<i>refno</i>	An Outfitting reference number	=23/1403
<i>integer</i>	A positive integer	3
<i>value</i>	A positive or negative number	3.142
<i>word</i>	A sequence of up to 4 letters	FLOW
<i>text</i>	An alphanumeric string	'Enclose in quotes'
<i>filename</i>	The pathname of a file	/c:\testing
Note: When a full pathname is given, the first slash is needed because all names in Outfitting must start with a slash.		

- Syntax graphs are read from top left to bottom right. The start point is shown by >, and you can follow any path through the graph until the exit point, shown by >, is reached.
- Points marked with a plus sign (+) are **option junctions** which allow you to input any one of the commands to the right of the junction. For example:



means you can type in ABC or PQR or just press Enter to get the default option.

- Points marked with an asterisk (*) are **loop back junctions**. Command options following these may be repeated as required.

For example:

```

      .-----<----->
      /
>---*--- option1 ---|
      |
      |--- option2 ---|
      |
      |--- option3 ---+--->
  
```

means that you can enter any combination of option1 *and/or* option2 *and/or* option3, where the options can be commands, other syntax diagrams, or command arguments.

- The simplified format:

```

      .-----<----->
      /
>---*--- name -----+--->
  
```

means that you may type in a list of Outfitting names, separated by at least one space.

4.1.1 BATCH

Function:

The **BATCH** command enables you to specify how batch jobs will be processed.

Description:

To run jobs in batch mode, Outfitting must be started up in batch mode using the entry script. This starts up Outfitting in a Read-only mode. Refer to [Marine Installation Guide](#) for more details.

To set up a batch job, you must create a file containing all the commands which you would normally enter at the keyboard, and possibly add other commands required by the computer's batch system. Then run the file using the normal operating system command.

The following example shows how an ISODRAFT batch file could be set up:

Example:

entrys	Start up Outfitting in batch mode
PROJECT SAM	The project name
USER SAMPLE/SAMPLE	The user name and password
/SAMPLE	The MDB name
BATCH . . .	Give the batch options
ISODRAFT	Start up ISODRAFT
	ISODRAFT commands
	...
FINISH	Leave Outfitting

When you enter Outfitting interactively, you are allowed three attempts at giving your correct username and password. When Outfitting is started up in batch mode, only one attempt is permitted. If either the username or password are incorrect, control will pass back to the operating system and that job will be terminated.

Copying Databases for Batch Processing

The **BATCH COPY** command allows you to take copies of DBs with Read/Write access, provided you have Read/Write access to the database. The batch job accesses these copies and so allows interactive users to carry on using the normal copies. Write access to copies of DBs is needed to allow functions such as automatic group creation to be carried out.

By default, if a **COPY** command is not given, copies are made of all Design DBs.

If copies are not taken of DBs, then the originals are accessed in Read-only mode, irrespective of the normal access rights (which may be Read/Write).

You can specify that you want all the databases of a given type to be copied, for example, all the PADD databases, or you can specify named databases, all databases or none. You can specify a group of databases of a given type, and then use the **NOCOPY** option to stop copies of named databases or specified types of database being made.

The copies taken by the **BATCH COPY** command are temporary. They disappear when the batch job exits from Outfitting (whether successfully completed or not) or when the batch file selects a new MDB. If permanent copies are required, they must be made by the System Administrator using ADMIN.

Access to databases through ADMIN and RECONFIGURER can only be made in Read-only mode, even if the databases have been copied with Read/Write access. Any attempt to alter the project structure for batch jobs, even temporarily, will result in the message:

Trying to alter a read-only database

Example:

BATCH COPY DESI DRWG

Copies will be made of all Design and Drawing DBs in the selected MDB.

BATCH COPY PIPING/DES74A CIVIL/DES13B

Copies will be made of the two named DBs.

BATCH COPY ALL

Copies will be made of all DBs in the MDB.

BATCH COPY NONE

No copies will be made of any DB.

BATCH NOCOPY PIPING/DES74A

The database PIPING/DES74A will not be copied.

COPY commands are additive; that is, each new **COPY** command is added to the result of all previous **COPY** commands. For example, consider an MDB containing the following DBs:

MASTER/CATA	CATA
PIPING/DES74A	DESI
PIPING/DES75A	DESI
PIPING/DES37C	DESI
CIVIL/DES74A	DESI
CIVIL/DES75A	DESI
CIVIL/DES37C	DESI
MATS/PROP2	PROP

If the batch file contains the commands:

```
BATCH COPY NONE
BATCH COPY PIPING/DES75A PIPING/DES37C
BATCH COPY DRWG
```

The following DBs would be marked as requiring copies:

PIPING/DES75A	DESI
PIPING/DES37C	DESI

How MONITOR Accesses Databases in Batch Mode

For a batch job to start, Outfitting must be able to access all the databases it needs, either to make copies of them or to access them directly.

When a batch run starts, and the first module change command occurs, MONITOR will make copies of any DBs marked for copying.

As the batch file could alter the status of databases in an MDB by using the **DEFER**, **CURRENT** or **EXCHANGE** commands, or could change to a different MDB, copies are not taken until immediately after the command to change to another module. If a new MDB is selected, or the same MDB is reselected and copies of DBs exist from the last time the MDB was accessed, then all existing copies are deleted and fresh copies are taken. It is important for batch users to assess the effect of copying DBs on disk space.

Error Handling in Batch Mode

- If the project name, username or password are incorrectly specified while trying to gain access in batch mode, Outfitting will immediately abort.
- If any other errors occur, the batch job will immediately be aborted, unless PML error handling has been used. Refer to [Software Customisation Guide](#) for information about PML.

Security

When you use Outfitting's batch facilities, you must put your Outfitting username and password into a file. This is a potential breach of the security system provided by Outfitting, from two points of view.

- Unless the batch file is protected from access by other users, they will be able to read it and find out the username and password contained in it. You should ensure that operating system security is used to protect batch files.
- Many batch systems operate by taking a copy of the file submitted for batch execution. If this copy is held somewhere accessible to normal (non-system) users, then even if

the user submitting the job has protected his own files, his username and password could still be read from the copy. Project Coordinators should consult their Computer Systems department to ensure that this is not the case on their particular computer.

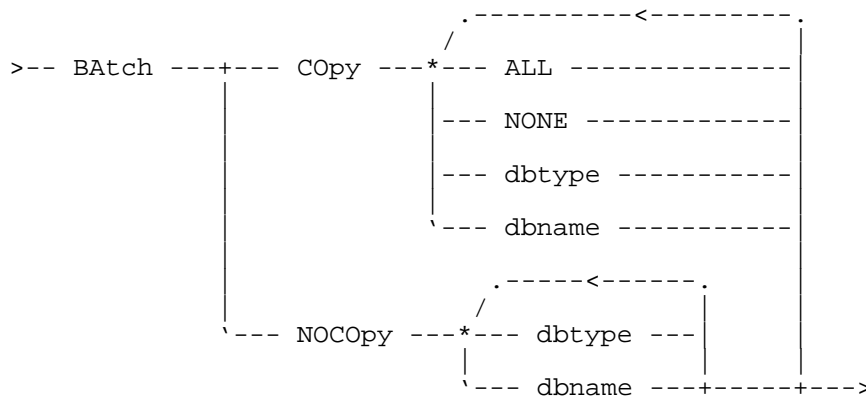
Data Integrity in Batch Mode

There is some risk of corruption of the COMMS DB (the only DB written to in Read-only batch operation) if a batch-mode job is interrupted before completion.

To reduce the risk of serious corruption of the COMMS DB, you should take the following precautions:

- **Do not** send remote instructions to abort a batch job. The job interruption could occur while the COMMS DB is being updated.
- **Do not** use batch queues where CPU or elapsed time restrictions are in force.
- **Do not** execute batch jobs if there is a risk of running out of disk space.

Command Syntax:



where *dbtype* is one of the following:

DESI CATA PROP PADD DICT ISOD

4.1.2 CURRENT

Function:

The **CURRENT** command makes a database current.

Description:

Although an MDB may contain up to 8000 DBs, only 300 of these can be accessed at one time. Databases which can be accessed are described as **current**. Databases which cannot be accessed are described as **non-current** or **deferred**. **CURRENT** makes the specified DB current and includes it at position *n* in the current list of the MDB (where *n* is in the range 1 to 300 inclusive).

Example:

```
CURRENT PIPING/PIPING-A PIPING/PIPING-C
```

Makes the databases PIPING/PIPING-A and PIPING/PIPING-C current

Related Commands:

DEFER EXCHANGE

Command Syntax:

```
>--- CUrrent ---*--- dbname n ---+--->
```

4.1.3 DEFER

Function:

The **DEFER** command makes a database deferred or non-current.

Description:

Although an MDB may contain up to 8000 DBs, only 300 of these can be accessed at one time. Databases which can be accessed are described as **current**. Databases which cannot be accessed are described as **non-current** or **deferred**.

Example:

```
DEFER PIPING/PIPING-A PIPING/PIPING-C
```

Makes the databases PIPING/PIPING-A and PIPING/PIPING-C deferred.

Related Commands:

CURRENT EXCHANGE

Command Syntax:

```
>--- DEfer ---*--- dbname ---+--->
```

4.1.4 DELETE

Function:

The **DELETE** command deletes unwanted inter-DB connection macros.

Description:

The **DELETE** command deletes inter-DB connection macros, which are created in a Outfitting Design module when connections are made between elements in different databases. Such macros should normally be executed in Design, and are deleted by the system.

To protect against accidental deletion, the **DELETE** command cannot be abbreviated.

Example:

DELETE MACRO 3 Deletes macro number 3

Command Syntax:

>--- DELETE MACro n --->

4.1.5 DEVICE

Function:

The **DEVICE** command allows you to specify a different device type.

Description:

A default output device will normally be set when you enter Outfitting. If you want to change this, you should do so in MONITOR using the **DEVICE** command. A message giving the default output devices for text and graphics is displayed when the Outfitting is started up.

You can also query the device type.

Example:

DEVICE TTY No graphics output
DEVICE NOGRAPHICS

DEVICE GRAPHICS Graphics output as normal.

Command Syntax:

```
>--- DEvice --+--- GRAphics ----.
               |
               |--- NOGraphics --|
               |
               |--- TTY -----+--->
```

Querying:

>--- Query DEvice --->

4.1.6 EXCHANGE

Function:

EXCHANGE replaces a current DB by a non-current DB.

Description:

EXCHANGE replaces a current DB by a non-current DB. The DB names do not need to be listed in a particular order, since the MDB knows which are current and which are non-current, but they must be paired correctly if more than two names are listed.

Examples:

Assume that an MDB contains the following DBs as shown by a **LIST** command:

```
/DESIGN
Current DBS:   PIPING/PIPING-A   PIPING/PIPING-C   MASTER/CATA-D
Deferred DBS:  PIPING/PIPING-B   MASTER/PIPING-E
```

The command

```
EXCHANGE PIPING/PIPING-A PIPING/PIPING-B MASTER/PIPING-
E MASTER/CATA-D
```

would result in the new configuration

```
/DESIGN
Current DBS:   PIPING/PIPING-B   PIPING/PIPING-C   MASTER/PIPING-E
Deferred DBS:  PIPING/PIPING-A   MASTER/CATA-D
```

Related Commands:

CURRENT DEFER

Command Syntax:

```
>--- EXchange ---*--- dbname - dbname ---+--->
```

4.1.7 FINISH

Function:

The **FINISH** command ends the Outfitting session and returns to the operating system.

Description:

The abbreviated form of this command, **FIN**, can only be given in MONITOR. To leave other modules, you must give the command in full.

Command Syntax:

```
>--- FINish --->
```

4.1.8 LIST

Function:

The **LIST** command lists most of the available project information.

Description:

The **LIST** command displays most of the project information held in the System Database.


```

--- MDBs -----
--- DBs -----
--- FILES -----
--- DBs -----
--- EXternal -----
--- AREA n -----
--- TTypes -----
--- SIZE -----
--- COpies -----
--- MOdules -----
--- MACROs -----
--- MESSAgEs -----
--- Authusers -----
--- ALL -----
'--- WORKING EXTRACTS -+- FOR USERNAME--
                                     +--->

```

4.1.9 MESSAGE

Function:

The **MESSAGE** command sends a message to other Outfitting users.

Description:

The message will be displayed only to users already in Outfitting when the command is given, and then only when they next change modules. A message consists of text enclosed in quotes, and it can contain several lines of text.

You can specify the destination in several ways, as shown in the examples.

Examples:

```
MESSAGE ID '64da-36' 'This is a message'
```

This message will be sent to the user with the process/host identifier 64da-ws36

```
MESSAGE USER SAMPLE 'This is a message'
```

This message will be sent to the user SAMPLE

```
MESSAGE TEAM CABLE 'This is a message'
```

This message will be sent to all members of the CABLE team.

```
MESS 'THE LATEST PIPE ROUTING HAS BEEN APPROVED'
```

This message will be sent to all users in the project.

Command Syntax:

```
>--- Message -----+--- n -----+
|
|--- HOST hostname -----+
|--- ID descript -----+
|--- LOGIN loginid -----+
|--- USer userid -----+
|--- TEam teamid -----+
|
+-----+--- text -->
```

4.1.10 PASSWORD

Function:

The **PASSWORD** command changes your password.

Description:

You can change your password at any time. You may wish to do this if you suspect that an unauthorised user has gained access to your DBs.

- You must take care when typing in the new password, because if you do not type what you think you are typing you will not be able to enter Outfitting again. If this happens, ask your System Administrator to tell you what password you have set.

Command Syntax:

```
>--- PASSword password --->
```

where *password* consists of up to fifteen characters, excluding l'@\$/*".

4.1.11 PROJECT

Function:

The **PROJECT** command sets the current project.

Example:

```
PROJECT SAM
```

Command Syntax:

```
>--- PROJect --- proj_name --->
```

4.1.12 PROTECT

Function:

The **PROTECT** command allows you to change your access rights to DBs.

Description:

You can temporarily change your access rights to DBs. You can only **reduce** your access rights from the set state, never increase them. The change will only apply in the current session of Outfitting.

You can only change access rights to the current MDB.

Examples:

An example of using the PROTECT command is shown below:

User SAMPLE enters Outfitting and selects the MDB /Outfitting Design to which he has Read/Write access. This MDB contains two current DBs named PIPING/AREA-A and PIPING/AREA-B. The STATUS command will list the DBs as follows:

DB	TYPE	MODE
PIPING/AREA-A	DESI	RW
PIPING/AREA-B	DESI	RW

SAMPLE changes his access level to the DB /AREA-B to Read-only status by the command:

```
PROT PIPING/AREA-B READ
```

The **STATUS** command will now list the DBs as follows:

DB	TYPE	MODE
PIPING/AREA-A	DESI	RW
PIPING/AREA-B	DESI	R

Command Syntax:

```

      .-----<----->
      /
>--- PROtect ----*--- dbname ----+--- RW -----
                                   |
                                   |--- Read -----
                                   |
                                   \--- None -----+--->
  
```

4.1.13 QUERY

Function:

The **QUERY** command outputs information about named administration elements.

Description:

Note that there are many other elements and attributes of elements that can be queried in other Outfitting modules. This section lists those available in MONITOR.

Examples:

Some examples of output from querying commands are given below. For a complete specification of the options, see the command syntax.

Command	Output
Q USER	User: SAMPLE
Q USER SAMPLE	SAMPLE (General) Teams : SAMPLE
Q USER SYSTEM ACCESS	(Free)
Q USER SYSTEM DESCRIPTION	system administrator

Note: A description must have been set.

Note: This information will only be output if you are a Free user.

Q ACTIVE	Number of Active Users is 1
Q TEAM SAMPLE	SAMPLE
USERS: SYSTEM SAMPLE	
DBS: /DESI /PADD /COMP	
Q TEAM SAMPLE DESCRIPTION	Team for Sample Project
q set team	** SAMPLE **

Note: A description must have been set.

Q MDB /SAMPLE	MDB: /SAMPLE
Current DBS:1 SAMPLE/DESI	DESI Update
2 SAMPLE/PADD	PADD Update
. . .	
11 MASTER/DICT	DICT Update Foreign
12 MASTER/PROP	PROP Update Foreign
Deferred DBS:	
NONE	

Q MDB /SAMPLE	MDB for Sample Project
---------------	------------------------

Note: A description must have been set.

```
Q DB SAMPLE/DESI                SAMPLE/DESI
                                DESI Number 8010 Update
                                Size 664 pages

MDBS: /SAMPLE

Q DB MASTER/PIPEOLD TYPE        CATA

Q DB MASTER/PIPECATA FILE       Filename /%MAS000%/mas005

Q DB MASTER/PIPECATA NUMBER     Number 8101

Q DB MASTER/PIPECATA SIZE       Size 623 pages

Q DB MASTER/PIPECATA FOREIGN    FOREIGN

Q DB SAMPLE/DESI FOREIGN        Local

Q DB SAMPLE/DESI ACCESS         Update

Q COPIES SAMPLE/DESI            Database SAMPLE/DESI has
                                copies: ABC/DESI

Q MACRO 1                       /%SAMMAC%/sam001.mac TEST/
                                DESI SAMPLE/DESI

Q MACRO 1 FROM                  TEST/DESI

Q PROJ                          Number (01223) 556666
                                Name Sample Project
                                Description PDMS
                                Sample Released
                                Project
                                Message AVEVA Project -
                                Example Only
```

Related Commands:

LIST

Command Syntax:

```
>--- Query ---+--- USer ---+-----
|               |               |
|               |               |--- userid ---+--- ACCess -----
|               |               |               |--- DESCription --
|               |               |               |--- PASS -----
|               |               |
|--- ACTIVE -----
|--- TEAm teamid -----+-----
|               |               |--- DESCription --
|               |
|--- DB dbname ---+-----
|               |--- DESCription -----
```

```

-- Type -----
-- File -----
-- Number -----
-- Size -----
-- FOREIGN -----
-- Access -----

--- Copies dbname -----
--- MDB mdbname ---+-----
                    |
                    |-- DEScription -----
--- MACRO integer ---+-----
                    |
                    |-- FILEname -----
                    |-- FROMdb -----
                    |-- Todb -----
--- SET TEam -----
--- Project ---+--- NAME -----
                |
                |-- NUMBER -----
                |-- DEScription -----
                |-- MESSage -----

```

4.1.14 RUN

Function:

The RUN command allows you to run Outfitting modules which are not available through the normal module-changing commands.

Description:

This command should only be used with the advice of AVEVA. See the copyright page at the front of this manual for access to the addresses and telephone numbers of AVEVA offices.

```
>--- RUN module --->
```

4.1.15 SET

Function:

The **SET** command sets the current team.

Description:

Once a team has been set, you can omit the team name when you specify the database name; for example, in a **LIST** command.

Examples:

```
SET TEAM PIPING Q DB /AREA-A
```

Queries the database PIPING/AREA-A

Command Syntax:

```
>--- SET TEAm teamid --->
```

4.1.16 STATUS

Function:

The **STATUS** command gives information about your current status and the DBs to which you have access.

Description:

The output from the command is shown in the example:

Examples:

```
Project:   SAM
User:      SYSTEM (Xd0-PC046)
Teams:     MASTER SAMPLE DEMO HANGER HVAC PIPE STRUC
           DRAFTADMIN ISOADMIN HSADMIN CATADMIN ADMIN CATS EQUI
           TRAINING PARAGONADMIN
MDB:       /SAMPLE
1  SAMPLE/DESI                      RW PRIMARY
2  STRUC/ASLTmpl                     RW PRIMARY
3  STRUC/TEMPLATE                   RW PRIMARY
4  EQUI/EQUITmpl                     RW PRIMARY
5  PIPE/ISOD                        RW PRIMARY
6  SAMPLE/PADD                      RW PRIMARY
7  ADMIN/PADD                       RW PRIMARY
8  MASTER/COMP                      R  FOREIGN
9  MASTER/PIPECATA                  R  FOREIGN
10 MASTER/PIPEOLD                   R  FOREIGN
11 MASTER/STLCATA                   R  FOREIGN
12 MASTER/HVACCATA                  R  FOREIGN
13 MASTER/SUPPCATA                  R  FOREIGN
14 MASTER/EQUICATA                  R  FOREIGN
15 MASTER/ASLCATA                   R  FOREIGN
16 MASTER/PADD                      R  FOREIGN
17 MASTER/DICT                      R  FOREIGN
18 MASTER/PROP                      R  FOREIGN
Deferred DBS:
          **NONE**
```

This shows that in the project SAM, a user with identifier SYSTEM is logged in to workstation PC046. Xd0 is a unique identifier based on SAMPLE's process number. SYSTEM is a member of the 16 teams listed. They have selected an MDB called /SAMPLE. Their current databases are listed.

Command Syntax:

```
>--- STATus --->
```

4.1.17 SYSTAT**Function:**

The **SYSTAT** command gives system status information about the current project.

Description:

The **SYSTAT** command lists all users who are accessing the project, the modules and databases which they are using, and whether they are examining (Read-only status) or modifying (Read/Write status) the database. It also gives the unique identifier, login id and host name for each user.

You list the system status of a given user, module, MDB or host using the commands shown in the syntax graph.

Examples:

```

PROJECT SAM
=====
User SYSTEM (Xd0-PC046)
Name user.name (user)
Host PC046
Entered 15:27 23 Apr
Module MONITOR
MDB /SAMPLE
DB          MODE
SAMPLE/DESI  R
STRUC/ASLTmpl R
STRUC/TEMPLATE          R
EQUI/EQUITmpl R
PIPE/ISOD      R
SAMPLE/PADD    R
ADMIN/PADD     R
MASTER/COMP    R
MASTER/PIPECATA          R
MASTER/PIPEOLD          R
MASTER/STLCATA          R
MASTER/HVACCATA          R
MASTER/SUPPCATA          R
MASTER/EQUICATA          R
MASTER/ASLCATA          R
MASTER/PADD    R
MASTER/DICT    R
MASTER/PROP    R
1 user(s) listed

```

This shows that user SYSTEM is logged in and using Outfitting for work on Project / SAMPLE. The user's unique identifier is Xd0. The user is using MONITOR and not accessing any databases

Command Syntax:

```

>--- SYStat ---+--- USER PDMS_ID -----
|               |
| --- NAME 'login_id' ---|
| --- HOST 'host_id' ----|
| --- MODULE module -----|
| --- MDB mdb_name -----|

```

\-----+--->

4.1.18 USERNAME

Function:

The **USERNAME** command specifies a username and password.

Description:

Users can be queried if no username is set, but the username must be given before an MDB is set.

Note: When working in non-graphics mode, it is recommended that you enter the **USERNAME** command on its own, and you will then be prompted to enter the username and password, which will not be echoed on the screen. Do not follow the command immediately by the username and password, as this may be a security risk.

Examples:

```
USER
SYSTEM/XXXXXX
```

Command Syntax:

```
>--- USERNAME --- newline --- text --->
```

5 Error Messages

The following is a complete list of those messages specific to the MONITOR module that may be output to the terminal (with message number) and message file (with message number suppressed). All such messages will have a message number beginning with 39. Any other messages that may be output are not described here as they are not specific to the MONITOR module.

(39,3) MDB not found

The MDB name referred to does not exist in the current project.

(39,4) DB not found

The DB name referred to does not exist in the current project.

(39,5) TEAM not found

The team named does not exist in the current project.

(39,6) Insufficient status to set this mode

User's access rights do not allow him to modify the relevant files.

(39,7) USER not found

The user named is not a member of the specified or current team.

(39,8) MODULE not found

No runfile for the specified module can be found in the current Project Database. The runfile must be set by the System Administrator using ADMIN.

(39,11) DB not current

The DB specified in an **EXCHANGE** or **DEFER** command is not current within the MDB.

(39,12) User number not found

No user is currently logged in under the specified id number.

(39,13) Resume file not found

No runfile for the specified module can be found in the current Project Database. The runfile must be set by the System Administrator using ADMIN.

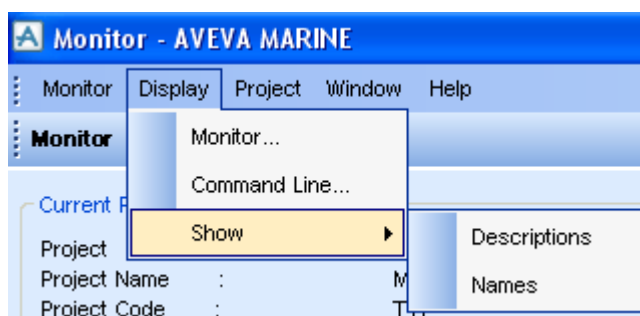
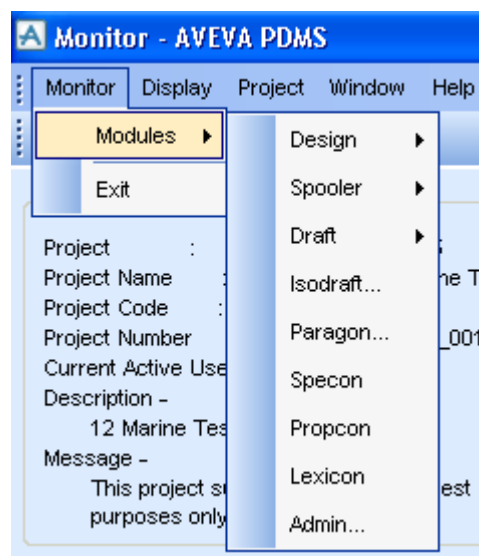
- (39,14) **Insufficient status to run module**
- You do not have access rights to the specified module.
- (39,15) **No MDB has been specified**
- An MDB must be selected before MONITOR will transfer control to most other Outfitting modules or before individual DBs can be made current.
- (39,16) **DB is not part of this MDB**
- The DB referred to is not within the specified MDB, or within the current MDB if none was specified.
- (39,17) **DB already current**
- The DB specified in a **CURRENT** or **EXCHANGE** command is already current within the MDB.
- (39,18) **Filing error - cannot delete macro file**
- The macro identification number given in a **DELETE MACRO** command is not valid.
- (39,19) **Cannot delete - macro not yet read**
- The **DELETE MACRO** command cannot be used until the inter-DB connection macro specified has been read by the recipient team.
- (39,20) **Current position out of range**
- The list position for adding a current DB to an MDB must be in the range 1 to 300.
- (39,21) **There are already 300 current DBs**
- A maximum of 300 DBs are accessible within an MDB at any time. Use the **EXCHANGE** command to substitute the required DB for one not currently needed.
- (39,22) **Actions turned off**
- The **ACTIONS OFF** command has been issued.
- (39,23) **BATCH command ignored for interactive use**
- The **BATCH** command is only valid if Outfitting entry was made using the batch option.
- (39,25) **/* is not a valid MDB**
- The MDB must be fully specified by name; wildcard characters are not allowed in this context.

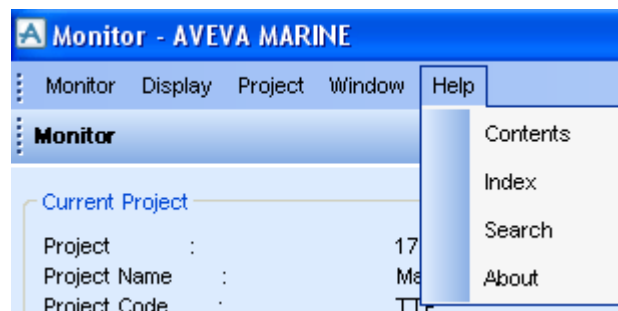
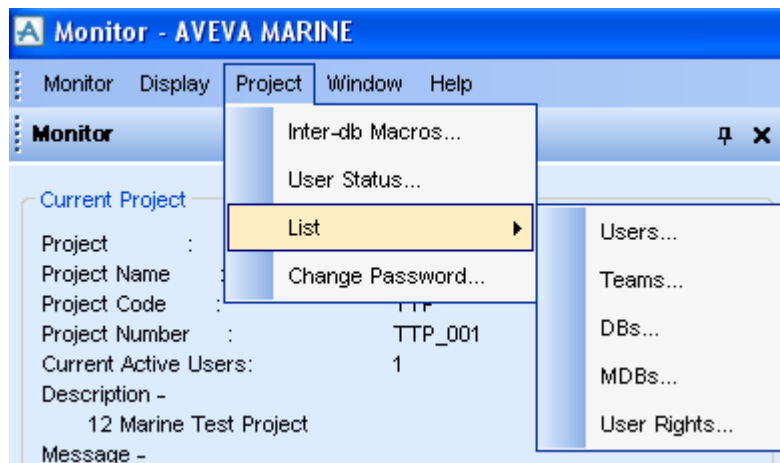
A Menu Maps

The following menu maps shows the options available from the main MONITOR menu bar.



The modules available from the **Monitor>Modules** dropdown menu differ between AVEVA Ship and AVEVA Marine.





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