
AIMMS Function Reference - Error Handling Related Identifiers

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Error Handling Related Identifiers

The following collection of predefined identifiers contains data regarding the Error Handling functions.

- `errh::PendingErrors`
- `errh::ErrorCodes`
- `errh::AllErrorCategories`
- `errh::AllErrorSeverities`

errh::PendingErrors

The predefined set `errh::PendingErrors` contains the error numbers of the errors that can be processed by the current error filter.

```
SET:  
  identifier : PendingErrors  
  subset of  : Integers  
  index      : IndexPendingErrors ;
```

Updatability:

The contents of this set cannot be modified. It is initialized when an error filter becomes active.

errh::ErrorCodes

The predefined set `errh::ErrorCodes` contains the error codes of the errors encountered during this AIMMS session.

```
SET:  
  identifier : ErrorCodes  
  index      : IndexErrorCodes ;
```

Updatability:

This set is grown during AIMMS error handling by storing the codes of all errors encountered.

errh::AllErrorCategories

The predefined set `errh::AllErrorCategories` contains the error categories that can be assigned to an error.

```
SET:
  identifier : AllErrorCategories
  index      : IndexErrorCategories ;
```

The names below are the elements in the set. The elements are shown indented in order to show the structure that is used by the function `errh::InsideCategory`.

- **Engine:** Errors from the AIMMS engine.
 - **Internal:** This is about AIMMS internal logic that fails. These types of errors shouldn't occur, but if they do, they should be handled. Severe internal errors (after generating a dump file) and internal assertions that fail
 - **Authorization:** Protecting the intellectual property of the developer of the AIMMS application.
 - **Licensing:** Protecting the intellectual property of the developers of the AIMMS system.
 - **Memory:** Running out of memory.
 - **Limit:** Reaching an AIMMS limit.
 - **Compiler:** Errors detected by the AIMMS compiler.
 - **Syntax:** Errors related to the form of AIMMS model text.
 - **Semantics:** Errors related to the (allowed) interpretation of AIMMS model text.
 - **Legacy:** Errors related to GAMS, AIMMS 2 or the conversion from a GAMS or AIMMS 2 model to AIMMS 3.
 - **Execution:** Errors detected by the AIMMS execution engine.
 - **Math:** Errors such as division by zero, sqrt or log of a negative number.
 - **InvalidArgument:** Passing invalid arguments to the intrinsic functions of AIMMS.
 - **Unit:** Runtime unit consistency checks that fail.
 - **IO:** Database, File and Case IO errors.
 - **External:** Passing argument data to / from external functions and procedures and errors generated during the execution of external functions.
 - **Generation:** Runtime errors that occur during the generation of a mathematical program
 - **MathematicalProgramming:** Violating the requirements of a particular mathematical programming class, or the selection of a mathematical programming class that is too difficult or too easy for the problem at hand.

- **NonlinearEvaluation:** Errors that happen during the evaluation of the (derivatives) of a constraint.
- **Solver:** Errors from the solution algorithms as part of the entire AIMMS package.
- **GUI:** Errors on pages
- **User:** Errors from RAISE statements or ASSERT statements.

Updatability:

The contents of this set cannot be modified.

errh::AllErrorSeverities

The predefined set `errh::AllErrorSeverities` contains the error categories that can be assigned to an error.

```
SET:  
  identifier : AllErrorSeverities  
  index      : IndexErrorSeverities ;
```

The names below are the elements in the set.

- **severe:** A severe internal error is an error that has occurred in the AIMMS logic itself.
- **error:** A normal error which indicates a situation from which normally execution shouldn't continue.
- **warning:** Something that should be looked at, but doesn't necessarily indicate a problem.

Updatability:

The contents of this set cannot be modified.