Note
Before using this information and the product it supports, read the information in Appendix C, “Notices” on page 181.
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iv  
IBM Tivoli Monitoring for Databases: Informix: Reference Guide
About this guide

The IBM Tivoli Monitoring for Databases: Informix Reference Guide provides detailed information about the tasks and resource models for the product. Use this guide in conjunction with the IBM Tivoli Monitoring for Databases, version 5.1.0: Informix User’s Guide.

Who should read this guide

This guide is intended for system architects (for planning) and system administrators and database administrators (for implementation and operation).

Readers should be familiar with the following:

- Windows NT® or UNIX® operating systems
- Tivoli software
- Informix software

What this guide contains

This guide contains the following sections:

- “About this guide” on page v, describes how the guide is organized. This chapter also describes commands, resource model output, and IBM® Tivoli® Monitoring version 5.1.0 logging.
- Chapter 1, “Introduction” on page 1, describes how to run Tivoli commands within shells.
- Chapter 2, “Resource models” on page 5, describes how to use the resource models to manage databases.
- Chapter 3, “Tasks” on page 115, describes how to run the IBM Tivoli Monitoring for Databases: Informix tasks in the Informix Tasks library.
- Chapter 4, “Commands” on page 135, describes how to run the IBM Tivoli Monitoring for Databases: Informix commands.
- Appendix A, “Creating custom resource models using CIM classes” on page 145, describes the CIM classes used to create custom resource models.
- Appendix B, “Tivoli Enterprise Console classes” on page 167, describes the baroc rules used in the resource models.

Publications

This section lists publications in the IBM Tivoli Monitoring for Databases: Informix library and any other related documents. It also describes how to access Tivoli publications online, how to order Tivoli publications, and how to submit comments on Tivoli publications.

IBM Tivoli Monitoring for Databases: Informix library

The following documents are available in the IBM Tivoli Monitoring for Databases: Informix library:

- IBM Tivoli Monitoring for Databases, version 5.1.0: Informix User’s Guide, SC23-4729-00
  Describes how to use IBM Tivoli Monitoring for Databases: Informix.
Prerequisite publications

To use the information in this book effectively, you must have some prerequisite knowledge, which you can find in the following books:

- **IBM Tivoli Framework User’s Guide**
  Provides information about profiles and profile management.

- **IBM Tivoli Framework Planning and Installation Guide**
  Provides information about server and hardware requirements.

- **IBM Tivoli Framework Reference Guide**
  Provides information about command line commands, such as the `winstall` command.

- **IBM Tivoli Monitoring, Version 5.1.0 User’s Guide**
  Provides information about distributed monitoring.

- **IBM Tivoli Enterprise Console User’s Guide**
  Provides information about using the Tivoli Enterprise Console®.

- **IBM Tivoli Software Installation Service (SIS) User’s Guide, Version 4.0**
  Provides information about using SIS to install the IBM Tivoli Monitoring for Databases: Informix software.

Related publications

The following documents also provide useful information:

- **Server Administrator’s Guide**
  Provides information about administering the Informix server in the relevant version of Informix.

- **Server Concepts Manual**
Provides information about the Informix server and how it works in the relevant version of Informix.

- **Server SQL Reference**

  Provides descriptions of Structured Query Language (SQL) used to manage information in Informix databases, refer to the for the relevant version of Informix.

The *Tivoli Glossary* includes definitions for many of the technical terms related to Tivoli software. The *Tivoli Glossary* is available, in English only, at the following Web site:

http://www.tivoli.com/support/documents/glossary/termstm03.htm

**Accessing softcopy publications**

The publications for this product are available in PDF and HTML formats through the following media:

- **IBM Tivoli Monitoring for Databases, Version 5.1.0: Documentation CD, LK3T-8517-00**

  The Documentation CD contains all of the English language publications for this product, except for the Web-only Limitations and Workarounds supplements. To access the publications, use a Web browser to open the *start.html* file, which is located in the root directory of the CD.

- **IBM Tivoli Monitoring for Databases, Version 5.1.0: NLS Documentation CD, LK3T-8611-00**

  The NLS (national language support) Documentation CD contains both English and non-English language publications for this product, except for the Web-only Limitations and Workarounds supplements. To access the publications, use a Web browser to open the *start.html* file, which is located in the root directory of the CD.

- **Tivoli Information Center**

  IBM posts all publications for this and all other Tivoli products, as they become available and whenever they are updated, to the Tivoli Information Center Web site. The Tivoli Information Center is located at the following Web address:


  Click the IBM Tivoli Monitoring for Databases: Informix link to access the product library.

**Ordering publications**

You can order many Tivoli publications online at the following Web site:


You can also order by telephone by calling one of these numbers:

- In the United States: 800-879-2755
- In Canada: 800-426-4968

See the following Web site for a list of telephone numbers in other countries:
Providing feedback about publications

If you have comments or suggestions about Tivoli products and documentation, complete the customer feedback survey at the following Web site:

http://www.tivoli.com/support/survey/

Accessibility

Accessibility features help a user who has a physical disability, such as restricted mobility or limited vision, to use software products successfully. With this product, you can use assistive technologies to hear and navigate the interface. You can also use the keyboard instead of the mouse to operate all features of the graphical user interface. See the Accessibility Appendix in the IBM Tivoli Monitoring for Databases: Informix User’s Guide for additional information.

Contacting Customer Support

If you have a problem with any Tivoli product, you can contact IBM Customer Support for Tivoli products. See the Tivoli Customer Support Handbook at the following Web site:

http://www.tivoli.com/support/handbook/

The handbook provides information about how to contact Tivoli Customer Support, depending on the severity of your problem, and the following information:

• Registration and eligibility
• Telephone numbers and e-mail addresses, depending on the country in which you are located
• What information you should gather before contacting support

Conventions used in this guide

This book uses several conventions for special terms and actions and operating system-dependent commands and paths.

Typeface conventions

The following typeface conventions are used in this book:

**Bold**—Lowercase and mixed-case commands, command options, and flags that appear within text appear like this, in **bold** type. Graphical user interface elements, file names, directories, and names of keys also appear like this, in **bold** type.

*Italic*—Variables, values you must provide, new terms, and words and phrases that are emphasized appear like this, in *italic* type.

Monospace—Commands, command options, and flags that appear on a separate line, code examples, output, and message text appear like this, in monospace type. Names of text strings you must type when they appear within text, names of Java methods and classes, and HTML and XML tags also appear like this, in monospace type.
Operating system-dependent variables and paths

This book uses the UNIX convention for specifying environment variables and for directory notation.

When using the Windows command line, replace $variable with %variable% for environment variables and replace each forward slash (/) with a backslash (\) in directory paths.

Note: If you are using the bash shell on a Windows system, you can use the UNIX conventions.
Chapter 1. Introduction

This book is a reference manual designed for use with the procedures described in the IBM Tivoli Monitoring for Databases: Informix Reference Guide. It provides alphabetical listings and detailed descriptions of the following:

- Resource models
- Tasks
- Server commands

Running Tivoli commands

Tivoli commands enable you to perform system operations from a UNIX or Windows NT command line interface (CLI) instead of using the Tivoli desktop. The term, Tivoli CLI commands, is another way to refer to these commands.

It is often convenient or more appropriate to invoke a Tivoli management application operation from the command line instead of from the graphical user interface. This is the case in the following examples:

- You do not have access to a graphical user interface, such as when you dial in over a modem.
- You are grouping a number of operations together inside a shell script.

All Tivoli CLI commands begin with the letter `w` to identify them as Tivoli commands. For example, to run tasks use the `wruntask` command.

Most Tivoli commands run within a shell on a managed node or on a Tivoli management region server. A shell is a command interpreter that enables the operating system to process commands. You can run commands from a shell command line or include them in shell scripts, on either UNIX or Windows NT operating systems.

Before running Tivoli commands, you must set the Tivoli environment variables for the shell. The managed node or Tivoli management region server installation process supplies the scripts to set the Tivoli environment variables. The following sections of this guide contain descriptions of the procedures to run these scripts:

- “Setting the Tivoli environment on UNIX operating systems” on page 3
- “Setting the Tivoli environment on Windows NT operating systems” on page 3

You must also have the appropriate Tivoli authorization role for running each command. Refer to the reference information for each command to see the required authorization role.

**Note:** A few Tivoli commands can run on an endpoint. To set the Tivoli environment variables on an endpoint, see “Establishing the Tivoli environment on an endpoint” on page 3.

Running Tivoli commands on UNIX operating systems

The UNIX operating systems contain shells. Tivoli commands can run in the Bourne, Korn, C, and bash shells. The Bourne shell is the standard UNIX shell. Every UNIX system includes the Bourne shell. The Korn shell supports the features of the Bourne shell and has extensions applicable only to the Korn shell. The C
shell name comes from the C programming language syntax. The bash shell supports many features of the UNIX shells. Both UNIX and Windows NT systems use the bash shell.

Running Tivoli commands on Windows NT operating systems
When you install a Windows NT managed node or Windows NT Tivoli management region server, the installation process copies the bash shell executable file to the machine. The bash shell supports many UNIX commands and UNIX command syntax. An example is the forward slash (/) for the directory separator. The bash shell supports the features of the Bourne shell plus it has some extensions applicable only to the bash shell.

Note: You can use the Windows NT MS-DOS shell instead of the bash shell to run most Tivoli commands (after you set the Tivoli environment variables with the %SystemRoot%\system32\drivers\etc\Tivoli\setup_env command). However, some commands and Tivoli tasks may require a bash shell to run successfully. All examples of Tivoli commands in Tivoli publications use bash shell syntax.

Where to find additional information about shells
The following lists include resources where you can find additional information about the various shells. These resources were available at the time the lists were created. The lists do not show all of the material that is available, and Tivoli does not provide opinions or recommendations about any of these resources.

UNIX shells:
• Learning the Korn Shell (O’Reilly Nutshell handbook) by Bill Rosenblatt and Mike Loukides. ISBN: 1-56592-054-6.

Bash shell:
• A Brief Introduction to the bash Shell by Jane Anna Langley. http://www.cs.ups.edu/acl/unix_talk/bash.html
• Bash FAQ (GNU documentation). http://www.delorie.com/gnu/docs/bash/FAQ

Establishing the Tivoli environment within a shell
When you install a managed node or Tivoli management region server, the installation process supplies shell setup scripts. You use these scripts to set the environment variables needed for running Tivoli commands.
Setting the Tivoli environment on UNIX operating systems

The following steps describe how to set the Tivoli environment within a UNIX shell:

1. Log in to a UNIX managed node or Tivoli management region server.
2. Run the appropriate setup script for the shell.
   For the Bourne, Korn, or bash shell, run the following command:
   
   `. /etc/Tivoli/setup_env.sh`
   
   For the C shell, run the following command:
   
   `source /etc/Tivoli/setup_env.csh`

Setting the Tivoli environment on Windows NT operating systems

The following steps describe how to set the Tivoli environment and start a bash shell on Windows NT.

1. Log in to a Windows NT managed node or Tivoli management region server.
2. Open a command window.
3. Run the following command in the command window to set Tivoli environment variables:
   
   `%SystemRoot%\system32\drivers\etc\Tivoli\setup_env.cmd`

4. Run one of the following commands in the command window to start the bash shell:
   
   `sh`
   
   ---OR---
   
   `bash`

Establishing the Tivoli environment on an endpoint

When you install an endpoint, the installation process supplies setup scripts. Use these scripts to set the environment variables needed for running Tivoli commands on an endpoint.

The following steps describe how to set the Tivoli environment on an endpoint:
1. Log in to an endpoint.
2. Open a command window.
3. Run the appropriate setup script in the command window. The following table contains setup scripts for the different endpoint operating systems.

<table>
<thead>
<tr>
<th>Operating system</th>
<th>Setup script location</th>
<th>Setup script name</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIX, Solaris</td>
<td><code>/etc/Tivoli/lcf/endpoint_label</code></td>
<td><code>lcf_env.sh</code> (for Bourne, Korn, and bash shells)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>---OR---</td>
</tr>
<tr>
<td></td>
<td></td>
<td><code>lcf_env.csh</code> (for C shell)</td>
</tr>
<tr>
<td>Windows NT</td>
<td><code>%SystemRoot%\Tivoli\lcf\endpoint_label</code></td>
<td><code>lcf_env.cmd</code> (for MS-DOS) or <code>lcf_env.sh</code> (for bash shell)</td>
</tr>
</tbody>
</table>
Tivoli command syntax

The following special characters define Tivoli command syntax:

[ ] Identifies elements that are optional. Required elements do not have brackets around them.

... Indicates that you can specify multiple values for the previous element. Separate multiple values by a space, unless otherwise directed by command information.

If the ellipsis for an element follows a closing bracket, use the syntax within the brackets to specify multiple values. For example, to specify two administrators for the option [–a admin]..., use –a admin1 –a admin2.

If the ellipsis for an element is within the brackets, use the syntax of the last element to specify multiple values. For example, to specify two hosts for the option [–h host...], use –h host1 host2.

| Indicates mutually exclusive information. You can use the element on either the left or right of the vertical bar.

{} Delimits a set of mutually exclusive elements when a command requires one of them. Brackets ([ ]) are around elements that are optional.

In addition to the special characters, Tivoli command syntax uses the typeface conventions described in the Preface of this document.

The following examples illustrate the typeface conventions used in Tivoli command syntax:

• wcrtp [–a admin]... [–s region] [–m resource]... name
  The name argument is the only required element for the wcrtp command. The brackets around the options indicate they are optional. The ellipsis after the –a admin resource option means that you can specify multiple administrators multiple times. The ellipsis after the –m resource option means that you can specify multiple resources multiple times.

• wchkdb [–o outfile] [–u] [–x] [–f infile | –i | object...]
  The –f, –i, and object elements are mutually exclusive. Braces that surround elements indicate that you are including a required element. If you specify the object argument, you can specify more than one object.
Chapter 2. Resource models

This chapter contains detailed information about the IBM Tivoli Monitoring for Databases: Informix models. IBM Tivoli Monitoring for Databases: Informix resource models capture and return information, such as database status and server availability, about a resource or software application in the Tivoli management environment. You can change many of the settings for a resource model to customize it for your monitoring needs.

In this reference guide, a section for each resource model describes the configuration of the resource model by covering the following information, including the settings that you can change:

**Description**
- Purpose of the resource model and a table that contains an overview of the resource model. The overview table contains the following information about the resource model:
  - Internal name
    - Name of the resource model as you use it in the command line.
  - Category
    - Type of operating system on which the resource model runs.
  - Indications
    - List of indications for the resource model. A resource model generates an indication if certain conditions implied by the resource model settings are not satisfied in a given cycle. The resource model uses an algorithm to determine the combination of settings that generates an indication.
  - Tasks and built-in actions
    - List of tasks and built-in actions for the resource model, if any. For any event, recovery actions, such as Tivoli Framework tasks or built-in actions, can be run automatically. The actions can take positive steps to remedy the situation, and can ensure that information about the event is distributed to the appropriate authorities or entities.
  - Default cycle time
    - Specifies the default cycle time for the resource model. Cycle time is the duration of the interval within which a resource model gathers data. Each of the resource models supplied with the software has a default cycle time, which you can modify according to your needs.

**Target managed resource**
- Name of the managed resource to which this resource model is relevant.

**Indications and events**
- Information about all of the indications for the resource model in table format and a section of more specific information about each indication.

The table contains the following information for each indication:
- Event
  - An event verifies the persistence of a given indication by eliminating unrepresentative peaks and troughs for the indication.
- Default severity
Indicates how serious an event is if it is triggered, for example fatal, critical, warning, harmless, or minor.

• Clearing events

Specifies whether the resource model has clearing events: Yes or No. A clearing event is a resource model function that, if enabled, allows IBM Tivoli Monitoring to close an error event when the circumstances that caused the event are no longer present. Clearing events can be processed by the Tivoli Enterprise Console server and by Tivoli Business Systems Manager.

• Page

Page number where the indication is described in this guide.

Each section about a specific indication contains the following information:

• When the resource model sends the indication and why
• List of the attributes for the indication and notation regarding which attributes are keys
• Table that describes the following default settings for the indication:
  – Send indications to Tivoli Enterprise Console
    Specifies whether the resource model sends indications to Tivoli Enterprise Console: YES or NO. If YES and Tivoli Enterprise Console is installed, IBM Tivoli Monitoring sends indications to Tivoli Enterprise Console. If Tivoli Business Systems Manager is installed, Tivoli Enterprise Console sends the indications to Tivoli Business Systems Manager.
  – Send indications to Tivoli Business Systems Manager
    Specifies whether IBM Tivoli Monitoring sends indications to Tivoli Business Systems Manager. The default is NO. Do not change the configuration of the indication to send events to Tivoli Business Systems Manager.
  – Occurrences
    The number of occurrences refers to the number of cycles during which an indication occurs for a given resource model.
  – Holes
    The number of holes refers to the number of cycles during which an indication does not occur for a given resource model. In other words, the number of cycles during which none of the conditions specified for the generation of any indication are met.
  – Associated tasks and built-in actions
    List of tasks and built-in actions associated with the indication.

Thresholds

List of the thresholds, if any, for the resource model in a table format with a short description and default value for each threshold associated with the resource model. A threshold is a named property of the resource with a default value that you can modify. Typically, the value of a threshold represents a significant reference level of a performance-related entity, which, if exceeded or not reached, a system administrator might want to know about.

Parameters

List of parameters, if any, for the resource model in a table format with a short description and default value for each threshold associated with the resource model. A parameter can take the form of a list of strings, a list of
numeric values, a list of predetermined Boolean values from which you can make any combination of selections, or a choice list of mutually exclusive alternatives.

**Tasks and built-in actions**
List of tasks and built-in actions including a description of each one.

**Logging**
A table shows the name of the managed resource, context, and properties that the resource model logs with key properties noted. The resource model does not log data by default. You can enable logging to collect data for any endpoint and write it in a local database. You can store raw or aggregated data and view it through the Web Health Console.

**Return codes**
Information that the resource model returns such as status or availability.

**CLI example**
Example of the syntax for a resource model that illustrates the variable options of the `wdmeditprf` command that are specific to the resource model such as the name of the resource model, thresholds, parameters, parameter values, and events.

See the "Working with resource models" chapter of the IBM Tivoli Monitoring for Databases: Informix User's Guide for more information on resource models and resource model procedures.

Table 2 lists the resource models included with IBM Tivoli Monitoring for Databases: Informix.

<table>
<thead>
<tr>
<th>Resource model name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;IBMInformix Active Transactions Monitor&quot; on page 9</td>
<td>Monitors the number of active transactions in the system.</td>
</tr>
<tr>
<td>&quot;IBMInformix Archive Monitor&quot; on page 12</td>
<td>Monitors the Informix onbar backup processes.</td>
</tr>
<tr>
<td>&quot;IBMInformix Cache Hit Ratio Monitor&quot; on page 15</td>
<td>Monitors the number of reads and writes from both buffer cache and disk and calculates a ratio of the amount of buffer hits to disk hits for both reads and writes.</td>
</tr>
<tr>
<td>&quot;IBMInformix Checkpoint Monitor&quot; on page 20</td>
<td>Monitors the duration of checkpoints and the interval between checkpoints.</td>
</tr>
<tr>
<td>&quot;IBMInformix Dbspace Monitor&quot; on page 25</td>
<td>Logs information about each Dbspace (database space).</td>
</tr>
<tr>
<td>&quot;IBMInformix Deadlocks Monitor&quot; on page 27</td>
<td>Monitors the number of Deadlocks.</td>
</tr>
<tr>
<td>&quot;IBMInformix DML Locks Ratio Monitor&quot; on page 30</td>
<td>Monitors the current active locks and total locks and calculates the ratio of active locks to total locks.</td>
</tr>
<tr>
<td>&quot;IBMInformix Filesystem&quot; on page 33</td>
<td>Monitors the percentage space available on the filesystems used for Core Dump Space, Message Log and the high-availability data replication (HDR) Lost and Found.</td>
</tr>
<tr>
<td>Resource model name</td>
<td>Description</td>
</tr>
<tr>
<td>---------------------</td>
<td>-------------</td>
</tr>
<tr>
<td>IBMInformix Free Dbspace Monitor” on page 44</td>
<td>Monitors the available space in every storage chunk and uses these values to calculate the percentage of available space left in each Dbspace.</td>
</tr>
<tr>
<td>IBMInformix Free Space Deficit Monitor” on page 47</td>
<td>Monitors if there is enough space available for each table to allocate its next extent.</td>
</tr>
<tr>
<td>IBMInformix HDR Monitor” on page 50</td>
<td>Monitors the high-availability data replication (HDR) Type and State of the IBMInformixServer object.</td>
</tr>
<tr>
<td>IBMInformix Log Event Monitor” on page 56</td>
<td>Monitors the IBM Informix Event Log for messages.</td>
</tr>
<tr>
<td>IBMInformix Logical Log Monitor” on page 63</td>
<td>Monitors the Logical Log files for available Logical Log Space.</td>
</tr>
<tr>
<td>IBMInformix Logical Log Backup Monitor” on page 66</td>
<td>Monitors the Informix message log file for Logical Log Backups messages.</td>
</tr>
<tr>
<td>IBMInformix LRU Queues Monitor” on page 69</td>
<td>Monitors the Free Buffers and Modified Buffers and calculates the percentage modified buffers for each least recently used (LRU) queue.</td>
</tr>
<tr>
<td>IBMInformix Memory Segment Monitor” on page 72</td>
<td>Logs the IBM Informix Memory Segments.</td>
</tr>
<tr>
<td>IBMInformix Overflows Monitor” on page 74</td>
<td>Monitors the User Thread Overflows, Transaction Overflows, and Lock Overflows.</td>
</tr>
<tr>
<td>IBMInformix Physical Log Usage Ratio Monitor” on page 81</td>
<td>Monitors the Physical Log Size and the amount of the Physical Log Used and calculates the ratio of available space to space used.</td>
</tr>
<tr>
<td>IBMInformix Rollback Ratio Monitor” on page 84</td>
<td>Monitors the number of rollbacks to commits and calculates the ratio.</td>
</tr>
<tr>
<td>IBMInformix Server State Monitor” on page 87</td>
<td>Monitors the state of the IBM Informix server as reported by &quot;onstat-&quot;.</td>
</tr>
<tr>
<td>IBMInformix Table Extents Monitor” on page 90</td>
<td>Monitors the number of extents for every table.</td>
</tr>
<tr>
<td>IBMInformix Update Statistics” on page 93</td>
<td>Monitors table data distribution by comparing the ratio of table modifications to table rows.</td>
</tr>
<tr>
<td>IBMInformix Virtual Processors Monitor” on page 97</td>
<td>Monitors the CPU usage of the Virtual Processors.</td>
</tr>
<tr>
<td>IBMInformix Waits Monitor” on page 99</td>
<td>Monitors the Buffer Waits, Lock Waits, Checkpoint Waits, and Latch Waits.</td>
</tr>
<tr>
<td>IBMInformix Writes Monitor” on page 107</td>
<td>Monitors the Chunk Writes, LRU Writes and Foreground Writes.</td>
</tr>
</tbody>
</table>
IBMInformix Active Transactions Monitor

Description

xMonitors the number of active transactions in the system. When the number of active transactions exceeds the specified threshold, this resource model generates an indication if it is enabled by the parameter. The indication serves to warn the database administrator that the transactions are greater than the specified threshold. By default, this resource model runs every 300 seconds.

<table>
<thead>
<tr>
<th>Resource model overview</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal name</td>
</tr>
<tr>
<td>Category</td>
</tr>
<tr>
<td>Indications</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Tasks and built-in actions</td>
</tr>
<tr>
<td>Default cycle time</td>
</tr>
</tbody>
</table>

Target managed resource

IBMInformixServer

Indications and events

The following table summarizes the indications for this resource model, the events associated with the indications, the default severity of the events, and where you can find a detailed description of the indication.

<table>
<thead>
<tr>
<th>Indication</th>
<th>Generated event</th>
<th>Default severity</th>
<th>Clearing events</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBM Informix High Active Transactions</td>
<td>IBMInformix_High_Active_Transactions</td>
<td>Critical</td>
<td>Yes</td>
<td>9</td>
</tr>
</tbody>
</table>

IBM Informix High Active Transactions indication

Occurs when the High Active Transactions Monitor parameter is Enabled and the measured Active Transactions are greater than the specified threshold. When the indication occurs often enough to trigger an event, the event delivers a message to the Tivoli Enterprise Console in the following format:

```
application_label: Active Transactions are currently ActiveTransactions against a threshold of ActiveTransactionsThreshold.
```

If you have Tivoli Business Systems Manager configured for your system, Tivoli Enterprise Console forwards the message to Tivoli Business Systems Manager.

If you do not have Tivoli Enterprise Console, you can check the health of this resource model in the IBM Tivoli Monitoring Web Health Console.

The indication has the following attributes:

- **ActiveTransactions**
  Specifies the number of transactions that are active on the IBMInformixServer instance being monitored.
**ActiveTransactionsThreshold**
Specifies the highest number of transactions that can be active on the IBMInformixServer instance before an indication is triggered.

**ServerName**
Specifies the name of the IBMInformixServer instance on which the resource model is running.

**DB_INSTANCE**
Specifies the name of the IBMInformixServer instance on which the resource model is running.

**DB_DIR**
Specifies the root directory of the IBMInformixServer instance.

**application_label**
Specifies the label applied to the object.

**application_version**
Specifies the application version of the object.

**application_oid**
Specifies OID (object identifier) of the object.

**application_class**
Specifies the application class of the object.

**INTERP**
Specifies the operating system on which the IBMInformixServer is running.

**ITM_CONTEXT**
Specifies a general problem to which the resource activity relates. An example of context can be Cache Hit Ratios, where the resource is IBMInformixServer. This shows that the metrics logged concern Cache Hit Ratios in relation to the resource IBMInformixServer.

This indication has the following threshold:
- IBM Informix High Active Transactions

For more information about this threshold, see “Thresholds” on page 11.

The following table describes the default settings for this indication.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Default value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Send indications to Tivoli Enterprise Console</td>
<td>Yes</td>
</tr>
<tr>
<td>Send indications to Tivoli Business Systems Manager</td>
<td>No</td>
</tr>
<tr>
<td>Occurrences</td>
<td>1</td>
</tr>
<tr>
<td>Holes</td>
<td>0</td>
</tr>
<tr>
<td>Associated tasks and built-in actions</td>
<td>None</td>
</tr>
</tbody>
</table>

**Note:** If you have Tivoli Business Systems Manager configured for your systems, Tivoli Enterprise Console automatically forwards events to Tivoli Business Systems Manager. Do not change the configuration of the indication to send events to Tivoli Business Systems Manager.
Thresholds

The following list shows the name, a short description, and the default value for the threshold associated with this resource model.

<table>
<thead>
<tr>
<th>Threshold</th>
<th>Description</th>
<th>Default value</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBM Informix High Active Transactions</td>
<td>An indication occurs when the measured Active Transactions exceed this value if it is <strong>Enabled</strong> by the High Active Transactions Monitor parameter.</td>
<td>0</td>
</tr>
</tbody>
</table>

Parameters

The following list shows the name, a short description, and the default value for each parameter that you can set for this resource model.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
<th>Default value</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBM Informix Enable High Active Transactions Monitor</td>
<td>Enables or disables the High Active Transactions Monitor.</td>
<td>Disabled</td>
</tr>
</tbody>
</table>

Tasks and built-in actions

None

Logging

You can log data for properties of the managed resource listed in the following table. The table shows the context of the managed resource and the properties that the resource model logs for the IBM Tivoli Monitoring Web Health Console.

<table>
<thead>
<tr>
<th>Resource</th>
<th>Context</th>
<th>Properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBMInformixServer</td>
<td>Active Transactions</td>
<td>IBMInformixServer.Db_Server_Name*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Active_Transactions</td>
</tr>
</tbody>
</table>

Note: An asterisk (*) denotes a key property.

CLI example

Adds the **IBMInformixActiveTransactions** resource model to *MyProfile#MyRegion*, configuring the resource model to run once every five minutes but only raising an indication only if the number of active transactions exceeds twelve consistently for one half hour (30 minutes, or 6 consecutive checks every 5 minutes with no holes). When an indication occurs, a critical event is sent. Logging to IBM Tivoli Enterprise Data Warehouse is also enabled.

```
wdmeditprf -P MyProfile#MyRegion -add IBMInformixActiveTransactions -c 300 \  
-t IBMInformix_High_ActiveTransactions 12.000000 \  
-e IBMInformix_High_ActiveTransactions -o 6 -severity CRITICAL \  
-AddPar IBMInformix_Enable_High_ActiveTransactions Enabled \  
-Log -LogEnable
```
IBMInformix Archive Monitor

Description

Monitors the Informix onbar backup processes at cycle time. If the resource model finds a backup process, it compares the age of the backup process to the specified threshold value. The resource model generates an indication if the backup process is older than the specified threshold value. By default, this resource model runs every 900 seconds.

The Archive Monitor resource model returns information on the following:

<table>
<thead>
<tr>
<th>Resource model overview</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal name</td>
</tr>
<tr>
<td>Category</td>
</tr>
<tr>
<td>Indications</td>
</tr>
<tr>
<td>Tasks and built-in actions</td>
</tr>
<tr>
<td>Default cycle time</td>
</tr>
</tbody>
</table>

Target managed resource

IBMInformixServer

Indications and events

The following table summarizes the indications for this resource model, the events associated with the indications, the default severity of the events, and where you can find a detailed description of the indication.

<table>
<thead>
<tr>
<th>Indication</th>
<th>Generated event</th>
<th>Default severity</th>
<th>Clearing event</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBM Informix Archive Exceeded Threshold</td>
<td>IBMInformix_Archive_Exceeded_Threshold</td>
<td>Critical</td>
<td>Yes</td>
<td>12</td>
</tr>
</tbody>
</table>

IBM Informix Archive Exceeded Threshold indication

Occurs when the backup process is older than the specified threshold value. When the indication occurs often enough to trigger an event, the event delivers a message to the Tivoli Enterprise Console in the following format:

application label: The onbar_d process with Process ID Process_Id of Archive Transactions has exceeded its threshold of Duration_Threshold.

If you have Tivoli Business Systems Manager configured for your system, Tivoli Enterprise Console forwards the message to Tivoli Business Systems Manager.

If you do not have Tivoli Enterprise Console, you can check the health of this resource model in the IBM Tivoli Monitoring Web Health Console.

The indication has the following attributes:

Process_ID

Specifies the process id of the onbar_d process.
**Duration_Threshold**
Specifies the maximum amount of time the onbar_d process can take to complete before an indication is generated.

**ServerName**
Specifies the name of the IBMInformixServer instance on which the resource model is running.

**DB_INSTANCE**
Specifies the name of the IBMInformixServer instance on which the resource model is running.

**DB_DIR**
Specifies the root directory of the IBMInformixServer instance.

**application_label**
Specifies the label applied to the object.

**application_version**
Specifies the application version of the object.

**application_oid**
Specifies OID (object identifier) of the object.

**application_class**
Specifies the application class of the object.

**INTERP**
Specifies the operating system on which the IBMInformixServer is running.

**ITM_CONTEXT**
Specifies a general problem to which the resource activity relates. An example of context can be Cache Hit Ratios, where the resource is IBMInformixServer. This shows that the metrics logged concern Cache Hit Ratios in relation to the resource IBMInformixServer.

This indication has the following threshold:
- IBM Informix Archive Duration

For more information about these thresholds, see “Thresholds” on page 14.

The following table describes the default settings for this indication.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Default value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Send indications to Tivoli Enterprise Console</td>
<td>Yes</td>
</tr>
<tr>
<td>Send indications to Tivoli Business Systems Manager</td>
<td>No</td>
</tr>
<tr>
<td>Occurrences</td>
<td>1</td>
</tr>
<tr>
<td>Holes</td>
<td>0</td>
</tr>
<tr>
<td>Associated tasks and built-in actions</td>
<td>None</td>
</tr>
</tbody>
</table>

**Note:** If you have Tivoli Business Systems Manager configured for your systems, Tivoli Enterprise Console automatically forwards events to Tivoli Business Systems Manager. Do not change the configuration of the indication to send events to Tivoli Business Systems Manager.
Thresholds

The following list shows the name, a short description, and the default value for each threshold associated with this resource model.

<table>
<thead>
<tr>
<th>Threshold</th>
<th>Description</th>
<th>Default value</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBMInformix Archive Duration</td>
<td>An indication occurs when an individual Archive process (onbar_d) exceeds this threshold (in minutes) before completing.</td>
<td>60</td>
</tr>
</tbody>
</table>

Parameters

None

Tasks and built-in actions

None

Logging

None

CLI example

Adds the IBMInformixArchive resource model to MyProfile#MyRegion, configuring the resource model to run once every half hour, checking if an archive operation has been running for more than 15 minutes. If the resource model confirms that an archive operation has been operating for more than 45 minutes (longer than 15 minutes when checked twice, 2 occurrences, separated by 30 minutes), it sends a CRITICAL event.

```
wdmeditprf -P MyProfile#MyRegion -add IBMInformixArchive -c 1800 \  
-t IBMInformix_Archive_Duration 15.000000 \  
-e IBMInformix_Archive_Exceeded_Threshold -o 2 -severity CRITICAL
```
IBMInformix Cache Hit Ratio Monitor

Description

Monitors the number of reads and writes from both buffer cache and disk and calculates a ratio of the amount of buffer hits to disk hits for both reads and writes. This resource model generates an indication if either the read hit ratio or the write hit ratio fall below their specified thresholds. This resource model also logs measured and calculated values. By default, this resource model runs every 3600 seconds.

The Cache Hit Ratio Monitor resource model resource model returns information on the following:

<table>
<thead>
<tr>
<th>Resource model overview</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal name</td>
</tr>
<tr>
<td>Category</td>
</tr>
<tr>
<td>Indications</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Tasks and built-in actions</td>
</tr>
<tr>
<td>Default cycle time</td>
</tr>
</tbody>
</table>

Target managed resource

IBMInformixServer

Indications and events

The following table summarizes the indications for this resource model, the events associated with the indications, the default severity of the events, and where you can find a detailed description of the indication:

<table>
<thead>
<tr>
<th>Indication</th>
<th>Generated event</th>
<th>Default severity</th>
<th>Clearing events</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBM Informix Low Read Cache Hit Ratio</td>
<td>IBMInformix_Low_ReadCacheHitRatio</td>
<td>Critical</td>
<td>Yes</td>
<td>15</td>
</tr>
<tr>
<td>IBM Informix Low Write Cache Hit Ratio</td>
<td>IBMInformix_Low_WriteCacheHitRatio</td>
<td>Critical</td>
<td>Yes</td>
<td>17</td>
</tr>
</tbody>
</table>

IBM Informix Low Read Cache Hit Ratio indication

Occurs when the Read Hit Cache Ratio falls below the specified threshold. When the indication occurs often enough to trigger an event, the event delivers a message to the Tivoli Enterprise Console in the following format:

application_label: Cache Read Hit Ratio is currently ReadCacheHitRatio against a threshold of ReadCacheHitRatioThreshold.
If you have Tivoli Business Systems Manager configured for your system, Tivoli Enterprise Console forwards the message to Tivoli Business Systems Manager.

If you do not have Tivoli Enterprise Console, you can check the health of this resource model in the IBM Tivoli Monitoring Web Health Console.

The indication has the following attributes:

- **ServerName**  
  Specifies the name of the IBMInformixServer instance on which the resource model is running.

- **ReadCacheHitRatio**  
  Specifies the ratio of buffer cache reads to disk reads.

- **ReadCacheHitRatioThreshold**  
  Specifies the low end threshold for the **ReadCacheHitRatio**. If the **ReadCacheHitRatio** falls below this threshold an indication is raised.

- **DB_INSTANCE**  
  Specifies the name of the IBMInformixServer instance on which the resource model is running.

- **DB_DIR**  
  Specifies the root directory of the IBMInformixServer instance.

- **application_version**  
  Specifies the application version of the object.

- **application_label**  
  Specifies the label applied to the object.

- **application_class**  
  Specifies the application class of the object.

- **application_oid**  
  Specifies OID (object identifier) of the object.

- **INTERP**  
  Specifies the operating system on which the IBMInformixServer is running.

- **ITM_CONTEXT**  
  Specifies a general problem to which the resource activity relates. An example of context can be Cache Hit Ratios, where the resource is IBMInformixServer. This shows that the metrics logged concern Cache Hit Ratios in relation to the resource IBMInformixServer.

This indication has the following threshold:

- IBM Informix Low Read Cache Hit Ratio

For more information about this threshold, see “Thresholds” on page 18.

The following table describes the default settings for this indication.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Default value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Send indications to Tivoli Enterprise Console</td>
<td>Yes</td>
</tr>
<tr>
<td>Send indications to Tivoli Business Systems Manager</td>
<td>No</td>
</tr>
<tr>
<td>Occurrences</td>
<td>3</td>
</tr>
<tr>
<td>Holes</td>
<td>4</td>
</tr>
</tbody>
</table>
### Setting

<table>
<thead>
<tr>
<th>Associated tasks and built-in actions</th>
<th>Default value</th>
</tr>
</thead>
</table>

**Note:** If you have Tivoli Business Systems Manager configured for your systems, Tivoli Enterprise Console automatically forwards events to Tivoli Business Systems Manager. Do not change the configuration of the indication to send events to Tivoli Business Systems Manager.

### IBM Informix Low Write Cache Hit Ratio indication

Occurs when the Write Hit Cache Ratio falls below the specified threshold. When the indication occurs often enough to trigger an event, the event delivers a message to the Tivoli Enterprise Console in the following format:

```
application_label: Cache Write Hit Ratio is currently WriteCacheHitRatio against a threshold of WriteCacheHitRatioThreshold.
```

If you have Tivoli Business Systems Manager configured for your system, Tivoli Enterprise Console forwards the message to Tivoli Business Systems Manager.

If you do not have Tivoli Enterprise Console, you can check the health of this resource model in the IBM Tivoli Monitoring Web Health Console.

The indication has the following attributes:

- **ServerName**
  - Specifies the name of the IBMInformixServer instance on which the resource model is running.

- **WriteCacheHitRatio**
  - Specifies the ratio of buffer cache writes to disk writes.

- **WriteCacheHitRatioThreshold**
  - Specifies the low end threshold for the `WriteCacheHitRatio`. If the `WriteCacheHitRatio` falls below this threshold an indication is raised.

- **DB_INSTANCE**
  - Specifies the name of the IBMInformixServer instance on which the resource model is running.

- **DB_DIR**
  - Specifies the root directory of the IBMInformixServer instance.

- **application_label**
  - Specifies the label applied to the object.

- **application_version**
  - Specifies the application version of the object.

- **application_oid**
  - Specifies OID (object identifier) of the object.

- **application_class**
  - Specifies the application class of the object.

- **INTERP**
  - Specifies the operating system on which the IBMInformixServer is running.

- **ITM_CONTEXT**
  - Specifies a general problem to which the resource activity relates. An example of context can be Cache Hit Ratios, where the resource is...
IBMInformixServer. This shows that the metrics logged concern Cache Hit Ratios in relation to the resource IBMInformixServer.

This indication has the following threshold:
• IBM Informix Low Write Cache Hit Ratio

For more information about these thresholds, see “Thresholds” on page 18.

The following table describes the default settings for this indication.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Default value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Send indications to Tivoli Enterprise Console</td>
<td>Yes</td>
</tr>
<tr>
<td>Send indications to Tivoli Business Systems Manager</td>
<td>No</td>
</tr>
<tr>
<td>Occurrences</td>
<td>3</td>
</tr>
<tr>
<td>Holes</td>
<td>4</td>
</tr>
<tr>
<td>Associated tasks and built-in actions</td>
<td>None</td>
</tr>
</tbody>
</table>

**Note:** If you have Tivoli Business Systems Manager configured for your systems, Tivoli Enterprise Console automatically forwards events to Tivoli Business Systems Manager. Do not change the configuration of the indication to send events to Tivoli Business Systems Manager.

**Thresholds**

The following list shows the name, a short description, and the default value for the threshold associated with this resource model.

<table>
<thead>
<tr>
<th>Threshold</th>
<th>Description</th>
<th>Default value</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBM Informix Low Read Cache Hit Ratio</td>
<td>An indication occurs when the calculated Read Cache Hit Ratio falls below the specified threshold value.</td>
<td>95</td>
</tr>
<tr>
<td>IBM Informix Low Write Cache Hit Ratio</td>
<td>An indication occurs when the calculated Write Cache Hit Ratio falls below the specified threshold value.</td>
<td>85</td>
</tr>
</tbody>
</table>

**Parameters**

None

**Tasks and built-in actions**

None

**Logging**

You can log data for properties of the managed resource listed in the following table. The table shows the context of the managed resource and the properties that the resource model logs for the IBM Tivoli Monitoring Web Health Console.
### Resource Context Properties

<table>
<thead>
<tr>
<th>Resource</th>
<th>Context</th>
<th>Properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBMInformixServer</td>
<td>Cache Hit Ratio</td>
<td>IBMInformixServer.Db_Server_Name*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Buffer_Reads</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Buffer_Writes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Disk_Reads</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Disk_Writes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Read_Cache_Hit_Ratio</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Write_Cache_Hit_Ratio</td>
</tr>
</tbody>
</table>

**Note:** An asterisk (*) denotes a key property.

### CLI example

Adds the **IBMInformixCacheHitRatio** resource model to *MyProfile#MyRegion* and sets the resource model to run once an hour. Over the span of any six hours, if the resource model finds that the hit ratio for the Read Cache has dropped below 90 percent twice or the hit ratio for the Write Cache has sunk below 80 percent twice, a CRITICAL event is sent. Logging to IBM Tivoli Enterprise Data Warehouse is also enabled.

```bash
wdmeditprf -P MyProfile#MyRegion -add IBMInformixCacheHitRatio -c 3600 -t IBMInformix_Low_ReadCacheHitRatio 90.000000 -t IBMInformix_Low_WriteCacheHitRatio 80.000000 -e IBMInformix_Low_ReadCacheHitRatio -o 2 -h 4 -severity CRITICAL -e IBMInformix_Low_WriteCacheHitRatio -o 2 -h 4 -severity CRITICAL -Log -LogEnable
```
IBMInformix Checkpoint Monitor

Description
Monitors the IBM Informix checkpoints. This resource model generates and indication if the checkpoint duration exceeds the duration threshold value or if the checkpoint interval falls below its threshold value. This resource model also logs the checkpoint records. By default, this resource model runs every 300 seconds.

<table>
<thead>
<tr>
<th>Resource model overview</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal name</td>
</tr>
<tr>
<td>Category</td>
</tr>
<tr>
<td>Indications</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Tasks and built-in actions</td>
</tr>
<tr>
<td>Default cycle time</td>
</tr>
</tbody>
</table>

Target managed resource
IBMInformixServer

Indications and events
The following table summarizes the indications for this resource model, the events associated with the indications, the default severity of the events, and where you can find a detailed description of the indication.

<table>
<thead>
<tr>
<th>Indication</th>
<th>Generated Event</th>
<th>Default Severity</th>
<th>Clearing event</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBM Informix High Checkpoint Duration</td>
<td>IBMInformix_High_CheckpointDuration</td>
<td>Critical</td>
<td>Yes</td>
<td>20</td>
</tr>
<tr>
<td>IBM Informix Low Checkpoint Interval</td>
<td>IBMInformix_Low_CheckpointInterval</td>
<td>Critical</td>
<td>Yes</td>
<td>22</td>
</tr>
</tbody>
</table>

IBM Informix High Checkpoint Duration indication
Occurs when the Checkpoint Duration exceeds the specified threshold. When the indication occurs often enough to trigger an event, the event delivers a message to the Tivoli Enterprise Console in the following format:

application_label: Checkpoint Duration is currently CheckpointDuration against a threshold of CheckpointDurationThreshold.

If you have Tivoli Business Systems Manager configured for your system, Tivoli Enterprise Console forwards the message to Tivoli Business Systems Manager.
If you do not have Tivoli Enterprise Console, you can check the health of this resource model in the IBM Tivoli Monitoring Web Health Console.

The indication has the following attributes:

**CheckpointDuration**
- Specifies the duration in seconds of this checkpoint.

**CheckpointDurationThreshold**
- Specifies the high duration threshold for the CheckpointDuration. If the duration is over this value an indication is generated.

**ServerName**
- Specifies the name of the IBMInformixServer instance on which the resource model is running.

**DB_INSTANCE**
- Specifies the name of the IBMInformixServer instance on which the resource model is running.

**DB_DIR**
- Specifies the root directory of the IBMInformixServer instance.

**application_label**
- Specifies the label applied to object.

**application_version**
- Specifies the application version of the object

**application_oid**
- Specifies OID (object identifier) of the object.

**application_class**
- Specifies the application class of the object.

**INTERP**
- Specifies the operating system on which the IBMInformixServer is running.

**ITM_CONTEXT**
- Specifies a general problem to which the resource activity relates. An example of context can be Cache Hit Ratios, where the resource is IBMInformixServer. This shows that the metrics logged concern Cache Hit Ratios in relation to the resource IBMInformixServer.

This indication has the following threshold:

- IBM Informix High Checkpoint Duration

For more information about these thresholds, see “Thresholds” on page 18.

The following table describes the default settings for this indication.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Default value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Send indications to Tivoli Enterprise Console</td>
<td>Yes</td>
</tr>
<tr>
<td>Send indications to Tivoli Business Systems Manager</td>
<td>No</td>
</tr>
<tr>
<td>Occurrences</td>
<td>1</td>
</tr>
<tr>
<td>Holes</td>
<td>0</td>
</tr>
<tr>
<td>Associated tasks and built-in actions</td>
<td>None</td>
</tr>
</tbody>
</table>
Note: If you have Tivoli Business Systems Manager configured for your systems, Tivoli Enterprise Console automatically forwards events to Tivoli Business Systems Manager. Do not change the configuration of the indication to send events to Tivoli Business Systems Manager.

**IBM Informix Low Checkpoint Interval indication**

Occurs when the Low Checkpoint Interval falls below the specified threshold. When the indication occurs often enough to trigger an event, the event delivers a message to the Tivoli Enterprise Console in the following format:

`application_label`: Checkpoint interval is currently $\text{CheckpointInterval}$ against a threshold of $\text{CheckpointIntervalThreshold}$.

If you have Tivoli Business Systems Manager configured for your system, Tivoli Enterprise Console forwards the message to Tivoli Business Systems Manager.

If you do not have Tivoli Enterprise Console, you can check the health of this resource model in the IBM Tivoli Monitoring Web Health Console.

The indication has the following attributes:

* **CheckpointInterval**
  Specifies the interval in seconds between this checkpoint and the previous checkpoint.

* **CheckpointIntervalThreshold**
  Specifies the low interval threshold for the `Checkpoint` duration. If the interval is below this value an indication is raised.

* **ServerName**
  Specifies the name of the IBMInformixServer instance on which the resource model is running.

* **DB_INSTANCE**
  Specifies the name of the IBMInformixServer instance on which the resource model is running.

* **DB_DIR**
  Specifies the root directory of the IBMInformixServer instance.

* **application_label**
  Specifies the label applied to object.

* **application_version**
  Specifies the application version of the object

* **application_oid**
  Specifies OID (object identifier) of the object.

* **application_class**
  Specifies the application class of the object.

* **INTERP**
  Specifies the operating system on which the IBMInformixServer is running.

* **ITM_CONTEXT**
  Specifies a general problem to which the resource activity relates. An example of context can be Cache Hit Ratios, where the resource is IBMInformixServer. This shows that the metrics logged concern Cache Hit Ratios in relation to the resource IBMInformixServer.

This indication has the following threshold:
• IBM Informix Low Checkpoint Interval

For more information about these thresholds, see “Thresholds” on page 23.

The following table describes the default settings for this indication.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Default value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Send indications to Tivoli Enterprise Console</td>
<td>Yes</td>
</tr>
<tr>
<td>Send indications to Tivoli Business Systems Manager</td>
<td>No</td>
</tr>
<tr>
<td>Occurrences</td>
<td>1</td>
</tr>
<tr>
<td>Holes</td>
<td>0</td>
</tr>
<tr>
<td>Associated tasks and built-in actions</td>
<td>None</td>
</tr>
</tbody>
</table>

**Note:** If you have Tivoli Business Systems Manager configured for your systems, Tivoli Enterprise Console automatically forwards events to Tivoli Business Systems Manager. Do not change the configuration of the indication to send events to Tivoli Business Systems Manager.

**Thresholds**

The following list shows the name, a short description, and the default value for the threshold associated with this resource model.

<table>
<thead>
<tr>
<th>Threshold</th>
<th>Description</th>
<th>Default value</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBM Informix High Checkpoint Duration</td>
<td>An indication occurs when the calculated Checkpoint Duration exceeds the specified threshold value.</td>
<td>60</td>
</tr>
<tr>
<td>IBM Informix Low Checkpoint Interval</td>
<td>An indication occurs when the calculated Checkpoint Interval falls below the specified threshold value.</td>
<td>99999</td>
</tr>
</tbody>
</table>

**Parameters**

None

**Tasks and built-in actions**

None

**Logging**

You can log data for properties of the managed resource listed in the following table. The table shows the context of the managed resource and the properties that the resource model logs for the IBM Tivoli Monitoring Web Health Console.
CLI example

Adds the IBMInformixCheckpoint resource model to MyProfile#MyRegion, running every three minutes. If the resource model determines that any six out of eighteen checkpoint operations (any six occurrences with any twelve holes) has exceeded five seconds, a CRITICAL event is sent. If the resource model determines that the interval between checkpoint operations has been less than five minutes two times in a row, a CRITICAL event is sent. Logging to IBM Tivoli Enterprise Data Warehouse is also enabled.

wdmeditprf -P MyProfile#MyRegion -add IBMInformixCheckpoint -c 180 \  
-t IBMInformix_High_CheckpointDuration 5.000000 \  
-t IBMInformix_Low_CheckpointInterval 300 \  
-e IBMInformix_High_CheckpointDuration -o 6 -h 12 -severity CRITICAL \  
-e IBMInformix_Low_CheckpointInterval -o 2 -severity CRITICAL \  
-Log -LogEnable
IBMInformix Dbspace Monitor

Description
Logs information about each Dbspace (database space). This resource model logs only data about the monitored database. There are no associated thresholds or events. By default, this resource model runs every 3600 seconds.

<table>
<thead>
<tr>
<th>Resource model overview</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal name</td>
</tr>
<tr>
<td>Category</td>
</tr>
<tr>
<td>Indications</td>
</tr>
<tr>
<td>Tasks and built-in actions</td>
</tr>
<tr>
<td>Default cycle time</td>
</tr>
</tbody>
</table>

Target managed resource
IBMInformixServer

Indications and events
None

Thresholds
None

Parameters
None

Tasks and built-in actions
None

Logging
You can log data for properties of the managed resource listed in the following table. The table shows the context of the managed resource and the properties that the resource model logs for the IBM Tivoli Monitoring Web Health Console.

<table>
<thead>
<tr>
<th>Resource</th>
<th>Context</th>
<th>Properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBMInformixDbspace</td>
<td>Disk Space</td>
<td>IBMInformixServer.Db_Server_Name*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>IBMInformixDbspace.Name*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>IBMInformixDbspace.First_Chunk</td>
</tr>
<tr>
<td></td>
<td></td>
<td>IBMInformixDbspace.Number</td>
</tr>
<tr>
<td></td>
<td></td>
<td>IBMInformixDbspace.Owner</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Number_Chunks</td>
</tr>
</tbody>
</table>

Note: An asterisk (*) denotes a key property.
CLI example

Adds the **IBMInformixDbspace** resource model to *MyProfile#MyRegion* and sets the resource model to run once every half hour. This resource model logs only data about the monitored database. There are no associated thresholds or events. Logging to IBM Tivoli Enterprise Data Warehouse is enabled.

```
wdmeditprf -P MyProfile#MyRegion -add IBMInformixDbspace -c 1800 \ 
-Log -LogEnable
```
IBMInformix Deadlocks Monitor

Description

Monitors the number of Deadlocks. The resource model generates an indication when the number of Deadlocks exceeds the specified threshold if the parameter enables the resource model. The resource model also logs the recorded number of Deadlocks. By default, this resource model runs every 300 seconds.

<table>
<thead>
<tr>
<th>Resource model overview</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal name</td>
<td>IBMInformixDeadlocks</td>
</tr>
<tr>
<td>Category</td>
<td>IBMInformix</td>
</tr>
<tr>
<td>Indications</td>
<td>IBM Informix High Deadlocks monitors the number of Deadlocks.</td>
</tr>
<tr>
<td>Tasks and built-in actions</td>
<td>None</td>
</tr>
<tr>
<td>Default cycle time</td>
<td>300 seconds</td>
</tr>
</tbody>
</table>

Target managed resource

IBMInformixServer

Indications and events

The following table summarizes the indications for this resource model, the events associated with the indications, the default severity of the events, and where you can find a detailed description of the indication.

<table>
<thead>
<tr>
<th>Indication</th>
<th>Generated event</th>
<th>Default severity</th>
<th>Clearing event</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBM Informix High Deadlocks</td>
<td>IBMInformix_High_Deadlocks</td>
<td>Critical</td>
<td>Yes</td>
<td>27</td>
</tr>
</tbody>
</table>

IBM Informix High Deadlocks indication

Occurs when the High Deadlocks Monitor parameter is Enabled and the measured deadlocks are greater than the specified threshold. When the indication occurs often enough to trigger an event, the event delivers a message to the Tivoli Enterprise Console in the following format:

application_label: Number of Deadlocks is currently Deadlocks against a threshold of DeadlocksThreshold.

If you have Tivoli Business Systems Manager configured for your system, Tivoli Enterprise Console forwards the message to Tivoli Business Systems Manager.

If you do not have Tivoli Enterprise Console, you can check the health of this resource model in the IBM Tivoli Monitoring Web Health Console.

The indication has the following attributes:

- **Deadlocks**
  - Specifies the number of deadlocks as reported by the sysprofile table.

- **DeadlocksThreshold**
  - Specifies the maximum number of deadlocks that can pass before an indication is raised.
ServerName
Specifies the name of the IBMInformixServer instance on which the resource model is running.

DB_INSTANCE
Specifies the name of the IBMInformixServer instance on which the resource model is running.

DB_DIR
Specifies the root directory of the IBMInformixServer instance.

application_label
Specifies the label applied to object.

application_version
Specifies the application version of the object

application_oid
Specifies OID (object identifier) of the object.

application_class
Specifies the application class of the object.

INTERP
Specifies the operating system on which the IBMInformixServer is running.

ITM_CONTEXT
Specifies a general problem to which the resource activity relates. An example of context can be Cache Hit Ratios, where the resource is IBMInformixServer. This shows that the metrics logged concern Cache Hit Ratios in relation to the resource IBMInformixServer.

This indication has the following threshold:
• IBMInformix High Deadlocks

For more information about these thresholds, see “Thresholds” on page 28.

The following table describes the default settings for this indication.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Default value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Send indications to Tivoli Enterprise Console</td>
<td>Yes</td>
</tr>
<tr>
<td>Send indications to Tivoli Business Systems Manager</td>
<td>No</td>
</tr>
<tr>
<td>Occurrences</td>
<td>1</td>
</tr>
<tr>
<td>Holes</td>
<td>0</td>
</tr>
<tr>
<td>Associated tasks and built-in actions</td>
<td>None</td>
</tr>
</tbody>
</table>

Note: If you have Tivoli Business Systems Manager configured for your systems, Tivoli Enterprise Console automatically forwards events to Tivoli Business Systems Manager. Do not change the configuration of the indication to send events to Tivoli Business Systems Manager.

Thresholds

The following list shows the name, a short description, and the default value for the threshold associated with this resource model.
Threshold | Description | Default value
---|---|---
IBMInformix High Deadlocks | An indication occurs when the measured Deadlocks exceed the specified threshold value and this monitor is **Enabled** by the High Deadlocks Monitor parameter. | 0

### Parameters

The following list shows the name, a short description, and the default value for each parameter that you can set for this resource model:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
<th>Default value</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBM Informix Enable High Deadlocks Monitor</td>
<td>Enables or disables the High Deadlocks Monitor</td>
<td>Disabled</td>
</tr>
</tbody>
</table>

### Tasks and built-in actions

None

### Logging

You can log data for properties of the managed resource listed in the following table. The table shows the context of the managed resource and the properties that the resource model logs for the IBM Tivoli Monitoring Web Health Console.

<table>
<thead>
<tr>
<th>Resource</th>
<th>Context</th>
<th>Properties</th>
</tr>
</thead>
</table>
| IBMInformixServer | Deadlocks | IBMInformixServer.Db_Server_Name*  
Number_of_Deadlocks |

**Note:** An asterisk (*) denotes a key property.

### CLI example

Adds the **IBMInformixDeadlocks** resource model to *MyProfile#MyRegion* running once a minute. The resource model is configured to send a CRITICAL event when a deadlock is discovered (deadlocks > 0) in any three out of five checks (the majority of five minutes). Logging to IBM Tivoli Enterprise Data Warehouse is enabled.

```shell
wdmeditprf -P MyProfile#MyRegion -add IBMInformixDeadlocks -c 60  
-t IBMInformix_High_Deadlocks 0.000000  
-e IBMInformix_High_Deadlocks -o 3 -h 2 -severity CRITICAL  
-AddPar IBMInformix_Enable_High_Deadlocks Enabled  
-Log -LogEnable
```
IBMInformix DML Locks Ratio Monitor

**Description**

Monitors the current active locks and Total locks and calculates the ratio of active locks to total locks. This resource model generates an indication if the DML lock ratio exceeds the specified threshold. This resource model also logs the DML locks, Total locks and DML lock ratio. By default, this resource model runs every 300 seconds.

<table>
<thead>
<tr>
<th>Resource model overview</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal name</td>
</tr>
<tr>
<td>Category</td>
</tr>
<tr>
<td>Indications</td>
</tr>
<tr>
<td>Tasks and built-in actions</td>
</tr>
<tr>
<td>Default cycle time</td>
</tr>
</tbody>
</table>

**Target managed resource**

IBMInformixServer

**Indications and events**

The following table summarizes the indications for this resource model, the events associated with the indications, the default severity of the events, and where you can find a detailed description of the indication.

<table>
<thead>
<tr>
<th>Indication</th>
<th>Generated event</th>
<th>Default severity</th>
<th>Clearing event</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBM Informix High Dml Lock Ratio</td>
<td>IBMInformix_High_DmlLockRatio</td>
<td>Critical</td>
<td>Yes</td>
<td>30</td>
</tr>
</tbody>
</table>

**IBM Informix High Dml Lock Ratio indication**

Occurs when the DML Lock Ratio exceeds the specified threshold. When the indication occurs often enough to trigger an event, the event delivers a message to the Tivoli Enterprise Console in the following format:

```application_label: DML Lock Ratio is currently DmlLockRatio against a threshold of DmlLockRatioThreshold.```

If you have Tivoli Business Systems Manager configured for your system, Tivoli Enterprise Console forwards the message to Tivoli Business Systems Manager.

If you do not have Tivoli Enterprise Console, you can check the health of this resource model in the IBM Tivoli Monitoring Web Health Console.

The indication has the following attributes:

- **DmlLockRatio**: Specifies the number of Data Manipulation Language Locks (or active locks) as a ratio of the total locks available as defined in the onconfig file.
**DmlLockRatioThreshold**

Specifies the high threshold for the *DmlLockRatio* after which an indication is raised.

**ServerName**

Specifies the name of the IBMInformixServer instance on which the resource model is running.

**DB_INSTANCE**

Specifies the name of the IBMInformixServer instance on which the resource model is running.

**DB_DIR**

Specifies the root directory of the IBMInformixServer instance.

**application_label**

Specifies the label applied to object.

**application_version**

Specifies the application version of the object.

**application_oid**

Specifies OID (object identifier) of the object.

**application_class**

Specifies the application class of the object.

**INTERP**

Specifies the operating system on which the IBMInformixServer is running.

**ITM_CONTEXT**

Specifies a general problem to which the resource activity relates. An example of context can be Cache Hit Ratios, where the resource is IBMInformixServer. This shows that the metrics logged concern Cache Hit Ratios in relation to the resource IBMInformixServer.

This indication has the following threshold:

- IBM Informix High DML Lock Ratio

For more information about these thresholds, see "Thresholds" on page 32.

The following table describes the default settings for this indication.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Default value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Send indications to Tivoli Enterprise Console</td>
<td>Yes</td>
</tr>
<tr>
<td>Send indications to Tivoli Business Systems Manager</td>
<td>No</td>
</tr>
<tr>
<td>Occurrences</td>
<td>1</td>
</tr>
<tr>
<td>Holes</td>
<td>0</td>
</tr>
<tr>
<td>Associated tasks and built-in actions</td>
<td>None</td>
</tr>
</tbody>
</table>

**Note:** If you have Tivoli Business Systems Manager configured for your systems, Tivoli Enterprise Console automatically forwards events to Tivoli Business Systems Manager. Do not change the configuration of the indication to send events to Tivoli Business Systems Manager.
Thresholds

The following list shows the name, a short description, and the default value for the threshold associated with this resource model.

<table>
<thead>
<tr>
<th>Threshold</th>
<th>Description</th>
<th>Default value</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBM Informix High DML Lock Ratio</td>
<td>An indication occurs when the calculated DML Lock Ratio exceeds the specified value.</td>
<td>90</td>
</tr>
</tbody>
</table>

Parameters

None

Tasks and built-in actions

None

Logging

You can log data for properties of the managed resource listed in the following table. The table shows the context of the managed resource and the properties that the resource model logs for the IBM Tivoli Monitoring Web Health Console.

<table>
<thead>
<tr>
<th>Resource</th>
<th>Context</th>
<th>Properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBMInformixServer</td>
<td>DML Locks Ratio</td>
<td>IBMInformixServer.Db_Server_Name*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>IBMInformixServer.DML_Locks</td>
</tr>
<tr>
<td></td>
<td></td>
<td>DML_Locks_Ratio</td>
</tr>
<tr>
<td></td>
<td></td>
<td>IBMInformixServer.Total_Locks</td>
</tr>
</tbody>
</table>

Note: An asterisk (*) denotes a key property.

CLI example

Adds the IBMInformixDmlLocksRatio resource model to MyProfile#MyRegion, set to run once every ten minutes. When the ratio of data manipulation language (DML) locks to the instance’s configured maximum allowable locks exceeds 85 percent four times in an hour (4 occurrences with 2 holes when checked once every 10 minutes), a critical event is sent. Logging to IBM Tivoli Enterprise Data Warehouse is enabled.

```
wdmeditprf -P MyProfile#MyRegion -add IBMInformixDmlLocksRatio -c 600 \
-t IBMInformix_High_DmlLockRatio 85.000000 \
-e IBMInformix_High_DmlLockRatio -o 4 -h 2 -severity CRITICAL \n-Log -LogEnable
```
IBMInformix Filesystem

Description
Monitors the percentage space available on the filesystems used for Core Dump Space, Message Log and the HDR Lost and Found. You can set a threshold for each filesystem. An indication is raise when any of the filesystems has a measured usage over the specified threshold if the indication is enabled. Enable the indications through the parameter settings.

<table>
<thead>
<tr>
<th>Resource model overview</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal name</td>
</tr>
<tr>
<td>Category</td>
</tr>
<tr>
<td>Indications</td>
</tr>
<tr>
<td><strong>IBM Informix High Message Log Filesystem Utilization</strong> Occurs when the High Message Log Filesystem Monitor parameter is enabled and the measured Message Log Filesystem utilization is greater than the specified threshold.</td>
</tr>
<tr>
<td><strong>IBM Informix Missing Message Log File</strong> Occurs when the High Message Log Filesystem Monitor parameter is enabled and the filesystem for the defined Message Log cannot be found.</td>
</tr>
<tr>
<td><strong>IBM Informix High HDR Lost and Found Filesystem Utilization</strong> Occurs when the High HDR Lost and Found Filesystem Monitor parameter is enabled and the measured HDR Lost and Found Filesystem utilization is greater than the specified threshold.</td>
</tr>
<tr>
<td><strong>IBM Informix High Core Dump Space Filesystem Utilization</strong> Occurs when the High Core Dump Space Filesystem Monitor parameter is enabled and the measured Core Dump Space Filesystem utilization is greater than the specified threshold.</td>
</tr>
<tr>
<td><strong>IBM Informix Missing Core Dump Space File</strong> Occurs when the High Core Dump Space Filesystem Monitor parameter is enabled and the filesystem for the defined Core Dump Space File cannot be found.</td>
</tr>
<tr>
<td><strong>IBM Informix Missing HDR Lost and Found File</strong> Occurs when the High HDR Lost and Found Filesystem Monitor parameter is enabled and the filesystem for the defined HDR Lost and Found File cannot be found.</td>
</tr>
<tr>
<td>Tasks and built-in actions</td>
</tr>
<tr>
<td>Default cycle time</td>
</tr>
</tbody>
</table>

Target managed resource
IBMInformixServer

Indications and events
The following table summarizes the indications for this resource model, the events associated with the indications, the default severity of the events, and where you can find a detailed description of the indication.
<table>
<thead>
<tr>
<th>Indication</th>
<th>Generated event</th>
<th>Default severity</th>
<th>Clearing events</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBM Informix High Message Log Filesystem Utilization</td>
<td>IBMInformix_High_MessageLogFilesystem</td>
<td>Critical</td>
<td>Yes</td>
<td>34</td>
</tr>
<tr>
<td>IBM Informix Missing Message Log File</td>
<td>IBMInformix_Missing_MessageLogFilesystem</td>
<td>Critical</td>
<td>Yes</td>
<td>36</td>
</tr>
<tr>
<td>IBM Informix High HDR Lost and Found Filesystem Utilization</td>
<td>IBMInformix_High_HDRLostFoundFilesystem</td>
<td>Critical</td>
<td>Yes</td>
<td>37</td>
</tr>
<tr>
<td>IBM Informix High Core Dump Space Filesystem Utilization</td>
<td>IBMInformix_High_CoreDumpSpaceFilesystem</td>
<td>Critical</td>
<td>Yes</td>
<td>38</td>
</tr>
<tr>
<td>IBM Informix Missing Core Dump Space File</td>
<td>IBMInformix_Missing_CoreDumpSpaceFile</td>
<td>Critical</td>
<td>Yes</td>
<td>40</td>
</tr>
<tr>
<td>IBM Informix Missing HDR Lost and Found File</td>
<td>IBMInformix_Missing_HDRLostFoundFile</td>
<td>Critical</td>
<td>Yes</td>
<td>41</td>
</tr>
</tbody>
</table>

**IBM Informix High Message Log Filesystem Utilization indication**

Occurs when the High Message Log Filesystem Monitor parameter is enabled and the measured Message Log Filesystem utilization is greater than the specified threshold.

When the indication occurs often enough to trigger an event, the event delivers a message to the Tivoli Enterprise Console in the following format:

```
application_label: Message Log Filesystem Utilization on FilesystemPath is currently FilesystemUtilization against a threshold of FilesystemUtilizationThreshold.
```

If you have Tivoli Business Systems Manager configured for your system, Tivoli Enterprise Console forwards the message to Tivoli Business Systems Manager.
If you do not have Tivoli Enterprise Console, you can check the health of this resource model in the IBM Tivoli Monitoring Web Health Console.

The indication has the following attributes:

**FilesystemUtilization**
- Specifies the percentage of space used in the Message Log filesystem.

**FilesystemUtilizationThreshold**
- Specifies the maximum percentage of filesystem space that can be used before an indication is raised.

**ServerName**
- Specifies the name of the server for which the indication is raised.

**FilesystemPath**
- Specifies the full path to the filesystem being monitored.

**DB_INSTANCE**
- Specifies the name of the IBMInformixServer instance on which the resource model is running.

**DB_DIR**
- Specifies the root directory of the IBMInformixServer instance.

**application_label**
- Specifies the label applied to object.

**application_version**
- Specifies the application version of the object.

**application_oid**
- Specifies OID (object identifier) of the object.

**application_class**
- Specifies the application class of the object.

**INTERP**
- Specifies the operating system on which the IBMInformixServer is running.

**ITM_CONTEXT**
- Specifies a general problem to which the resource activity relates. An example of context can be Cache Hit Ratios, where the resource is IBMInformixServer. This shows that the metrics logged concern Cache Hit Ratios in relation to the resource IBMInformixServer.

This indication has the following threshold:
- IBM Informix High Message Log Filesystem

For more information about these thresholds, see “Thresholds” on page 42

The following table describes the default settings for this indication.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Default value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Send indications to Tivoli Enterprise Console</td>
<td>Yes</td>
</tr>
<tr>
<td>Send indications to Tivoli Business Systems</td>
<td>No</td>
</tr>
<tr>
<td>Manager</td>
<td></td>
</tr>
<tr>
<td>Occurrences</td>
<td>1</td>
</tr>
<tr>
<td>Holes</td>
<td>0</td>
</tr>
<tr>
<td>Associated tasks and built-in actions</td>
<td>None</td>
</tr>
</tbody>
</table>
Note: If you have Tivoli Business Systems Manager configured for your systems, Tivoli Enterprise Console automatically forwards events to Tivoli Business Systems Manager. Do not change the configuration of the indication to send events to Tivoli Business Systems Manager.

**IBM Informix Missing Message Log File indication**

Occurs when the High Message Log Filesystem Monitor parameter is enabled and the filesystem for the defined Message Log cannot be found.

When the indication occurs often enough to trigger an event, the event delivers a message to the Tivoli Enterprise Console in the following format:

```
application_label: Cannot find filesystem for Message Log File FilesystemPath.
```

If you have Tivoli Business Systems Manager configured for your system, Tivoli Enterprise Console forwards the message to Tivoli Business Systems Manager.

If you do not have Tivoli Enterprise Console, you can check the health of this resource model in the IBM Tivoli Monitoring Web Health Console.

The indication has the following attributes:

**ServerName**

Specifies the name of the server for which the indication is raised.

**FilesystemPath**

Specifies the full path to the filesystem being monitored.

**DB_INSTANCE**

Specifies the name of the IBMInformixServer instance on which the resource model is running.

**DB_DIR**

Specifies the root directory of the IBMInformixServer instance.

**application_label**

Specifies the label applied to object.

**application_version**

Specifies the application version of the object.

**application_oid**

Specifies OID (object identifier) of the object.

**application_class**

Specifies the application class of the object.

**INTERP**

Specifies the operating system on which the IBMInformixServer is running.

**ITM_CONTEXT**

Specifies a general problem to which the resource activity relates. An example of context can be Cache Hit Ratios, where the resource is IBMInformixServer. This shows that the metrics logged concern Cache Hit Ratios in relation to the resource IBMInformixServer.

The following table describes the default settings for this indication.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Default value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Send indications to Tivoli Enterprise Console</td>
<td>Yes</td>
</tr>
</tbody>
</table>
### Setting Default value

<table>
<thead>
<tr>
<th>Setting</th>
<th>Default value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Send indications to Tivoli Business Systems Manager</td>
<td>No</td>
</tr>
<tr>
<td>Occurrences</td>
<td>1</td>
</tr>
<tr>
<td>Holes</td>
<td>0</td>
</tr>
<tr>
<td>Associated tasks and built-in actions</td>
<td>None</td>
</tr>
</tbody>
</table>

**Note:** If you have Tivoli Business Systems Manager configured for your systems, Tivoli Enterprise Console automatically forwards events to Tivoli Business Systems Manager. Do not change the configuration of the indication to send events to Tivoli Business Systems Manager.

**IBM Informix High HDR Lost and Found Filesystem Utilization indication**

Occurs when the High HDR Lost and Found Filesystem Monitor parameter is enabled and the measured HDR Lost and Found Filesystem utilization is greater than the specified threshold.

When the indication occurs often enough to trigger an event, the event delivers a message to the Tivoli Enterprise Console in the following format:

```
application_label: HDR Lost and Found Filesystem Utilization on FilesystemPath is currently FilesystemUtilization against a threshold of FilesystemUtilizationThreshold.
```

If you have Tivoli Business Systems Manager configured for your system, Tivoli Enterprise Console forwards the message to Tivoli Business Systems Manager.

If you do not have Tivoli Enterprise Console, you can check the health of this resource model in the IBM Tivoli Monitoring Web Health Console.

The indication has the following attributes:

**FilesystemUtilization**

Specifies the percentage of space used in the HDR Lost and Found filesystem.

**FilesystemUtilizationThreshold**

Specifies the maximum percentage of filesystem space that can be used before an indication is raised.

**ServerName**

Specifies the name of the server for which the indication is raised.

**FilesystemPath**

Specifies the full path to the filesystem being monitored.

**DB_INSTANCE**

Specifies the name of the IBMInformixServer instance on which the resource model is running.

**DB_DIR**

Specifies the root directory of the IBMInformixServer instance.

**application_label**

Specifies the label applied to object.
application_version
   Specifies the application version of the object

application_oid
   Specifies OID (object identifier) of the object.

application_class
   Specifies the application class of the object.

INTERP
   Specifies the operating system on which the IBMInformixServer is running.

ITMCONTEXT
   Specifies a general problem to which the resource activity relates. An example of context can be Cache Hit Ratios, where the resource is IBMInformixServer. This shows that the metrics logged concern Cache Hit Ratios in relation to the resource IBMInformixServer.

This indication has the following threshold:
- IBM Informix High HDR Lost and Found Filesystem monitor

For more information about these thresholds, see "Thresholds" on page 42.

The following table describes the default settings for this indication.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Default value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Send indications to Tivoli Enterprise Console</td>
<td>Yes</td>
</tr>
<tr>
<td>Send indications to Tivoli Business Systems Manager</td>
<td>No</td>
</tr>
<tr>
<td>Occurrences</td>
<td>1</td>
</tr>
<tr>
<td>Holes</td>
<td>0</td>
</tr>
<tr>
<td>Associated tasks and built-in actions</td>
<td>None</td>
</tr>
</tbody>
</table>

Note: If you have Tivoli Business Systems Manager configured for your systems, Tivoli Enterprise Console automatically forwards events to Tivoli Business Systems Manager. Do not change the configuration of the indication to send events to Tivoli Business Systems Manager.

IBM Informix High Core Dump Space Filesystem Utilization indication
Occurs when the High Core Dump Space Filesystem Monitor parameter is enabled and the measured Core Dump Space Filesystem utilization is greater than the specified threshold.

When the indication occurs often enough to trigger an event, the event delivers a message to the Tivoli Enterprise Console in the following format:

`application_label: Message Log Filesystem Utilization on FilesystemPath is currently FilesystemUtilization against a threshold of FilesystemUtilizationThreshold.`

If you have Tivoli Business Systems Manager configured for your system, Tivoli Enterprise Console forwards the message to Tivoli Business Systems Manager.

If you do not have Tivoli Enterprise Console, you can check the health of this resource model in the IBM Tivoli Monitoring Web Health Console.
The indication has the following attributes:

**FilesystemUtilization**
Specifies the percentage of space used in the Core Dump Space filesystem.

**FilesystemUtilizationThreshold**
Specifies the maximum percentage of filesystem space that can be used before an indication is raised.

**ServerName**
Specifies the name of the server for which the indication is raised.

**FilesystemPath**
Specifies the full path to the filesystem being monitored.

**DB_INSTANCE**
Specifies the name of the IBMInformixServer instance on which the resource model is running.

**DB_DIR**
Specifies the root directory of the IBMInformixServer instance.

**application_label**
Specifies the label applied to object.

**application_version**
Specifies the application version of the object.

**application_oid**
Specifies OID (object identifier) of the object.

**application_class**
Specifies the application class of the object.

**INTERP**
Specifies the operating system on which the IBMInformixServer is running.

**ITM_CONTEXT**
Specifies a general problem to which the resource activity relates. An example of context can be Cache Hit Ratios, where the resource is IBMInformixServer. This shows that the metrics logged concern Cache Hit Ratios in relation to the resource IBMInformixServer.

This indication has the following threshold:
- IBM Informix High Core Dump Space Filesystem

For more information about these thresholds, see "Thresholds" on page 42.

The following table describes the default settings for this indication.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Default value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Send indications to Tivoli Enterprise Console</td>
<td>Yes</td>
</tr>
<tr>
<td>Send indications to Tivoli Business Systems Manager</td>
<td>No</td>
</tr>
<tr>
<td>Occurrences</td>
<td>1</td>
</tr>
<tr>
<td>Holes</td>
<td>0</td>
</tr>
<tr>
<td>Associated tasks and built-in actions</td>
<td>None</td>
</tr>
</tbody>
</table>

**Note:** If you have Tivoli Business Systems Manager configured for your systems, Tivoli Enterprise Console automatically forwards events to Tivoli Business Systems Manager.
Systems Manager. Do not change the configuration of the indication to send events to Tivoli Business Systems Manager.

**IBM Informix Missing Core Dump Space File indication**

Occurs when the High Core Dump Space Filesystem Monitor parameter is enabled and the filesystem for the defined Core Dump Space File cannot be found.

When the indication occurs often enough to trigger an event, the event delivers a message to the Tivoli Enterprise Console in the following format:

\[
\text{application\_label:Cannot find filesystem for Core Dump Space File } \\
\text{FilesystemPath.}
\]

If you have Tivoli Business Systems Manager configured for your system, Tivoli Enterprise Console forwards the message to Tivoli Business Systems Manager.

If you do not have Tivoli Enterprise Console, you can check the health of this resource model in the IBM Tivoli Monitoring Web Health Console.

The indication has the following attributes:

**ServerName**

Specifies the name of the server for which the indication is raised.

**FilesystemPath**

Specifies the full path to the filesystem being monitored.

**DB_INSTANCE**

Specifies the name of the IBMInformixServer instance on which the resource model is running.

**DB_DIR**

Specifies the root directory of the IBMInformixServer instance.

**application\_label**

Specifies the label applied to object.

**application\_version**

Specifies the application version of the object

**application\_oid**

Specifies OID (object identifier) of the object.

**application\_class**

Specifies the application class of the object.

**INTERP**

Specifies the operating system on which the IBMInformixServer is running.

**ITM_CONTEXT**

Specifies a general problem to which the resource activity relates. An example of context can be Cache Hit Ratios, where the resource is IBMInformixServer. This shows that the metrics logged concern Cache Hit Ratios in relation to the resource IBMInformixServer.

The following table describes the default settings for this indication.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Default value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Send indications to Tivoli Enterprise Console</td>
<td>Yes</td>
</tr>
</tbody>
</table>
Setting | Default value
---|---
Send indications to Tivoli Business Systems Manager | No
Occurrences | 1
Holes | 0
Associated tasks and built-in actions | None

**Note:** If you have Tivoli Business Systems Manager configured for your systems, Tivoli Enterprise Console automatically forwards events to Tivoli Business Systems Manager. Do not change the configuration of the indication to send events to Tivoli Business Systems Manager.

**IBM Informix Missing HDR Lost and Found File indication**
Occurs when the High HDR Lost and Found Filesystem Monitor parameter is enabled and the filesystem for the defined HDR Lost and Found File cannot be found.

When the indication occurs often enough to trigger an event, the event delivers a message to the Tivoli Enterprise Console in the following format:

```
application_label: Cannot find filesystem for HDR Lost and Found File
FilesystemPath.
```

If you have Tivoli Business Systems Manager configured for your system, Tivoli Enterprise Console forwards the message to Tivoli Business Systems Manager.

If you do not have Tivoli Enterprise Console, you can check the health of this resource model in the IBM Tivoli Monitoring Web Health Console.

The indication has the following attributes:

**ServerName**
Specifies the name of the server for which the indication is raised.

**FilesystemPath**
Specifies the full path to the filesystem being monitored.

**DB_INSTANCE**
Specifies the name of the IBMInformixServer instance on which the resource model is running.

**DB_DIR**
Specifies the root directory of the IBMInformixServer instance.

**application_label**
Specifies the label applied to object.

**application_version**
Specifies the application version of the object.

**application_oid**
Specifies OID (object identifier) of the object.

**application_class**
Specifies the application class of the object.

**INTERP**
Specifies the operating system on which the IBMInformixServer is running.
Specifies a general problem to which the resource activity relates. An example of context can be Cache Hit Ratios, where the resource is IBMInformixServer. This shows that the metrics logged concern Cache Hit Ratios in relation to the resource IBMInformixServer.

The following table describes the default settings for this indication.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Default value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Send indications to Tivoli Enterprise Console</td>
<td>Yes</td>
</tr>
<tr>
<td>Send indications to Tivoli Business Systems Manager</td>
<td>No</td>
</tr>
<tr>
<td>Occurrences</td>
<td>1</td>
</tr>
<tr>
<td>Holes</td>
<td>0</td>
</tr>
<tr>
<td>Associated tasks and built-in actions</td>
<td>None</td>
</tr>
</tbody>
</table>

Note: If you have Tivoli Business Systems Manager configured for your systems, Tivoli Enterprise Console automatically forwards events to Tivoli Business Systems Manager. Do not change the configuration of the indication to send events to Tivoli Business Systems Manager.

### Thresholds

The following list shows the name, a short description, and the default value for the threshold associated with this resource model.

<table>
<thead>
<tr>
<th>Threshold</th>
<th>Description</th>
<th>Default value</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBM Informix High Message Log Filesystem</td>
<td>An indication occurs when the measured Message Log Filesystem exceed this value. Indications are raised only if this monitor is enabled by the High Message Log Filesystem Monitor parameter.</td>
<td>90</td>
</tr>
<tr>
<td>IBM Informix High HDR Lost and Found Filesystem monitor</td>
<td>An indication occurs when the measured HDR Lost and Found Filesystem monitor exceeds this value. Indications are raised only if this monitor is enabled by the High HDR Lost and Found Filesystem Monitor parameter.</td>
<td>90</td>
</tr>
<tr>
<td>IBM Informix High Core Dump Space Filesystem</td>
<td>An indication occurs when the measured Core Dump Space Filesystem exceed this value. Indications are raised only if this monitor is enabled by the High Core Dump Space Filesystem Monitor parameter.</td>
<td>90</td>
</tr>
</tbody>
</table>

### Parameters

The following list shows the name, a short description, and the default value for each parameter that you can set for this resource model.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
<th>Default value</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBM Informix Enable High Message Log Filesystem Monitor</td>
<td>Enables or Disables the High Message Log Filesystem Monitor</td>
<td>Disabled</td>
</tr>
<tr>
<td>IBM Informix Enable High Core Dump Space Filesystem Monitor</td>
<td>Enables or Disables the High Core Dump Space Filesystem Monitor</td>
<td>Disabled</td>
</tr>
<tr>
<td>Parameter</td>
<td>Description</td>
<td>Default value</td>
</tr>
<tr>
<td>-----------</td>
<td>-------------</td>
<td>---------------</td>
</tr>
<tr>
<td>IBM Informix Enable High HDR Lost and Found Filesystem Monitor</td>
<td>Enables or Disables the High HDR Lost and Found Filesystem Monitor</td>
<td>Disabled</td>
</tr>
</tbody>
</table>

**Tasks and built-in actions**

None

**Logging**

None

**CLI example**

Adds the `IBMInformixFilesystem` resource model to `MyProfile#MyRegion` set to run once every two hours. The filesystem dedicated to the Informix message log is monitored and sends a CRITICAL event if the filesystem surpasses 85 percent capacity at any polling. If the filesystem as configured for IDS cannot be found the default event `IBMInformix_Missing_MessageLogFile` is sent.

```
wdmeditprf -P MyProfile#MyRegion -add IBMInformixFilesystem -c 7200 \
-t IBMInformix_High_MessageLogFileSystem 85.000000 \
-e IBMInformix_High_MessageLogFileSystem -o 1 -severity CRITICAL \
-AddPar IBMInformix_Enable_High_MessageLogFileSystem Enabled
```

Edits the existing `IBMInformixFilesystem` resource model, enabling the monitoring of the filesystem dedicated to HDR Lost & Found files. If for two consecutive polls (inheriting the polling interval of once every two hours from the prior command line example’s definition of the resource model) the resource model determines the filesystem to be 95 percent of capacity, a CRITICAL event is sent. If the filesystem as configured for IDS cannot be found the default event `IBMInformix_Missing_HDRLostFoundFile` is sent.

```
wdmeditprf -P MyProfile#MyRegion -edit IBMInformixFilesystem \
-t IBMInformix_High_HDRLostFoundFilesystem 95.000000 \ 
-e IBMInformix_High_HDRLostFoundFilesystem -o 2 -severity CRITICAL \ 
-AddPar IBMInformix_Enable_High_HDRLostFoundFilesystem Enabled
```

Edits the existing `IBMInformixFilesystem` resource model, enabling the monitoring of the filesystem dedicated as the core dump directory. If for six consecutive hours (checked three times with a polling interval of every two hours from a previous command line example’s definition of the resource model) the resource model determines the filesystem to be 50 percent of capacity, a CRITICAL event is sent. If the filesystem as configured for IDS cannot be found the default event `IBMInformix_Missing_CoreDumpSpaceFile` is sent.

```
wdmeditprf -P MyProfile#MyRegion -edit IBMInformixFilesystem \ 
-t IBMInformix_High_CoreDumpSpaceFilesystem 50.000000 \ 
-e IBMInformix_High_CoreDumpSpaceFilesystem -o 3 -severity CRITICAL \ 
-AddPar IBMInformix_Enable_High_CoreDumpSpaceFilesystem Enabled
```
IBMInformix Free Dbspace Monitor

Description
Monitors the available space in every storage chunk and uses these values to calculate the percentage of available space left in each Dbspace. The resource model generates an indication if the remaining Dbspace percentage is less than the specified threshold. The resource models also logs the information regarding available chunk and the space available in each Dbspace. By default, this resource model runs every 3600 seconds.

<table>
<thead>
<tr>
<th>Resource model overview</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal name</td>
</tr>
<tr>
<td>Category</td>
</tr>
<tr>
<td>Indications</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Tasks and built-in actions</td>
</tr>
<tr>
<td>Default cycle time</td>
</tr>
</tbody>
</table>

Target managed resource
IBMInformixServer

Indications and events
The following table summarizes the indications for this resource model, the events associated with the indications, the default severity of the events, and where you can find a detailed description of the indication.

<table>
<thead>
<tr>
<th>Indication</th>
<th>Generated event</th>
<th>Default severity</th>
<th>Clearing event</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBM Informix Low Free Dbspace</td>
<td>IBMInformix_Low_FreeDbspace</td>
<td>Critical</td>
<td>Yes</td>
<td>44</td>
</tr>
</tbody>
</table>

IBM Informix Low Free Dbspace indication
Occurs when the Percent Free Space Available in a Dbspace is less than the specified threshold. When the indication occurs often enough to trigger an event, the event delivers a message to the Tivoli Enterprise Console in the following format:

application_label: Percentage of free space in Dbspace DbspaceNumber is currently PercentFreeSpace against a threshold of PercentFreeSpaceThreshold.

If you have Tivoli Business Systems Manager configured for your system, Tivoli Enterprise Console forwards the message to Tivoli Business Systems Manager.

If you do not have Tivoli Enterprise Console, you can check the health of this resource model in the IBM Tivoli Monitoring Web Health Console.

The indication has the following attributes:

DbspaceNumber
  Specifies the unique, numeric number of the Dbspace.
PercentFreeSpace
Specifies the percent of free space available in a Dbspace compared to the
total space available.

PercentFreeSpaceThreshold
Specifies the minimum PercentFreeSpace before an indication is raised.

DB_INSTANCE
Specifies the name of the IBMInformixServer instance on which the
resource model is running.

DB_DIR
Specifies the root directory of the IBMInformixServer instance.

application_label
Specifies the label applied to object.

application_version
Specifies the application version of the object

application_oid
Specifies OID (object identifier) of the object.

application_class
Specifies the application class of the object.

INTERP
Specifies the operating system on which the IBMInformixServer is running.

ITM_CONTEXT
Specifies a general problem to which the resource activity relates. An
example of context can be Cache Hit Ratios, where the resource is
IBMInformixServer. This shows that the metrics logged concern Cache Hit
Ratios in relation to the resource IBMInformixServer.

This indication has the following threshold:
• IBM Informix Low Percent Free Space

For more information about these thresholds, see “Thresholds” on page 45.

The following table describes the default settings for this indication.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Default value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Send indications to Tivoli Enterprise Console</td>
<td>Yes</td>
</tr>
<tr>
<td>Send indications to Tivoli Business Systems Manager</td>
<td>No</td>
</tr>
<tr>
<td>Occurrences</td>
<td>1</td>
</tr>
<tr>
<td>Holes</td>
<td>0</td>
</tr>
<tr>
<td>Associated tasks and built-in actions</td>
<td>None</td>
</tr>
</tbody>
</table>

**Note:** If you have Tivoli Business Systems Manager configured for your systems,
Tivoli Enterprise Console automatically forwards events to Tivoli Business Systems Manager. Do not change the configuration of the indication to send events to Tivoli Business Systems Manager.

**Thresholds**
The following list shows the name, a short description, and the default value for
the threshold associated with this resource model.
**Threshold**

<table>
<thead>
<tr>
<th>Threshold Description</th>
<th>Default value</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBM Informix Low Percent Free Space</td>
<td>10</td>
</tr>
</tbody>
</table>

**Parameters**

None

**Tasks and built-in actions**

None

**Logging**

You can log data for properties of the managed resource listed in the following table. The table shows the context of the managed resource and the properties that the resource model logs for the IBM Tivoli Monitoring Web Health Console.

<table>
<thead>
<tr>
<th>Resource</th>
<th>Context</th>
<th>Properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBMInformixChunk</td>
<td>Disk Space</td>
<td>IBMInformixChunk.Name*</td>
</tr>
<tr>
<td>IBMInformixDbSpace</td>
<td>Disk Space</td>
<td>IBMInformixDbSpace.Name*</td>
</tr>
</tbody>
</table>

*Note: An asterisk (*) denotes a key property.*

**CLI example**

Adds the IBMInformixFreeDbSpace resource model to MyProfile#MyRegion with a polling interval of once every half hour. If the resource model determines that available space in Dbspace is less than 15 percent consistently for one hour (2 occurrences a half hour apart), then a CRITICAL event is sent. Logging to IBM Tivoli Enterprise Data Warehouse is enabled.

```
wdmeditprf -P MyProfile#MyRegion -add IBMInformixFreeDbSpace -c 1800 \
-t IBMInformix_Low_PercentFreeSpace 15.000000 \
-e IBMInformix_Low_FreeDbSpace -o 2 -severity CRITICAL \
-Log -LogEnable
```
IBMInformix Free Space Deficit Monitor

Description

Monitors the space each table requires to allocate its next extent. The resource model generates an indication for each table in which there is not enough available space within the Dbspace to allocate its next extent. By default, this resource model runs every 3600 seconds.

Resource model overview

<table>
<thead>
<tr>
<th>Internal name</th>
<th>IBMInformixFreeSpaceDeficit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category</td>
<td>IBMInformix</td>
</tr>
<tr>
<td>Indications</td>
<td><strong>IBM Informix Cannot Allocate Next Extent</strong> generates an event for every table that does not have enough space within its Dbspace to allocate its next extent.</td>
</tr>
<tr>
<td>Tasks and built-in actions</td>
<td>None</td>
</tr>
<tr>
<td>Default cycle time</td>
<td>3600 seconds</td>
</tr>
</tbody>
</table>

Target managed resource

IBMInformixServer

Indications and events

The following table summarizes the indications for this resource model, the events associated with the indications, the default severity of the events, and where you can find a detailed description of the indication.

<table>
<thead>
<tr>
<th>Indication</th>
<th>Generated event</th>
<th>Default severity</th>
<th>Clearing event</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBM Informix Cannot Allocate Next Extent</td>
<td>IBMInformix_CannotAllocateNextExtent</td>
<td>Critical</td>
<td>Yes</td>
<td>47</td>
</tr>
</tbody>
</table>

**IBM Informix Cannot Allocate Next Extent indication**

Generates an event for every table that does not have enough space within its Dbspace to allocate its next extent. When the indication occurs often enough to trigger an event, the event delivers a message to the Tivoli Enterprise Console in the following format:

```
application_label: Table TableName in Dbspace DbspaceName does not have enough space to allocate its next extent of size NextExtentSize.
```

If you have Tivoli Business Systems Manager configured for your system, Tivoli Enterprise Console forwards the message to Tivoli Business Systems Manager.

If you do not have Tivoli Enterprise Console, you can check the health of this resource model in the IBM Tivoli Monitoring Web Health Console.

The indication has the following attributes:

- **NextExtentSize**
  
  Specifies the space required for the table to allocate its next extent
TableName
  Specifies the name of the table for which the indication is raised.

DbName
  Specifies the name of the dbspac containing the table for which this
  indication is raised.

DB_INSTANCE
  Specifies the name of the IBMInformixServer instance on which the
  resource model is running.

DB_DIR
  Specifies the root directory of the IBMInformixServer instance.

application_label
  Specifies the label applied to object.

application_version
  Specifies the application version of the object

application_oid
  Specifies OID (object identifier) of the object.

application_class
  Specifies the application class of the object.

INTERP
  Specifies the operating system on which the IBMInformixServer is running.

ITM_CONTEXT
  Specifies a general problem to which the resource activity relates. An
  example of context can be Cache Hit Ratios, where the resource is
  IBMInformixServer. This shows that the metrics logged concern Cache Hit
  Ratios in relation to the resource IBMInformixServer.

The following table describes the default settings for this indication.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Default value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Send indications to Tivoli Enterprise Console</td>
<td>Yes</td>
</tr>
<tr>
<td>Send indications to Tivoli Business Systems</td>
<td>No</td>
</tr>
<tr>
<td>Manager</td>
<td></td>
</tr>
<tr>
<td>Occurrences</td>
<td>1</td>
</tr>
<tr>
<td>Holes</td>
<td>0</td>
</tr>
<tr>
<td>Associated tasks and built-in actions</td>
<td>None</td>
</tr>
</tbody>
</table>

Note: If you have Tivoli Business Systems Manager configured for your systems,
Tivoli Enterprise Console automatically forwards events to Tivoli Business
Systems Manager. Do not change the configuration of the indication to send
events to Tivoli Business Systems Manager.

Thresholds
  None

Parameters
  None
Tasks and built-in actions
None

Logging
None

CLI example
Adds the IBMInformixFreeSpaceDeficit resource model to MyProfile#MyRegion with the default value of polling once an hour but sending a FATAL event for every table without sufficient space within its Dbspace to allocate its next extent.

wdmeditprf -P MyProfile#MyRegion -add IBMInformixFreeSpaceDeficit -e IBMInformix_CannotAllocateNextExtent -severity FATAL
IBMInformix HDR Monitor

Description
Monitors the high-availability data replication (HDR) Type and State of the IBM Informix Server. If the server is functioning as a primary HDR server, the resource model generates and indication if its current state is not **On**. If a server is functioning as a secondary server, the resource model generates an alert if the current state is not **Read-only** or if the HDR Type of the server changes. The resource model also logs the HDR Type and percentage in each state. By default, this resource model runs every 300 seconds.

<table>
<thead>
<tr>
<th>Resource model overview</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal name</td>
</tr>
<tr>
<td>Category</td>
</tr>
<tr>
<td>Indications</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Tasks and built-in actions</td>
</tr>
<tr>
<td>Default cycle time</td>
</tr>
</tbody>
</table>

Target managed resource
IBMInformixServer

Indications and events
The following table summarizes the indications for this resource model, the events associated with the indications, the default severity of the events, and where you can find a detailed description of the indication.

<table>
<thead>
<tr>
<th>Indication</th>
<th>Generated event</th>
<th>Default severity</th>
<th>Clearing event</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBM Informix HDR Server Type Change</td>
<td>IBMInformix_HDRServerTypeChange</td>
<td>Critical</td>
<td>Yes</td>
<td>51</td>
</tr>
<tr>
<td>IBM Informix Primary HDR Server Problem</td>
<td>IBMInformix_PrimaryHDRServerProblem</td>
<td>Critical</td>
<td>Yes</td>
<td>52</td>
</tr>
<tr>
<td>IBM Informix Secondary HDR Server Problem</td>
<td>IBMInformix_SecondaryHDRServerProblem</td>
<td>Critical</td>
<td>Yes</td>
<td>53</td>
</tr>
</tbody>
</table>
**IBM Informix HDR Server Type Change indication**

Occurs when this server’s HDR state has changed from its previous value. When the indication occurs often enough to trigger an event, the event delivers a message to the Tivoli Enterprise Console in the following format:

\[ \text{application\_label: HDR Type for Server } \text{ServerName has changed from } \text{PreviousHDRType to } \text{CurrentHDRType.} \]

If you have Tivoli Business Systems Manager configured for your system, Tivoli Enterprise Console forwards the message to Tivoli Business Systems Manager.

If you do not have Tivoli Enterprise Console, you can check the health of this resource model in the IBM Tivoli Monitoring Web Health Console.

The indication has the following attributes:

- **ServerName**
  Specifies the name of the IBMInformixServer instance on which the resource model is running.

- **PreviousHDRType**
  Specifies the previously read High Data Replication type for this IBMInformixServer. Possible types include; primary, secondary, standard, or not initialized.

- **CurrentHDRType**
  Specifies the current HDR type. An indication is raised when the type changes between invocations of this monitor. The previous and current values are included so that you know what the type changed from and to.

- **DB_INSTANCE**
  Specifies the name of the IBMInformixServer instance on which the resource model is running.

- **DB_DIR**
  Specifies the root directory of the IBMInformixServer instance.

- **application\_label**
  Specifies the label applied to object.

- **application\_version**
  Specifies the application version of the object.

- **application\_oid**
  Specifies OID (object identifier) of the object.

- **application\_class**
  Specifies the application class of the object.

- **INTERP**
  Specifies the operating system on which the IBMInformixServer is running.

- **ITM\_CONTEXT**
  Specifies a general problem to which the resource activity relates. An example of context can be Cache Hit Ratios, where the resource is IBMInformixServer. This shows that the metrics logged concern Cache Hit Ratios in relation to the resource IBMInformixServer.
The following table describes the default settings for this indication.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Default value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Send indications to Tivoli Enterprise Console</td>
<td>Yes</td>
</tr>
<tr>
<td>Send indications to Tivoli Business Systems Manager</td>
<td>No</td>
</tr>
<tr>
<td>Occurrences</td>
<td>1</td>
</tr>
<tr>
<td>Holes</td>
<td>0</td>
</tr>
<tr>
<td>Associated tasks and built-in actions</td>
<td>None</td>
</tr>
</tbody>
</table>

**Note:** If you have Tivoli Business Systems Manager configured for your systems, Tivoli Enterprise Console automatically forwards events to Tivoli Business Systems Manager. Do not change the configuration of the indication to send events to Tivoli Business Systems Manager.

**IBM Informix Primary HDR Server Problem indication**

Occurs when this server is a Primary HDR server and its current state is not On. When the indication occurs often enough to trigger an event, the event delivers a message to the Tivoli Enterprise Console in the following format:

```
application_label: HDR State for Primary HDR Server ServerName is currently HDRState.
```

If you have Tivoli Business Systems Manager configured for your system, Tivoli Enterprise Console forwards the message to Tivoli Business Systems Manager.

If you do not have Tivoli Enterprise Console, you can check the health of this resource model in the IBM Tivoli Monitoring Web Health Console.

The indication has the following attributes:

- **ServerName**
  Specifies the name of the IBMInformixServer instance on which the resource model is running.

- **HDRType**
  Specifies the current type of HDR server. HDR server types include; primary, secondary, standard, or not initialized.

- **HDRState**
  The current state of the HDR server. HDR server states include; On, Off, Read-only, Connecting, and Failure.

- **DB_INSTANCE**
  Specifies the name of the IBMInformixServer instance on which the resource model is running.

- **DB_DIR**
  Specifies the root directory of the IBMInformixServer instance.

- **application_label**
  Specifies the label applied to object.

- **application_version**
  Specifies the application version of the object.

- **application_oid**
  Specifies OID (object identifier) of the object.
Specifies the application class of the object.

Specifies the operating system on which the IBMInformixServer is running.

Specifies a general problem to which the resource activity relates. An example of context can be Cache Hit Ratios, where the resource is IBMInformixServer. This shows that the metrics logged concern Cache Hit Ratios in relation to the resource IBMInformixServer.

The following table describes the default settings for this indication.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Default value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Send indications to Tivoli Enterprise Console</td>
<td>Yes</td>
</tr>
<tr>
<td>Send indications to Tivoli Business Systems Manager</td>
<td>No</td>
</tr>
<tr>
<td>Occurrences</td>
<td>1</td>
</tr>
<tr>
<td>Holes</td>
<td>0</td>
</tr>
<tr>
<td>Associated tasks and built-in actions</td>
<td>None</td>
</tr>
</tbody>
</table>

Note: If you have Tivoli Business Systems Manager configured for your systems, Tivoli Enterprise Console automatically forwards events to Tivoli Business Systems Manager. Do not change the configuration of the indication to send events to Tivoli Business Systems Manager.

**IBM Informix Secondary HDR Server Problem indication**

Occurs when this server is a Secondary HDR server and its current state is not Read-only. When the indication occurs often enough to trigger an event, the event delivers a message to the Tivoli Enterprise Console in the following format:

application_label: HDR State for Secondary HDR Server ServerName is currently HDRState.

If you have Tivoli Business Systems Manager configured for your system, Tivoli Enterprise Console forwards the message to Tivoli Business Systems Manager.

If you do not have Tivoli Enterprise Console, you can check the health of this resource model in the IBM Tivoli Monitoring Web Health Console.

The indication has the following attributes:

ServerName
Specifies the name of the IBMInformixServer instance on which the resource model is running.

HDRType
Specifies the current type of HDR server. HDR server types include; primary, secondary, standard, or not initialized.

HDRState
The current state of the HDR server. HDR server states include; On, Off, Read-only, Connecting, and Failure.
**DB_INSTANCE**
Specifies the name of the IBMInformixServer instance on which the resource model is running.

**DB_DIR**
Specifies the root directory of the IBMInformixServer instance.

**application_label**
Specifies the label applied to object.

**application_version**
Specifies the application version of the object

**application_oid**
Specifies OID (object identifier) of the object.

**application_class**
Specifies the application class of the object.

**INTERP**
Specifies the operating system on which the IBMInformixServer is running.

**ITM_CONTEXT**
Specifies a general problem to which the resource activity relates. An example of context can be Cache Hit Ratios, where the resource is IBMInformixServer. This shows that the metrics logged concern Cache Hit Ratios in relation to the resource IBMInformixServer.

The following table describes the default settings for this indication.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Default value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Send indications to Tivoli Enterprise Console</td>
<td>Yes</td>
</tr>
<tr>
<td>Send indications to Tivoli Business Systems Manager</td>
<td>No</td>
</tr>
<tr>
<td>Occurrences</td>
<td>1</td>
</tr>
<tr>
<td>Holes</td>
<td>0</td>
</tr>
<tr>
<td>Associated tasks and built-in actions</td>
<td>None</td>
</tr>
</tbody>
</table>

**Note:** If you have Tivoli Business Systems Manager configured for your systems, Tivoli Enterprise Console automatically forwards events to Tivoli Business Systems Manager. Do not change the configuration of the indication to send events to Tivoli Business Systems Manager.

**Thresholds**
None

**Parameters**
None

**Tasks and built-in actions**
None

**Logging**
You can log data for properties of the managed resource listed in the following table. The table shows the context of the managed resource and the properties that
the resource model logs for the IBM Tivoli Monitoring Web Health Console.

<table>
<thead>
<tr>
<th>Resource</th>
<th>Context</th>
<th>Properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBMInformixServer</td>
<td>HDR State</td>
<td>IBMInformixServer.Db_Server_Name*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Percent_HRD_State_On</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Percent_HDR_State_Off</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Percent_HDR_State_Connecting</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Percent_HDR_State_Read-only</td>
</tr>
<tr>
<td></td>
<td></td>
<td>percent_HDR_State_Failure</td>
</tr>
<tr>
<td></td>
<td></td>
<td>IBMInformixServer.HDR_Type</td>
</tr>
</tbody>
</table>

Note: An asterisk (*) denotes a key property.

**CLI example**

Adds the IBMInformixHDR resource model to *MyProfile#MyRegion* with the default value for polling once every five minutes. The events sent by the resource model are set to FATAL (from the default of CRITICAL). Logging to IBM Tivoli Enterprise Data Warehouse is enabled.

```bash
wdmeditprf -P MyProfileMyRegion -add IBMInformixHDR -c 300 \
-e IBMInformix_SecondaryHDRServerProblem -severity FATAL \
-e IBMInformix_HDRServerTypeChange -severity FATAL \
-e IBMInformix_PrimaryHDRServerProblem -severity FATAL \
-Log -LogEnable
```
**IBMInformix Log Event Monitor**

**Description**

Monitors the IBM Informix Event Log and generates an indication whenever a message is logged. By default, this resource model runs every 900 seconds.

<table>
<thead>
<tr>
<th>Resource model overview</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal name</td>
</tr>
<tr>
<td>Category</td>
</tr>
<tr>
<td>Indications</td>
</tr>
<tr>
<td>IBM Informix Log Event Fatal</td>
</tr>
<tr>
<td>IBM Informix Log Event Critical</td>
</tr>
<tr>
<td>IBM Informix Log Event Warning</td>
</tr>
<tr>
<td>IBM Informix Log Event Minor</td>
</tr>
<tr>
<td>Tasks and built-in actions</td>
</tr>
<tr>
<td>Default cycle time</td>
</tr>
</tbody>
</table>

**Target managed resource**

IBMInformixServer

**Indications and events**

The following table summarizes the indications for this resource model, the events associated with the indications, the default severity of the events, and where you can find a detailed description of the indication.

<table>
<thead>
<tr>
<th>Indication</th>
<th>Generated event</th>
<th>Default severity</th>
<th>Clearing event</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBM Informix Log Event Fatal</td>
<td>IBMInformixLogEvent_Fatal</td>
<td>Fatal</td>
<td>Yes</td>
<td>56</td>
</tr>
<tr>
<td>IBM Informix Log Event Critical</td>
<td>IBMInformixLogEvent_Critical</td>
<td>Critical</td>
<td>Yes</td>
<td>58</td>
</tr>
<tr>
<td>IBM Informix Log Event Warning</td>
<td>IBMInformixLogEvent_Warning</td>
<td>Warning</td>
<td>Yes</td>
<td>59</td>
</tr>
<tr>
<td>IBM Informix Log Event Minor</td>
<td>IBMInformixLogEvent_Minor</td>
<td>Minor</td>
<td>Yes</td>
<td>60</td>
</tr>
</tbody>
</table>

**IBM Informix Log Event Fatal indication**

Generates an event when the resource model logs a message to the Informix message log. When the indication occurs often enough to trigger an event, the event delivers a message to the Tivoli Enterprise Console in the following format:

```plaintext
application_label: ifxSeverity: EventText
```
If you have Tivoli Business Systems Manager configured for your system, Tivoli Enterprise Console forwards the message to Tivoli Business Systems Manager.

If you do not have Tivoli Enterprise Console, you can check the health of this resource model in the IBM Tivoli Monitoring Web Health Console.

The indication has the following attributes:

- **EventText**
  Specifies the text of an event written to the Informix log as specified by the MSGPATH keyword in the onconfig file for this server.

- **ifxSeverity**
  Specifies the severity for the event written in the EventText. Possible severities include: FATAL, CRITICAL, WARNING, and MINOR.

- **ServerName**
  Specifies the name of the IBMInformixServer instance on which the resource model is running.

- **DB_INSTANCE**
  Specifies the name of the IBMInformixServer instance on which the resource model is running.

- **DB_DIR**
  Specifies the root directory of the IBMInformixServer instance.

- **application_label**
  Specifies the label applied to object.

- **application_version**
  Specifies the application version of the object.

- **application_oid**
  Specifies OID (object identifier) of the object.

- **application_class**
  Specifies the application class of the object.

- **INTERP**
  Specifies the operating system on which the IBMInformixServer is running.

- **ITM_CONTEXT**
  Specifies a general problem to which the resource activity relates. An example of context can be Cache Hit Ratios, where the resource is IBMInformixServer. This shows that the metrics logged concern Cache Hit Ratios in relation to the resource IBMInformixServer.

The following table describes the default settings for this indication.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Default value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Send indications to Tivoli Enterprise Console</td>
<td>Yes</td>
</tr>
<tr>
<td>Send indications to Tivoli Business Systems Manager</td>
<td>No</td>
</tr>
<tr>
<td>Occurrences</td>
<td>1</td>
</tr>
<tr>
<td>Holes</td>
<td>0</td>
</tr>
<tr>
<td>Associated tasks and built-in actions</td>
<td>None</td>
</tr>
</tbody>
</table>
Note: If you have Tivoli Business Systems Manager configured for your systems, Tivoli Enterprise Console automatically forwards events to Tivoli Business Systems Manager. Do not change the configuration of the indication to send events to Tivoli Business Systems Manager.

**IBM Informix Log Event Critical indication**
Generates an event when the resource model logs a message to the Informix message log. When the indication occurs often enough to trigger an event, the event delivers a message to the Tivoli Enterprise Console in the following format:

application_label: ifxSeverity: EventText

If you have Tivoli Business Systems Manager configured for your system, Tivoli Enterprise Console forwards the message to Tivoli Business Systems Manager.

If you do not have Tivoli Enterprise Console, you can check the health of this resource model in the IBM Tivoli Monitoring Web Health Console.

The indication has the following attributes:

*EventText*
Specifies the text of an event written to the Informix log as specified by the MSGPATH keyword in the onconfig file for this server.

*ifxSeverity*
Specifies the severity for the event written in the EventText. Possible severities include: FATAL, CRITICAL, WARNING, and MINOR.

*ServerName*
Specifies the name of the IBMInformixServer instance on which the resource model is running.

*DB_INSTANCE*
Specifies the name of the IBMInformixServer instance on which the resource model is running.

*DB_DIR*
Specifies the root directory of the IBMInformixServer instance.

*application_label*
Specifies the label applied to object.

*application_version*
Specifies the application version of the object.

*application_oid*
Specifies OID (object identifier) of the object.

*application_class*
Specifies the application class of the object.

*INTERP*
Specifies the operating system on which the IBMInformixServer is running.

*ITM_CONTEXT*
Specifies a general problem to which the resource activity relates. An example of context can be Cache Hit Ratios, where the resource is IBMInformixServer. This shows that the metrics logged concern Cache Hit Ratios in relation to the resource IBMInformixServer.
The following table describes the default settings for this indication.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Default value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Send indications to Tivoli Enterprise Console</td>
<td>Yes</td>
</tr>
<tr>
<td>Send indications to Tivoli Business Systems Manager</td>
<td>No</td>
</tr>
<tr>
<td>Occurrences</td>
<td>1</td>
</tr>
<tr>
<td>Holes</td>
<td>0</td>
</tr>
<tr>
<td>Associated tasks and built-in actions</td>
<td>None</td>
</tr>
</tbody>
</table>

**Note:** If you have Tivoli Business Systems Manager configured for your systems, Tivoli Enterprise Console automatically forwards events to Tivoli Business Systems Manager. Do not change the configuration of the indication to send events to Tivoli Business Systems Manager.

**IBM Informix Log Event Warning indication**

Generates an event when the resource model logs a message to the Informix message log. When the indication occurs often enough to trigger an event, the event delivers a message to the Tivoli Enterprise Console in the following format:

```
application_label: ifxSeverity: EventText
```

If you have Tivoli Business Systems Manager configured for your system, Tivoli Enterprise Console forwards the message to Tivoli Business Systems Manager.

If you do not have Tivoli Enterprise Console, you can check the health of this resource model in the IBM Tivoli Monitoring Web Health Console.

The indication has the following attributes:

- **EventText**
  
  Specifies the text of an event written to the Informix log as specified by the MSGPATH keyword in the onconfig file for this server.

- **ifxSeverity**
  
  Specifies the severity for the event written in the EventText. Possible severities include: FATAL, CRITICAL, WARNING, and MINOR.

- **ServerName**
  
  Specifies the name of the IBMInformixServer instance on which the resource model is running.

- **DB_INSTANCE**
  
  Specifies the name of the IBMInformixServer instance on which the resource model is running.

- **DB_DIR**
  
  Specifies the root directory of the IBMInformixServer instance.

- **application_label**
  
  Specifies the label applied to object.

- **application_version**
  
  Specifies the application version of the object.

- **application_oid**
  
  Specifies OID (object identifier) of the object.
application_class
Specifies the application class of the object.

INTERP
Specifies the operating system on which the IBMInformixServer is running.

ITM_CONTEXT
Specifies a general problem to which the resource activity relates. An example of context can be Cache Hit Ratios, where the resource is IBMInformixServer. This shows that the metrics logged concern Cache Hit Ratios in relation to the resource IBMInformixServer.

The following table describes the default settings for this indication.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Default value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Send indications to Tivoli Enterprise Console</td>
<td>Yes</td>
</tr>
<tr>
<td>Send indications to Tivoli Business Systems Manager</td>
<td>No</td>
</tr>
<tr>
<td>Occurrences</td>
<td>1</td>
</tr>
<tr>
<td>Holes</td>
<td>0</td>
</tr>
<tr>
<td>Associated tasks and built-in actions</td>
<td>None</td>
</tr>
</tbody>
</table>

Note: If you have Tivoli Business Systems Manager configured for your systems, Tivoli Enterprise Console automatically forwards events to Tivoli Business Systems Manager. Do not change the configuration of the indication to send events to Tivoli Business Systems Manager.

IBM Informix Log Event Minor indication
Generates an event when the resource model logs a message to the Informix message log. When the indication occurs often enough to trigger an event, the event delivers a message to the Tivoli Enterprise Console in the following format:

application_label: ifxSeverity: EventText

If you have Tivoli Business Systems Manager configured for your system, Tivoli Enterprise Console forwards the message to Tivoli Business Systems Manager.

If you do not have Tivoli Enterprise Console, you can check the health of this resource model in the IBM Tivoli Monitoring Web Health Console.

The indication has the following attributes:

EventText
Specifies the text of an event written to the Informix log as specified by the MSGPATH keyword in the onconfig file for this server.

ifxSeverity
Specifies the severity for the event written in the EventText. Possible severities include: FATAL, CRITICAL, WARNING, and MINOR.

ServerName
Specifies the name of the IBMInformixServer instance on which the resource model is running.

DB_INSTANCE
Specifies the name of the IBMInformixServer instance on which the resource model is running.
**DB_DIR**

Specifies the root directory of the IBMInformixServer instance.

**application_label**

Specifies the label applied to object.

**application_version**

Specifies the application version of the object.

**application_oid**

Specifies OID (object identifier) of the object.

**application_class**

Specifies the application class of the object.

**INTERP**

Specifies the operating system on which the IBMInformixServer is running.

**ITM_CONTEXT**

Specifies a general problem to which the resource activity relates. An example of context can be Cache Hit Ratios, where the resource is IBMInformixServer. This shows that the metrics logged concern Cache Hit Ratios in relation to the resource IBMInformixServer.

The following table describes the default settings for this indication.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Default value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Send indications to Tivoli Enterprise Console</td>
<td>Yes</td>
</tr>
<tr>
<td>Send indications to Tivoli Business Systems Manager</td>
<td>No</td>
</tr>
<tr>
<td>Occurrences</td>
<td>1</td>
</tr>
<tr>
<td>Holes</td>
<td>0</td>
</tr>
<tr>
<td>Associated tasks and built-in actions</td>
<td>None</td>
</tr>
</tbody>
</table>

**Note:** If you have Tivoli Business Systems Manager configured for your systems, Tivoli Enterprise Console automatically forwards events to Tivoli Business Systems Manager. Do not change the configuration of the indication to send events to Tivoli Business Systems Manager.

**Thresholds**

None

**Parameters**

None

**Tasks and built-in actions**

None

**Logging**

None

**CLI example**

Adds the `IBMInformixLogEvent` resource model to `MyProfileMyRegion` set to run once every 5 minutes, processing events from the message log.
wdmeditprf -P MyProfileMyRegion -add IBMInformixLogEvent -c 300
IBM Informix Logical Log Monitor

Description

Monitors the Logical Log files and generates an indication when the available Logical Log Space is less than the specified threshold value. By default, this resource model runs every 300 seconds.

<table>
<thead>
<tr>
<th>Resource model overview</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal name</td>
</tr>
<tr>
<td>Category</td>
</tr>
<tr>
<td>Indications</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Tasks and built-in actions</td>
</tr>
<tr>
<td>Default cycle time</td>
</tr>
</tbody>
</table>

Target managed resource

IBMInformixServer

Indications and events

The following table summarizes the indications for this resource model, the events associated with the indications, the default severity of the events, and where you can find a detailed description of the indication.

<table>
<thead>
<tr>
<th>Indication</th>
<th>Generated event</th>
<th>Default severity</th>
<th>Clearing event</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBM Informix Low Available Logical Log Space</td>
<td>IBMInformix_Low_AvailableLogicalLogSpace</td>
<td>Critical</td>
<td>Yes</td>
<td>63</td>
</tr>
</tbody>
</table>

IBM Informix Low Available Logical Log Space indication

Occurs when the Percent Available Logical Log Space is less than the specified threshold. When the indication occurs often enough to trigger an event, the event delivers a message to the Tivoli Enterprise Console in the following format:

application_label: Percent Available Logical Log Space is currently PercentAvailable against a threshold of PercentAvailableThreshold.

If you have Tivoli Business Systems Manager configured for your system, Tivoli Enterprise Console forwards the message to Tivoli Business Systems Manager.

If you do not have Tivoli Enterprise Console, you can check the health of this resource model in the IBM Tivoli Monitoring Web Health Console.

The indication has the following attributes:

PercentAvailable

Specifies the percentage of Logical Log space available for Informix logging.
PercentAvailableThreshold
Specifies the minimum Percent Available for the Logical Log before an indication is raised.

ServerName
Specifies the name of the IBMInformixServer instance on which the resource model is running.

DB_INSTANCE
Specifies the name of the IBMInformixServer instance on which the resource model is running.

DB_DIR
Specifies the root directory of the IBMInformixServer instance.

application_label
Specifies the label applied to object.

application_version
Specifies the application version of the object

application_oid
Specifies OID (object identifier) of the object.

application_class
Specifies the application class of the object.

INTERP
Specifies the operating system on which the IBMInformixServer is running.

ITM_CONTEXT
Specifies a general problem to which the resource activity relates. An example of context can be Cache Hit Ratios, where the resource is IBMInformixServer. This shows that the metrics logged concern Cache Hit Ratios in relation to the resource IBMInformixServer.

This indication has the following threshold:
• IBM Informix Low Percentage Logical Log Space Available

For more information about these thresholds, see “Thresholds” on page 65

The following table describes the default settings for this indication.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Default value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Send indications to Tivoli Enterprise Console</td>
<td>Yes</td>
</tr>
<tr>
<td>Send indications to Tivoli Business Systems Manager</td>
<td>No</td>
</tr>
<tr>
<td>Occurrences</td>
<td>1</td>
</tr>
<tr>
<td>Holes</td>
<td>0</td>
</tr>
<tr>
<td>Associated tasks and built-in actions</td>
<td>None</td>
</tr>
</tbody>
</table>

Note: If you have Tivoli Business Systems Manager configured for your systems, Tivoli Enterprise Console automatically forwards events to Tivoli Business Systems Manager. Do not change the configuration of the indication to send events to Tivoli Business Systems Manager.
Thresholds

The following list shows the name, a short description, and the default value for the threshold associated with this resource model.

<table>
<thead>
<tr>
<th>Threshold</th>
<th>Description</th>
<th>Default value</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBM Informix Low Percentage Logical Log Space Available</td>
<td>An indication occurs when the percentage of the logical log space available decreases below the specified value.</td>
<td>25</td>
</tr>
</tbody>
</table>

Parameters

None

Tasks and built-in actions

None

Logging

You can log data for properties of the managed resource listed in the following table. The table shows the context of the managed resource and the properties that the resource model logs for the IBM Tivoli Monitoring Web Health Console.

<table>
<thead>
<tr>
<th>Resource</th>
<th>Context</th>
<th>Properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBMInformixServer</td>
<td>Combined Logical Log</td>
<td>IBMInformixServer.Db_Server_Name* Logical_Log_Percent_Available</td>
</tr>
</tbody>
</table>

Note: An asterisk (*) denotes a key property.

CLI example

Adds the IBMInformixLogicalLog resource model to MyProfileMyRegion running once every 2.5 minutes. The resource model checks the ratio of available space to all space dedicated for IDS Logical Logs and sends a FATAL event if the ratio falls below 10 percent. Logging to IBM Tivoli Enterprise Data Warehouse is enabled.

wdmeditprf -P MyProfileMyRegion -add IBMInformixLogicalLog -c 150 \ -t IBMInformix_Low_PctAvailable 10.000000 \ -e IBMInformix_Low_AvailableLogicalLogSpace -severity FATAL \ -Log -LogEnable
IBMInformix Logical Log Backup Monitor

Description
Monitors the Informix message log file for Logical Log Backups messages. This resource model triggers an indication for each Logical Log backup that does not complete within the time specified in the threshold. By default, this resource model runs every 300 seconds.

Resource model overview

<table>
<thead>
<tr>
<th>Internal name</th>
<th>IBMInformixLogicalLogBackup</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category</td>
<td>IBMInformix</td>
</tr>
<tr>
<td>Indications</td>
<td>IBM Informix Logical Log Backup Failed Occurs when the Logical Log Backup does not complete within the specified threshold.</td>
</tr>
<tr>
<td>Tasks and built-in actions</td>
<td>None</td>
</tr>
<tr>
<td>Default cycle time</td>
<td>300 seconds</td>
</tr>
</tbody>
</table>

Target managed resource
IBMInformixServer

Indications and events
The following table summarizes the indications for this resource model, the events associated with the indications, the default severity of the events, and where you can find a detailed description of the indication.

<table>
<thead>
<tr>
<th>Indication</th>
<th>Generated event</th>
<th>Default severity</th>
<th>Clearing event</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBM Informix Logical Log Backup Failed</td>
<td>IBMInformix_LogicalLogBackupFailed</td>
<td>Critical</td>
<td>Yes</td>
<td>66</td>
</tr>
</tbody>
</table>

IBM Informix Logical Log Backup Failed indication
Occurs when the Logical Log Backup does not complete within the specified threshold. When the indication occurs often enough to trigger an event, the event delivers a message to the Tivoli Enterprise Console in the following format:

application_label: The Logical Log backup for Logical Log LogicalLogNumber did not complete within the threshold of LogicalLogThreshold minutes.

If you have Tivoli Business Systems Manager configured for your system, Tivoli Enterprise Console forwards the message to Tivoli Business Systems Manager.

If you do not have Tivoli Enterprise Console, you can check the health of this resource model in the IBM Tivoli Monitoring Web Health Console.

The indication has the following attributes:

LogicalLogNumber
  Specifies the unique id of the logical log.
**LogicalLogThreshold**
Specifies the maximum time in seconds that it takes for the Logical Log to backup before an indication is raised.

**ServerName**
Specifies the name of the IBMInformixServer instance on which the resource model is running.

**DB_INSTANCE**
Specifies the name of the IBMInformixServer instance on which the resource model is running.

**DB_DIR**
Specifies the root directory of the IBMInformixServer instance.

**application_label**
Specifies the label applied to object.

**application_version**
Specifies the application version of the object

**application_oid**
Specifies OID (object identifier) of the object.

**application_class**
Specifies the application class of the object.

**INTERP**
Specifies the operating system on which the IBMInformixServer is running.

**ITM_CONTEXT**
Specifies a general problem to which the resource activity relates. An example of context can be Cache Hit Ratios, where the resource is IBMInformixServer. This shows that the metrics logged concern Cache Hit Ratios in relation to the resource IBMInformixServer.

This indication has the following threshold:
• IBM Informix Logical Log Backup Time

For more information about these thresholds, see “Thresholds” on page 68.

The following table describes the default settings for this indication.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Default value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Send indications to Tivoli Enterprise Console</td>
<td>Yes</td>
</tr>
<tr>
<td>Send indications to Tivoli Business Systems Manager</td>
<td>No</td>
</tr>
<tr>
<td>Occurrences</td>
<td>1</td>
</tr>
<tr>
<td>Holes</td>
<td>0</td>
</tr>
<tr>
<td>Associated tasks and built-in actions</td>
<td>None</td>
</tr>
</tbody>
</table>

**Note:** If you have Tivoli Business Systems Manager configured for your systems, Tivoli Enterprise Console automatically forwards events to Tivoli Business Systems Manager. Do not change the configuration of the indication to send events to Tivoli Business Systems Manager.
**Thresholds**

The following list shows the name, a short description, and the default value for the threshold associated with this resource model.

<table>
<thead>
<tr>
<th>Threshold</th>
<th>Description</th>
<th>Default value</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBM Informix Logical Log Backup Time</td>
<td>An indication occurs when the Logical Log Backup has not completed within this time. This value is in seconds.</td>
<td>90</td>
</tr>
</tbody>
</table>

**Parameters**

None

**Tasks and built-in actions**

None

**Logging**

None

**CLI example**

Adds the `IBMInformixLogicalLogBackup` resource model to `MyProfileMyRegion` with the default polling time of once every 5 minutes. This resource model checks whether any Logical Log backup operation has taken longer than 15 seconds. A FATAL event is sent if such an indication is discovered from the IDS message log. A FATAL event occurs if you spend more than 5 percent of your time doing Logical Log backups.

```bash
wdmeditprf -P MyProfileMyRegion -add IBMInformixLogicalLogBackup \
-t IBMInformix_LogicalLogBackupTime 15.000000 \
-e IBMInformix_LogicalLogBackupFailed -severity FATAL
```
**IBMInformix LRU Queues Monitor**

**Description**

Monitors the Free Buffers and Modified Buffers and calculates the percentage modified buffers for each least recently used (LRU) queue. The percentage modified is compared to the specified threshold. The resource model triggers an indication if any LRU queue exceeds the threshold. By default, this resource model runs every 3600 seconds.

<table>
<thead>
<tr>
<th>Resource model overview</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Internal name</strong></td>
</tr>
<tr>
<td><strong>Category</strong></td>
</tr>
<tr>
<td><strong>Indications</strong></td>
</tr>
<tr>
<td><strong>Tasks and built-in actions</strong></td>
</tr>
<tr>
<td><strong>Default cycle time</strong></td>
</tr>
</tbody>
</table>

**Target managed resource**

IBMInformixServer

**Indications and events**

The following table summarizes the indications for this resource model, the events associated with the indications, the default severity of the events, and where you can find a detailed description of the indication.

<table>
<thead>
<tr>
<th>Indication</th>
<th>Generated event</th>
<th>Default severity</th>
<th>Clearing event</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBM Informix High LRU Queue Modified Ratio</td>
<td>IBMInformix_High_LRUQueue ModifiedRatio</td>
<td>Critical</td>
<td>Yes</td>
<td>69</td>
</tr>
</tbody>
</table>

**IBM Informix High LRU Queue Modified Ratio indication**

Occurs when the percentage of modified buffers are greater than the specified threshold for an LRU Queue. When the indication occurs often enough to trigger an event, the event delivers a message to the Tivoli Enterprise Console in the following format:

```
application_label: Percentage modified buffers are currently ModifiedRatio against a threshold of ModifiedRatioThreshold for LRU Queue LRUQueueNumber.
```

If you have Tivoli Business Systems Manager configured for your system, Tivoli Enterprise Console forwards the message to Tivoli Business Systems Manager.

If you do not have Tivoli Enterprise Console, you can check the health of this resource model in the IBM Tivoli Monitoring Web Health Console.

The indication has the following attributes:
**ModifiedRatio**
 Specifies the ratio of modified to free buffers in the LRU (Least recently used) queue.

**ModifiedRatioThreshold**
 Specifies the threshold passed for the LRU Queue Modifier Ratio before an indication is raised.

**LRUQueueNumber**
 Specifies the number of the LRU queue for which this event has been generated.

**DB_INSTANCE**
 Specifies the name of the IBMInformixServer instance on which the resource model is running.

**DB_DIR**
 Specifies the root directory of the IBMInformixServer instance.

**application_label**
 Specifies the label applied to object.

**application_version**
 Specifies the application version of the object.

**application_oid**
 Specifies OID (object identifier) of the object.

**application_class**
 Specifies the application class of the object.

**INTERP**
 Specifies the operating system on which the IBMInformixServer is running.

**ITM_CONTEXT**
 Specifies a general problem to which the resource activity relates. An example of context can be Cache Hit Ratios, where the resource is IBMInformixServer. This shows that the metrics logged concern Cache Hit Ratios in relation to the resource IBMInformixServer.

**ServerName**
 Specifies the name of the IBMInformixServer instance on which the resource model is running.

This indication has the following threshold:

- IBM Informix High Modified Ratio

For more information about these thresholds, see "Thresholds" on page 71.

The following table describes the default settings for this indication.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Default value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Send indications to Tivoli Enterprise Console</td>
<td>Yes</td>
</tr>
<tr>
<td>Send indications to Tivoli Business Systems Manager</td>
<td>No</td>
</tr>
<tr>
<td>Occurrences</td>
<td>1</td>
</tr>
<tr>
<td>Holes</td>
<td>0</td>
</tr>
<tr>
<td>Associated tasks and built-in actions</td>
<td>None</td>
</tr>
</tbody>
</table>
Note: If you have Tivoli Business Systems Manager configured for your systems, Tivoli Enterprise Console automatically forwards events to Tivoli Business Systems Manager. Do not change the configuration of the indication to send events to Tivoli Business Systems Manager.

Thresholds

The following list shows the name, a short description, and the default value for the threshold associated with this resource model.

<table>
<thead>
<tr>
<th>Threshold</th>
<th>Description</th>
<th>Default value</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBM Informix High Modified Ratio</td>
<td>An indication occurs when the calculated percentage modified buffers for an LRU queue exceed the specified value.</td>
<td>90</td>
</tr>
</tbody>
</table>

Parameters

None

Tasks and built-in actions

None

The resource model has the following built-in actions:

None

Logging

You can log data for properties of the managed resource listed in the following table. The table shows the context of the managed resource and the properties that the resource model logs for the IBM Tivoli Monitoring Web Health Console.

<table>
<thead>
<tr>
<th>Resource</th>
<th>Context</th>
<th>Properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBMInformixLRUQueue</td>
<td>Buffers</td>
<td>IBMInformixLRUQueue.Number*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>IBMInformixServer.Db_Server_Name*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Free_Buffers</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Modified_Buffers</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Modified_Buffer_Ratio</td>
</tr>
</tbody>
</table>

Note: An asterisk (*) denotes a key property.

CLI example

Adds the IBMInformixLRUQueues resource model with the default cycle time of polling once an hour. An event of severity WARNING is sent if the resource model discovers that the LRU queues are operating at 95 percent capacity consistently for two hours (indicating that you may want to tune your LRU_MAX_DIRTY and LRU_MIN_DIRTY parameter for your IDS instance). Logging to IBM Tivoli Enterprise Data Warehouse is enabled.

```
wdmeditprf -P MyProfileMyRegion -add IBMInformixLRUQueues \
-t IBMInformix_High_ModifiedRatio 95.000000 \
-e IBMInformix_High_LRUQueueModifiedRatio -o 2 -severity WARNING \
-Log -LogEnable
```
**IBMInformix Memory Segment Monitor**

**Description**
Logs the IBM Informix Memory Segments. This resource model only logs data about the monitored database so there are no associated thresholds or events. By default, this resource model runs every 300 seconds.

<table>
<thead>
<tr>
<th>Resource model overview</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal name</td>
</tr>
<tr>
<td>Category</td>
</tr>
<tr>
<td>Indications</td>
</tr>
<tr>
<td>Tasks and built-in actions</td>
</tr>
<tr>
<td>Default cycle time</td>
</tr>
</tbody>
</table>

**Target managed resource**
IBMInformixServer

**Indications and events**
None

**Thresholds**
None

**Parameters**
None

**Tasks and built-in actions**
None

**Logging**
You can log data for properties of the managed resource listed in the following table. The table shows the context of the managed resource and the properties that the resource model logs for the IBM Tivoli Monitoring Web Health Console.

<table>
<thead>
<tr>
<th>Resource</th>
<th>Context</th>
<th>Properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBMInformixMemorySegment</td>
<td>Memory</td>
<td>IBMInformixMemorySegment.Segment_Address*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>IBMInformixServer.Db_Server_Name*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Blocks_Free</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Blocks_Used</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Segment_Size</td>
</tr>
</tbody>
</table>

*Note: An asterisk (*) denotes a key property.*

**CLI example**
Adds the `IBMInformixMemorySegment` resource model to `MyProfileMyRegion` and sets the resource model to run every 2.5 minutes. This resource model only logs
data about the monitored database so there are no associated thresholds or events. Logging to IBM Tivoli Enterprise Data Warehouse is enabled.

```
wdmeditprf -P MyProfileMyRegion -add IBMInformixMemorySegment -c 150 \
-Log -LogEnable
```
IBMInformix Overflows Monitor

Description

Monitors the User Thread Overflows, Transaction Overflows and Lock Overflows. If you set the parameter to enable the indication, any measured Overflow value that exceeds the specified threshold generates an indication. The resource models also logs all Overflows. By default, this resource model runs every 120 seconds.

<table>
<thead>
<tr>
<th>Resource model overview</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal name</td>
</tr>
<tr>
<td>Category</td>
</tr>
<tr>
<td>Indications</td>
</tr>
<tr>
<td>IBM Informix High Lock Overflows</td>
</tr>
<tr>
<td>IBM Informix High Transaction Overflows</td>
</tr>
<tr>
<td>IBM Informix High User Thread Overflows</td>
</tr>
<tr>
<td>Default cycle time</td>
</tr>
</tbody>
</table>

Target managed resource

IBMInformixServer

Indications and events

The following table summarizes the indications for this resource model, the events associated with the indications, the default severity of the events, and where you can find a detailed description of the indication.

<table>
<thead>
<tr>
<th>Indication</th>
<th>Generated event</th>
<th>Default severity</th>
<th>Clearing event</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBM Informix High Lock Overflows</td>
<td>IBMInformix_High_LockOverflows</td>
<td>Critical</td>
<td>Yes</td>
<td>74</td>
</tr>
<tr>
<td>IBM Informix High Transaction Overflows</td>
<td>IBMInformix_High_TransactionOverflows</td>
<td>Critical</td>
<td>Yes</td>
<td>76</td>
</tr>
<tr>
<td>IBM Informix High User Thread Overflows</td>
<td>IBMInformix_High_UserThreadOverflows</td>
<td>Critical</td>
<td>Yes</td>
<td>77</td>
</tr>
</tbody>
</table>

**IBM Informix High Lock Overflows indication**

Occurs when the High Lock Overflows Monitor parameter is Enabled and the measured Lock Overflows are greater than the specified threshold. When the
indication occurs often enough to trigger an event, the event delivers a message to the Tivoli Enterprise Console in the following format:

*application_label*: Lock Overflows are currently *LockOverflows* against a threshold of *LockOverflowsThreshold*.

If you have Tivoli Business Systems Manager configured for your system, Tivoli Enterprise Console forwards the message to Tivoli Business Systems Manager.

If you do not have Tivoli Enterprise Console, you can check the health of this resource model in the IBM Tivoli Monitoring Web Health Console.

The indication has the following attributes:

*LockOverflows*
   Specifies the number of lock overflows as reported by the sysprofile table.

*LockOverflowsThreshold*
   Specifies the maximum number of Lock Overflows that can pass before an indication is raised.

*ServerName*
   Specifies the name of the IBMInformixServer instance on which the resource model is running.

*DB_INSTANCE*
   Specifies the name of the IBMInformixServer instance on which the resource model is running.

*DB_DIR*
   Specifies the root directory of the IBMInformixServer instance.

*application_label*
   Specifies the label applied to object.

*application_version*
   Specifies the application version of the object.

*application_oid*
   Specifies OID (object identifier) of the object.

*application_class*
   Specifies the application class of the object.

*INTERP*
   Specifies the operating system on which the IBMInformixServer is running.

*ITM_CONTEXT*
   Specifies a general problem to which the resource activity relates. An example of context can be Cache Hit Ratios, where the resource is IBMInformixServer. This shows that the metrics logged concern Cache Hit Ratios in relation to the resource IBMInformixServer.

This indication has the following threshold:

- IBM Informix High Lock Overflows

For more information about these thresholds, see “Thresholds” on page 79.
The following table describes the default settings for this indication.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Default value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Send indications to Tivoli Enterprise Console</td>
<td>Yes</td>
</tr>
<tr>
<td>Send indications to Tivoli Business Systems Manager</td>
<td>No</td>
</tr>
<tr>
<td>Occurrences</td>
<td>1</td>
</tr>
<tr>
<td>Holes</td>
<td>0</td>
</tr>
<tr>
<td>Associated tasks and built-in actions</td>
<td>None</td>
</tr>
</tbody>
</table>

**Note:** If you have Tivoli Business Systems Manager configured for your systems, Tivoli Enterprise Console automatically forwards events to Tivoli Business Systems Manager. Do not change the configuration of the indication to send events to Tivoli Business Systems Manager.

**IBM Informix High Transaction Overflows indication**
Generates an event when you enable the High Transaction Overflows Monitor parameter and the measured Transaction Overflows exceed the specified threshold. When the indication occurs often enough to trigger an event, the event delivers a message to the Tivoli Enterprise Console in the following format:

```
application_label: Transaction Overflows are currently TransactionOverflows against a threshold of TransactionOverflowsThreshold.
```

If you have Tivoli Business Systems Manager configured for your system, Tivoli Enterprise Console forwards the message to Tivoli Business Systems Manager.

If you do not have Tivoli Enterprise Console, you can check the health of this resource model in the IBM Tivoli Monitoring Web Health Console.

The indication has the following attributes:

- **TransactionOverflows**
  Specifies the number of transaction overflows as reported by the sysprofile table.

- **TransactionOverflowsThreshold**
  Specifies the maximum number of transaction overflows that can pass before an indication is raised.

- **ServerName**
  Specifies the name of the IBMInformixServer instance on which the resource model is running.

- **DB_INSTANCE**
  Specifies the name of the IBMInformixServer instance on which the resource model is running.

- **DB_DIR**
  Specifies the root directory of the IBMInformixServer instance.

- **application_label**
  Specifies the label applied to object.

- **application_version**
  Specifies the application version of the object.
application_oid
Specifies OID (object identifier) of the object.

application_class
Specifies the application class of the object.

INTERP
Specifies the operating system on which the IBMInformixServer is running.

ITM_CONTEXT
Specifies a general problem to which the resource activity relates. An example of context can be Cache Hit Ratios, where the resource is IBMInformixServer. This shows that the metrics logged concern Cache Hit Ratios in relation to the resource IBMInformixServer.

This indication has the following threshold:
• IBM Informix High Transaction Overflows

For more information about these thresholds, see “Thresholds” on page 79.

The following table describes the default settings for this indication.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Default value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Send indications to Tivoli Enterprise Console</td>
<td>Yes</td>
</tr>
<tr>
<td>Send indications to Tivoli Business Systems Manager</td>
<td>No</td>
</tr>
<tr>
<td>Occurrences</td>
<td>1</td>
</tr>
<tr>
<td>Holes</td>
<td>0</td>
</tr>
<tr>
<td>Associated tasks and built-in actions</td>
<td>None</td>
</tr>
</tbody>
</table>

Note: If you have Tivoli Business Systems Manager configured for your systems, Tivoli Enterprise Console automatically forwards events to Tivoli Business Systems Manager. Do not change the configuration of the indication to send events to Tivoli Business Systems Manager.

IBM Informix High User Thread Overflows indication
Occurs when you enable the High User Thread Overflows Monitor parameter and the measured User Thread Overflows exceed the specified threshold. When the indication occurs often enough to trigger an event, the event delivers a message to the Tivoli Enterprise Console in the following format:

application_label: User Thread Overflows are currently UserThreadOverflows against a threshold of UserThreadOverflowsThreshold.

If you have Tivoli Business Systems Manager configured for your system, Tivoli Enterprise Console forwards the message to Tivoli Business Systems Manager.

If you do not have Tivoli Enterprise Console, you can check the health of this resource model in the IBM Tivoli Monitoring Web Health Console.

The indication has the following attributes:

UserThreadOverflows
Specifies the number of user thread overflows as reported by the sysprofile table.
**UserThreadOverflowsThreshold**
Specifies the maximum number of user thread overflows that can pass before an indication is raised.

**ServerName**
Specifies the name of the IBMInformixServer instance on which the resource model is running.

**DB_INSTANCE**
Specifies the name of the IBMInformixServer instance on which the resource model is running.

**DB_DIR**
Specifies the root directory of the IBMInformixServer instance.

**application_label**
Specifies the label applied to object.

**application_version**
Specifies the application version of the object.

**application_oid**
Specifies OID (object identifier) of the object.

**application_class**
Specifies the application class of the object.

**INTERP**
Specifies the operating system on which the IBMInformixServer is running.

**ITM_CONTEXT**
Specifies a general problem to which the resource activity relates. An example of context can be Cache Hit Ratios, where the resource is IBMInformixServer. This shows that the metrics logged concern Cache Hit Ratios in relation to the resource IBMInformixServer.

This indication has the following threshold:
- IBM Informix High User Thread Overflows

For more information about these thresholds, see “Thresholds” on page 79.

The following table describes the default settings for this indication.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Default value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Send indications to Tivoli Enterprise Console</td>
<td>Yes</td>
</tr>
<tr>
<td>Send indications to Tivoli Business Systems Manager</td>
<td>No</td>
</tr>
<tr>
<td>Occurrences</td>
<td>1</td>
</tr>
<tr>
<td>Holes</td>
<td>0</td>
</tr>
<tr>
<td>Associated tasks and built-in actions</td>
<td>None</td>
</tr>
</tbody>
</table>

**Note:** If you have Tivoli Business Systems Manager configured for your systems, Tivoli Enterprise Console automatically forwards events to Tivoli Business Systems Manager. Do not change the configuration of the indication to send events to Tivoli Business Systems Manager.
Thresholds

The following list shows the name, a short description, and the default value for the threshold associated with this resource model.

<table>
<thead>
<tr>
<th>Threshold</th>
<th>Description</th>
<th>Default value</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBM Informix High Lock Overflows</td>
<td>An indication occurs when you enable the High Lock Overflows Monitor parameter and the measured Lock Overflows exceed the specified value.</td>
<td>0</td>
</tr>
<tr>
<td>IBM Informix High Transaction Overflows</td>
<td>An indication occurs when you enable the High Transaction Overflows Monitor parameter and if the measured Transaction Overflows exceed the specified value.</td>
<td>0</td>
</tr>
<tr>
<td>IBM Informix High User Thread Overflows</td>
<td>An indication occurs when you enable the User Thread Overflows parameter and if the measured User Thread Overflows exceed the specified value.</td>
<td>0</td>
</tr>
</tbody>
</table>

Parameters

The following list shows the name, a short description, and the default value for each parameter that you can set for this resource model.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
<th>Default value</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBM Informix Enable High Lock Overflows</td>
<td>Enables or disables the IBM Informix Enable High Lock Overflows Monitor.</td>
<td>Disabled</td>
</tr>
<tr>
<td>IBM Informix Enable High Transaction Overflows</td>
<td>Enables or disables the IBM Informix Enable High Transaction Overflows Monitor.</td>
<td>Disabled</td>
</tr>
<tr>
<td>IBM Informix Enable High User Thread Overflows</td>
<td>Enables or disables the IBM Informix Enable High User Thread Overflows Monitor.</td>
<td>Disabled</td>
</tr>
</tbody>
</table>

Tasks and built-in actions

None

Logging

You can log data for properties of the managed resource listed in the following table. The table shows the context of the managed resource and the properties that the resource model logs for the IBM Tivoli Monitoring Web Health Console.

<table>
<thead>
<tr>
<th>Resource</th>
<th>Context</th>
<th>Properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBMInformixServer</td>
<td>Overflows</td>
<td>IBMInformixServer.Db_Server_Name*&lt;br&gt;Lock_Overflows&lt;br&gt;Transaction_Overflows&lt;br&gt;User_Thread_Overflows</td>
</tr>
</tbody>
</table>

Note: An asterisk (*) denotes a key property.
CLI example

Adds the `IBMInformixOverflows` resource model to `MyProfileMyRegion`. The thresholds and events associated with the resource model are not modified from their default values, but the parameter required to activate all the thresholds and events are enabled. The resource model is set to poll once every minute. Logging to IBM Tivoli Enterprise Data Warehouse is enabled.

```
wdmeditprf -P MyProfileMyRegion -add IBMInformixOverflows -c 60 \
-AddPar IBMInformix_Enable_High_UserThreadOverflows Enabled\n-AddPar IBMInformix_Enable_High_LockOverflows Enabled \n-AddPar IBMInformix_Enable_High_TransactionOverflows Enabled \n-Log -LogEnable
```
IBMInformix Physical Log Usage Ratio Monitor

Description

Monitors the Physical Log Size and the amount of the Physical Log Used. This resource model calculates the usage ratio and generates an indication if the usage ratio exceeds the specified threshold. By default, this resource model runs every 300 seconds.

Resource model overview

<table>
<thead>
<tr>
<th>Internal name</th>
<th>IBMInformixPhysicalLogUsageRatio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category</td>
<td>IBMInformix</td>
</tr>
<tr>
<td>Indications</td>
<td>IBM Informix High Physical Log Usage Ratio Occurs when the Physical Log Usage Ratio is greater than the specified threshold.</td>
</tr>
<tr>
<td>Tasks and built-in actions</td>
<td>None</td>
</tr>
<tr>
<td>Default cycle time</td>
<td>300 seconds</td>
</tr>
</tbody>
</table>

Target managed resource

IBMInformixServer

Indications and events

The following table summarizes the indications for this resource model, the events associated with the indications, the default severity of the events, and where you can find a detailed description of the indication.

<table>
<thead>
<tr>
<th>Indication</th>
<th>Generated event</th>
<th>Default severity</th>
<th>Clearing events</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBM Informix High Physical Log Usage Ratio</td>
<td>IBMInformixHigh_PysicalLogUsageRatio</td>
<td>Critical</td>
<td>Yes</td>
<td>81</td>
</tr>
</tbody>
</table>

**IBM Informix High Physical Log Usage Ratio indication**

Occurs when the Physical Log Usage Ratio exceeds the specified threshold. When the indication occurs often enough to trigger an event, the event delivers a message to the Tivoli Enterprise Console in the following format:

```
application_label: Physical Log Usage Ratio is currently
PhysicalLogUsageRatio against a threshold of
PhysicalLogUsageRatioThreshold.
```

If you have Tivoli Business Systems Manager configured for your system, Tivoli Enterprise Console forwards the message to Tivoli Business Systems Manager.

If you do not have Tivoli Enterprise Console, you can check the health of this resource model in the IBM Tivoli Monitoring Web Health Console.

The indication has the following attributes:
PhysicalLogUsageRatio

Specifies the ratio of the percent of the physical log used compared to the total size of the physical log.

PhysicalLogUsageRatioThreshold

Specifies the maximum percentage for the physical log usage ratio before an indication is generated.

ServerName

Specifies the name of the IBMInformixServer instance on which the resource model is running.

DB_INSTANCE

Specifies the name of the IBMInformixServer instance on which the resource model is running.

DB_DIR

Specifies the root directory of the IBMInformixServer instance.

application_label

Specifies the label applied to object.

application_version

Specifies the application version of the object.

application_oid

Specifies OID (object identifier) of the object.

application_class

Specifies the application class of the object.

INTERP

Specifies the operating system on which the IBMInformixServer is running.

ITM_CONTEXT

Specifies a general problem to which the resource activity relates. An example of context can be Cache Hit Ratios, where the resource is IBMInformixServer. This shows that the metrics logged concern Cache Hit Ratios in relation to the resource IBMInformixServer.

This indication has the following threshold:

- IBM Informix Physical Log Usage Ratio

For more information about these thresholds, see “Thresholds” on page 83.

The following table describes the default settings for this indication.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Default value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Send indications to Tivoli Enterprise Console</td>
<td>Yes</td>
</tr>
<tr>
<td>Send indications to Tivoli Business Systems Manager</td>
<td>No</td>
</tr>
<tr>
<td>Occurrences</td>
<td>1</td>
</tr>
<tr>
<td>Holes</td>
<td>0</td>
</tr>
<tr>
<td>Associated tasks and built-in actions</td>
<td>None</td>
</tr>
</tbody>
</table>

**Note:** If you have Tivoli Business Systems Manager configured for your systems, Tivoli Enterprise Console automatically forwards events to Tivoli Business Systems Manager. Do not change the configuration of the indication to send events to Tivoli Business Systems Manager.
Thresholds

The following list shows the name, a short description, and the default value for the threshold associated with this resource model.

<table>
<thead>
<tr>
<th>Threshold</th>
<th>Description</th>
<th>Default value</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBM Informix Physical Log Usage Ratio</td>
<td>An indication occurs when the calculated Physical Log Usage Ratio exceeds the specified threshold value.</td>
<td>90</td>
</tr>
</tbody>
</table>

Parameters

None

Tasks and built-in actions

None

Logging

You can log data for properties of the managed resource listed in the following table. The table shows the context of the managed resource and the properties that the resource model logs for the IBM Tivoli Monitoring Web Health Console.

<table>
<thead>
<tr>
<th>Resource</th>
<th>Context</th>
<th>Properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBMInformixServer</td>
<td>Physical Log</td>
<td>IBMInformixServer.Db_Server_Name</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Physical_Log_Size</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Physical_Log_Used</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Physical_Log_Usage_Ratio</td>
</tr>
</tbody>
</table>

Note: An asterisk (*) denotes a key property.

CLI example

Adds the `IBMInformixPhysicalLogUsageRatio` resource model with the default cycle time of polling once an hour. An Fatal event is sent if the resource model discovers that the physical log usage ratio is above 95 percent. Logging to IBM Tivoli Enterprise Data Warehouse is enabled.

```
wdmeditprf -P MyProfileMyRegion -add IBMInformixPhysicalLogUsageRatio -c 60 \ -t IBMInformix_High_PhysicalLogUsageRatio 95.000000 \ -e IBMInformix_High_PhysicalLogUsageRatio -severity FATAL \ -Log -LogEnable
```
IBMInformix Rollback Ratio Monitor

Description

Monitors the ratio of rollbacks to commits and generates an indication if the ratio exceeds the specified threshold. By default, this resource model runs every 300 seconds.

<table>
<thead>
<tr>
<th>Resource model overview</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal name</td>
</tr>
<tr>
<td>Category</td>
</tr>
<tr>
<td>Indications</td>
</tr>
<tr>
<td>Tasks and built-in actions</td>
</tr>
<tr>
<td>Default cycle time</td>
</tr>
</tbody>
</table>

Target managed resource

IBMInformixServer

Indications and events

The following table summarizes the indications for this resource model, the events associated with the indications, the default severity of the events, and where you can find a detailed description of the indication.

<table>
<thead>
<tr>
<th>Indication</th>
<th>Generated event</th>
<th>Default severity</th>
<th>Clearing events</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBM Informix High Rollback Ratio</td>
<td>IBMInformix_High_RollbackRatio</td>
<td>Critical</td>
<td>Yes</td>
<td>84</td>
</tr>
</tbody>
</table>

**IBM Informix High Rollback Ratio indication**

Occurs when the calculated Rollback Ratio exceeds the specified threshold. When the indication occurs often enough to trigger an event, the event delivers a message to the Tivoli Enterprise Console in the following format:

*application_label*: Rollback Ratio is currently $RollbackRatio$ against a threshold of $RollbackRatioThreshold$.

If you have Tivoli Business Systems Manager configured for your system, Tivoli Enterprise Console forwards the message to Tivoli Business Systems Manager.

If you do not have Tivoli Enterprise Console, you can check the health of this resource model in the IBM Tivoli Monitoring Web Health Console.

The indication has the following attributes:

- **RollbackRatio**
  - Specifies the ratio of rollbacks (transactions that have been rolled back) to commits (transactions that have been committed).

- **RollbackRatioThreshold**
  - Specifies the maximum rollback ratio before an indication is generated.
ServerName
Specifies the name of the IBMInformixServer instance on which the resource model is running.

DB_INSTANCE
Specifies the name of the IBMInformixServer instance on which the resource model is running.

DB_DIR
Specifies the root directory of the IBMInformixServer instance.

application_label
Specifies the label applied to object.

application_version
Specifies the application version of the object

application_oid
Specifies OID (object identifier) of the object.

application_class
Specifies the application class of the object.

INTERP
Specifies the operating system on which the IBMInformixServer is running.

ITM_CONTEXT
Specifies a general problem to which the resource activity relates. An example of context can be Cache Hit Ratios, where the resource is IBMInformixServer. This shows that the metrics logged concern Cache Hit Ratios in relation to the resource IBMInformixServer.

This indication has the following threshold:
• IBM Informix High Rollback Ratio

For more information about these thresholds, see “Thresholds” on page 85.

The following table describes the default settings for this indication.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Default value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Send indications to Tivoli Enterprise Console</td>
<td>Yes</td>
</tr>
<tr>
<td>Send indications to Tivoli Business Systems Manager</td>
<td>No</td>
</tr>
<tr>
<td>Occurrences</td>
<td>1</td>
</tr>
<tr>
<td>Holes</td>
<td>0</td>
</tr>
<tr>
<td>Associated tasks and built-in actions</td>
<td>None</td>
</tr>
</tbody>
</table>

Note: If you have Tivoli Business Systems Manager configured for your systems, Tivoli Enterprise Console automatically forwards events to Tivoli Business Systems Manager. Do not change the configuration of the indication to send events to Tivoli Business Systems Manager.

Thresholds
The following list shows the name, a short description, and the default value for the threshold associated with this resource model.
<table>
<thead>
<tr>
<th>Threshold</th>
<th>Description</th>
<th>Default value</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBM Informix High Rollback</td>
<td>An indication occurs when the calculated Rollback Ratio exceeds the specified value.</td>
<td>10</td>
</tr>
</tbody>
</table>

**Parameters**

None

**Tasks and built-in actions**

None

**Logging**

You can log data for properties of the managed resource listed in the following table. The table shows the context of the managed resource and the properties that the resource model logs for the IBM Tivoli Monitoring Web Health Console.

<table>
<thead>
<tr>
<th>Resource</th>
<th>Context</th>
<th>Properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBMInformixServer</td>
<td>Rollbacks</td>
<td>IBMInformixServer.Db_Server_Name*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Number_of_Commits</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Number_of_Rollbacks</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rollback_Ratio</td>
</tr>
</tbody>
</table>

**CLI example**

Add the `IBMInformixRollbackRatio` resource model with the default cycle time of polling once every five minutes. An Warning event is sent if the resource model discovers that the rollback ratio is above 5 percent 4 times in a 30 minute period (4 occurrences with 2 holes when checked every 5 minutes). Logging to IBM Tivoli Enterprise Data Warehouse is enabled.

```bash
wdmeditprf -P MyProfileMyRegion -add IBMInformixRollbackRatio -c 300 \ 
-t IBMInformix_High_RollbackRatio 5.000000 \ 
-e IBMInformix_High_RollbackRatio -o 4 -h 2 -severity WARNING \ 
-Log -LogEnable
```
IBM Informix Server State Monitor

Description
Monitors the state of the IBM Informix server as reported by "onstat –a." The resource model generates an indication when it finds the IBM Informix server in a state other than online. By default, this resource model runs every 60 seconds.

<table>
<thead>
<tr>
<th>Resource model overview</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal name</td>
</tr>
<tr>
<td>Category</td>
</tr>
<tr>
<td>Indications</td>
</tr>
<tr>
<td>Tasks and built-in actions</td>
</tr>
<tr>
<td>Default cycle time</td>
</tr>
</tbody>
</table>

Target managed resource
IBMInformixServer

Indications and events
The following table summarizes the indications for this resource model, the events associated with the indications, the default severity of the events, and where you can find a detailed description of the indication.

<table>
<thead>
<tr>
<th>Indication</th>
<th>Generated event</th>
<th>Default severity</th>
<th>Clearing events</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBM Informix Server Not On-Line</td>
<td>IBMInformix_Server_Not_OnLine</td>
<td>Critical</td>
<td>Yes</td>
<td>87</td>
</tr>
</tbody>
</table>

IBM Informix Server Not Online indication
Generates an event when the resource model discovers an IBM Informix Server is not online. When the indication occurs often enough to trigger an event, the event delivers a message to the Tivoli Enterprise Console in the following format:

application_label: Server is currently CurrentState.

If you have Tivoli Business Systems Manager configured for your system, Tivoli Enterprise Console forwards the message to Tivoli Business Systems Manager.

If you do not have Tivoli Enterprise Console, you can check the health of this resource model in the IBM Tivoli Monitoring Web Health Console.

The indication has the following attributes:

ServerName
Specifies the name of the Informix on which the resource model is running.

CurrentState
Specifies the current state of the IBM Informix Server. Server states include: Initializing, Quiescent, Recovering, Shutting_Down, On-Line, and Off-Line.

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**DB_INSTANCE**
Specifies the name of the IBMInformixServer instance on which the resource model is running.

**DB_DIR**
Specifies the root directory of the IBMInformixServer instance.

**application_label**
Specifies the label applied to object.

**application_version**
Specifies the application version of the object.

**application_oid**
Specifies OID (object identifier) of the object.

**application_class**
Specifies the application class of the object.

**INTERP**
Specifies the operating system on which the IBMInformixServer is running.

**ITM_CONTEXT**
Specifies a general problem to which the resource activity relates. An example of context can be Cache Hit Ratios, where the resource is IBMInformixServer. This shows that the metrics logged concern Cache Hit Ratios in relation to the resource IBMInformixServer.

This indication has the following threshold:

None

For more information about these thresholds, see “Thresholds” on page 88

The following table describes the default settings for this indication.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Default value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Send indications to Tivoli Enterprise Console</td>
<td>Yes</td>
</tr>
<tr>
<td>Send indications to Tivoli Business Systems Manager</td>
<td>No</td>
</tr>
<tr>
<td>Occurrences</td>
<td>1</td>
</tr>
<tr>
<td>Holes</td>
<td>0</td>
</tr>
<tr>
<td>Associated tasks and built-in actions</td>
<td>None</td>
</tr>
</tbody>
</table>

**Note:** If you have Tivoli Business Systems Manager configured for your systems, Tivoli Enterprise Console automatically forwards events to Tivoli Business Systems Manager. Do not change the configuration of the indication to send events to Tivoli Business Systems Manager.

**Thresholds**
None

**Parameters**
None
Tasks and built-in actions

None

Logging

You can log data for properties of the managed resource listed in the following table. The table shows the context of the managed resource and the properties that the resource model logs for the IBM Tivoli Monitoring Web Health Console.

<table>
<thead>
<tr>
<th>Resource</th>
<th>Context</th>
<th>Properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBMInformixServer</td>
<td>State</td>
<td>IBMInformixServer.Db_Server_Name*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Percent_State_INITIALIZING</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Percent_State_QUIESCENT</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Percent_State_RECOVERING</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Percent_State_Shutting_Down</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Percent_State_ON-LINE</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Percent_State_OFF-LINE</td>
</tr>
</tbody>
</table>

Note: An asterisk (*) denotes a key property.

CLI example

Adds the **IBMInformixState** resource model with the default cycle time of polling once every 2 minutes. A Fatal event is sent if the resource model discovers that the IBMInformixServer object being monitored is in a state other than online. Logging to IBM Tivoli Enterprise Data Warehouse is enabled.

```
wdmeditprf -P MyProfileMyRegion -add IBMInformixState -c 120 \
-e IBMInformix_Server_Not_OnLine -severity FATAL \
-Log -LogEnable
```
IBMInformix Table Extents Monitor

Description
Monitors the number of extents for every table. The resource model generates an indication for each table with a number of extents that exceed the specified threshold. This resource model does not log this data because logging the data causes an entry for each table. By default, this resource model runs every 3600 seconds.

Resource model overview

<table>
<thead>
<tr>
<th>Internal name</th>
<th>IBMInformixTableExtents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category</td>
<td>IBMInformix</td>
</tr>
<tr>
<td>Indications</td>
<td>IBM Informix High Total Extents generates an event when a table’s number of extents exceeds the specified threshold.</td>
</tr>
<tr>
<td>Tasks and built-in actions</td>
<td>None</td>
</tr>
<tr>
<td>Default cycle time</td>
<td>3600 seconds</td>
</tr>
</tbody>
</table>

Target managed resource
IBMInformixServer

Indications and events
The following table summarizes the indications for this resource model, the events associated with the indications, the default severity of the events, and where you can find a detailed description of the indication.

<table>
<thead>
<tr>
<th>Indication</th>
<th>Generated event</th>
<th>Default severity</th>
<th>Clearing event</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBM Informix High Total Extents</td>
<td>IBMInformix_High_TotalExtents</td>
<td>Critical</td>
<td>Yes</td>
<td>90</td>
</tr>
</tbody>
</table>

IBM Informix High Total Extents indication
Generates an event for each table in which the number of extents exceeds the specified threshold. When the indication occurs often enough to trigger an event, the event delivers a message to the Tivoli Enterprise Console in the following format:

`application_label: Extents for table TableName are currently TotalExtents against a threshold of TotalExtentsThreshold.`

If you have Tivoli Business Systems Manager configured for your system, Tivoli Enterprise Console forwards the message to Tivoli Business Systems Manager.

If you do not have Tivoli Enterprise Console, you can check the health of this resource model in the IBM Tivoli Monitoring Web Health Console.

The indication has the following attributes:

`ServerName`
Specifies the name of the IBMInformixServer instance on which the resource model is running.
TableName
Specifies the name of the table that raised the indication.

TotalExtents
Specifies the total number of extents for this table.

TotalExtentsThreshold
Specifies the maximum number for the total number of extents before an indication is raised.

DB_INSTANCE
Specifies the name of the IBMInformixServer instance on which the resource model is running.

DB_DIR
Specifies the root directory of the IBMInformixServer instance.

application_label
Specifies the label applied to object.

application_version
Specifies the application version of the object.

application_oid
Specifies OID (object identifier) of the object.

application_class
Specifies the application class of the object.

INTERP
Specifies the operating system on which the IBMInformixServer is running.

ITM_CONTEXT
Specifies a general problem to which the resource activity relates. An example of context can be Cache Hit Ratios, where the resource is IBMInformixServer. This shows that the metrics logged concern Cache Hit Ratios in relation to the resource IBMInformixServer.

This indication has the following threshold:
• IBM Informix High Total Extents

For more information about these thresholds, see “Thresholds” on page 92

The following table describes the default settings for this indication.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Default value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Send indications to Tivoli Enterprise Console</td>
<td>Yes</td>
</tr>
<tr>
<td>Send indications to Tivoli Business Systems</td>
<td>No</td>
</tr>
<tr>
<td>Manager</td>
<td></td>
</tr>
<tr>
<td>Occurrences</td>
<td>1</td>
</tr>
<tr>
<td>Holes</td>
<td>0</td>
</tr>
<tr>
<td>Associated tasks and built-in actions</td>
<td>None</td>
</tr>
</tbody>
</table>

**Note:** If you have Tivoli Business Systems Manager configured for your systems, Tivoli Enterprise Console automatically forwards events to Tivoli Business Systems Manager. Do not change the configuration of the indication to send events to Tivoli Business Systems Manager.
Thresholds

The following list shows the name, a short description, and the default value for the threshold associated with this resource model.

<table>
<thead>
<tr>
<th>Threshold</th>
<th>Description</th>
<th>Default value</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBM Informix High Total Extents</td>
<td>An indication occurs when the number of extents for a table exceeds the specified threshold.</td>
<td>9</td>
</tr>
</tbody>
</table>

Parameters

None

Tasks and built-in actions

None

Logging

None

CLI example

Adds the IBMInformixTableExtents resource model with the default cycle time of polling once every 2 hours. A Warning event is sent for every table the resource model discovers that has more than 10 extents allocated.

```
wdmeditprf -P MyProfileMyRegion -add IBMInformixTableExtents -c 7200 \ 
-t IBMInformix_High_TotalExtents 10.000000 \ 
-e IBMInformix_High_TotalExtents -severity WARNING
```
IBMInformix Update Statistics

Description

Monitors table data distribution by comparing the ratio of table modifications to table rows. If this resource model discovers that this ratio exceeds the specified threshold value, it determines that the data distributions are out of date and generates an indication. The indication serves as a warning to the database administrator to recommend performing Update Statistics. The severity of the warning reflects the degree of modified data and table usage. For example, the resource model issues a more severe warning for the table with the most amount of usage and a less severe warning for a table with the least amount of usage. By default, this resource model runs every 10800 seconds.

<table>
<thead>
<tr>
<th>Resource model overview</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal name</td>
</tr>
<tr>
<td>Category</td>
</tr>
<tr>
<td>Indications</td>
</tr>
<tr>
<td>Tasks and built-in actions</td>
</tr>
<tr>
<td>Default cycle time</td>
</tr>
</tbody>
</table>

Target managed resource

IBMInformixServer

Indications and events

The following table summarizes the indications for this resource model, the events associated with the indications, the default severity of the events, and where you can find a detailed description of the indication.

<table>
<thead>
<tr>
<th>Indication</th>
<th>Generated event</th>
<th>Default severity</th>
<th>Clearing events</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBM Informix Update Statistics</td>
<td>IBMInformix_UpdateStatistics</td>
<td>Critical</td>
<td>Yes</td>
<td>93</td>
</tr>
<tr>
<td>IBM Informix Zero Profile Counts</td>
<td>IBMInformix_ZeroProfileCounts</td>
<td>Minor</td>
<td>Yes</td>
<td>95</td>
</tr>
</tbody>
</table>

IBM Informix Update Statistics indication

Occurs when the ratio of table modifications (write, rewrite, delete) to table rows exceeds the specified threshold. When the indication occurs often enough to trigger an event, the event delivers a message to the Tivoli Enterprise Console in the following format:

application_label: Table Modification Ratio for table TableName in database DatabaseName is currently TableModRatio against a threshold of
Please update the data distributions for the table with the Informix command 'update statistics'.

If you have Tivoli Business Systems Manager configured for your system, Tivoli Enterprise Console forwards the message to Tivoli Business Systems Manager.

If you do not have Tivoli Enterprise Console, you can check the health of this resource model in the IBM Tivoli Monitoring Web Health Console.

The indication has the following attributes:

**DatabaseName**  
Specifies the name of the database on which the resource model is running.

**TableName**  
Specifies the name of the table being monitored.

**TableModRatio**  
Specifies the ratio of the number of table rows modified to total rows.

**TableModRatioThreshold**  
Specifies the maximum TableModRatio before an indication is raised.

**DB_INSTANCE**  
Specifies the name of the IBMInformixServer instance on which the resource model is running.

**DB_DIR**  
Specifies the root directory of the IBMInformixServer instance.

**application_label**  
Specifies the label applied to object.

**application_version**  
Specifies the application version of the object.

**application_oid**  
Specifies OID (object identifier) of the object.

**application_class**  
Specifies the application class of the object.

**INTERP**  
Specifies the operating system on which the IBMInformixServer is running.

**ITM_CONTEXT**  
Specifies a general problem to which the resource activity relates. An example of context can be Cache Hit Ratios, where the resource is IBMInformixServer. This shows that the metrics logged concern Cache Hit Ratios in relation to the resource IBMInformixServer.

The following table describes the default settings for this indication.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Default value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Send indications to Tivoli Enterprise Console</td>
<td>Yes</td>
</tr>
<tr>
<td>Send indications to Tivoli Business Systems Manager</td>
<td>No</td>
</tr>
<tr>
<td>Occurrences</td>
<td>1</td>
</tr>
<tr>
<td>Holes</td>
<td>0</td>
</tr>
<tr>
<td>Associated tasks and built-in actions</td>
<td>None</td>
</tr>
</tbody>
</table>
Note: If you have Tivoli Business Systems Manager configured for your systems, Tivoli Enterprise Console automatically forwards events to Tivoli Business Systems Manager. Do not change the configuration of the indication to send events to Tivoli Business Systems Manager.

IBM Informix Zero Profile Counts indication
Occurs when the profile count for this database has overflowed and the database administrator must run `onstat -z` to reset the profile counts. When the indication occurs often enough to trigger an event, the event delivers a message to the Tivoli Enterprise Console in the following format:

```
application_label: Profile Counts for database DatabaseName have overflowed. Please run the IBM Informix command, onstat -z
```

If you have Tivoli Business Systems Manager configured for your system, Tivoli Enterprise Console forwards the message to Tivoli Business Systems Manager.

If you do not have Tivoli Enterprise Console, you can check the health of this resource model in the IBM Tivoli Monitoring Web Health Console.

The indication has the following attributes:

**DatabaseName**
Specifies the name of the database on which the profile counts has overflowed.

**DB_INSTANCE**
Specifies the name of the IBMInformixServer instance on which the resource model is running.

**DB_DIR**
Specifies the root directory of the IBMInformixServer instance.

**application_label**
Specifies the label applied to object.

**application_version**
Specifies the application version of the object.

**application_oid**
Specifies OID (object identifier) of the object.

**application_class**
Specifies the application class of the object.

**INTERP**
Specifies the operating system on which the IBMInformixServer is running.

**ITM_CONTEXT**
Specifies a general problem to which the resource activity relates. An example of context can be Cache Hit Ratios, where the resource is IBMInformixServer. This shows that the metrics logged concern Cache Hit Ratios in relation to the resource IBMInformixServer.

The following table describes the default settings for this indication.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Default value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Send indications to Tivoli Enterprise Console</td>
<td>Yes</td>
</tr>
<tr>
<td>Send indications to Tivoli Business Systems Manager</td>
<td>No</td>
</tr>
</tbody>
</table>
### Setting

<table>
<thead>
<tr>
<th>Setting</th>
<th>Default value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Occurrences</td>
<td>1</td>
</tr>
<tr>
<td>Holes</td>
<td>0</td>
</tr>
<tr>
<td>Associated tasks and built-in actions</td>
<td>None</td>
</tr>
</tbody>
</table>

**Note:** If you have Tivoli Business Systems Manager configured for your systems, Tivoli Enterprise Console automatically forwards events to Tivoli Business Systems Manager. Do not change the configuration of the indication to send events to Tivoli Business Systems Manager.

### Thresholds

The following list shows the name, a short description, and the default value for the threshold associated with this resource model.

<table>
<thead>
<tr>
<th>Threshold</th>
<th>Description</th>
<th>Default value</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBM Informix High Modified Ratio</td>
<td>An indication occurs when the ratio of summed modifications to the row number for a table exceeds this value.</td>
<td>10</td>
</tr>
<tr>
<td>IBM Informix Tablesize</td>
<td>Restricts the tables monitored to tables with at least the number of rows given by this value.</td>
<td>1000</td>
</tr>
</tbody>
</table>

### Parameters

None

### Tasks and built-in actions

None

### Logging

None

### CLI example

Adds the `IBMInformixTableExtents` resource model with the default cycle time of polling once every 30 minutes. If the cycle time is not specified the default is used. A Warning event is sent for every table the resource model discovers that has a modification ratio higher than 12 percent for two consecutive polling cycles.

```
wmmeditprf -P MyProfileMyRegion -add IBMInformixUpdateStatistics -t IBMInformix_Tablesize 1250.000000 -t IBMInformix_High_ModifiedRatio 12.000000 -e IBMInformix_UpdateStatistics -o 2 -severity WARNING
```
IBMInformix Virtual Processors Monitor

Description
Monitors the CPU usage of the Virtual Processors. This resource model logs the collected data for each virtual process. The logged data includes the virtual process identification, the class of virtual processes and the amount of user and system CPU. By default, this resource model runs every 3600 seconds.

<table>
<thead>
<tr>
<th>Resource model overview</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal name</td>
</tr>
<tr>
<td>Category</td>
</tr>
<tr>
<td>Indications</td>
</tr>
<tr>
<td>Tasks and built-in actions</td>
</tr>
<tr>
<td>Default cycle time</td>
</tr>
</tbody>
</table>

Target managed resource
IBMInformixServer

Indications and events
None

Thresholds
None

Parameters
None

Tasks and built-in actions
None

Logging
You can log data for properties of the managed resource listed in the following table. The table shows the context of the managed resource and the properties that the resource model logs for the IBM Tivoli Monitoring Web Health Console.

<table>
<thead>
<tr>
<th>Resource</th>
<th>Context</th>
<th>Properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBMInformixVirtualProcessorID</td>
<td>Virtual Processors</td>
<td>IBMInformixServer.Db_Server_Name*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>IBMInformixVirtualProcessorID.ID*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>IBMInformixVirtualProcessorClass.Class*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>User_CPU</td>
</tr>
<tr>
<td></td>
<td></td>
<td>System_CPU</td>
</tr>
</tbody>
</table>

Note: An asterisk (*) denotes a key property.
CLI example

Adds the IBMInformixVirtualProcessors resource model to MyProfileMyRegion setting the resource model to run once every three hours. This resource model logs only data about the monitored database. There are no associated thresholds or events. Logging to IBM Tivoli Enterprise Data Warehouse is enabled.

```
wdmeditprf -P MyProfileMyRegion -add IBMInformixVirtualProcessors -c 10800 \
-Log -LogEnable
```
IBMInformix Waits Monitor

**Description**

Monitors the Buffer Waits, Lock Waits, Checkpoint Waits and Latch Waits. This resource model generates an indication if you enable the parameter and the difference between the current and previous Wait count exceeds the specified threshold. You can set a threshold for each type of Wait. This resource model also logs the value of all Waits. By default, this resource model runs every 300 seconds.

<table>
<thead>
<tr>
<th>Resource model overview</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal name</td>
</tr>
<tr>
<td>Category</td>
</tr>
<tr>
<td>Indications</td>
</tr>
<tr>
<td><strong>IBM Informix High Buffer Waits</strong></td>
</tr>
<tr>
<td><strong>IBM Informix High Checkpoint Waits</strong></td>
</tr>
<tr>
<td><strong>IBM Informix High Latch Waits</strong></td>
</tr>
<tr>
<td><strong>IBM Informix High Lock Waits</strong></td>
</tr>
<tr>
<td>Tasks and built-in actions</td>
</tr>
<tr>
<td>Default cycle time</td>
</tr>
</tbody>
</table>

**Target managed resource**

IBMInformixServer

**Indications and events**

The following table summarizes the indications for this resource model, the events associated with the indications, the default severity of the events, and where you can find a detailed description of the indication.

<table>
<thead>
<tr>
<th>Indication</th>
<th>Generated event</th>
<th>Default severity</th>
<th>Clearing event</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBM Informix High Buffer Waits</td>
<td>IBMInformix_High_BufferWaits</td>
<td>Critical</td>
<td>Yes</td>
<td>100</td>
</tr>
<tr>
<td>IBM Informix High Checkpoint Waits</td>
<td>IBMInformix_High_CheckpointWaits</td>
<td>Critical</td>
<td>Yes</td>
<td>101</td>
</tr>
</tbody>
</table>
# IBM Informix High Buffer Waits Indication

Indication: Occurs when the High Buffer Waits Monitor parameter is **Enabled** and the difference between current and previous Buffer Waits is greater than the specified threshold. When the indication occurs often enough to trigger an event, the event delivers a message to the Tivoli Enterprise Console in the following format:

```
application_label: Buffer Waits are currently BufferWaits against a threshold of BufferWaitsThreshold.
```

If you have Tivoli Business Systems Manager configured for your system, Tivoli Enterprise Console forwards the message to Tivoli Business Systems Manager.

If you do not have Tivoli Enterprise Console, you can check the health of this resource model in the IBM Tivoli Monitoring Web Health Console.

The indication has the following attributes:

- **BufferWaits**
  - Specifies the number of buffer waits as reported by the sysprofile table

- **BufferWaitsThreshold**
  - Specifies the maximum buffer waits allowed before an indication is raised.

- **ServerName**
  - Specifies the name of the IBMInformixServer instance on which the resource model is running.

- **DB_INSTANCE**
  - Specifies the name of the IBMInformixServer instance on which the resource model is running.

- **DB_DIR**
  - Specifies the root directory of the IBMInformixServer instance.

- **application_label**
  - Specifies the label applied to object.

- **application_version**
  - Specifies the application version of the object

- **application_oid**
  - Specifies OID (object identifier) of the object.

- **application_class**
  - Specifies the application class of the object.

- **INTERP**
  - Specifies the operating system on which the IBMInformixServer is running.

- **ITM_CONTEXT**
  - Specifies a general problem to which the resource activity relates. An

<table>
<thead>
<tr>
<th>Indication</th>
<th>Generated event</th>
<th>Default severity</th>
<th>Clearing event</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBM Informix High Latch Waits</td>
<td>IBMInformix_High_LatchWaits</td>
<td>Critical</td>
<td>Yes</td>
<td>102</td>
</tr>
<tr>
<td>IBM Informix High Lock Waits</td>
<td>IBMInformix_High_LockWaits</td>
<td>Critical</td>
<td>Yes</td>
<td>102</td>
</tr>
</tbody>
</table>
example of context can be Cache Hit Ratios, where the resource is IBMInformixServer. This shows that the metrics logged concern Cache Hit Ratios in relation to the resource IBMInformixServer.

This indication has the following threshold:

- IBM Informix High Buffer Waits

For more information about these thresholds, see “Thresholds” on page 105.

The following table describes the default settings for this indication.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Default value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Send indications to Tivoli Enterprise Console</td>
<td>Yes</td>
</tr>
<tr>
<td>Send indications to Tivoli Business Systems Manager</td>
<td>No</td>
</tr>
<tr>
<td>Occurrences</td>
<td>1</td>
</tr>
<tr>
<td>Holes</td>
<td>0</td>
</tr>
<tr>
<td>Associated tasks and built-in actions</td>
<td>None</td>
</tr>
</tbody>
</table>

**Note:** If you have Tivoli Business Systems Manager configured for your systems, Tivoli Enterprise Console automatically forwards events to Tivoli Business Systems Manager. Do not change the configuration of the indication to send events to Tivoli Business Systems Manager.

**IBM Informix High Checkpoint Waits indication**

Occurs when the High Checkpoint Waits Monitor parameter is Enabled and the difference between current and previous Checkpoint Waits is greater than the specified threshold. When the indication occurs often enough to trigger an event, the event delivers a message to the Tivoli Enterprise Console in the following format:

```
application_label: Checkpoint Waits are currently CheckpointWaits against a threshold of CheckpointWaitsThreshold.
```

If you have Tivoli Business Systems Manager configured for your system, Tivoli Enterprise Console forwards the message to Tivoli Business Systems Manager.

If you do not have Tivoli Enterprise Console, you can check the health of this resource model in the IBM Tivoli Monitoring Web Health Console.

The indication has the following attributes:

- **CheckpointWaits**
  - Specifies the number of checkpoint waits as reported by the sysprofile table

- **CheckpointWaitsThreshold**
  - Specified the maximum checkpoint waits allowed before an indication is raised.

- **ServerName**
  - Specifies the name of the IBMInformixServer instance on which the resource model is running.
**DB_INSTANCE**

Specifies the name of the IBMInformixServer instance on which the resource model is running.

**DB_DIR**

Specifies the root directory of the IBMInformixServer instance.

**application_label**

Specifies the label applied to object.

**application_version**

Specifies the application version of the object

**application_oid**

Specifies OID (object identifier) of the object.

**application_class**

Specifies the application class of the object.

**INTERP**

Specifies the operating system on which the IBMInformixServer is running.

**ITM_CONTEXT**

Specifies a general problem to which the resource activity relates. An example of context can be Cache Hit Ratios, where the resource is IBMInformixServer. This shows that the metrics logged concern Cache Hit Ratios in relation to the resource IBMInformixServer.

This indication has the following threshold:

- IBM Informix Checkpoint Waits

For more information about these thresholds, see “Thresholds” on page 105.

The following table describes the default settings for this indication.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Default value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Send indications to Tivoli Enterprise Console</td>
<td>Yes</td>
</tr>
<tr>
<td>Send indications to Tivoli Business Systems Manager</td>
<td>No</td>
</tr>
<tr>
<td>Occurrences</td>
<td>1</td>
</tr>
<tr>
<td>Holes</td>
<td>0</td>
</tr>
<tr>
<td>Associated tasks and built-in actions</td>
<td>None</td>
</tr>
</tbody>
</table>

**Note:** If you have Tivoli Business Systems Manager configured for your systems, Tivoli Enterprise Console automatically forwards events to Tivoli Business Systems Manager. Do not change the configuration of the indication to send events to Tivoli Business Systems Manager.

**IBM Informix High Latch Waits indication**

Occurs when the High Latch Waits Monitor parameter is Enabled and the difference between current and previous Latch Waits is greater than the specified threshold. When the indication occurs often enough to trigger an event, the event delivers a message to the Tivoli Enterprise Console in the following format:

```
application_label: Latch Waits are currently LatchWaits against a threshold of LatchWaitsThreshold.
```
If you have Tivoli Business Systems Manager configured for your system, Tivoli Enterprise Console forwards the message to Tivoli Business Systems Manager.

If you do not have Tivoli Enterprise Console, you can check the health of this resource model in the IBM Tivoli Monitoring Web Health Console.

The indication has the following attributes:

- **LatchWaits**
  Specifies the number of latch waits as reported by the sysprofile table

- **LatchWaitsThreshold**
  Specified the maximum latch waits allowed before an indication is raised.

- **ServerName**
  Specifies the name of the IBMInformixServer instance on which the resource model is running.

- **DB_INSTANCE**
  Specifies the name of the IBMInformixServer instance on which the resource model is running.

- **DB_DIR**
  Specifies the root directory of the IBMInformixServer instance.

- **application_label**
  Specifies the label applied to object.

- **application_version**
  Specifies the application version of the object

- **application_oid**
  Specifies OID (object identifier) of the object.

- **application_class**
  Specifies the application class of the object.

- **INTERP**
  Specifies the operating system on which the IBMInformixServer is running.

- **ITM_CONTEXT**
  Specifies a general problem to which the resource activity relates. An example of context can be Cache Hit Ratios, where the resource is IBMInformixServer. This shows that the metrics logged concern Cache Hit Ratios in relation to the resource IBMInformixServer.

This indication has the following threshold:

- IBM Informix Latch Waits

For more information about these thresholds, see “Thresholds” on page 105.

The following table describes the default settings for this indication.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Default value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Send indications to Tivoli Enterprise Console</td>
<td>Yes</td>
</tr>
<tr>
<td>Send indications to Tivoli Business Systems Manager</td>
<td>No</td>
</tr>
<tr>
<td>Occurrences</td>
<td>1</td>
</tr>
<tr>
<td>Holes</td>
<td>0</td>
</tr>
<tr>
<td>Associated tasks and built-in actions</td>
<td>None</td>
</tr>
</tbody>
</table>
Note: If you have Tivoli Business Systems Manager configured for your systems, Tivoli Enterprise Console automatically forwards events to Tivoli Business Systems Manager. Do not change the configuration of the indication to send events to Tivoli Business Systems Manager.

**IBM Informix High Lock Waits indication**

Occurs when the High Lock Waits Monitor parameter is **Enabled** and the difference between current and previous Lock Waits is greater than the specified threshold. When the indication occurs often enough to trigger an event, the event delivers a message to the Tivoli Enterprise Console in the following format:

```
application_label: Lock Waits are currently LockWaits against a threshold of LockWaitsThreshold.
```

If you have Tivoli Business Systems Manager configured for your system, Tivoli Enterprise Console forwards the message to Tivoli Business Systems Manager.

If you do not have Tivoli Enterprise Console, you can check the health of this resource model in the IBM Tivoli Monitoring Web Health Console.

The indication has the following attributes:

- **LockWaits**
  Specifies the number of lock waits as reported by the sysprofile table

- **LockWaitsThreshold**
  Specifies the maximum lock waits allowed before an indication is raised.

- **ServerName**
  Specifies the name of the IBMInformixServer instance on which the resource model is running.

- **DB_INSTANCE**
  Specifies the name of the IBMInformixServer instance on which the resource model is running.

- **DB_DIR**
  Specifies the root directory of the IBMInformixServer instance.

- **application_label**
  Specifies the label applied to object.

- **application_version**
  Specifies the application version of the object.

- **application_oid**
  Specifies OID (object identifier) of the object.

- **application_class**
  Specifies the application class of the object.

- **INTERP**
  Specifies the operating system on which the IBMInformixServer is running.

- **ITM_CONTEXT**
  Specifies a general problem to which the resource activity relates. An example of context can be Cache Hit Ratios, where the resource is IBMInformixServer. This shows that the metrics logged concern Cache Hit Ratios in relation to the resource IBMInformixServer.
This indication has the following threshold:
- IBM Informix Lock Waits

For more information about these thresholds, see “Thresholds” on page 105.

The following table describes the default settings for this indication.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Default value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Send indications to Tivoli Enterprise Console</td>
<td>Yes</td>
</tr>
<tr>
<td>Send indications to Tivoli Business Systems Manager</td>
<td>No</td>
</tr>
<tr>
<td>Occurrences</td>
<td>1</td>
</tr>
<tr>
<td>Holes</td>
<td>0</td>
</tr>
<tr>
<td>Associated tasks and built-in actions</td>
<td>None</td>
</tr>
</tbody>
</table>

**Note:** If you have Tivoli Business Systems Manager configured for your systems, Tivoli Enterprise Console automatically forwards events to Tivoli Business Systems Manager. Do not change the configuration of the indication to send events to Tivoli Business Systems Manager.

**Thresholds**

The following list shows the name, a short description, and the default value for the threshold associated with this resource model.

<table>
<thead>
<tr>
<th>Threshold</th>
<th>Description</th>
<th>Default value</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBM Informix High Buffer Waits</td>
<td>An indication occurs when the difference between current and previous Buffer Waits exceed the specified value. The resource model generates an indications only if you enable the High Buffer Waits Monitor parameter.</td>
<td>0</td>
</tr>
<tr>
<td>IBM Informix High Checkpoint Waits</td>
<td>An indication occurs when the difference between current and previous Checkpoint Waits exceed this value. The resource model generates an indications only if you enable the Wait Monitor parameter.</td>
<td>0</td>
</tr>
<tr>
<td>IBM Informix High Latch Waits</td>
<td>An indication occurs when the difference between current and previous Latch Waits exceed this value. The resource model generates an indications only if you enable the High Latch Waits Monitor parameter.</td>
<td>0</td>
</tr>
<tr>
<td>IBM Informix High Lock Waits</td>
<td>An indication occurs when the difference between current and previous Lock Waits exceed this value. The resource model generates an indications only if you enable the High Lock Waits Monitor parameter.</td>
<td>0</td>
</tr>
</tbody>
</table>

**Parameters**

The following list shows the name, a short description, and the default value for each parameter that you can set for this resource model:
<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
<th>Default value</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBM Informix Enable High Buffer Waits</td>
<td>Enables or disables the Buffer Waits Monitor.</td>
<td>Disabled</td>
</tr>
<tr>
<td>IBM Informix Enable High Checkpoint Waits</td>
<td>Enables or disables the Checkpoint Waits Monitor.</td>
<td>Disabled</td>
</tr>
<tr>
<td>IBM Informix Enable High Latch Waits</td>
<td>Enables or disables the Latch Waits Monitor.</td>
<td>Disabled</td>
</tr>
<tr>
<td>IBM Informix Enable High Lock Waits</td>
<td>Enables or disables the Lock Waits Monitor.</td>
<td>Disabled</td>
</tr>
</tbody>
</table>

**Tasks and built-in actions**

None

**Logging**

You can log data for properties of the managed resource listed in the following table. The table shows the context of the managed resource and the properties that the resource model logs for the IBM Tivoli Monitoring Web Health Console.

<table>
<thead>
<tr>
<th>Resource</th>
<th>Context</th>
<th>Properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBMInformixServer</td>
<td>Waits</td>
<td>IBMInformixServer.Db_Server_Name*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Buffer_Waits</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Checkpoint_Waits</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Latch_Waits</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lock_Waits</td>
</tr>
</tbody>
</table>

*Note: An asterisk (*) denotes a key property.*

**CLI example**

Adds the IBMInformixWaits resource model to MyProfileMyRegion with default cycle time, thresholds, and event configurations. Each threshold and associated event is enabled by setting the corresponding parameter. Logging to IBM Tivoli Enterprise Data Warehouse is enabled.

```bash
wmeditprf -P MyProfileMyRegion -add IBMInformixWaits \
-AddPar IBMInformix_Enable_High_LatchWaits Enabled \
-AddPar IBMInformix_Enable_High_BufferWaits Enabled \
-AddPar IBMInformix_Enable_High_LockWaits Enabled \
-AddPar IBMInformix_Enable_High_CheckpointWaits Enable \
-Log -LogEnable
```
IBMInformix Writes Monitor

Description

Monitors the Chunk Writes, LRU Writes and Foreground Writes. The resource model generates an indication if you enable the parameter and the difference between the current and previous Write count exceeds the specified threshold. You can set a threshold value for each type of write. The resource model also logs the value of all writes. By default, this resource model runs every 3600 seconds.

<table>
<thead>
<tr>
<th>Resource model overview</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal name</td>
</tr>
<tr>
<td>Category</td>
</tr>
<tr>
<td>Indications</td>
</tr>
<tr>
<td>IBM Informix High Chunk Writes</td>
</tr>
<tr>
<td>IBM Informix High Foreground Writes</td>
</tr>
<tr>
<td>IBM Informix High LRU Writes</td>
</tr>
<tr>
<td>Tasks and built-in actions</td>
</tr>
<tr>
<td>Default cycle time</td>
</tr>
</tbody>
</table>

Target managed resource

IBMInformixServer

Indications and events

The following table summarizes the indications for this resource model, the events associated with the indications, the default severity of the events, and where you can find a detailed description of the indication.

<table>
<thead>
<tr>
<th>Indication</th>
<th>Generated event</th>
<th>Default severity</th>
<th>Clearing events</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBM Informix High Chunk Writes</td>
<td>IBMInformix_High_ChunkWrites</td>
<td>Critical</td>
<td>Yes</td>
<td>108</td>
</tr>
<tr>
<td>IBM Informix High Foreground Writes</td>
<td>IBMInformix_High_ForegroundWrites</td>
<td>Critical</td>
<td>Yes</td>
<td>109</td>
</tr>
<tr>
<td>IBM Informix High LRU Writes</td>
<td>IBMInformix_High_LRUWrites</td>
<td>Critical</td>
<td>Yes</td>
<td>110</td>
</tr>
</tbody>
</table>
**IBM Informix High Chunk Writes indication**

Occurs when you enable the High Chunk Writes Monitor parameter and the difference between current and previous Chunk Writes exceeds the specified threshold. When the indication occurs often enough to trigger an event, the event delivers a message to the Tivoli Enterprise Console in the following format:

\[
\text{application\_label: Chunk Writes are currently ChunkWrites against a threshold of ChunkWritesThreshold.}
\]

If you have Tivoli Business Systems Manager configured for your system, Tivoli Enterprise Console forwards the message to Tivoli Business Systems Manager.

If you do not have Tivoli Enterprise Console, you can check the health of this resource model in the IBM Tivoli Monitoring Web Health Console.

The indication has the following attributes:

- **ChunkWrites**
  Specifies the number of chunk writes as reported by the sysprofile table.

- **ChunkWritesThreshold**
  Specifies the maximum chunk writes allowed before an indication is raised.

- **ServerName**
  Specifies the name of the IBMInformixServer instance on which the resource model is running.

- **DB_INSTANCE**
  Specifies the name of the IBMInformixServer instance on which the resource model is running.

- **DB_DIR**
  Specifies the root directory of the IBMInformixServer instance.

- **application\_label**
  Specifies the label applied to object.

- **application\_version**
  Specifies the application version of the object.

- **application\_oid**
  Specifies OID (object identifier) of the object.

- **application\_class**
  Specifies the application class of the object.

- **INTERP**
  Specifies the operating system on which the IBMInformixServer is running.

- **ITM\_CONTEXT**
  Specifies a general problem to which the resource activity relates. An example of context can be Cache Hit Ratios, where the resource is IBMInformixServer. This shows that the metrics logged concern Cache Hit Ratios in relation to the resource IBMInformixServer.

This indication has the following threshold:

- IBM Informix Chunk Writes

For more information about these thresholds, see “Thresholds” on page 111.
The following table describes the default settings for this indication.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Default value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Send indications to Tivoli Enterprise Console</td>
<td>Yes</td>
</tr>
<tr>
<td>Send indications to Tivoli Business Systems Manager</td>
<td>No</td>
</tr>
<tr>
<td>Occurrences</td>
<td>3</td>
</tr>
<tr>
<td>Holes</td>
<td>4</td>
</tr>
<tr>
<td>Associated tasks and built-in actions</td>
<td>None</td>
</tr>
</tbody>
</table>

**Note:** If you have Tivoli Business Systems Manager configured for your systems, Tivoli Enterprise Console automatically forwards events to Tivoli Business Systems Manager. Do not change the configuration of the indication to send events to Tivoli Business Systems Manager.

**IBM Informix High Foreground Writes indication**

Occurs when you enable the High Foreground Writes Monitor parameter and the difference between current and previous Foreground Writes exceeds the specified threshold. When the indication occurs often enough to trigger an event, the event delivers a message to the Tivoli Enterprise Console in the following format:

```
application_label: Foreground Writes are currently ForegroundWrites against a threshold of ForegroundWritesThreshold.
```

If you have Tivoli Business Systems Manager configured for your system, Tivoli Enterprise Console forwards the message to Tivoli Business Systems Manager.

If you do not have Tivoli Enterprise Console, you can check the health of this resource model in the IBM Tivoli Monitoring Web Health Console.

The indication has the following attributes:

- **ForegroundWrites**
  - Specifies the number of foreground writes as reported by the sysprofile table.

- **ForegroundWritesThreshold**
  - Specifies the maximum foreground writes allowed before an indication is raised.

- **ServerName**
  - Specifies the name of the IBMInformixServer instance on which the resource model is running.

- **DB_INSTANCE**
  - Specifies the name of the IBMInformixServer instance on which the resource model is running.

- **DB_DIR**
  - Specifies the root directory of the IBMInformixServer instance.

- **application_label**
  - Specifies the label applied to object.

- **application_version**
  - Specifies the application version of the object.
application_oid
Specifies OID (object identifier) of the object.

application_class
Specifies the application class of the object.

INTERP
Specifies the operating system on which the IBMInformixServer is running.

ITM_CONTEXT
Specifies a general problem to which the resource activity relates. An example of context can be Cache Hit Ratios, where the resource is IBMInformixServer. This shows that the metrics logged concern Cache Hit Ratios in relation to the resource IBMInformixServer.

This indication has the following threshold:
• IBM Informix Foreground Writes
For more information about these thresholds, see “Thresholds” on page 111.

The following table describes the default settings for this indication.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Default value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Send indications to Tivoli Enterprise Console</td>
<td>Yes</td>
</tr>
<tr>
<td>Send indications to Tivoli Business Systems Manager</td>
<td>No</td>
</tr>
<tr>
<td>Occurrences</td>
<td>3</td>
</tr>
<tr>
<td>Holes</td>
<td>4</td>
</tr>
<tr>
<td>Associated tasks and built-in actions</td>
<td>None</td>
</tr>
</tbody>
</table>

**Note:** If you have Tivoli Business Systems Manager configured for your systems, Tivoli Enterprise Console automatically forwards events to Tivoli Business Systems Manager. Do not change the configuration of the indication to send events to Tivoli Business Systems Manager.

**IBM Informix High LRU Writes indication**
Occurs when you enable the High LRU Writes Monitor parameter and the difference between current and previous LRU Writes exceeds the specified threshold. When the indication occurs often enough to trigger an event, the event delivers a message to the Tivoli Enterprise Console in the following format:

application_label: LRU Writes are currently LRUWrites against a threshold of LRUWritesThreshold.

If you have Tivoli Business Systems Manager configured for your system, Tivoli Enterprise Console forwards the message to Tivoli Business Systems Manager.

If you do not have Tivoli Enterprise Console, you can check the health of this resource model in the IBM Tivoli Monitoring Web Health Console.

The indication has the following attributes:

**LRUWrites**
Specifies the number of LRU writes as reported by the sysprofile table.

**LRUWritesThreshold**
Specified the maximum LRU writes allowed before an indication is raised.
ServerName
Specifies the name of the IBMInformixServer instance on which the resource model is running.

DB_INSTANCE
Specifies the name of the IBMInformixServer instance on which the resource model is running.

DB_DIR
Specifies the root directory of the IBMInformixServer instance.

application_label
Specifies the label applied to object.

application_version
Specifies the application version of the object

application_oid
Specifies OID (object identifier) of the object.

application_class
Specifies the application class of the object.

INTERP
Specifies the operating system on which the IBMInformixServer is running.

ITM_CONTEXT
Specifies a general problem to which the resource activity relates. An example of context can be Cache Hit Ratios, where the resource is IBMInformixServer. This shows that the metrics logged concern Cache Hit Ratios in relation to the resource IBMInformixServer.

This indication has the following threshold:

- IBM Informix LRU Writes

For more information about these thresholds, see “Thresholds” on page 111.

The following table describes the default settings for this indication.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Default value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Send indications to Tivoli Enterprise Console</td>
<td>Yes</td>
</tr>
<tr>
<td>Send indications to Tivoli Business Systems Manager</td>
<td>No</td>
</tr>
<tr>
<td>Occurrences</td>
<td>3</td>
</tr>
<tr>
<td>Holes</td>
<td>4</td>
</tr>
<tr>
<td>Associated tasks and built-in actions</td>
<td>None</td>
</tr>
</tbody>
</table>

**Note:** If you have Tivoli Business Systems Manager configured for your systems, Tivoli Enterprise Console automatically forwards events to Tivoli Business Systems Manager. Do not change the configuration of the indication to send events to Tivoli Business Systems Manager.

**Thresholds**

The following list shows the name, a short description, and the default value for the threshold associated with this resource model.
<table>
<thead>
<tr>
<th>Threshold</th>
<th>Description</th>
<th>Default value</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBM Informix High Chunk Writes</td>
<td>An indication occurs when you enable the High Chunk Writes Monitor parameter and if the difference between current and previous Chunk Writes exceeds the specified value.</td>
<td>0</td>
</tr>
<tr>
<td>IBM Informix High Foreground Writes</td>
<td>An indication occurs when you enable the High Foreground Writes Monitor parameter and if the difference between current and previous Foreground Writes exceeds the specified value.</td>
<td>0</td>
</tr>
<tr>
<td>IBM Informix High LRU Writes</td>
<td>An indication occurs when you enable the High LRU Writes Monitor parameter and if the difference between current and previous LRU Writes exceeds the specified value.</td>
<td>0</td>
</tr>
</tbody>
</table>

### Parameters

The following list shows the name, a short description, and the default value for each parameter that you can set for this resource model:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
<th>Default value</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBM Informix Enable High Chunk Writes</td>
<td>Enables or disables the High Chunk Writes Monitor</td>
<td>Disabled</td>
</tr>
<tr>
<td>IBM Informix Enable High Foreground Writes</td>
<td>Enables or disables the High Foreground Writes Monitor</td>
<td>Disabled</td>
</tr>
<tr>
<td>IBM Informix Enable High LRU Writes</td>
<td>Enables or disables the High LRU Writes Monitor</td>
<td>Disabled</td>
</tr>
</tbody>
</table>

### Tasks and built-in actions

None

### Logging

You can log data for properties of the managed resource listed in the following table. The table shows the context of the managed resource and the properties that the resource model logs for the IBM Tivoli Monitoring Web Health Console.

<table>
<thead>
<tr>
<th>Resource</th>
<th>Context</th>
<th>Properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBMInformixServer</td>
<td>Writes</td>
<td>IBMInformixServer.DB_Server_Name*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Buffer_Pool_Flashes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chunk_Writes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Foreground_Writes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>LRU_Writes</td>
</tr>
</tbody>
</table>

**Note:** An asterisk (*) denotes a key property.
CLI example

Adds the IBMInformixWrites resource model to MyProfileMyRegion with default cycle time, thresholds, and event configurations. Each threshold and associated event is enabled by setting the corresponding parameter. Logging to IBM Tivoli Enterprise Data Warehouse is enabled.

wdmeditprf -P MyProfileMyRegion -add IBMInformixWrites \
-AddPar IBMInformix_Enable_High_ForegroundWrites Enabled \n-AddPar IBMInformix_Enable_High_LRUWrites Enabled \n-AddPar IBMInformix_Enable_High_ChunkWrites Enabled \n-Log -LogEnable
Chapter 3. Tasks

IBM Tivoli Monitoring for Databases: Informix tasks are operations or sets of operations that perform server and database operations routinely. This chapter contains information about the IBM Tivoli Monitoring for Databases: Informix tasks. The section for each task describes how to configure and run each task by covering the following information:

**Description**
Purpose of the task.

**Authorization role**
Role required to run the task.

**Task library**
The name of the task library that contains the IBM Tivoli Monitoring for Databases: Informix tasks.

**Desktop options**
List of the options for the task that are available in the Tivoli desktop. These options correspond to the parameters in the command syntax.

**CLI syntax**
Syntax for the `wruntask` command that you use to run every task from the command line. All tasks that you run from the command line contain the following syntax:

```
wruntask -t <"Task Name"> -l <"Task Library Name"> -h <"Object Name"> \
-a <"Additional Parameters">
```

where:

- `-t <Task Name>`
  Name of the task to run.

- `-l <Task Library Name>`
  Name of the task library that contains the task.

- `-h <Object Name>`
  Name of the object about which the task gathers data.

- `-a <Additional Parameters>`
  Additional parameters for the task, such as Date or Database Name. Some of the additional parameters might be required and some might be optional. The parameters must be typed in the order in which they appear in the syntax.

**CLI example**
Contains a brief description of the example and the example syntax.

**Usage notes**
Additional notes relevant to using the task.

There is a corresponding command for most of the tasks. Although a command can require less syntax than a task, using a Tivoli task offers the following benefits:

- You can set up tasks to run on a schedule within a Tivoli job.
- You can set up tasks to run in response to the indications for a resource model.
- You can set up tasks to run against multiple resources.
• You can set arguments for a task in the Tivoli desktop graphical user interface, and save them to run at another time. (In contrast, you must type all arguments every time you run a task in the command line.)

• Tasks appear as icons that you can click and run in the Tivoli desktop graphical user interface.

See the Working with Tasks and Jobs chapter of the IBM Tivoli Monitoring for Databases: Informix User’s Guide for more information on creating task libraries, tasks, and jobs.

Refer to IBM Tivoli Monitoring for Databases: Informix User’s Guide for information on running and customizing tasks.

Refer to the Tivoli Management Framework Reference Manual for information on the wruntask command.
Configure_TEC

Description

Note: You must perform the Send_TEC_Files_To_TEC task before performing this task.

With this task, you can:
- clone the Tivoli Enterprise Console rule base based on the one specified
- import the IBM Informix baroc files and rules
- import the Tivoli Business Systems Manager rules
- compile the rule base
- load the rule base (stopping and starting the Tivoli Enterprise Console server)

The task adds the class and rule set definitions of the selected configuration option to a valid rule base, if the class and rule set definitions are not already defined in the specified rule base. For more information, see the IBM Tivoli Monitoring for Databases: Informix User’s Guide.

You must have the Tivoli Enterprise Console Server installed before you run this task

Authorization role

senior or super

Target managed resource

Tivoli Enterprise Console server (Managed node)

GUI data entry fields

The following shows the Configure_TEC dialog; a description of each field follows.

New Rule Base Name

Type the name of a new rule base in this field. If you type the name of an existing rule base, this task will issue a message and it will not update the existing rule base.
**Rulebase Name to Copy**

Name of the rule base to copy. If you do not enter a new rule base name the task uses the Default rule base.

If you use a rule base other than Default, it must be a valid rule base. The Default rule base contains correctly defined default classes.

**Restart EventServer**

Loads the rule base and starts the event server, if it is not already running. When you create a new rule base or modify an existing one, you must restart the event server for any rule base configurations to take effect.

If the event server is not running, this task starts it. If the event server is running, this task stops and restarts it. If you do not use the task to restart the event server, you must load the rule base and restart the event server manually. (See the IBM Tivoli Enterprise Console User’s Guide for information on how to do this.)

**CLI syntax**

You can use the command line to configure the Tivoli Enterprise Console with the `wruntask` command. The CLI syntax is:

```
wruntask [-t TaskName] [-l LibraryName] [-h @ManagedNode:<hostname>]
[-a NewRuleBaseName] [-a CopyBaseName] [-a RestartServer {YES|NO}]
[-m TimeOut]
```

where:

- `-t TaskName`
  The name of the task.

- `-l LibraryName`
  The name of the library in which the task resides.

- `-h @ManagedNode:<hostname>`
  The host name of the managed node on which the Tivoli Enterprise Console resides.

- `-a NewRuleBaseName`
  The name of a new rule base to be added.

- `-a CopyBaseName`
  The name of an existing rule base to be copied.

- `-a RestartServer {YES|NO}`
  Select whether to restart the target server when this task completes.

- `-m TimeOut`
  The number of seconds this tasks runs without response before timing out.

**CLI example**

For example, to configure the Tivoli Enterprise Console sever on @ManagedNode:vision79, add the rule base IFXPAC, copy the default rule base, and restart the target server upon completion of the task with a 1000 second timeout, use the following command:

```
wruntask
-t Configure_TEC
-l "IBM Informix Server Tasks"
-h @ManagedNode:vision79
```
-a IFXPAC
-a Default
-a YES
-m 1000

Usage

For more information, see the IBM Tivoli Monitoring for Databases: Informix User’s Guide.

See also

The following commands in the Tivoli Management Framework Reference Manual: wruntask, wcrttask, wcrtpjob and wgettask.
Send_TEC_Files_To_TEC

Description
Moves the baroc files necessary for IBM Tivoli Monitoring for Databases: Informix to interface with the Tivoli Enterprise Console from the local Tivoli management region to the server on which the Tivoli Enterprise Console is running.

You must perform this operation before running the Configure_TEC task to configure the Tivoli Enterprise Console to work with the IBM Tivoli Monitoring for Databases: Informix.

Authorization role
super or senior

Target managed resource
Tivoli Enterprise Console server (Managed node)

GUI data entry fields
The following shows the Send_TEC_Files_To_TEC dialog; a description of each field follows.

TEC Server Name
Type the name of the Tivoli Enterprise Console server to which you want to send the files.

CLI syntax
Using the wruntask command:

```
wruntask [-t TaskName] [-l LibraryName] [-h ManagedNodeName]
[-a TECServerManagedNodeName][-m TimeOut]
```

where:

- `-t TaskName`
The name of the task
- `-l LibraryName`
The name of the library in which the task resides.
-h ManagedNodeName
   The name of the target managed node.

-a TECServerManagedNodeName
   The host name of the managed node on which the Tivoli Enterprise
   Console resides.

-m TimeOut
   Is the number of seconds this task runs without response before timing
   out.

**CLI example**

For example, to send the Tivoli Enterprise Console files to the Tivoli Enterprise
Console server that resides on the managed node vision79 with a 600 second
timeout, use the following command.

```bash
wruntask
-t "Send_TEC_Files_To_TEC"
-l "IBM Informix Server Task"
-h @ManagedNode:vision79
-a "vision79"
-m 600
```

**Usage**

For more information, see the *IBM Tivoli Monitoring for Databases: Informix User’s
Guide*.

**See also**

The following commands in the *Tivoli Management Framework Reference Manual: wruntask, wcrtask, wcrtjob and wgettask*. 
Start-up_to_On-Line

Description

Start a server in the multi-user online state. This task takes the database server to the multi-user online state from the Quiescent state or the Offline state.

This task performs the equivalent of the Informix onmode -my command. See your Informix documentation for detailed information on Informix commands.

Authorization role

IBMInformix_admin

Target managed resource

IBMInformixServer

GUI data entry fields

This task has no arguments.

CLI syntax

Use the command line to start-up a server to online with the wruntask command. The CLI syntax is as follows:

`wruntask [-t TaskName] [-l LibraryName] [-h IBMInformixServer] [-m TimeOut]`

where:

-t TaskName
The name of the task

-l LibraryName
The name of the library in which the task resides.

-h IBMInformixServer
The name of the IBMInformixServer object on which to run the task.

-m TimeOut
Is the number of seconds this task runs without response before timing out.

CLI example

For example, to start the server on endpoint @IBMInformixServer:Informix@vision75_11 to the online state with a 600 second timeout, use the following command:

`wruntask -t "Start-up_to_On-Line" -l "IBM Informix Server Tasks" -h @IBMInformixServer:Informix@vision75_11 -m 600`

Usage

For more information, see the IBM Tivoli Monitoring for Databases: Informix User’s Guide.
See also

The following commands in the *Tivoli Management Framework Reference Manual*: wruntask, wcrttask, wcrtjob and wgettask.
Start-up_to_Quiescent

Description
Start a database server in the administrative state. This task takes the database server to an administrative state from an offline state.

This task performs the equivalent of the Informix oninit -s command

For more information, see the IBM Tivoli Monitoring for Databases: Informix User’s Guide.

Authorization role
IBMInformix_admin

Target managed resource
IBMInformixServer

GUI data entry fields
This task has no arguments.

CLI syntax
Use the command line to start a server to quiescent with the wruntask command. The CLI syntax is as follows:

wruntask [-t TaskName] [-l LibraryName] [-h IBMInformixServer] [-m TimeOut]

where:
-t TaskName
   The name of the task
-l LibraryName
   The name of the library in which the task resides.
-h IBMInformixServer
   The name of the IBMInformixServer object on which to run the task.
-m TimeOut
   Is the number of seconds this task runs without response before timing out.

CLI example
For example, to do a startup to quiescent of the server on endpoint @IBMInformixServer:Informix@vision75_11 with a 600 second timeout, use the following command:

wruntask
   -t "Start-up_to_Quiescent"
   -l "IBM Informix Server Tasks"
   -h @IBMInformixServer:Informix@vision75_11
   -m 600

Usage
For more information, see the IBM Tivoli Monitoring for Databases: Informix User’s Guide.
See also

The following commands in the *Tivoli Management Framework Reference Manual*: wruntask, wcrttask, wcrtjob and wgettask.
Shutdown_to_Off-Line

Description
Shut down the server. This task takes a database server in the Online or Quiescent mode to the Offline and removes the online shared memory.

This task performs the equivalent of the Informix onmode –ky command. See your Informix documentation for detailed information on Informix commands.

For more information, see the IBM Tivoli Monitoring for Databases: Informix User’s Guide.

Authorization role
IBMInformix_admin

Target managed resource
IBMInformixServer

GUI data entry fields
This task has no arguments.

CLI syntax
Use the command line to shut down a server to off line with the wruntask command. The CLI syntax is as follows:

```bash
wruntask [–t TaskName] [–l LibraryName] [–h IBMInformixServer] [–m TimeOut]
```

where:
–t TaskName
The name of the task
–l LibraryName
The name of the library in which the task resides.
–h IBMInformixServer
The name of the IBMInformixServer object on which to run the task.
–m TimeOut
Is the number of seconds this task runs without response before timing out.

CLI example
For example, to do a shut down to off line of the server on endpoint @IBMInformixServer:Informix@vision75_11 with a 600 second timeout, use the following command:

```bash
wruntask
-t "Shutdown_to_Off-Line"
-l "IBM Informix Server Tasks"
-h @IBMInformixServer:Informix@vision75_11
-m 600
```
Usage
For more information, see the IBM Tivoli Monitoring for Databases: Informix User’s Guide.

See also
The following commands in the Tivoli Management Framework Reference Manual:
wruntask, wcrttask, wcrtjob and wgettask.
Stop_to_Quiescent_(Gracefully)

Description
Shuts down the server gracefully. This task takes the database server to the quiescent state. This task allows any running processes using the database to finish but does not allow new connections to the database server. When all processes finish, the database server goes into the quiescent state and leaves the shared online memory intact.

This task is the equivalent of the Informix onmode –sy command. See your Informix documentation for detailed information on Informix commands.

For more information, see the IBM Tivoli Monitoring for Databases: Informix User’s Guide.

Authorization role
IBMInformix_admin

Target managed resource
IBMInformixServer

GUI data entry fields
This task has no arguments.

CLI syntax
Use the command line to shut down a server to quiescent gracefully with the wruntask command. The CLI syntax is as follows:

wruntask [-t TaskName] [-l LibraryName] [-h IBMInformixServer] [-m TimeOut]

where:
- t TaskName
  The name of the task
- l LibraryName
  The name of the library in which the task resides.
- h IBMInformixServer
  The name of the IBMInformixServer object on which to run the task.
- m TimeOut
  Is the number of seconds this task runs without response before timing out.

CLI example
For example, to do a shut down to quiescent gracefully of the server on endpoint @IBMInformixServer:Informix@vision75_11 with a 600 second timeout, use the following command:

wruntask
  -t "Stop_to_Quiescent_(Gracefully)"
  -l "IBM Informix Server Tasks"
  -h @IBMInformixServer:Informix@vision75_11
  -m 600
Usage

For more information, see the IBM Tivoli Monitoring for Databases: Informix User’s Guide.

See also

The following commands in the Tivoli Management Framework Reference Manual: wruntask, wcrtask, wcrtjob and wgettask.
Stop_to_Quiescent_(Immediately)

Description
Shuts down the server immediately. This task takes the online database server to
the quiescent state without waiting for running processes to finish. The current
transactions are rolled back and the user sessions are terminated.

This task is the equivalent of the Informix onmode –uy command. See your
Informix documentation for detailed information on Informix commands.

For more information, see the IBM Tivoli Monitoring for Databases: Informix
User’s Guide.

Authorization role
IBMInformix_admin

Target managed resource
IBMInformixServer

GUI data entry fields
This task has no arguments.

CLI syntax
Use the command line to shut down a server to quiescent immediately with the
wruntask command. The CLI syntax is as follows:

wruntask [-t TaskName] [-l LibraryName] [-h IBMInformixServer] [-m TimeOut]

where:
-t TaskName
The name of the task
-l LibraryName
The name of the library in which the task resides.
-h IBMInformixServer
The name of the IBMInformixServer on which to run the task.
-m TimeOut
Is the number of seconds this task runs without response before timing
out.

CLI example
For example, to do a shut down to quiescent immediately of the server on
endpoint @IBMInformixServer:Informix@vision75_11 with a 600 second timeout,
use the following command:

wruntask
-t "Shutdown_to_Quiescent_(Immediately)"
-l "IBM Informix Server Tasks"
-h @IBMInformixServer:Informix@vision75_11
-m 600
Usage

For more information, see the IBM Tivoli Monitoring for Databases: Informix User's Guide.

See also

The following commands in the Tivoli Management Framework Reference Manual: wruntask, wrctask, wcrtjob and wgettask.
TBSM_Discovery

Description
Sends a DISCOVER event to Tivoli Business Systems Manager for IBMInformixServer instance that IBM Tivoli Monitoring for Databases: Informix discovered (or is currently managing). For any resources that were removed since the last time this task was run, this task sends a GONE event to Tivoli Business Systems Manager. If the task completes successfully, you receive a list of resources for which DISCOVER and GONE events were sent to Tivoli Business Systems Manager.

The following software must be installed before you run this task:
• Tivoli Enterprise Console Event Server
• IBM Tivoli Monitoring for Databases: Informix (which you must install on the Tivoli management region server where you want to run this task)
• Tivoli Business Systems Manager Event Enablement

Note: If the Tivoli Enterprise Console server is in a different Tivoli management region than the one in which the IBMInformixServer object resides, you must ensure that an update of the IBMInformixServer resource has been performed from the Tivoli Enterprise Console server to the Tivoli management region on which the object resides.

For more information on discovery or Tivoli Business Systems Manager, see the IBM Tivoli Monitoring for Databases: Informix User’s Guide.

Authorization role
senior or super

Target managed resource
Tivoli Enterprise Console server (managed node)

GUI data entry fields
This task has no arguments.

CLI syntax
Use the command line to send discovered objects to Tivoli Business Systems Manager with the wruntask command. The CLI syntax is as follows:

```
wruntask [-t TaskName] [-l LibraryName] [-h HostName] [-m TimeOut]
```

where:
- `-t TaskName`
  The name of the task
- `-l LibraryName`
  The name of the library in which the task resides.
- `-h HostName`
  The host name of the Tivoli Enterprise Console server on which to run the task.
-m TimeOut
   Is the number of seconds this task runs without response before timing
   out.

CLI example
For example, to run the Tivoli Business Systems Manager discovery on the Tivoli
Enterprise Console server jsmith with a timeout of 600 seconds, use the following
command:

   wruntask
   -t TBSM_Discovery
   -l "IBMInformix Server Tasks"
   -h jsmith
   -m 600

Usage
For more information, see the IBM Tivoli Monitoring for Databases: Informix User's
Guide.

See also
The following commands in the Tivoli Management Framework Reference Manual:
wruntask, wcrtjob, and wgettask.
Chapter 4. Commands

You can use the IBM Tivoli Monitoring for Databases: Informix commands to edit IBMInformixServer objects. Using the `wifxaddvar` and `wifxrmvar` commands enables you to change dynamic attributes, such as password, without removing the IBMInformixServer object and then rediscovering the Informix instance on the endpoint.

This chapter describes the IBM Tivoli Monitoring for Databases: Informix commands.

All IBM Tivoli Monitoring for Databases: Informix commands run from a Tivoli gateway or Tivoli management region server. Before running IBM Tivoli Monitoring for Databases: Informix commands, you must establish the Tivoli environment.

A section for each command describes how to run the command by covering the following information:

**Description**

Purpose of the command.

**Authorization role**

Role required to run the command.

**CLI syntax**

Syntax for the command that you enter on the command line. A list of the parameters for the command and a definition of each parameter follow the command name.

**CLI example**

The example for the command contains a brief description of the example and an example of the syntax.

**Return values**

Information that the command returns.
wifxaddvar

Description
With this command, you can add attributes to existing IBMInformixServer objects. This enables you to change dynamic attributes, such as password, without removing the IBMInformixServer object and then rediscovering the Informix instance on the endpoint.

Before adding an attribute to an existing IBMInformixServer object you must remove the value currently assigned using the wifxrmvar command.

Note: Changes made with these commands do not take affect until you redistribute the resource models to the changed IBMInformixServer object.

Authorization role
IBMInformix_super

Target managed resource
IBMInformixServer

CLI syntax
The CLI syntax for the wifxaddvar command is:

```
wifxaddvar
  - o ibminformix_oid
  - n attribute_name
  - v attribute_value
```

where:

- o ibminformix_oid
  Specifies the object ID of the IBMInformixServer to which you are adding the attribute definition.

- n attribute_name
  Specifies the attribute to which you are adding the definition. Valid attribute names are:

  **dbservername**
  
  Note: Manual changes made to this attribute are not supported. Specifies the name of the database server represented by this IBMInformixServer object.

  **dbservernum**
  
  Note: Manual changes made to this attribute are not supported. Specifies the number of the database server represented by this IBMInformixServer object.

  **hostname**
  
  Note: Manual changes made to this attribute are not supported.
Specifies the name of the managed node on which the IBMInformixServer object resides.

**informixdir**

*Note:* Manual changes made to this attribute are not supported.

Specifies the directory where you installed your Informix database server.

**jdbcdriver**

Specifies the name and location of the JDBC driver. For example: com.informix.jdbc.IfxDriver.

**jdbcdriverlocation**

Specifies the full path to the ifxjdbc.jar file. For example: /data/informix/jdbc/lib/ifxjdbc.jar.

**jdbcport**

Specifies the port that is connected to the JDBC driver.

**onconfig**

*Note:* Manual changes made to this attribute are not supported.

Specifies the name of the active ONCONFIG file.

**password**

Specifies the password of the user accessing the IBMInformixServer database through the JDBC connection.

**sqlhosts**

Specifies the path to the sqlhosts file that contains the sqlhosts information for one database server.

**user**

Specifies the user name of the user accessing the IBMInformixServer database through the JDBC connection.

**version**

*Note:* Manual changes made to this attribute are not supported.

Specifies the version of Informix running.

`-v attribute_value`

Specifies the value you are assigning to the attribute you are adding to the IBMInformixServer.

**CLI example**

Using the **wifxaddvar** command.

For example to change the password attribute on the IBMInformixServer object reddwarf@reddwarf do the following:

Use the **wlookup** command to find the object ID

```
wlookup -ar IBMInformixServer
```

returns

```
reddwarf@reddwarf 1456789545.1.727#IBMInformixEndpoint::IBMInformixServer#
```
Use the returned object ID to run the **wifxrmvar** and **wifxaddvar** commands.

```
wifxrmvar -o 1456789545.1.727 -n password
wifxaddvar -o 1456789545.1.727 -n password -v rosebud
```
Description
To configure an IBMInformixServer object so it is available as a target for tasks and resource models.

When you run IBMInformixDiscovery it creates temporary object containing as many attributes as could be automatically discovered. Before you can use the instance you have to configure it by entering the attributes that cannot be discovered automatically, such as the user name, password, JDBC driver, JDBC driver location, and JDBC port number. After the instance is configured it is moved to the IBMInformixConfigured policy region and is available as a target for task and resource models.

Unconfigured IBMInformixServer objects can also exist in the IBMInformixUnmanaged policy region. The IBMInformixUnmanaged policy region is used to store instances of Informix that exist on endpoints on which IBMInformixDiscovery was run, but that you did not want to manage or monitor at the time of discovery.

Authorization role
IBMInformix_super

Target managed resource
IBMInformixServer

CLI syntax
The CLI syntax for the \texttt{wifxconfept} command is:

\begin{verbatim}
  wifxconfept -m managed_node -u user -p password
  -j jdbc_port -d jdbc_driver -c jdbc_driver_location
  -h discovered_objects_label
\end{verbatim}

where:

- \texttt{-m managed_node} Specifies the name of the managed node on which the IBMInformixServer object resides.

- \texttt{-u user} Specifies the user name of the user accessing the IBMInformixServer database through the JDBC connection.

- \texttt{-p password} Specifies the password of the user accessing the IBMInformixServer database through the JDBC connection.

- \texttt{-j jdbc_port} Specifies the port that is connected to the JDBC driver.

- \texttt{-d jdbc_driver} Name and location of the JDBC driver. For example: \texttt{com.informix.jdbc.IfxDriver}. 
-c jdbc_driver_location
   Full path to the ifxjdbc.jar file. For example:
   /data/informix/jdbc/lib/ifxjdbc.jar.

-h discovered_objects_label
   Label of the temporary object you are configuring with this task.

**CLI example**

To configure the temporary object **vision75_11@vision75-lcf** so that it can be used as a target for tasks and resource models perform the following command:

```
wifxconfept
-m vision79
-u informix
-p informix
-j 3812
-d com.informix.jdbc.IfxDriver
-l /usr/jdbcdriv/lib/ifxjdbc.jar
-h vision75_11@vision75-lcf
```
Description

Discovery searches for Informix instances that reside on endpoints. If an Informix instance is found that is not already being managed, a temporary IBMInformixServer instance object is automatically created in the IBMInformixDiscovery policy region on the Tivoli desktop. An Informix instance is an occurrence of a database server. IBMInformixDiscovery creates temporary objects containing as many attributes as could be automatically discovered. Before you can use the instance you have to configure it by entering the attributes that cannot be discovered automatically, such as the user name, password, JDBC driver, JDBC driver location, and JDBC port number. After the instance is configured it is moved to the IBMInformixConfigured policy region and is available as a target for tasks and resource models.

Note: When you run this tasks a temporary discovery object is created in the IBMInformixDiscovered policy region. This discovery object is automatically removed when this task completes.

Authorization role

IBMInformix_super

Target managed resource

Endpoint

CLI syntax

The CLI syntax for the wifxdiscovery command is:

wifxdiscovery
\-e endpoint_label
\-d discovery_label

where:

\-e endpoint_label
    Specifies the endpoints on which to run discovery.

\-d discovery_label
    Specifies the name to assign to the temporary discovery object you are creating. This object is automatically removed when this task completes.

CLI example

For example, to discover Informix instances on the endpoint reddwarf, use the following command:

wifxdiscovery
\-e reddwarf
\-d tempreddwarfdisc
**wifxrmvar**

**Description**
With this command, you can remove attribute values from existing IBMInformixServer objects. This enables you to change dynamic attributes, such as password, without removing the IBMInformixServer object and then rediscovering the Informix instance on the endpoint.

**Notes:**
1. Changes made with these commands do not take affect until you redistribute the resource models to the changed IBMInformixServer object.
2. This command is used in conjunction with the `wifxaddvar` command to edit attribute values on IBMInformixServer objects. If you remove attribute definitions using this command and do not add new definitions using the `wifxaddvar` command the IBMInformixServer object is no longer valid.

**Authorization role**
IBMInformix_super

**Target managed resource**
IBMInformixServer

**CLI syntax**
The CLI syntax for the `wifxrmvar` command is:

```
  wifxrmvar
  - o ibminformix_oid
  - n attribute_name
```

where:

- `o ibminformix_oid`
  Specifies the object ID of the IBMInformixServer to which you are adding the attribute definition.

- `n attribute_name`
  Specifies the attribute to which you are adding the definition. Valid attribute names are:

  **dbname**
  
  *Note:* Manual changes made to this attribute are not supported.
  Specifies the name of the database server represented by this IBMInformixServer object.

  **dbservernum**
  
  *Note:* Manual changes made to this attribute are not supported.
  Specifies the number of the database server represented by this IBMInformixServer object.

  **hostname**
  
  *Note:* Manual changes made to this attribute are not supported.
Specifies the name of the managed node on which the IBMInformixServer object resides.

**informixdir**

**Note:** Manual changes made to this attribute are not supported.

Specifies the directory where you installed your Informix database server.

**jdbcdriver**

Specifies the name and location of the JDBC driver. For example:
com.informix.jdbc.IfxDriver.

**jdbcdriverlocation**

Specifies the full path to the ifxjdbc.jar file. For example:
data/informix/jdbc/lib/ifxjdbc.jar.

**jdbcport**

Specifies the port that is connected to the JDBC driver.

**onconfig**

**Note:** Manual changes made to this attribute are not supported.

Specifies the name of the active ONCONFIG file.

**password**

Specifies the password of the user accessing the IBMInformixServer database through the JDBC connection.

**sqlhosts**

Specifies the path to the sqlhosts file that contains the sqlhosts information for one database server.

**user**

Specifies the user name of the user accessing the IBMInformixServer database through the JDBC connection.

**version**

**Note:** Manual changes made to this attribute are not supported.

Specifies the version of Informix running.

**CLI example**

Using the wifxrmvar command.

For example to change the password attribute on the IBMInformixServer object reddwarf@reddwarf do the following:

Use the wlookup command to find the object ID

```bash
wlookup -ar IBMInformixServer
```

returns

reddwarf@reddwarf 1456789545.1.727#IBMInformixEndpoint::IBMInformixServer#

Use the returned object ID to run the wifxrmvar and wifxaddvar commands.

```bash
wifxrmvar -o 1456789545.1.727 -n password
wifxaddvar -o 1456789545.1.727 -n password -v rosebud
```
Appendix A. Creating custom resource models using CIM classes

The IBM Tivoli Monitoring Workbench is a programming tool for creating, modifying, debugging and packaging resource models for use with IBM Tivoli Monitoring products. Samples of Best Practice Resource Models have also been provided for your use with the IBM Tivoli Monitoring Workbench. These Resource Models are intended to be used as working examples for your usage in creating new resource models. Customers need to have a current Tivoli Maintenance & Support Contract to get assistance with problem and issues relative to the operation of the IBM Tivoli Monitoring Workbench.

Creating custom resource models using CIM classes

This section briefly describes how you can use the Resource Model Wizard to create your own resource models using the IBM Tivoli Monitoring for Databases: Informix common information model (CIM) classes. Refer to the IBM Tivoli Monitoring Workbench documentation for more information on how to create resource models.

Working with the IBM Tivoli Monitoring Workbench

The IBM Tivoli Monitoring Workbench is a programming tool for creating, modifying, debugging, and packaging resource models for use with IBM Tivoli Monitoring, Version 5.1.0 products. Samples of the Best Practice Resource Models have also been provided for you to use within the IBM Tivoli Monitoring Workbench. The sample resource models are intended to be used as working examples for creating new resource models.

The Tivoli Maintenance and Support Contract covers assistance with problems relating to the operation of the IBM Tivoli Monitoring Workbench, but does not cover assistance for new or modified resource models other than the ones that are included in the IBM Tivoli Monitoring Workbench.

Before you begin, you must perform the following steps:

1. Install and configure Windows Management Instrumentation.

2. Install and configure IBM Tivoli Monitoring Workbench.

3. Load each IBM Tivoli Monitoring for Databases: Informix CIM class you want to use.
   *Additional Information:* Load the classes by running the `mofcomp` component utility against the appropriate CIM classes called `IBMInformix*.wmi.mof` from the `Workbench/w32–ix86` directory in the IBM Tivoli Monitoring for Databases: Informix installation CD. For more information about the `mofcomp` command, refer to the Windows Management Instrumentation documentation.

Getting started with the Resource Model Wizard

The Resource Model Wizard guides you through the process of creating resource models. Perform the following steps to create a customized resource model using IBM Tivoli Monitoring for Databases: Informix CIM classes:
1. Open the IBM Tivoli Monitoring Workbench.

2. Select File to display the File drop-down menu.

3. Select New from the File drop-down menu to display the New window.


5. Click OK to display the New Resource Model Workspace window.


7. Click OK.

8. Select the CIM/WMI data source type.

9. Select all of the available operating systems on which you want the resource model to run.

10. Click Next.

11. Type ROOT\CIMV2 in the Connect to namespace field.

   Additional Information: ROOT\CIMV2 is the destination that stores the IBM Tivoli Monitoring for Databases: Informix specific CIM classes.

12. Optional: Type your password.

13. Click OK to display the Select a Class window.

   Additional Information: The Selected Class field displays all available CIM classes for use in your custom resource models. All IBM Tivoli Monitoring for Databases: Informix CIM classes begin with “IBMInformix”.

14. Select one or more CIM classes.

15. Select the CIM class properties to monitor from the Class Properties group box.

16. Click Next.

17. Follow the Resource Model Wizard instructions to complete your resource model. See the IBM Tivoli Monitoring Workbench documentation for detailed instructions.

18. After the wizard is complete, add the CIM classes as platform-specific dependencies to the resource model by doing the following:

   a. Open the IBM Tivoli Monitoring Workbench dialog box containing the decision tree for your new resource model.

   b. In the decision tree on the left side of the dialog box, click "+" to expand the tree list for the newly created resource model.

   c. Click "+" to the left of Dependencies to expand the Dependencies tree.

   d. Right-click on a platform-specific dependency element to display the Add pop-up box.

   e. Click Add to display the Open dialog box.

   f. For the Look in: field, scroll to select the IBM Tivoli Monitoring for Databases: Informix installation CD.

   g. Click one of the following directories for the operating system on which the resource models will run:

      • Windows: Workbench/w32–ix86.
      —OR—
      • UNIX (including Linux–ix86, aix4–r1, HP–UX10, solaris2): Workbench/UNIX.

   h. Click Open to add the classes to the Dependencies folder.

   i. Repeat steps 18d to 18h until all platform-specific dependencies have been updated with the IBM Tivoli Monitoring for Databases: Informix CIM classes.
19. Refer to IBM Tivoli Monitoring Workbench documentation for instructions on how to build and deploy your new resource model. Resource models created to use the IBM Tivoli Monitoring for Databases: Informix CIM classes need to be distributed to the IBMInformixServer.

Note: Some string properties have numeric values. These properties are marked with a “+” in the CIM Class description tables. To compare these values against numeric thresholds, you must convert the string to an integer using the parseInt() function, then write the code manually. See the IBMInformix_Sample.dmjsws workbench file for a complete source code example.

CIM class and property descriptions

To create resource models, you need to use CIM classes, parameters, properties, exceptions, and dependencies.

Use the following CIM Classes to create resource models:
- IBMInformixArchive
- IBMInformixCheckpoint
- IBMInformixChunk
- IBMInformixDbspace
- IBMInformixFilesystem
- IBMInformixFreeSpaceDeficit
- IBMInformixLogEvent
- IBMInformixLogicalLog
- IBMInformixLogicalLogBackup
- IBMInformixLogicalLogHelper
- IBMInformixLRUQueue
- IBMInformixMemorySegment
- IBMInformixServer
- IBMInformixState
- IBMInformixTable
- IBMInformixUpdateStatistics
- IBMInformixUpdateStatisticsHelper
- IBMInformixVirtualProcessor

Appendix A. Creating custom resource models using CIM classes 147
IBMInformixArchive

Description
The following tables detail the CIM Class, parameters, properties, exceptions, and dependencies of this provider.

Table 4. CIM Class

<table>
<thead>
<tr>
<th>Namespace</th>
<th>ROOT\CIMV2</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIM Name</td>
<td>IBMInformixArchive</td>
</tr>
<tr>
<td>MOF File Name</td>
<td>IBMInformixArchive.mof</td>
</tr>
<tr>
<td>Description</td>
<td>IBM Informix Archive - This class returns a list of current onbar_d process IDs and elapsed times for those processes.</td>
</tr>
</tbody>
</table>

Table 5. Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Required</th>
<th>TYPE</th>
<th>Default</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

Table 6. Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pid*</td>
<td>String</td>
<td>Process ID of onbar_d process.</td>
</tr>
<tr>
<td>StartTime</td>
<td>String</td>
<td>Elapsed time for the onbar_d process in the format [[dd-]hh:mm:ss.</td>
</tr>
</tbody>
</table>

Note: * Denotes a CIM key property. + Denotes a CIM numeric property being represented as a string. This value must be cast to an integer in the Resource Model using the parseInt() function.
IBMInformixCheckpoint

Description
The following tables detail the CIM Class, parameters, properties, exceptions, and dependencies of this provider.

Table 7. CIM Class

<table>
<thead>
<tr>
<th>Namespace</th>
<th>ROOT\CIMV2</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIM Name</td>
<td>IBMInformixCheckpoint</td>
</tr>
<tr>
<td>MOF File Name</td>
<td>IBMInformixCheckpoint.mof</td>
</tr>
<tr>
<td>Description</td>
<td>IBM Informix Checkpoint - This class returns a list of all checkpoints occurring since the last time this class was instantiated.</td>
</tr>
</tbody>
</table>

Table 8. Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Required</th>
<th>TYPE</th>
<th>Default</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

Table 9. Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>FileName*</td>
<td>String</td>
<td>The fully qualified path to the IBM Informix message log.</td>
</tr>
<tr>
<td>Offset*</td>
<td>Uint32</td>
<td>The offset into the message log of previously processed messages.</td>
</tr>
<tr>
<td>TimeOccurred</td>
<td>String</td>
<td>The time at which the checkpoint occurred in hh:mm:ss format.</td>
</tr>
<tr>
<td>Duration+</td>
<td>String</td>
<td>The duration of the checkpoint in seconds.</td>
</tr>
<tr>
<td>Interval+</td>
<td>String</td>
<td>The time between this checkpoint and the previous checkpoint in seconds.</td>
</tr>
</tbody>
</table>

Note: * Denotes a CIM key property. + Denotes a CIM numeric property being represented as a string. This value must be cast to an integer in the Resource Model using the parseInt() function.
**IBMInformixChunk**

**Description**
The following tables detail the CIM Class, parameters, properties, exceptions, and dependencies of this provider.

*Table 10. CIM Class*

<table>
<thead>
<tr>
<th>Namespace</th>
<th>ROOT\CIMV2</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIM Name</td>
<td>IBMInformixChunk</td>
</tr>
<tr>
<td>MOF File Name</td>
<td>IBMInformixChunk.mof</td>
</tr>
<tr>
<td>Description</td>
<td>IBM Informix Chunk - This class returns the details of the configured chunks in the IBM Informix server instance.</td>
</tr>
</tbody>
</table>

*Table 11. Parameters*

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Required</th>
<th>TYPE</th>
<th>Default</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

*Table 12. Properties*

<table>
<thead>
<tr>
<th>Property</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ChunkNumber*+</td>
<td>String</td>
<td>The unique, numeric number of the chunk.</td>
</tr>
<tr>
<td>ChunkName</td>
<td>String</td>
<td>The path name of the chunk.</td>
</tr>
<tr>
<td>DbspaceNumber+</td>
<td>String</td>
<td>The unique, number number of the dbspace in which the chunk resides.</td>
</tr>
<tr>
<td>ChunkPages+</td>
<td>String</td>
<td>The total size of the chunk in pages.</td>
</tr>
<tr>
<td>ChunkFreePages+</td>
<td>String</td>
<td>The number of pages in the chunk that are free.</td>
</tr>
<tr>
<td>Reads+</td>
<td>String</td>
<td>The number of physical reads from the chunk.</td>
</tr>
<tr>
<td>PagesRead+</td>
<td>String</td>
<td>The number of pages read from the chunk.</td>
</tr>
<tr>
<td>Writes+</td>
<td>String</td>
<td>The number of physical writes to the chunk.</td>
</tr>
<tr>
<td>PagesWritten+</td>
<td>String</td>
<td>The number of pages written to the chunk.</td>
</tr>
<tr>
<td>MirrorReads+</td>
<td>String</td>
<td>The number of physical reads from the chunk’s mirror.</td>
</tr>
<tr>
<td>MirrorPagesRead+</td>
<td>String</td>
<td>The number of pages read from the chunk’s mirror.</td>
</tr>
<tr>
<td>MirrorWrites+</td>
<td>String</td>
<td>The number of physical writes to the chunk’s mirror.</td>
</tr>
<tr>
<td>MirrorPagesWritten+</td>
<td>String</td>
<td>The number of pages written to the chunk’s mirror.</td>
</tr>
</tbody>
</table>

**Note:** * Denotes a CIM key property. + Denotes a CIM numeric property being represented as a string. This value must be cast to an integer in the Resource Model using the parseInt() function.
IBMInformixDbspace

Description
The following tables detail the CIM Class, parameters, properties, exceptions, and dependencies of this provider.

Table 13. CIM Class

<table>
<thead>
<tr>
<th>Namespace</th>
<th>ROOT\CIMV2</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIM Name</td>
<td>IBMInformixDbspace</td>
</tr>
<tr>
<td>MOF File Name</td>
<td>IBMInformixDbspace.mof</td>
</tr>
<tr>
<td>Description</td>
<td>IBM Informix Dbspace - This class returns the details of the configured Dbspaces in the IBM Informix server instance.</td>
</tr>
</tbody>
</table>

Table 14. Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Required</th>
<th>TYPE</th>
<th>Default</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

Table 15. Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number*+</td>
<td>String</td>
<td>The unique, numeric number of the Dbspace.</td>
</tr>
<tr>
<td>Name</td>
<td>String</td>
<td>The name of the Dbspace.</td>
</tr>
<tr>
<td>Owner</td>
<td>String</td>
<td>The user ID of the Dbspace owner.</td>
</tr>
<tr>
<td>FirstChunk+</td>
<td>String</td>
<td>The unique number of the first chunk of the Dbspace.</td>
</tr>
<tr>
<td>NumberChunks+</td>
<td>String</td>
<td>The number of chunks composing the Dbspace.</td>
</tr>
</tbody>
</table>

Note: * Denotes a CIM key property. + Denotes a CIM numeric property being represented as a string. This value must be cast to an integer in the Resource Model using the parseInt() function.
IBMInformixFilesystem

Description
The following tables detail the CIM Class, parameters, properties, exceptions, and dependencies of this provider.

Table 16. CIM Class

<table>
<thead>
<tr>
<th>Namespace</th>
<th>ROOT\CIMV2</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIM Name</td>
<td>IBMInformixFilesystem</td>
</tr>
<tr>
<td>MOF File Name</td>
<td>IBMInformixFilesystem.mof</td>
</tr>
<tr>
<td>Description</td>
<td>IBM Informix Filesystem - This class returns the file system utilization for the three filesystems used by IBM Informix for the message log directory, dump directory, and data replication lost-and-found directory. These three directories must be defined as parameters and associated with this class in the Resource Model.</td>
</tr>
</tbody>
</table>

Table 17. Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Required</th>
<th>TYPE</th>
<th>Default</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSGPATH</td>
<td>No</td>
<td>String</td>
<td>None</td>
<td>If the message log filesystem is to be managed, this parameter must be set to the path of the message log directory.</td>
</tr>
<tr>
<td>DUMPDIR</td>
<td>No</td>
<td>String</td>
<td>None</td>
<td>If the dump directory is to be managed, this parameter must be set to the path of the configured dump directory.</td>
</tr>
<tr>
<td>DRLOSTFOUND</td>
<td>No</td>
<td>String</td>
<td>None</td>
<td>If data replication’s lost-and-found directory is to be managed, this parameter must be set to the path of the configured lost-and-found directory.</td>
</tr>
</tbody>
</table>

Table 18. Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DummyKey*</td>
<td>String</td>
<td>The Informix server instance name. Key not actually required to uniquely identify the instance as there will be only one instance of this class; the directories are properties of the IBM Informix server itself.</td>
</tr>
<tr>
<td>MsgPathUtil+</td>
<td>String</td>
<td>Utilization of the filesystem on which the IBM Informix message log resides. The parameter, MSGPATH, representing the message log directory must have been defined and associated with this class property.</td>
</tr>
<tr>
<td>DumpDirUtil+</td>
<td>String</td>
<td>Utilization of the filesystem on which the IBM Informix dump directory resides. The parameter, DUMPDIR, representing the dump directory must have been defined and associated with this class property.</td>
</tr>
<tr>
<td>DrLostFoundUtil+</td>
<td>String</td>
<td>Utilization of the filesystem on which the IBM Informix data replication lost-and-found directory resides. The parameter, DRLOSTFOUND, representing the data replication lost-and-found directory must have been defined and associated with this class property.</td>
</tr>
</tbody>
</table>

Note: * Denotes a CIM key property. + Denotes a CIM numeric property being represented as a string. This value must be cast to an integer in the Resource Model using the parseInt() function.
### IBMInformixFreeSpaceDeficit

**Description**  
The following tables detail the CIM Class, parameters, properties, exceptions, and dependencies of this provider.

#### Table 19. CIM Class

<table>
<thead>
<tr>
<th>Namespace</th>
<th>ROOT\CIMV2</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIM Name</td>
<td>IBMInformixFreeSpaceDeficit</td>
</tr>
<tr>
<td>MOF File Name</td>
<td>IBMInformixFreeSpaceDeficit.mof</td>
</tr>
<tr>
<td>Description</td>
<td>IBM Informix Free Space Deficit - This class returns details on tables that do not have sufficient space available in their Dbspace to allocate their next extent.</td>
</tr>
</tbody>
</table>

#### Table 20. Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Required</th>
<th>TYPE</th>
<th>Default</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

#### Table 21. Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DbspaceName*</td>
<td>String</td>
<td>The Dbspace from which the table would be attempting to allocate space for its next extent.</td>
</tr>
<tr>
<td>DatabaseName*</td>
<td>String</td>
<td>The database name hosting the table without sufficient space for its next extent.</td>
</tr>
<tr>
<td>TableName*</td>
<td>String</td>
<td>The table whose next extent cannot be allocated from the space available.</td>
</tr>
<tr>
<td>NextExtentSize+</td>
<td>String</td>
<td>The amount of space required to allocate the next extent for the table.</td>
</tr>
</tbody>
</table>

**Note:** * Denotes a CIM key property. + Denotes a CIM numeric property being represented as a string. This value must be cast to an integer in the Resource Model using the parseInt() function.
IBMInformixLogEvent

Description
The following tables detail the CIM Class, parameters, properties, exceptions, and dependencies of this provider.

Table 22. CIM Class

<table>
<thead>
<tr>
<th>Namespace</th>
<th>ROOT\CIMV2</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIM Name</td>
<td>IBMInformixLogEvent</td>
</tr>
<tr>
<td>MOF File Name</td>
<td>IBMInformixLogEvent.mof</td>
</tr>
<tr>
<td>Description</td>
<td>IBM Informix Log Event - This class returns all events in the IBM Informix message log since the last time the class was instantiated. A relative severity is also returned where the relative severity is associated with the event in the provider.</td>
</tr>
</tbody>
</table>

Table 23. Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Required</th>
<th>TYPE</th>
<th>Default</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

Table 24. Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>FileName*+</td>
<td>String</td>
<td>The fully qualified path to the IBM Informix message log.</td>
</tr>
<tr>
<td>Offset+</td>
<td>Uint32</td>
<td>The offset into the message log file separating previously processed messages from new messages.</td>
</tr>
<tr>
<td>TimeOccurred</td>
<td>String</td>
<td>The time at which the message occurred in hh:mm:ss format.</td>
</tr>
<tr>
<td>EventText</td>
<td>String</td>
<td>The text of the message discovered in the message log.</td>
</tr>
<tr>
<td>Severity</td>
<td>String</td>
<td>A string giving relative severity associated with the message.</td>
</tr>
</tbody>
</table>

Note: * Denotes a CIM key property. + Denotes a CIM numeric property being represented as a string. This value must be cast to an integer in the Resource Model using the parseInt() function.
IBMInformixLogicalLog

**Description**
The following tables detail the CIM Class, parameters, properties, exceptions, and dependencies of this provider.

*Table 25. CIM Class*

<table>
<thead>
<tr>
<th>Namespace</th>
<th>ROOT\CIMV2</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIM Name</td>
<td>IBMInformixLogicalLog</td>
</tr>
<tr>
<td>MOF File Name</td>
<td>IBMInformixLogicalLog.mof</td>
</tr>
<tr>
<td>Description</td>
<td>IBM Informix Logical Log - This class returns details on all defined logical logs.</td>
</tr>
</tbody>
</table>

*Table 26. Parameters*

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Required</th>
<th>TYPE</th>
<th>Default</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

*Table 27. Properties*

<table>
<thead>
<tr>
<th>Property</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number*</td>
<td>String</td>
<td>The file number identifying the Logical Log.</td>
</tr>
<tr>
<td>Uniqid+</td>
<td>String</td>
<td>The incremental unique ID associated with the use of the Logical Log.</td>
</tr>
<tr>
<td>Size+</td>
<td>String</td>
<td>The total size of the Logical Log, measured in pages.</td>
</tr>
<tr>
<td>Used+</td>
<td>String</td>
<td>The number of Logical Log pages that are used.</td>
</tr>
<tr>
<td>Is_used+</td>
<td>String</td>
<td>A flag indicating whether the Logical Log has been used.</td>
</tr>
<tr>
<td>Is_backed_up+</td>
<td>String</td>
<td>A flag indicating whether the Logical Log has been backed up.</td>
</tr>
<tr>
<td>Is_current+</td>
<td>String</td>
<td>A flag indicating whether the Logical Log is the Logical Log currently in use.</td>
</tr>
<tr>
<td>Is_new+</td>
<td>String</td>
<td>A flag indicating whether the Logical Log has been added since the last Level 0 Dbspace backup.</td>
</tr>
<tr>
<td>Is_archived+</td>
<td>String</td>
<td>A flag indicating whether the Logical Log has been placed on the backup tape.</td>
</tr>
<tr>
<td>Is_temp+</td>
<td>String</td>
<td>A flag indicating whether the Logical Log is a temporary log file.</td>
</tr>
</tbody>
</table>

**Note:** * Denotes a CIM key property. + Denotes a CIM numeric property being represented as a string. This value must be cast to an integer in the Resource Model using the parseInt() function.
**IBMInformixLogicalLogBackup**

**Description**
The following tables detail the CIM Class, parameters, properties, exceptions, and dependencies of this provider.

*Table 28. CIM Class*

<table>
<thead>
<tr>
<th>Namespace</th>
<th>ROOT\CIMV2</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIM Name</td>
<td>IBMInformixLogicalLogBackup</td>
</tr>
<tr>
<td>MOF File Name</td>
<td>IBMInformixLogicalLogBackup.mof</td>
</tr>
<tr>
<td>Description</td>
<td>IBM Informix Logical Log Backup - This class returns all instances of messages in the IBM Informix message log relating to Logical Log backups.</td>
</tr>
</tbody>
</table>

*Table 29. Parameters*

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Required</th>
<th>TYPE</th>
<th>Default</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

*Table 30. Properties*

<table>
<thead>
<tr>
<th>Property</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Filename*+</td>
<td>String</td>
<td>The fully qualified path to the IBM Informix Message Log.</td>
</tr>
<tr>
<td>Offset</td>
<td>Uint32</td>
<td>The offset in the message log separating messages already processed and messages new to the message log since the last time this class was instantiated.</td>
</tr>
<tr>
<td>TimeOccurred+</td>
<td>String</td>
<td>The time of the Logical Log backup message in the message log in hh:mm:ss format.</td>
</tr>
<tr>
<td>LogNumber+</td>
<td>String</td>
<td>The file number for the Logical Log associated with the message.</td>
</tr>
<tr>
<td>BackupState</td>
<td>String</td>
<td>The current state of the backup process associated with the Logical Log as given by the message.</td>
</tr>
</tbody>
</table>

**Note:** * Denotes a CIM key property. + Denotes a CIM numeric property being represented as a string. This value must be cast to an integer in the Resource Model using the parseInt() function.
IBMInformixLogicalLogHelper

Description
The following tables detail the CIM Class, parameters, properties, exceptions, and dependencies of this provider.

Table 31. CIM Class

<table>
<thead>
<tr>
<th>Namespace</th>
<th>ROOT\CIMV2</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIM Name</td>
<td>IBMInformixLogicalLogHelper</td>
</tr>
<tr>
<td>MOF File Name</td>
<td>IBMInformixLogicalLogHelper.mof</td>
</tr>
<tr>
<td>Description</td>
<td>IBM Informix Logical Log Helper - This class returns details on Logical Logs that are common to all Logical Logs for an IBM Informix server instance; instantiated only once for each server.</td>
</tr>
</tbody>
</table>

Table 32. Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Required</th>
<th>TYPE</th>
<th>Default</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

Table 33. Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ServerName*</td>
<td>String</td>
<td>The IBM Informix server name.</td>
</tr>
<tr>
<td>LastCheckpointLog+</td>
<td>String</td>
<td>The logical log that contains the last checkpoint record.</td>
</tr>
<tr>
<td>LastActiveLog+</td>
<td>String</td>
<td>The oldest log file containing an active transaction.</td>
</tr>
<tr>
<td>LbuPreserve+</td>
<td>String</td>
<td>The flag given by the LBU_PRESERVE.</td>
</tr>
</tbody>
</table>

Note: * Denotes a CIM key property. + Denotes a CIM numeric property being represented as a string. This value must be cast to an integer in the Resource Model using the parseInt() function.
IBMInformixLRUQueue

Description
The following tables detail the CIM Class, parameters, properties, exceptions, and dependencies of this provider.

Table 34. CIM Class

<table>
<thead>
<tr>
<th>Property</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number*+</td>
<td>String</td>
<td>The unique number identifying the LRU queue.</td>
</tr>
<tr>
<td>FreeBuffers+</td>
<td>String</td>
<td>The number of free buffers associated with the LRU queue.</td>
</tr>
<tr>
<td>ModifiedBuffers+</td>
<td>String</td>
<td>The number of modified buffers associated with the LRU queue.</td>
</tr>
</tbody>
</table>

Note: * Denotes a CIM key property. + Denotes a CIM numeric property being represented as a string. This value must be cast to an integer in the Resource Model using the parseInt() function.
IBMInformixMemorySegment

Description
The following tables detail the CIM Class, parameters, properties, exceptions, and dependencies of this provider.

Table 37. CIM Class

<table>
<thead>
<tr>
<th>Namespace</th>
<th>ROOT\CIMV2</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIM Name</td>
<td>IBMInformixMemorySegment</td>
</tr>
<tr>
<td>MOF File Name</td>
<td>IBMInformixMemorySegment.mof</td>
</tr>
<tr>
<td>Description</td>
<td>IBM Informix Memory Segment - This class returns details on all IBM Informix Memory Segments.</td>
</tr>
</tbody>
</table>

Table 38. Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Required</th>
<th>TYPE</th>
<th>Default</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

Table 39. Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address*</td>
<td>String</td>
<td>Address of the segment structure.</td>
</tr>
<tr>
<td>Size+</td>
<td>String</td>
<td>Size of the segment.</td>
</tr>
<tr>
<td>BlocksUsed+</td>
<td>String</td>
<td>The number of used blocks in the segment.</td>
</tr>
<tr>
<td>BlocksFree+</td>
<td>String</td>
<td>The number of free blocks in the segment.</td>
</tr>
</tbody>
</table>

Note: * Denotes a CIM key property. + Denotes a CIM numeric property being represented as a string. This value must be cast to an integer in the Resource Model using the parseInt() function.
IBMInformixMemoryServer

Description
The following tables detail the CIM Class, parameters, properties, exceptions, and dependencies of this provider.

Table 40. CIM Class

<table>
<thead>
<tr>
<th>Namespace</th>
<th>ROOT\CIMV2</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIM Name</td>
<td>IBMInformixServer</td>
</tr>
<tr>
<td>MOF File Name</td>
<td>IBMInformixServer.mof</td>
</tr>
<tr>
<td>Description</td>
<td>IBM Informix Server - This class returns many attributes associated with the IBM Informix Server instance. There will only ever be one instance of this class, as all attributes relate to the monitored IBM Informix Server Instance. Please see each attribute for specific details.</td>
</tr>
</tbody>
</table>

Table 41. Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Required</th>
<th>TYPE</th>
<th>Default</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

Table 42. Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ServerName*</td>
<td>String</td>
<td>Returns the IBM Informix server instance name, i.e. the DBSERVERNAME.</td>
</tr>
<tr>
<td>ActiveTrans+</td>
<td>String</td>
<td>Returns the current number of active transactions in the IBM Informix Server instance.</td>
</tr>
<tr>
<td>BufReads+</td>
<td>String</td>
<td>Returns the number of reads from shared memory as reported by the sysprofile table.</td>
</tr>
<tr>
<td>DskReads+</td>
<td>String</td>
<td>Returns the number of actual reads from disk as reported by the sysprofile table.</td>
</tr>
<tr>
<td>BufWrites+</td>
<td>String</td>
<td>Returns the number of writes to shared memory as reported by the sysprofile table.</td>
</tr>
<tr>
<td>DskWrites+</td>
<td>String</td>
<td>Returns the number of actual writes to disk as reported by the sysprofile table.</td>
</tr>
<tr>
<td>DmlLocks+</td>
<td>String</td>
<td>Returns the total number of currently active locks.</td>
</tr>
<tr>
<td>TotalLocks+</td>
<td>String</td>
<td>Returns the total number of locks defined.</td>
</tr>
<tr>
<td>ForegroundWrites+</td>
<td>String</td>
<td>Turns the number of foreground writes as reported by the sysprofile table.</td>
</tr>
<tr>
<td>LRUWrites+</td>
<td>String</td>
<td>Returns the number of Least Recently used (LRU) writes as reported by the sysprofile table.</td>
</tr>
<tr>
<td>ChunkWrites+</td>
<td>String</td>
<td>Returns the number of writes during a checkpoint as reported by the sysprofile table.</td>
</tr>
<tr>
<td>HDRType</td>
<td>String</td>
<td>Returns the High Data Replication type of this server, i.e. primary, secondary, standard or not initialized.</td>
</tr>
<tr>
<td>HDRState</td>
<td>String</td>
<td>Returns the High Data Replication type of this server, i.e. off, on, connecting, failure or read-only.</td>
</tr>
<tr>
<td>Deadlocks+</td>
<td>String</td>
<td>Returns the number of deadlocks as reported by the sysprofile table.</td>
</tr>
</tbody>
</table>
Table 42. Properties (continued)

<table>
<thead>
<tr>
<th>Property</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PhysicalLogSize+</td>
<td>String</td>
<td>The size of the physical log in pages.</td>
</tr>
<tr>
<td>PhysicalLogUsed+</td>
<td>String</td>
<td>The number of used pages in the physical log.</td>
</tr>
<tr>
<td>UserThreadOverflows+</td>
<td>String</td>
<td>Returns the number of user thread overflows as reported by the sysprofile table.</td>
</tr>
<tr>
<td>LockOverflows+</td>
<td>String</td>
<td>Returns the number of lock overflows as reported by the sysprofile table.</td>
</tr>
<tr>
<td>TransactionOverflows+</td>
<td>String</td>
<td>Returns the number of transaction overflows as reported by the sysprofile table.</td>
</tr>
<tr>
<td>Checkpoints+</td>
<td>String</td>
<td>Returns the number of checkpoints as reported by the sysprofile table.</td>
</tr>
<tr>
<td>BufferPoolFlushes+</td>
<td>String</td>
<td>Returns the number of buffer pool flushes as reported by the sysprofile table.</td>
</tr>
<tr>
<td>BufferWaits+</td>
<td>String</td>
<td>Returns the number of buffer waits as reported by the sysprofile table.</td>
</tr>
<tr>
<td>LockWaits+</td>
<td>String</td>
<td>Returns the number of lock waits as reported by the sysprofile table.</td>
</tr>
<tr>
<td>CheckpointWaits+</td>
<td>String</td>
<td>Returns the number of checkpoint waits as reported by the sysprofile table.</td>
</tr>
<tr>
<td>LatchWaits+</td>
<td>String</td>
<td>Returns the number of latch waits as reported by the sysprofile table.</td>
</tr>
<tr>
<td>Rollbacks+</td>
<td>String</td>
<td>The cumulative count of the number of Rollbacks.</td>
</tr>
<tr>
<td>Commits+</td>
<td>String</td>
<td>The cumulative count of the number of Commits.</td>
</tr>
<tr>
<td>EffectiveCheckpointInterval+</td>
<td>String</td>
<td>Returns the currently effective checkpoint interval.</td>
</tr>
<tr>
<td>EffectiveDumpDir</td>
<td>String</td>
<td>Returns the currently effective path for the dump directory.</td>
</tr>
<tr>
<td>EffectiveMsgPath</td>
<td>String</td>
<td>Returns the currently effective path for the message log.</td>
</tr>
<tr>
<td>EffectiveDRLostFound</td>
<td>String</td>
<td>Returns the currently effective path for the high data replication lost and found directory.</td>
</tr>
</tbody>
</table>

**Note:** * Denotes a CIM key property. + Denotes a CIM numeric property being represented as a string. This value must be cast to an integer in the Resource Model using the parseInt() function.
**IBMInformixState**

**Description**
The following tables detail the CIM Class, parameters, properties, exceptions, and dependencies of this provider.

*Table 43. CIM Class*

<table>
<thead>
<tr>
<th>Namespace</th>
<th>ROOT\CIMV2</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIM Name</td>
<td>IBMInformixState</td>
</tr>
<tr>
<td>MOF File Name</td>
<td>IBMInformixState.mof</td>
</tr>
<tr>
<td>Description</td>
<td>IBM Informix State</td>
</tr>
</tbody>
</table>

*Table 44. Parameters*

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Required</th>
<th>TYPE</th>
<th>Default</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

*Table 45. Properties*

<table>
<thead>
<tr>
<th>Property</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Property*</td>
<td>String</td>
<td>Returns the IBM Informix server name, i.e. the DBSERVERNAME.</td>
</tr>
<tr>
<td>State+</td>
<td>String</td>
<td>Returns the current state of the IBM Informix server instance. The status returned is a numeric value corresponding to a particular server state: 0 for Initializing, 1 for Quiescent, 2 for Recovering, 4 for Shutting Down, 5 for On-Line, 255 for Off-Line.</td>
</tr>
</tbody>
</table>

**Note:** * Denotes a CIM key property. + Denotes a CIM numeric property being represented as a string. This value must be cast to an integer in the Resource Model using the parseInt() function.
IBMInformixTable

Description
The following tables detail the CIM Class, parameters, properties, exceptions, and dependencies of this provider.

Table 46. CIM Class

<table>
<thead>
<tr>
<th>Namespace</th>
<th>ROOT\CIMV2</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIM Name</td>
<td>IBMInformixTable</td>
</tr>
<tr>
<td>MOF File Name</td>
<td>IBMInformixTable.mof</td>
</tr>
<tr>
<td>Description</td>
<td>IBM Informix Table - This class returns the name and the total number of extents for every table.</td>
</tr>
</tbody>
</table>

Table 47. Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Required</th>
<th>TYPE</th>
<th>Default</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

Table 48. Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>TableName*</td>
<td>String</td>
<td>Returns the name of the table.</td>
</tr>
<tr>
<td>TotalExtents+</td>
<td>String</td>
<td>Returns the total number of extents allocated to the table.</td>
</tr>
</tbody>
</table>

Note: * Denotes a CIM key property. + Denotes a CIM numeric property being represented as a string. This value must be cast to an integer in the Resource Model using the parseInt() function.
IBMInformixUpdateStatistics

Description
The following tables detail the CIM Class, parameters, properties, exceptions, and dependencies of this provider.

Table 49. CIM Class

<table>
<thead>
<tr>
<th>Property</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Namespace</td>
<td>ROOT\CIMV2</td>
<td></td>
</tr>
<tr>
<td>CIM Name</td>
<td>IBMInformixUpdateStatistics</td>
<td></td>
</tr>
<tr>
<td>MOF File Name</td>
<td>IBMInformixUpdateStatistics.mof</td>
<td></td>
</tr>
<tr>
<td>Description</td>
<td>IBM Informix Update Statistics - This class returns the read and write statistics for all tables except TBLSpace in all databases except symsmaster and syutils.</td>
<td></td>
</tr>
</tbody>
</table>

Table 50. Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Required</th>
<th>TYPE</th>
<th>Default</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

Table 51. Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dbname*</td>
<td>String</td>
<td>The database name.</td>
</tr>
<tr>
<td>TableName*</td>
<td>String</td>
<td>The table name.</td>
</tr>
<tr>
<td>IsReads+</td>
<td>String</td>
<td>The number of rows read from a table.</td>
</tr>
<tr>
<td>IsWrites+</td>
<td>String</td>
<td>The number of rows written from the table.</td>
</tr>
<tr>
<td>IsRewrites+</td>
<td>String</td>
<td>The number of rows updated in the table.</td>
</tr>
<tr>
<td>IsDelete+</td>
<td>String</td>
<td>The number of rows removed from the table.</td>
</tr>
</tbody>
</table>

Note: * Denotes a CIM key property. + Denotes a CIM numeric property being represented as a string. This value must be cast to an integer in the Resource Model using the parseInt() function.
IBMInformixUpdateStatisticsHelper

Description
The following tables detail the CIM Class, parameters, properties, exceptions, and dependencies of this provider.

Table 52. CIM Class

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Required</th>
<th>TYPE</th>
<th>Default</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Namespace</td>
<td></td>
<td></td>
<td></td>
<td>ROOT\CIMV2</td>
</tr>
<tr>
<td>CIM Name</td>
<td></td>
<td></td>
<td></td>
<td>IBMInformixUpdateStatisticsHelper</td>
</tr>
<tr>
<td>MOF File Name</td>
<td></td>
<td></td>
<td></td>
<td>IBMInformixUpdateStatisticsHelper.mof</td>
</tr>
<tr>
<td>Description</td>
<td></td>
<td></td>
<td></td>
<td>IBM Informix Update Statistics Helper - This class is supportive to the IBMInformixUpdateStatistics class. The purpose of this class is to collect the table name and the number of rows in each table. In order to collect this information, the provider must make a connection to a specified database, rather than the sysmaster database. Therefore, a parameter, DATABASE, must be defined, set and associated to this class. The class will return information about the tables for the specified database. If information is required from more than one database, this class must be instantiated for each database after setting and associating the DATABASE parameter to the class.</td>
</tr>
</tbody>
</table>

Table 53. Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Required</th>
<th>TYPE</th>
<th>Default</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DATABASE</td>
<td>Yes</td>
<td>String</td>
<td>None</td>
<td>Specifies the database from which to retrieve table information.</td>
</tr>
</tbody>
</table>

Table 54. Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>TableName*</td>
<td>String</td>
<td>Returns the name of the table.</td>
</tr>
<tr>
<td>NumberRows+</td>
<td>String</td>
<td>Returns the number of rows within the table.</td>
</tr>
</tbody>
</table>

Note: * Denotes a CIM key property. + Denotes a CIM numeric property being represented as a string. This value must be cast to an integer in the Resource Model using the parseInt() function.
IBMInformixVirtualProcessor

Description
The following tables detail the CIM Class, parameters, properties, exceptions, and dependencies of this provider.

Table 55. CIM Class

<table>
<thead>
<tr>
<th>Namespace</th>
<th>ROOT\CIMV2</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIM Name</td>
<td>IBMInformixVirtualProcessor</td>
</tr>
<tr>
<td>MOF File Name</td>
<td>IBMInformixVirtualProcessor.mof</td>
</tr>
<tr>
<td>Description</td>
<td>IBM Informix Virtual Processor - This class provides information about each virtual processor.</td>
</tr>
</tbody>
</table>

Table 56. Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Required</th>
<th>TYPE</th>
<th>Default</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

Table 57. Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vpid*</td>
<td>String</td>
<td>Returns the virtual processor unique ID.</td>
</tr>
<tr>
<td>Type</td>
<td>String</td>
<td>Returns the class type of the virtual processor, e.g. cpu, adm, lio, pio, aio etc.</td>
</tr>
<tr>
<td>Usercpu+</td>
<td>String</td>
<td>Returns the amount of user cpu time for the virtual processor in microseconds.</td>
</tr>
<tr>
<td>Systemcpu+</td>
<td>String</td>
<td>Returns the amount of system cpu time for the virtual processor in microseconds.</td>
</tr>
</tbody>
</table>

Note: * Denotes a CIM key property. + Denotes a CIM numeric property being represented as a string. This value must be cast to an integer in the Resource Model using the parseInt() function.
Appendix B. Tivoli Enterprise Console classes

This appendix contains the Tivoli Enterprise Console classes delivered with IBM Tivoli Monitoring for Databases: Informix. The classes contain the new slot values for the event.

Slots are the fields in a Tivoli event. All Tivoli events have a base set of slots as described in the Tivoli Enterprise Console User’s Guide. In addition to these slots, IBM Tivoli Monitoring for Databases: Informix adds slots for additional information. You can reference these classes and slots to assist you in writing your own business rules.

The following classes and slots are used to define the IBM Tivoli Monitoring for Databases: Informix resource models.

**IBMInformixActiveTransactions.baroc**

TEC_CLASS:
IBMInformix_High_ActiveTransactions ISA IFX_Event
DEFINES {
    servername : STRING;
db_instance : STRING;
db_dir : STRING;
application_version : STRING;
application_label : STRING;
application_class : STRING;
application_oid : STRING;
interp : STRING;
itm_context : STRING;
activetransactions : REAL;
activetransactionsthreshold : REAL;

    severity: default = CRITICAL;
};
END

**IBMInformixArchive.baroc**

TEC_CLASS:
IBMInformix_Archive_Exceeded_Threshold ISA IFX_Event
DEFINES {
    db_instance : STRING;
db_dir : STRING;
application_version : STRING;
application_label : STRING;
application_class : STRING;
application_oid : STRING;
interp : STRING;
itm_context : STRING;
process_id : STRING;
duration_threshold : STRING;

    severity: default = CRITICAL;
};
END
IBMInformixCacheHitRatio.baroc

TEC_CLASS:
IBMInformix_Low_ReadCacheHitRatio ISA IFX_Event
DEFINES {
  servername : STRING;
  db_instance : STRING;
  db_dir : STRING;
  application_version : STRING;
  application_label : STRING;
  application_class : STRING;
  application_oid : STRING;
  interp : STRING;
  itm_context : STRING;
  readcachehitratio : REAL;
  readcachehitratiothreshold : REAL;

  severity: default = CRITICAL;
};
END

TEC_CLASS:
IBMInformix_Low_WriteCacheHitRatio ISA IFX_Event
DEFINES {
  servername : STRING;
  db_instance : STRING;
  db_dir : STRING;
  application_version : STRING;
  application_label : STRING;
  application_class : STRING;
  application_oid : STRING;
  interp : STRING;
  itm_context : STRING;
  writecachehitratio : REAL;
  writecachehitratiothreshold : REAL;

  severity: default = CRITICAL;
};
END

IBMInformixCheckpoint.baroc

TEC_CLASS:
IBMInformix_High_CheckpointDuration ISA IFX_Event
DEFINES {
  servername : STRING;
  db_instance : STRING;
  db_dir : STRING;
  application_version : STRING;
  application_label : STRING;
  application_class : STRING;
  application_oid : STRING;
  interp : STRING;
  itm_context : STRING;
  checkpointduration : REAL;
  checkpointdurationthreshold : REAL;

  severity: default = CRITICAL;
};
END

TEC_CLASS:
IBMInformix_Low_CheckpointInterval ISA IFX_Event
DEFINES {
  servername : STRING;
  db_instance : STRING;

IBMInformixDeadlocks.baroc

TEC_CLASS :
IBMInformix_High_Deadlocks ISA IFX_Event
DEFINES {
    dbname : STRING;
    db_instance : STRING;
    db_dir : STRING;
    application_version : STRING;
    application_label : STRING;
    application_class : STRING;
    application_oid : STRING;
    interp : STRING;
    itm_context : STRING;
    deadlocks : REAL;
    deadlocksthreshold : REAL;

    severity: default = CRITICAL;
    }
END

IBMInformixDmlLocksRatio.baroc

TEC_CLASS :
IBMInformix_High_DmlLockRatio ISA IFX_Event
DEFINES {
    dbname : STRING;
    db_instance : STRING;
    db_dir : STRING;
    application_version : STRING;
    application_label : STRING;
    application_class : STRING;
    application_oid : STRING;
    interp : STRING;
    itm_context : STRING;
    dmllockratio : REAL;
    dmllockratiothreshold : REAL;

    severity: default = CRITICAL;
    }
END

IBMInformixFilesystem.baroc

TEC_CLASS :
IBMInformix_High_MessageLogFilesystem ISA IFX_Event
DEFINES {
    dbname : STRING;
    db_instance : STRING;
    db_dir : STRING;
    application_version : STRING;
    application_label : STRING;

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application_class : STRING;
application_oid : STRING;
interp : STRING;
itm_context : STRING;
filesystempath : STRING;
filesystemutilization : REAL;
filesystemutilizationthreshold : REAL;

severity: default = CRITICAL;
}

TEC_CLASS :
IBMInformix_Missing_MessageLogFile ISA IFX_Event
DEFINES {
filesystempath : STRING;
servername : STRING;
db_instance : STRING;
db_dir : STRING;
application_version : STRING;
application_label : STRING;
application_class : STRING;
application_oid : STRING;
interp : STRING;
itm_context : STRING;

severity: default = CRITICAL;
}

TEC_CLASS :
IBMInformix_High_HDRLostFoundFilesystem ISA IFX_Event
DEFINES {
servername : STRING;
db_instance : STRING;
db_dir : STRING;
application_version : STRING;
application_label : STRING;
application_class : STRING;
application_oid : STRING;
interp : STRING;
itm_context : STRING;
filesystempath : STRING;
filesystemutilization : REAL;
filesystemutilizationthreshold : REAL;

severity: default = CRITICAL;
}

TEC_CLASS :
IBMInformix_High_CoreDumpSpaceFilesystem ISA IFX_Event
DEFINES {
servername : STRING;
db_instance : STRING;
db_dir : STRING;
application_version : STRING;
application_label : STRING;
application_class : STRING;
application_oid : STRING;
interp : STRING;
itm_context : STRING;
filesystempath : STRING;
filesystemutilization : REAL;
filesystemutilizationthreshold : REAL;

severity: default = CRITICAL;
}
TEC_CLASS:
IBMInformix_Missing_CoreDumpSpaceFile ISA IFX_Event
DEFINES {
    servername : STRING;
db_instance : STRING;
db_dir : STRING;
application_version : STRING;
application_label : STRING;
application_class : STRING;
application_oid : STRING;
interp : STRING;
itm_context : STRING;
filesystempath : STRING;
    severity: default = CRITICAL;
};
END

TEC_CLASS:
IBMInformix_Missing_HDRLostFoundFile ISA IFX_Event
DEFINES {
    servername : STRING;
db_instance : STRING;
db_dir : STRING;
application_version : STRING;
application_label : STRING;
application_class : STRING;
application_oid : STRING;
interp : STRING;
itm_context : STRING;
filesystempath : STRING;
    severity: default = CRITICAL;
};
END

IBMInformixFreeDbspace.baroc

TEC_CLASS:
IBMInformix_Low_FreeDbspace ISA IFX_Event
DEFINES {
    dbspacenumber : STRING;
db_instance : STRING;
db_dir : STRING;
application_version : STRING;
application_label : STRING;
application_class : STRING;
application_oid : STRING;
interp : STRING;
itm_context : STRING;
 filesystempath : STRING;
    percentfreespace : REAL;
    percentfreespacethreshold : REAL;
    severity: default = CRITICAL;
};
END

IBMInformixFreeSpaceDeficit.baroc

TEC_CLASS:
IBMInformix_CannotAllocateNextExtent ISA IFX_Event
DEFINES {
    tablename : STRING;
    severity: default = CRITICAL;
};
END

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dbspacename : STRING;
db_instance : STRING;
db_dir : STRING;
application_version : STRING;
application_label : STRING;
application_class : STRING;
application_oid : STRING;
interp : STRING;
itm_context : STRING;
nextextentsize : REAL;

severity: default = CRITICAL;
};
END

IBMInformixHDR.baroc

TEC_CLASS :
IBMInformix_SecondaryHDRServerProblem ISA IFX_Event
DEFINES {
    servername : STRING;
    hdrtype : STRING;
    hdrstate : STRING;
    db_instance : STRING;
    db_dir : STRING;
    application_version : STRING;
    application_label : STRING;
    application_class : STRING;
    application_oid : STRING;
    interp : STRING;
    itm_context : STRING;

    severity: default = CRITICAL;
};
END

TEC_CLASS :
IBMInformix_HDRServerTypeChange ISA IFX_Event
DEFINES {
    servername : STRING;
    previoushdrtype : STRING;
    currenthdrtype : STRING;
    db_instance : STRING;
    db_dir : STRING;
    application_version : STRING;
    application_label : STRING;
    application_class : STRING;
    application_oid : STRING;
    interp : STRING;
    itm_context : STRING;

    severity: default = CRITICAL;
};
END

TEC_CLASS :
IBMInformix_PrimaryHDRServerProblem ISA IFX_Event
DEFINES {
    servername : STRING;
    hdrtype : STRING;
    hdrstate : STRING;
    db_instance : STRING;
    db_dir : STRING;
    application_version : STRING;
    application_label : STRING;
    application_class : STRING;
    application_oid : STRING;

    severity: default = CRITICAL;
};
END
IBMInformixLRUQueues.baroc

TEC_CLASS:
IBMInformix_High_LRUQueueModifiedRatio ISA IFX_Event
DEFINES {
    db_instance : STRING;
    db_dir : STRING;
    application_version : STRING;
    application_label : STRING;
    application_class : STRING;
    application_oid : STRING;
    interp : STRING;
    itm_context : STRING;
    lruqueuenumber : REAL;
    modifiedratio : REAL;
    modifiedratiothreshold : REAL;

    severity: default = CRITICAL;
};
END

IBMInformixLogEvent.baroc

TEC_CLASS:
IBMInformix_LogEvent_Fatal ISA IFX_Event
DEFINES {
    eventtext : STRING;
    servername : STRING;
    db_instance : STRING;
    db_dir : STRING;
    application_version : STRING;
    application_label : STRING;
    application_class : STRING;
    application_oid : STRING;
    interp : STRING;
    itm_context : STRING;
    ifxseverity : STRING;

    severity: default = FATAL;
};
END

TEC_CLASS:
IBMInformix_LogEvent_WARNING ISA IFX_Event
DEFINES {
    eventtext : STRING;
    servername : STRING;
    db_instance : STRING;
    db_dir : STRING;
    application_version : STRING;
    application_label : STRING;
    application_class : STRING;
    application_oid : STRING;
    interp : STRING;
    itm_context : STRING;
    ifxseverity : STRING;

    severity: default = WARNING;
};
TEC_CLASS:
IBMInformix_LogEvent_Minor ISA IFX_Event
DEFINES {
  eventtext : STRING;
  servername : STRING;
  db_instance : STRING;
  db_dir : STRING;
  application_version : STRING;
  application_label : STRING;
  application_class : STRING;
  application_oid : STRING;
  interp : STRING;
  itm_context : STRING;
  ifxseverity : STRING;

  severity: default = MINOR;
};
END

TEC_CLASS:
IBMInformix_LogEvent_Critical ISA IFX_Event
DEFINES {
  eventtext : STRING;
  servername : STRING;
  db_instance : STRING;
  db_dir : STRING;
  application_version : STRING;
  application_label : STRING;
  application_class : STRING;
  application_oid : STRING;
  interp : STRING;
  itm_context : STRING;
  ifxseverity : STRING;

  severity: default = CRITICAL;
};
END

IBMInformixLogicalLog.baroc

TEC_CLASS:
IBMInformix_Low_AvailableLogicalLogSpace ISA IFX_Event
DEFINES {
  servername : STRING;
  db_instance : STRING;
  db_dir : STRING;
  application_version : STRING;
  application_label : STRING;
  application_class : STRING;
  application_oid : STRING;
  interp : STRING;
  itm_context : STRING;
  percentavailable : REAL;
  percentavailablethreshold : REAL;

  severity: default = CRITICAL;
};
END
IBMInformixLogicalLogBackup.baroc

TEC_CLASS:
IBMInformix_LogicalLogBackupFailed ISA IFX_Event
DEFINES {
  servername : STRING;
  logicallognumber : STRING;
  db_instance : STRING;
  db_dir : STRING;
  application_version : STRING;
  application_label : STRING;
  application_class : STRING;
  application_oid : STRING;
  interp : STRING;
  itm_context : STRING;
  logicallogthreshold : REAL;

  severity: default = CRITICAL;
};
END

IBMInformixOverflows.baroc

TEC_CLASS:
IBMInformix_High_LockOverflows ISA IFX_Event
DEFINES {
  servername : STRING;
  db_instance : STRING;
  db_dir : STRING;
  application_version : STRING;
  application_label : STRING;
  application_class : STRING;
  application_oid : STRING;
  interp : STRING;
  itm_context : STRING;
  lockoverflows : REAL;
  lockoverflowsthreshold : REAL;

  severity: default = CRITICAL;
};
END

TEC_CLASS:
IBMInformix_High_UserThreadOverflows ISA IFX_Event
DEFINES {
  servername : STRING;
  db_instance : STRING;
  db_dir : STRING;
  application_version : STRING;
  application_label : STRING;
  application_class : STRING;
  application_oid : STRING;
  interp : STRING;
  itm_context : STRING;
  userthreadoverflows : REAL;
  userthreadoverflowsthreshold : REAL;

  severity: default = CRITICAL;
};
END

TEC_CLASS:
IBMInformix_High_TransactionOverflows ISA IFX_Event
DEFINES {
  servername : STRING;
  db_instance : STRING;

IBMInformixPhysicalLogUsageRatio.baroc

TEC_CLASS:
IBMInformix_High_PhysicalLogUsageRatio ISA IFX_Event
DEFINES {
    servername : STRING;
    db_instance : STRING;
    db_dir : STRING;
    application_version : STRING;
    application_label : STRING;
    application_class : STRING;
    application_oid : STRING;
    interp : STRING;
    itm_context : STRING;
    physicallogusageratio : REAL;
    physicallogusageratiothreshold : REAL;

    severity: default = CRITICAL;
};
END

IBMInformixRollbackRatio.baroc

TEC_CLASS:
IBMInformix_High_RollbackRatio ISA IFX_Event
DEFINES {
    servername : STRING;
    db_instance : STRING;
    db_dir : STRING;
    application_version : STRING;
    application_label : STRING;
    application_class : STRING;
    application_oid : STRING;
    interp : STRING;
    itm_context : STRING;
    rollbackratio : REAL;
    rollbackratiothreshold : REAL;

    severity: default = CRITICAL;
};
END

IBMInformixServerState.baroc

TEC_CLASS:
IBMInformix_Server_Not_OnLine ISA IFX_Event
DEFINES {
    servername : STRING;
    currentstate : STRING;
    db_instance : STRING;
    db_dir : STRING;
    application_version : STRING;
}
application_label : STRING;
application_class : STRING;
application_oid : STRING;
interp : STRING;
itm_context : STRING;

severity: default = CRITICAL;
);
END

IBMInformixTableExtents.baroc

TEC_CLASS :
IBMInformix_High_TotalExtents ISA IFX_Event
DEFINES {
    servername : STRING;
tablename : STRING;
db_instance : STRING;
db_dir : STRING;
application_version : STRING;
application_label : STRING;
application_class : STRING;
application_oid : STRING;
interp : STRING;
itm_context : STRING;
totalextents : REAL;
totalextentsthreshold : REAL;

    severity: default = CRITICAL;
};
END

IBMInformixUpdateStatistics.baroc

TEC_CLASS :
IBMInformix_ZeroProfileCounts ISA IFX_Event
DEFINES {
    db_instance : STRING;
db_dir : STRING;
application_version : STRING;
application_label : STRING;
application_class : STRING;
application_oid : STRING;
interp : STRING;
itm_context : STRING;
databasename : STRING;

databasename : STRING;

    severity: default = MINOR;
};
END

IBMInformix_UpdateStatistics.isa

TEC_CLASS :
IBMInformix_UpdateStatistics ISA IFX_Event
DEFINES {
    db_instance : STRING;
db_dir : STRING;
application_version : STRING;
application_label : STRING;
application_class : STRING;
application_oid : STRING;
interp : STRING;
itm_context : STRING;
databasename : STRING;
tablemodratio : REAL;
tablemodratiothreshold : REAL;
severity: default = CRITICAL;
);
END

IBMInformixWaits.baroc

TEC_CLASS : IBMInformix_High_BufferWaits ISA IFX_Event
DEFINES {
  servername : STRING;
  db_instance : STRING;
  db_dir : STRING;
  application_version : STRING;
  application_label : STRING;
  application_class : STRING;
  application_oid : STRING;
  interp : STRING;
  itm_context : STRING;
  bufferwaits : REAL;
  bufferwaitsthreshold : REAL;

  severity: default = CRITICAL;
);
END

TEC_CLASS : IBMInformix_High_LockWaits ISA IFX_Event
DEFINES {
  servername : STRING;
  db_instance : STRING;
  db_dir : STRING;
  application_version : STRING;
  application_label : STRING;
  application_class : STRING;
  application_oid : STRING;
  interp : STRING;
  itm_context : STRING;
  lockwaits : REAL;
  lockwaitsthreshold : REAL;

  severity: default = CRITICAL;
};
END

TEC_CLASS : IBMInformix_High_CheckpointWaits ISA IFX_Event
DEFINES {
  servername : STRING;
  db_instance : STRING;
  db_dir : STRING;
  application_version : STRING;
  application_label : STRING;
  application_class : STRING;
  application_oid : STRING;
  interp : STRING;
  itm_context : STRING;
  checkpointwaits : REAL;
  checkpointwaitsthreshold : REAL;

  severity: default = CRITICAL;
};
END

TEC_CLASS : IBMInformix_High_LatchWaits ISA IFX_Event
DEFINES {

TEC_CLASS:
  IBMInformix_High_LRUWrites ISA IFX_Event
  DEFINES {
    dbname : STRING;
    db_instance : STRING;
    db_dir : STRING;
    application_version : STRING;
    application_label : STRING;
    application_class : STRING;
    application_oid : STRING;
    interp : STRING;
    itm_context : STRING;
    lruwrites : REAL;
    lruwritesthreshold : REAL;

    severity: default = CRITICAL;
  }
END

TEC_CLASS:
  IBMInformix_High_ChunkWrites ISA IFX_Event
  DEFINES {
    dbname : STRING;
    db_instance : STRING;
    db_dir : STRING;
    application_version : STRING;
    application_label : STRING;
    application_class : STRING;
    application_oid : STRING;
    interp : STRING;
    itm_context : STRING;
    chunkwrites : REAL;
    chunkwritesthreshold : REAL;

    severity: default = CRITICAL;
  }
END

TEC_CLASS:
  IBMInformix_High_ForegroundWrites ISA IFX_Event
  DEFINES {
    dbname : STRING;
    db_instance : STRING;
    db_dir : STRING;
    application_version : STRING;
    application_label : STRING;
    application_class : STRING;
    application_oid : STRING;
    interp : STRING;

    severity: default = CRITICAL;
  }
END
itm_context : STRING;
foregroundwrites : REAL;
foregroundwritesthreshold : REAL;

severity: default = CRITICAL;
};
END

IFX_Event.baroc

TEC_CLASS:
IFX_Event ISA TMW_Event
DEFINES {
   DB_INSTANCE : STRING;
   DB_DIR : STRING;
   application_version : STRING;
   application_label : STRING;
   application_class : STRING;
   application_oid : STRING;
   INTERP : STRING;
   ITM_CONTEXT : STRING;

};
END

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