MICRO FOCUS

OpenFusion TAO 2.3.1.0

Release Notes

Micro Focus
The Lawn
22-30 Old Bath Road
Newbury, Berkshire RG14 1QN
UK

http://www.microfocus.com

2016-05-26

Contents

Micro Focus OpenFusion TAO 2.3.1.0 Release Notes

Derived from the TAO Open Source implementation, Micro Focus OpenFusion TAO is a fully binary distribution that installs easily. Configuration is simple and no additional compilation is required following installation. OpenFusion TAO has been fully tested to ensure interoperability with other Micro Focus products, including the OpenFusion CORBA Services and OpenFusion JacORB. The full source code tree for OpenFusion TAO is also included, giving developers the ability to extend the ORB, perhaps to add support for non-standard functionality or add new features to more precisely match their requirements.

All Micro Focus products are fully productised, thoroughly tested, and under strict version management control, ensuring superior quality.

Installation

Install OpenFusion TAO 2.3.1.0 as follows.

On Windows

1. Download the OpenFusion TAO 2.3.1.0 zip file.
2. Unpack the zip file in your desired installation location.

   If you have an earlier version of OpenFusion TAO installed, unpack the new version to your existing installation folder. If this is your first OpenFusion TAO installation, create a suitable folder and unpack the OpenFusion TAO 2.3.1.0 archive into that.

On Unix or Linux

1. Download the OpenFusion TAO 2.3.1.0 tar file to a temporary location.
2. Untar the file, for example:

   ```
   tar -xf TAO231_0-RedHat-EL7-gcc48-inline-64bit-16nnnn.tar
   ```

3. Run the `install.sh` installation script specifying an absolute desired installation destination directory path, for example:

   ```
   ./install.sh /opt/TAO231_0
   ```

Upgrading OpenFusion TAO

If you are upgrading your OpenFusion TAO installation from version 2.1.1 or another previous release, consult the document *OpenFusion TAO 2.3.1 Upgrade Information,* supplied as part of the Micro Focus OpenFusion TAO installation at `docs/release/upgrading.html`.

Operating Systems Supported

For a full list of supported platforms, see
http://supportline.microfocus.com/prodavail.aspx

New Features

OpenFusion TAO 2.3.1.0 provides enhancements in the following areas.

- New feature added to constrain client ORBs using IIOP to only use local TCP ports spanning a supplied range. Use new ORB_init parameters `-ORBIIOPClientPortBase <base>` and `-ORBIIOPClientPortSpan <count>` to specify a range from base to base plus count. A base supplied without a span indicates the client may use only a single port. A span supplied without a base is silently ignored. See *Connection Management and Protocol Selection* in `docs/release/TAO/Options.html` for full details.
- Implementation Repository new features added.
  - New tao_imr kill command to signal an otherwise unresponsive server.
  - New tao_imr link command to identify groups of POAs that share a server.
  - ImR is better able to avoid errantly starting multiple server instances.
- Added a new Client Strategy Factory option, `-ORBDefaultSyncScope` which takes the label "None", "Transport", "Server", or "Target" to define the sync scope to be used when a Messaging SyncScopePolicy is not in use. See *Client_Strategy* in `docs/release/TAO/Options.html` for full details
- Added the `new -ORBListenerInterface` UIPMC option to provide detailed control over which IP interfaces are to be listened on for which multicast addresses. This works in a similar way to the `existing -ORBPreferredInterfaces ORB_init command` line option but for UDP server listeners instead of client senders. See the *TAO_UIPMC_Protocol_Factory* in `docs/release/TAO/Options.html` for details. This option allows UIPMC/MIOP to control which interfaces are used by the server to listen for broadcast messages instead of only using the "default" interface.
- Fault Tolerant Implementation Repository - The Implementation Repository Locator now supports a dual-redundant fault tolerant configuration which provides replication and seamless failover between the primary and backup locator servers.
- Implementation Repository interoperable with JacORB servers - The Implementation Repository can now be used to manage JacORB 3.3 or later application servers.
- Added MIOP configuration options `-ORBSendThrottling` and `-ORBEagerDequeueing`. See the descriptions in the *MIOP* section of `docs/release/TAO/Options.html` for their use.
- Added OpenSSL configuration options `SSLCipherList` and `SSLServerCipherOrder` to `SSLIOP_Factory`. Allows SSL/TLS BEAST exploit to be mitigated.
- New SSLIOP Factory option `-SSLPassword <password descriptor>` facilitates distributing password protected private keys. See `TAO/Security/SSLIOP-USAGE.html` for further details.
- New SSLIOP Factory option `-SSLVersionList <list>` constrains the list of cypher versions allowed. See `TAO/Security/SSLIOP-USAGE.html` for further details.
- New SSLIOP Factory option `-SSLCheckHost` enables a second layer of authentication by comparing the sending hostname to the name or names in the supplied certificate. See `TAO/Security/SSLIOP-USAGE.html` for further details.
- `CORBA::string_dup()` and `CORBA::string_free()` have been enhanced to use non-allocated and shared static null strings. This allows for optimized default null string initialization in CORBA string members and a reduction in redundant dynamic memory management required for such.

NOTE: It is a requirement of the CORBA specification that all CORBA::strings are deleted via the `CORBA::string_free()` and allocated via the `CORBA::string_dup()` or `CORBA::string_alloc()` calls; you must not use the C++ keywords `new` and `delete[]` directly. Previously it was possible to ignore this requirement, however if you do so now, this enhancement for null strings will cause problems, as deleting these null CORBA::strings will cause corrupt heap and/or segfaults.

No changes or enhancements were made to the API at version 2.3.1.0.

User Documentation

New documentation released with this Service Pack is available online, from https://supportline.microfocus.com/productdoc.aspx.

Known Issues

For known issues with OpenFusion TAO, see the *Known Issues* section of the release documentation that is installed as part of the product, available at `/docs/release/prism_release.html#known`.

Resolved Issues

The resolved issues that customers have reported are listed in this section. The numbers that follow each issue are the Reported Problem Incident number followed by the Customer Incident Numbers (in parentheses). RPIs that have numbers only (and no text) are included to confirm that the RPIs have been fixed, since no further information is required.

Issues Resolved in this Release

- Additional logging has been provided to show when a socket has been closed.

  1099756 (2820586)

- Fixed PICurrent improper reset issue. Now slot data is retained through an ImR forced retry.

- Fixed ACE_Log_Msg L format modifier on vc14.

  (Bugzilla #4205)

- Defaulted IIOP endpoints on IPv6 enabled systems will no longer append `localhost` to the IOR if there are no routable IPv6 addresses but there are routable IPv4 addresses available.

- Improved the performance of the FT-ImR while under very heavy loads.

- The temporary directory used by the `tao_idl` preprocessor may now contain spaces.

Updates and SupportLine

Our Web site gives up-to-date details of contact numbers and addresses.

Further Information and Product Support

Additional technical information or advice is available from several sources. The product support pages contain a considerable amount of additional information, such as:

- The WebSync service, where you can download fixes and documentation updates.
- The Knowledge Base, a large collection of product tips and workarounds.
- Examples and Utilities, including demos and additional product documentation.

To connect, enter *http://www.microfocus.com* in your browser to go to the Micro Focus home page.

Note: Some information may be available only to customers who have maintenance agreements.

If you obtained this product directly from Micro Focus, contact us as described on the Micro Focus Web site, *www.microfocus.com*. If you obtained the product from another source, such as an authorized distributor, contact them for help first. If they are unable to help, contact us.

Disclaimer

This software is provided "as is" without warranty of any kind. Micro Focus disclaims all warranties, either express or implied, including the warranties of merchantability and fitness for a particular purpose. In no event shall Micro Focus or its suppliers be liable for any damages whatsoever including direct, indirect, incidental, consequential, loss of business profits or special damages, even if Micro Focus or its suppliers have been advised of the possibility of such damages. Some states do not allow the exclusion or limitation of liability for consequential or incidental damages so the foregoing limitation may not apply.