Metamerge Integrator 4.6.8: Fixed Issues

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Contents

Preface

Metamerge Integrator is now owned and supported by International Business Machines Corporation.

Chapter 1. Fixed Issues 4.6

Script Libraries not available to Listeners

Listeners, or Simple EventHandlers, do not have access to your Script Libraries.

This bug is fixed in the next release, and might trigger a 4.6.8 release.

Logged in 4.6.7, present since 4.6, fixed in 4.6.8

JMS 1.13 can lose queue elements when iterating

If you have an iterator with a timeout, and the timeout is reached (queue empty for more than the timeout value), then entries might get lost. You can lose the queue items if they are put in the queue after the timeout, but before the Connector has been properly closed.

Logged 2002-3-1 for ETA JMS version 1.13. This bug does not apply to JMS versions delivered with Integrator 4.6 as it uses functionality new in 1.13.

There is no work-around for this bug but it shows up only if you use the timeout feature of JMS.

JMS MQ Series does not support topics

When using IBM-MQ JMS you get a null pointer exception when trying to connect.

Logged in version 4.6.2

This issue is fixed by the new version of the JMS Connector 1.13, but a fix for the JMS Connector enclosed with the 4.6 release (JMS 1.12) is available through "JMS Connector" in *IBM® Directory Integrator 4.7: Reference Guide*.

NT/ADSI Connector can clear passwords during update

Any update operation that has not mapped the Password Attribute results in clearing the Password.

Logged in version 4.6.6

Connectors: Override Add hook defect in Update and AddOnly modes

The work object is not available in the **Override Add** Hook.

This is fixed in 4.6.6. If this bug affects you, download miserver.jar and put it in the jars/ directory.

Fixed in 4.6.6, logged in version 4.6.5, present since 4.6.3

HTTP EventHandler using Auth Connector

An updated version of the HTTP EventHandler is included with version 4.6.3. If you use the Auth Connector with the HTTP EventHandler, you get a java.lang.AbstractMethodError.

If you suspect this, go to the EventHandler templates and check the version of metamerge.HTPPEventHandler. Revision 1.3 of the HTTPEventHandler has this problem.

Replace HTTPEventHandler.jar in the jars/eventhandlers directory with HTTPEventHandler.jar.

Fixed in 4.6.6, logged in version 4.6.5, present since 4.6.3

XML Parser limitations

The XML parser can have problems reading files larger that 4 MB and writing files larger than 14 MB.

This is caused by Java™ not having access to enough memory. See the *Metamerge Integrator 4.6.8: FAQ* for a reply to this.

Logged in version 4.6.5

Memory leak

Each time an AssemblyLine is started, approximately 30 KB of memory is lost. This causes problems when you have a configuration file with an EventHandler starting AssemblyLines over and over.

Logged in 4.6.4, reduced in 4.6.5 to 2.5 KB.

Running out of file handles

The log file is not closed properly after terminating an AssemblyLine. This can cause you to run out of file handles if you start the AssemblyLine many times (for example, from an EventHandler).

Close and restart the Metamerge Integrator server when you are getting low on file handles.

Fixed in 4.6.5.

If you use https:/ as part of the URL, the AssemblyLine fails

This is due to an internal parser not being loaded. The error message you get is:

```
ERROR> AssemblyLine xxx failed because unknown protocol: https
```

The situation occurs only when using the **Run** button in the Admin tool, not if you run your AssemblyLine from command line or EventHandler.

Temporary fix

Do the following:

1. In the Admin Tool, select **View–>Preferences.**

2. In the Java command box, type **miserver** (you might need to prefix this with the path of the miserver application)

Logged in version 4.6.2

In certain situations, the Lotus® Domino™ Connector (and possibly some others) will not run from the Admin tool

The Lotus Domino Connector gives you a connection error. You know that you have encountered this issue if:

1. You are able to connect using the **Connect** button on the **Configuration–>Attributes** tab of the Connector.
2. The AssemblyLine can be run through the **miserver** command.

This is due to an internal parser not being loaded.

Temporary fix

Do the following:

1. In the Admin tool, select **View–>Preferences**.
2. In the Java command box, type **miserver** (you might need to prefix this with the path of the miserver application)

Logged in version 4.6.2

4.6 Installer fails for some systems

This is true for Solaris 2.6, Windows® ME, Turbolinux, MacOS X.

The problem is traced back to the software building our Installer. Expect a fix to be released.

Logged in version 4.6.1

Backward Compatibility Issue: If you use code that supplies an entry to be treated as the work-entry, it might fail.

This issue is related to expert usage of the Integrator. If the description below make no sense to you, you can ignore this issue altogether.

Some methods, like rscTaskComponent.add (usually called by connectorName.add()) have an Entry object as a parameter. That parameter is usually the **work** entry, in which case there are no problems. However, if you have created your own temporary Entry object and want the AssemblyLine to treat it as the **work** entry, you can submit the temporary Entry object as a parameter. This has stopped working, as the global **work** entry is always used.

Temporary fix

Using the **work** object for passing the Entry values works around this problem. This issue still is a bug, and a patch can restore the backward compatibility.

Example:

Let's assume that you have a connector called myConnector in AddOnly mode.

```
tempWork.addAttributeValue( "name", "John Doe");
myConnector.add( tempWork );
```

This code currently fails, while

```
work.addAttributeValue( "name", "John Doe");
myConnector.add( work );
```

performs correctly supposing that the other attributes of **work** does not create a problem.

Logged in version 4.6.2, fixed in 4.6.3

Chapter 2. Service Packs

Service Packs are zipped files containing only the files needed to upgrade an existing installation. You must manually download and unzip the files into your Metamerge directory. The service packs are cumulative so you can always choose the highest version. Service Packs are named *VVV*.zip where *VVV* is the version number.

The service packs are zipped relative to the Metamerge installation path.

Pending issues for the latest version are found in *Metamerge Integrator 4.6.8: Known Issues*.

The *Metamerge Integrator 4.6.8: Known Issues* describes known major that have not yet been fixed. The page might also contain temporary fixes that are not yet part of a Service Pack. When you replace .jar files with new ones from the service pack, if you want to keep a copy of the old .jar, make sure that all your to-be-replaced jar-files in the jars directory and subdirectories are renamed to an extension different than .jar. For example, if you are getting a new jdbc.jar, make sure it either replaces the old one, or that you rename the old to jdbc.jar.old. This is because the jar-file loader picks up any jar-files it finds. Renaming a file is not enough. For the loader to miss it, the file cannot have the extension .jar.

Service Pack bundles

- 2002-06-24 "Version 4.6.8" on page 12. This version is afull iInstaller, you don't need earlier service packs.
- 2002-02-11 "Version 4.6.7" on page 11
- 2002-01-14 "Version 4.6.6" on page 10
- 2001-12-17 "Version 4.6.5" on page 8
- 2001-11-23 "Version 4.6.4" on page 7
- 2001-11-09 "Version 4.6.3" on page 6
- 2001-10-17 "Version 4.6.2" on page 6
- 2001-10-12 "Version 4.6.1"

Version 4.6.1

Date: 2001-10-12

Bugs fixed

- Some major internal objects (main, xmldom, and so forth) could disappear under certain conditions.
- Custom connector could not interactively connect from within the Admin tool.
- Some dropdown boxes with Connector attribute could not be populated when they should.
- JDBC Connector: empty strings were not removed before doing an add operation.
- JMS Connector: some classes were lacking from the jar-files, making the JMS Connector crash.

Minor improvements

- Only Available Scripting languages were shown. Admin tool now shows supported but unavailable languages as well.
- Icon changed.

Version 4.6.2

Date: 2001-10-17

This patch is cumulative with the previous ones, you do not need to install any older patches. After this patch, both Admin Tool and Metamerge Integration Server will have version 4.6.2

Bugs fixed

- Backward incompatibilities issues with certain events:
  - buildCriteria should be called after **before_lookup**
  - **work** object was not available before attribute mapping.
- The command **View–>Show Component Version** would give no output if your Java lib/ext directory was empty.
- When making EventHandlers, and wanting to use them to start an AssemblyLine, a dialogue box had disappeared. Therefore you could not make the EventHandler provide the **event** objects.
- Changing connector type caused parser to be displayed, but it was not really selected.
- JMS Documentation updated, it did not tell where to put IBM MQ Series jar files (supplied by IBM).
- Cloning an EventHandler made it refer to the clone target.

Bugs fixed earlier: "Version 4.6.1" on page 5

Version 4.6.3

Date: 2001-11-09

This patch is cumulative with the previous ones, you do not need to install any older patches. After this patch, both Admin tool and Metamerge Integration Server will have version 4.6.3

Note: This patch changes a behaviour of the Integrator that is present, but that is counterintuitive. A Connector in Update mode would in certain cases behave differently dependent on whether **Compute Changes** flag was set or not. Now Update works the same way if **Compute Changes** is set or not, and as described in the Update mode documentation (see "Connectors" in *IBM Directory Integrator 4.7: Reference Guide*). If you used a Connector in Update mode with **Compute Changes** set to delete attributes in an entry, you will have to change Default Null Behaviour for that attribute.

Bugs fixed

- Update Connector with **Compute Changes** set: Compute changes did not take the default null behaviour into account.
- Backward compatibility issue: Old script code that delivered a work entry as parameter stopped working.

- Connectors in non-Iterator mode could be made to use delta settings: If you had an Iterator with delta setting and you changed the mode to a non-iterator mode, the delta settings would be remembered. This could cause conflicts if you later reused the same delta settings.
- XML, SOAP and DSML parser could not read UTF-8.
- JDBC Connector did not understand non-string boolean values.
- Fixed Record Parser class was missing.
- vbscript or javascript as AssemblyLine Script Language would fail.
- The LineReader Parser ignored its parameter.
- LDAP Connector did not call the **On Multiple Entries** hook with DN as link criteria.
- Domino Connector: Apostrophe and note quotes was used to build up search filters. Starts-with/ends-with was missing an equal sign for Formula statements.
- Domino Connector: Iterators with the combination of both Database Views and Document Selection would fail.
- Java Runtime 1.4 beta could not be used with the Integrator. This is now fixed, but stress that 1.4 is a beta, and that Metamerge Integrator is only certified to work with 1.3.
- Some typos fixed.
- Various online documentation updated (this has been done continuously).

Bugs fixed earlier: "Version 4.6.2" on page 6, "Version 4.6.1" on page 5

Improvement
- ADSI Connector is improved so when creating a user, all mandatory fields have default values. These are **Flags**, **AccountExpDate**, **LogonHours**. UserName still has to be given by the user. See "NT4 Connector" in *IBM Directory Integrator 4.7: Reference Guide*.

Version 4.6.4

Date: 2001-11-23

This patch is cumulative with the previous ones, you do not need to install any older patches. After this patch, both Admin tool and Metamerge Integration Server will have version 4.6.4.

Note: This patch is just available for convenience: There exists a full installer for 4.6.4. Use the patch if you are worried about downloading the full installer because of the installer's size.

Bugs fixed
- Loader problem within Admin tool resolved. Certain components would not work if launched from the Admin tool. Examples of this was HTTPS not available as protocol, Lotus Domino Connector failing, and failing LDIF parser
- Installer would crash on various platforms (Solaris, Windows ME and so forth).
- AssemblyLine report would fail.
- CSV parser would fail to remove quotes if quoting was enabled and the first attribute on the line was quoted.
- During Install and in the license file, some browsers would display certain characters as rectangles or in a way that was hard to read.

- Added the **Rename** button in the screen showing all AssemblyLines. The **View Log** button can now be accessed by right-clicking the AssemblyLine or by opening the AssemblyLine.
- There was an non-working option for displaying Hooks like they were in 4.5. This option has been removed.

Bugs fixed earlier: "Version 4.6.3" on page 6, "Version 4.6.2" on page 6, "Version 4.6.1" on page 5

Improvements
- The default XML parser now reads multi-value attributes.
- Added checks to connector renaming. Made it impossible to give the connector no name, or the name of an existing connector, or a name with a blank.

Version 4.6.5

Date: 2001-12-17

This patch is cumulative with the previous ones, you do not need to install any older patches. After this patch, both Admin tool and Metamerge Integration Server will have version 4.6.5.

Note: This patch introduces potential backward incompatibility in the CSV parser. Including version 4.6.4, quotes and column separators inside a quoted field were preceded by a backslash (\ ). From version 4.6.5, a quote inside a quoted field is doubled. This is a behaviour shared by Microsoft® Excel and it ensures that a CSV file written by the Integrator can be read as well. If you are relying on the quoting mechanism of an older version, you might want to check out if this breaks your AssemblyLine.

Bugs fixed
- A file handle was not freed after termination of the AssemblyLine. This would cause you to run out of file handles after several thousand restarts of the AssemblyLine.
- A Memory leak was fixed. 27 KB of memory was lost for every run of an AssemblyLine.
- If you tried to save a file in the Admin too, and did not have the system permissions to rename the config file to a .bak file, or the temporary file to the new config file, you would get a message that the config file had been saved. In reality, it had not been saved. This could cause code to disappear.
- When selecting Attributes for Attribute mapping, some Attribute would not be visible (for example, if you had changed the Connector mode). Also, inherited Attributes were not shown.
- While deleting or inheriting hooks, it would be possible to write code in non-refreshed windows: These would cause code to disappear.
- If you had external properties defined in a config file, and moved to another config file without external properties, the external properties would only partly be reset.
- The system.restartEntry() would not work in AssemblyLines without Iterators.
- Outlook Connector (an Outlook Contacts Connector) could not update data correctly. See "I have a new version of a script connector (or parser) in the base template library, but my AssemblyLine seems to use an old one." in *Metamerge Integrator 4.6.8: FAQ* if you have old AssemblyLines using this Connector.It is a Script Connector and will not automatically be updated in old AssemblyLines.

- Timer algorithm of the Timer/Cron Connector is harmonised with the documentation.
- Debugger: Evaluating **task** or **main** would crash the debug process.
- The reuse Connector type would not work if you changed an already existing Connector.
- The Connector icon in the AssemblyLine is now refreshed if you change the Connector's type.

Bugs fixed earlier: "Version 4.6.4" on page 7, "Version 4.6.3" on page 6, "Version 4.6.2" on page 6, "Version 4.6.1" on page 5

Improvements

- JDBC Connector used with SQL databases (Addonly, Update only). If column contained names with a dash (-) or other special character in them, the Connector could fail to return the data (depending on the driver). Some databases allow columns of type NATIONAL CHAR. These are now treated as type JDBC type OTHER which works well.
- CSV Parser was inconsequent on the quoting mechanism on read/write. Parser now gives you the chance to discover that your CSV file lacked fields (no attribute returned as last attribute if the number of separators did not match the schema). Parser now has an extra parameter that can be used to suppress the header line on output. This is most useful in append mode. Parser now returns empty fields at the end of the input lines (if they should be returned). The parser now reads past empty lines. If a field has an empty name, that attribute will not get any values.
- DSML Parser: DSML Namespace could not be chosen, it was always **dmsl**. A parameter in the Parser configuration tab now allows this to be chosen by the user (default is **dmsl** so backwards compatibility is no issue).
- You now get an error message if you try to copy a script component to the Connector library. You were not stopped from doing this before, but the script component would not be visible in the Connector library. However, you could change the type of an existing Connector to the name of the script connector, thus manoeuvring into situations were the Integrator was confused.
- Attribute mapping: If you change from advanced to simple mapping, the **Copy from work attribute** field will be cleared. It didn't use to clear, and this might cause confusion.
- Delta settings now lets you pick a key attribute from the **work** object, which is accurate. It used to let you select from the **conn** object which could differ. Documentation updated as well.
- Timer Event Handler added. It is identical to Cronjob, but the name is more correct. Cronjob exists for backwards compatibility reasons.
- If the External Properties file could not be found, you would get ugly error messages and a new file would be created for you. You are now warned that a new file is created.
- A reused Connector type now looks like @ followed by the name of the inherited connector, no matter how this is done.Depending on the way it was done (changing and existing or creating a new), this would be different in 4.6.4 and earlier.
- File Saving: Config file names default end with .cfg. Integrator does not overwrite existing files without warning. Remember the path so that it is easier to save or open new files in the same directory.
- Export functionality: Integrator now asks for confirmation before it overwrites a file. Also remembers the last path, to make it easier to enter a new path.

- Toolbar for new config-files was default but the toolbar was not shown.
- Debug-messages removed from errorlog.

Version 4.6.6

Date: 2002-01-14

This patch is cumulative with the previous ones, you do not need to install any older patches. After this patch, both Admin tool and Metamerge Integration Server will have version 4.6.6.

Note: Integrator used to treat enabled hooks without code as disabled. This is now changed, and an info message will show up in the log. Note that if you have enabled Failure Hooks without code in them, this can change the servers behaviour as the AssemblyLine can regard error as handled. See "Enabling/disabling Hooks" in *IBM Directory Integrator 4.7: Reference Guide* for more on this.

Bugs fixed

- It was not possible to delete messages using pop3 in the mailbox connector for POP3 Connector.
- HTTP EventHandler could hang when a connection was stopped by client just after acceptance.
- Using the Auth Connector with the HTTP EventHandler, you would get a java.lang.AbstractMethodError due to a missing jar.
- Hooks:
  - In override_add hook, work object was unavailable.
  - If the Compute Changes flag was set, the conn object in the modify_no_change hook contained all mapped attributes (even if not marked for updating). The conn object now usually has an empty set of attributes, since there are no changes.
- GUI:
  - Import AssemblyLine could link two AssemblyLine configurations.
  - Select button in attribute map did not list inherited working attributes.
  - Before Update hook misplaced.
  - EventHandler name was not refreshed after renaming an EventHandler.
  - If you added a Connector in iterator mode, and the current Connector was the first non-iterator Connector, the screen was not updated properly.
  - Sometimes, the up-arrow in the file-chooser would not work.
- Error Message `No form definition for parser` would show up places where it should not (in Connectors without parsers).

Bugs fixed earlier: "Version 4.6.5" on page 8, "Version 4.6.4" on page 7, "Version 4.6.3" on page 6, "Version 4.6.2" on page 6, "Version 4.6.1" on page 5

Improvements

- Hooks:
  - Two new hooks implemented in order to let you catch errors during initialization of Connectors (initialize_fail and close_fail). See "Hooks" in *IBM Directory Integrator 4.7: Reference Guide*.
  - Enabled hooks without code are no longer treated as disabled.

- LDIF Parser accepts more data-types now. It is also able to output with base64 encoding when necessary. And it reads data in closer accordance to RFC2849.
- XML Parser now performs better if your tags are empty.
- Logging of message from delta Btree included a null messageBtree Connector.
- The default URL in the NetscapeChangelog Connector is now ldap://localhost:389 (it was ldap://hostname:389).
- HTTP EventHandler now logs port number already in use to console as well.
- GUI:
  - Save OK popup window removed. It is now replaced by a message in the title bar telling you when you last saved your file.
  - Admin tool now closes the Connector when the Configure Connector tab is closed. This reduces the chance for failure with drivers that lock the data-source because there is a connection open.
  - Warning is now issued if your try to create/rename AssemblyLines and EventHandler to names with commas in them.
  - In Connector Update Mode, the hooks **On Multiple Entries** and **After Update** are not called when the **Override Update** hook is enabled. The GUI now marks these hooks with a red message saying that the hooks will not be executed.

Version 4.6.7

Date: 2002-02-11

This patch is cumulative with the previous ones, you do not need to install any older patches. After this patch, both Admin tool and Metamerge Integration Server will have version 4.6.7.

Note: Some hooks are called slightly differently than they used to. Refer to the section about Bugs Fixed. Since the behaviour of the LDIF parser has changed a little (see "Improvements" on page 12) it will create an extra line as well as try to Base64-encode data if you have used spaces at the end of Attributes. This is to protect the space so it does not get lost.

Bugs fixed
- NT4/ADSI Connector could clear passwords during update.
- LDAP Connector with Open LDAP's configuration tab returned NullPointerException when getting the contexts of OpenLDAP.
- Configuration files were not encrypted correctly.
- File Logging: If log file could not be created, a strange error message could appear.
- task.getLogFilePath method was broken. Now returns an absolute path.
- Hooks, Before Connector Initialised. A scripting error in the before_connector_initialize hook would induce a call to the epilog without passing through the data flow. The epilog would then define its work object as a result of the AL data flow (null in this case).
- Hooks, Override Add. If the override_add hook was enabled, the addonly_ok hook was incorrectly called after the add operation.
- Hooks, Lookup Mode, very special case. If you had a lookup connector, and did not allow duplicates, and found multiple entries when looking up, and had not enabled the **On Multiple** Hook, and had an **On Error** hook, execution would continue after calling the **On Error** Hook, using the first Entry found, just as if

this had been an **On Multiple** Hook. This is a logical error, after calling the **On Error** Hook, the connector should not proceed, except for calling the **After Lookup–>On Success** Hook.

Bugs fixed earlier, see : "Version 4.6.6" on page 10, "Version 4.6.5" on page 8, "Version 4.6.4" on page 7, "Version 4.6.3" on page 6, "Version 4.6.2" on page 6, "Version 4.6.1" on page 5

Improvements

- IBM SecureWay® Changelog Connector is added
- XML Parser: The XML parser would generate CDATA_SECTION_NODEs on output, but it ignored that text type on input, it would only read TEXT_NODEs
- LDIF Parser: LDIF parser would generate Base64 encoding on output but failed to parse B64 on input. When B64 encountered on input the parser now trims the B64 string (this is safe) to remove the initial space that caused MimeUtility to misinterpret the string. LDIF parser now creates an extra line with version number (this is to be more compliant with the standard (RFC 2849))
- Outlook Connector: Changed the quoting mechanism in the lookup function so names containing a single quote (') does not break down the Connector
- GUI: Escape key now acts as Cancel in the dialogues.
- Statistics: The lookup statistic now counts only lookups which succeeded. It used to count unsuccessful lookups as well.
- LDAP Connector: New default value for Authentication is Simple (it was Anonymous). This could be confusing since Anonymous stilled used user-name and password if these were supplied.
- Hooks, Default OK: In the default_success Hook (After ...-> On Success), if an error occurred, it was silently ignored. Now calls default_error when an error occurs, and/or terminates the AssemblyLine
- Improved Flow Control: In the EventHandler, the system.skipEntry() and system.restartEntry() were not implemented. In the Iterator (AssemblyLine), system.restartEntry() was not implemented, and system.ignoreEntry() did the same as system.skipEntry(). In other connectors of the AssemblyLine, system.abortAssemblyLine could cause an error Hook to be called.
- Slight improvements of some of the error messages.

Renaming of Connectors

4.6.7 renames certain Connectors to remove confusion. Old scripts will still work, but new files should use the new term.

- ADSI renamed to NT4. You should remove your adsi.jar in the jars/Connector directory in order to stop the old name from showing up.

Version 4.6.8

Date: 2002-06-24

This patch is really a new full installer. It fixes some bugs and is a rewrite or replacement of some libraries (FTP and SNMP).

Note: If you have AssemblyLines using the SNMP trap Connector, you must reconfigure your Connector (the libraries have been changed and the old Connector is not supported any more). The SNMP EventHandler (letting you use Integrator as a snmp-server) has been removed. If you used this SNMP EventHandler, please contact your sales representative.

Bugs fixed

- system.skipTo() would not work from Error Hooks.
- Configuring your Delta would only work if you tried to do it on the first Connector you inserted in the current Admin tool session.
- system.snmpTrap() would ignore its host and port parameters.
- A workaround for the memory leak is introduced. See *Metamerge Integrator 4.6.8: Known Issues*.
- BTreeObjectDB lacked the terminate() method. This meant that you could not close it yourself and then delete the file. This Connector is used by the Delta-enabled iterators, so the bug would apply to Deltas as well.

Bugs fixed earlier, see "Version 4.6.7" on page 11, "Version 4.6.6" on page 10, "Version 4.6.5" on page 8, "Version 4.6.4" on page 7, "Version 4.6.3" on page 6, "Version 4.6.2" on page 6, "Version 4.6.1" on page 5

Improvements

- SNMP Trap Connector replaced by SNMP Connector (see "SNMP Connector" in *IBM Directory Integrator 4.7: Reference Guide*). The new Connector can both Walk (like the old Connector) and Get and Set.
- Iterators in delta-mode now return the old entry so you can know what was changed.
- Integrator would fail to start if your Java VM had a security framework that demanded signed Security Providers (such as Java 1.4). A new parameter in the lax-files now lets you provide your own Security Provider class (com.metamerge.securityProvider).
- Generic and Timer Listeners now have access to the Script Libraries.
- Delta functionality improved: The conn.getProperty() used in **after getnext** hook will supply you with an entry called delta.old which was the entry as it was before it was modified.
- LDIF parser now can suppress the LDIF version number by using the ldifVersion parameter. This creates compatibility with old versions were the LDIF standard was followed less rigidly.

Individual Components

None released yet.

Appendix. Notices

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