Mercury Universal CMDB 6.5 Readme

This file provides the following information about Mercury Universal CMDB 6.5:

Additional Reading

For complete information on deploying, administering, and using Mercury Universal CMDB, see the Mercury Universal CMDB documentation, available from the following locations:

- Documentation directory on the Mercury Universal CMDB 6.5 CD-ROM
- Mercury Universal CMDB Help menu, available after installation
- Mercury Customer Support Website

New Features and Enhancements

Performance and Memory Utilization Improvements

CMDB
- Concurrent updates – End user operations such as create/update TQL are performed in parallel to system updates.
- TQL calculation response time improvements.
- Better chunking results for the enrichment rule updates.
- View lifecycle – View results that were not accessed during a time period configured in the **appilogConfig.properties** file are removed from memory. Those views will appear as not initialized in the Topology View Manager. To configure the time period, see View Lifecycle Properties.

Discovery
- Adding a chunking approach for activating/deactivating actions has reduced the overall impact on the system.
- The Discovery Manager now opens much faster (time reduced by up to several seconds).
- Improved performance on a system configured with a large number of discovery probes.
- Improved Discovery Manager Dialog loading – a global error indication on the pattern level was removed.

GUI
- Removed redundant server calls on popup menu actions and image retrieval.

Server
- Number of results allowed in a view also include links (configured in **appilog.config properties-appilog.map.MaxObjectsInMapServerError** and **appilog.map.MaxObjectsInMapServerWarn**)
- Snapshot results performance improvements.
- A JMX operation was added to allow visibility of Mercury Universal CMDB Scheduler actions.

Discovery Manager

- Filter Discovery Result – Mercury Universal CMDB 6.5 offers a method of filtering discovery results at the probe level either globally (using **globalFiltering.xml**) or at the pattern level. For details, see Filtering Discovery Results.
- Ad-hoc trigger reactivation is supported to enable users to reactivate discovery patterns on triggered CIs (that are marked as "invoke on newly triggered CIs") without the need to stop and start patterns.

- A job can be redispatched on all triggered CIs at the same time.

Discovery Content Enhancements

- SNMPv3 support.
- SOA – Web Services discovery includes WSDL parsing.
- WebLogic - HTTPS support.
- Process CIT key attribute was changed from process ID to process name and cmdline hash.
- Web services – infrastructural changes. CIT modifications and improvements to support IIS .
- IIS – new capabilities for discovering IIS components.
- Websphere – several modifications to extend discovery capabilities.
- VMWare ESX Server – new package for VMWare discovery.
- NTCMD Host Resources – NTCMD support for discovering host resources .
- SQL Server improvements – enhancements of SQL server modeling. Replication service discovery is supported.
- MS cluster – new package for deep discovery of MS Cluster.
- Veritas cluster – new package for deep discovery of Veritas Cluster.
- Apache – discovery enhancements.
- IBM HTTP Server – discovery pattern trigger TQL was modified.

View Enhancements

- A view no longer disappears after the first activation.

TQL Enhancements

- The "Is visible" flag in virtual links controls the visibility of the links in the views.

CIT Manager

- A new option enables setting default value(s) for string list and integer list attributes.

Known Limitations

#	Component	Description	Details
60466	Migration 3.0 -> 6.5	Notification for user is missing in the log when upgrading a TQL with a name that already exists.	Migration of TQL from 3.0 with name that exists in 6.5: TQL is migrated and overrides the existing TQL definition.
57941	Migration 3.0 -> 6.5	When an inherited CI type is migrated after parent CI was already migrated, the upgrade fails.	
58021	Migration 3.0 -> 6.5	Upgrade fails when a new CI is created with all attributes checked.	
59559	Server	"Snapshots Group by" is not correct when a node is grouped by the attribute value host key.	
	Server	Number of active events supported now is 3000.	Default number of active events supported by Mercury Universal CMDB was reduced from 10,000 to 3000. This can be configured in **appilogConfig.properties (ActiveEventHashTableLimit)**. Customer should remove events with the Scheduler to verify that the system does not hold more than 3000 events.
55862	Server	Correlation does not work after updating its TQL.	Workaround: after updating the TQL definition, edit and save the correlation rule again.
	Security	User cannot use a keystore or truststore with a different password than the product supplied store or the JRE's cacerts default store.	To overcome this limitation use the procedure described in "SSL Configuration Procedure."
56388	Shared CMDB	Shared CMDB: Event rules and time rules are not loaded in the Mercury Universal CMDB server on first start up of Mercury Universal CMDB in a shared CMDB environment.	
60055	Shared CMDB	User can delete dimensions.	The dimension CIT is not included in the CI type tree yet it can appear in a map via **Get Related CIs > DB on BMP Transaction CIT** (monitor). User impact: user is exposed to dimensions and can delete them.
65100	Discovery	If a file name exists with different extensions (for example, XML and TXT), the CF CI is not prorogated to the CMDB.	
	Discovery	DNS resolving was removed from connection patterns.	DNS resolving capability now exists on a separate pattern: HOST_RESOLVE_DNS in the Network package.

#	Component	Description	Details
60127	Discovery	SAP: ITS component was not linked to Pipeline R3 server.	Sap_Dis_Site pattern discovered PIPELINE's application server with upper case: PIPELINE_MI7_00 So relevant link between ITS AGATE to pipeline R3 App Server was not created.
64199	GUI	Pattern CONFIGFILE -> Open does not work for a UNIX file.	
64624	Discovery	Iplanet Web servers are being discovered as apache by Apache.	
63635	Discovery	sql_net_dis_connection: the probe must run with an account with sufficient privileges to access the SQL server database.	sql_net_dis_connection: if a Windows user is running a probe that does not have enough privileges, the probe must run as a service account with sufficient privileges to access the SQL server database.
54500	Discovery	SAP j2ee:Pattern is not working	
52803	Discovery	HR-Disk and HR-Memory: attributes appear without measurement type, so there is no indication whether a value is % or MB.	
53367	Discovery	nmap_osfingerprint: may cause 100% CPU with discovery of 130 nmap.exe processes.	Workaround: Reinstall Winpcap (v 3.1).
56022	Discovery	ntcmd_net_dis_connection creates a different host for each IP on VPN connections.	
56069	Discovery	Inconsistency in apache pattern data_name may not be updated on apache CIs.	data_name gets null value.
58318	Discovery	Oracle RAC: Default Oracle view shows empty CIs	Oracle RAC and Oracle CIs are created."Member" Relationships are not created between Oracle RAC instances.
58950	Discovery	Duplicate hosts are created when running netlinks along with connection patterns.	
56067	Discovery	Duplicate apache and ibmhttpserver CIs when running apache and tcp_webserver_detection patterns.	
59448	Discovery	JMX_J2E_Weblogic_Connection performance problem when Weblogic servers forward to an unqualified DNS name.	Workaround: go into My Network Places> Properties> Local Area Connection > Properties > Internet Protocol > properties > Advanced > DNS, select 'Append these DNS suffixes' and add the needed domain.
63225	Discovery	Layer2 patterns use the wrong destination data - tasks are sent on the wrong IP	**ip_address** should be added to the destination data, otherwise the patterns may fail on hosts with multiple IPs.
62713	Discovery	IIS discovery: user-defined SMTP virtual servers are not discovered.	

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61792	Discovery	IIS - ASPX files are ignored during discovery.	
60463	Discovery	Apache - Port 443 is identified as HTTP instead of HTTPS.	
60225	Discovery	NSLOOKUP pattern is not working for SUN OS 5.10.	
59165	Discovery	Credential-less discovery does not work consistently on probes running on a Windows 2003 server.	
64173	Discovery	WebLogic - 'protocol not defined error' even though the protocol is defined.	This happens when a pattern is triggered against a host that has more than one IP, and some of the IPs are within the range and some are not. Set the IP to be within the range.
64554	Discovery	WebSphere discovery problem on UNIX.	The pattern supports a backslash only.
59457	Discovery	CPU memory is not retrieved on HP-UX 10.20	
65243	Discovery Manager	Results filtering	Filter does not work for the Dis_TCP pattern.
65221	Discovery Manager	Results filtering	Error while filtering hosts holding process in container_f link.
60946	Discovery Manager	Scheduler - Updating pattern from "End by" to "No time limitations" requires reactivating the pattern.	
60942	Discovery Manager	Scheduler - Updating pattern from "Once" to "No time limitations" requires reactivating the pattern.	
65316	Discovery Manager	Statistics – the right click menu in View instances page is unavailable.	
65333	Discovery Manager	Module manager – jobs are not deleted.	The job is moved to the Others module with "missing" indication.
65321	Discovery Manager	Module manager – The probe runs on a deleted pattern.	The pattern is still running according to JMX Console.
62261	GUI	I18N: wrong characters in Date and Time picker of Time Rules	Wrong characters are displayed in Events Configuration > Time Rule > Time Interval dialog box.
64158	Web client	I18N: System Report: Report generation opens Web Client Login window	When creating a system report and generating it in HTML, the Web Client Login window opens.
64157	GUI	I18N: State Manager: Cannot define a new state with a Katakana name.	A new state is not created.
64156	GUI	I18N: CI Type manager Cannot create a new CI class name containing Katakana characters.	
64155	GUI	I18N: User Manager: Cannot create a user with a specific name containing Katakana characters.	
64311	GUI	I18N: Instance view is not displayed in the Tree pane if the name contains Katakana special characters.	

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61345	GUI	Group By editing is not saved when attribute values are null.	Relationships are grouped according to the value of the defined attribute. Since there is no value to the selected attribute, links label is "other." In that case, Group By editing is not saved.
65363	GUI	Export to PDF is not supported on Solaris platform.	
65383	Discovery	WebSphere connection pattern does not work.	
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Default SSL Configuration Steps

Server Configuration

1. Place %ServerInstallDir%/root/lib/security/MAMKeyStoreExp.jks file into %ServerInstallDir%/j2f/EJBContainer/server/mercury/conf
2. Edit %ServerInstallDir%/j2f/EJBContainer/server/mercury/deploy/jbossweb-tomcat50.sar/server.xml:
3. Uncomment this section

```
<!-- SSL/TLS Connector configuration using the admin devl guide keystore
    <Connector port="8443" address="${jboss.bind.address}"
       maxThreads="100" minSpareThreads="5" maxSpareThreads="15"
       scheme="https" secure="true" clientAuth="false"
       keystoreFile="${jboss.server.home.dir}/conf/chap8.keystore"
       keystorePass="rmi+ssl" sslProtocol = "TLS" />
    -->
```

1. keystoreFile=MAMKeyStoreExp.jks (instead of 'chap8.keystore')
2. keystorePass=logomania (instead of 'rmi+ssl')
3. (optional) change the port if it's taken already. (port="8443")
4. Start server.

Probe Configuration

1. Edit lib/collectors/appilog-remote.properties
   - serverPortHttps = 8443 (or other port number if you changed it in server.xml)
   - appilog.agent.probe.protocol = HTTPS
2. Start Probe

GUI Configuration

1. Edit lib/gui/server.properties:
   - Change the URL to **https**://<mam_server>:**8443**/mam/ (or another port number if you changed it in server.xml)
2. Start the GUI client.

Filtering Discovery Results

Two levels of filtering for Discovery Probe results were introduced. One level is the global discovery filter, which enables filtering over the results of all jobs that run on a Discovery Probe. The second level defines filters on a specific discovery pattern.
Global filters should be defined in the server data area in the 'globalFiltering.xml' file.
Discovery pattern filters should be defined inside the discovery pattern xml file.

Filter Definition

To define filters, add an additional section in the desired XML configuration file: design pattern XML file or globalFiltering.xml file in server data folder.

```
<resultFilters>
   <includeFilter>
      <vector>
         <object>
         </object>
         ..........................
         <object>
         </object>
      </vector>
   </includeFilter>
   <excludeFilter>
      <vector>
         <object>
         </object>
         ..........................
         <object>
         </object>
      </vector>
   </excludeFilter>
</resultFilters>
```

For the **globalFiltering.xml** file, this should be the root element, and for discovery pattern this section should be child of 'taskinfo' element (same level as 'params').

There are two subsections ('includefilter' and 'excludefilter'); each applies special rules on received results:

- 'includefilter' section removes from results CIs of the specific CIT which does not match the filter
- 'excludefilter' section removes from results CIs of specific CIT which matches the filter

First apply 'includefilter' , and after it 'excludefilter'.

Filter Structure

Both 'includefilter' and 'excludefilter' sections are based on the following well-known 'vector' notation.

```
<vector>
   <object class="ip">
      <attribute name="ip_address" type="String">192\.168\.82\.17.*</attribute>
      <attribute name="ip_domain" type="String">DefaultProbe</attribute>
   </object>
   ....................................
   <object class="host">
      <attribute name="host_key" type="String">192.168.80.95 DefaultProbe</attribute>
      <attribute name="domain_name" type="String">192.168.80.95 DefaultProbe</attribute>
   </object>
   <object class="network">
   </object>
</vector>
```

Resulting CIs match filter CIs of the same CIT if all attributes have same values as in the filter.
Result CI can match several filter CIs. Once a matching CI is found – the resulting CI that matched the filter will be removed or left according to the section ('excludefilter' or 'includefilter').
NOTE: attributes in filter should be only of type 'string'.

For example resulting CIs of type 'ip' match filter above if their ip_address matches regular expression:

```
'192\.168\.82\.17.*'
```

and their ip_domain is 'DefaultProbe'.
If this vector **is** defined in 'includefilter' section, all resulting CIs of type 'ip' that do not match this filter, CI will be filtered. If this vector defined in 'includefilter' section, all resulting CIs of the type 'ip' that matches this filter CI, will be filtered.

If for some CIT no attributes are specified (as for 'network' above,) all resulting CIs of this CIT will match this filter.

Filter Scope

First Discovery Probe tries to apply filters defined on the specific discovery pattern. If there are no filters defined at the pattern level, global filters (if any) are applied on results.

View Lifecycle Properties

appilog.map.ViewsUsageUntouchedTimeBeforeEmptyView=7200
appilog.map.ViewsUsageCheckTimeInterval=3600
The second parameter defines the interval for checking the first parameter. In this case, the untouched views test is performed every 3600 seconds and only views that were not touched during the last 7200 seconds are removed.

Supported Environments

Mercury Universal CMDB Server	**Windows:**
	• Windows 2000 Server/Advanced Server, Service Pack 3 or higher
	• Windows 2003 Server
	• Solaris 8,9,10 (recommended :10)
Mercury Universal CMDB Server Database	**Windows:**
	• Oracle 10g (recommended Oracle release) and Oracle Server 9.2.0.6
	• MS SQL Server 2000 Enterprise Service Pack 4
	Note: Oracle environments for Oracle 9i are 32-bit on all platforms and for Oracle 10g: 32-bit for Windows and 64-bit for UNIX.
	Solaris:
	• Oracle Server 9.2.0.6
	Oracle Server 10.2.0.1 (recommended)
Mercury Universal CMDB Collectors	**Windows:**
	• Windows 2000 Server/Advanced Server, Service Pack 3 or higher
	• Windows 2003 Server
Mercury Universal CMDB Client	**Windows:**
	• Windows 2000 Server/Advanced Server, Service Pack 3 or higher
	• Windows 2000 Professional Service Pack 2 or 3
	• Windows 2003 Server
	• Windows XP, Professional Service Pack 2
Mercury Universal CMDB Web Client	**Windows:**
	Internet Explorer (IE) 6.0, Service Pack 1 or higher
	Browser should be set to accept all cookies.