

IBM TRIRIGA
Version 10.4.2.x - 10.5.3.x

*Data Erasure Utility
User Guide*



Note

Before using this information and the product it supports, read the information in “Notices” on page 13.

This edition applies to versions 10.4.2.x through 10.5.3.x of IBM® TRIRIGA®.

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Release Notes

Welcome to the April 2018 *Data Erasure Utility* object migration package update for IBM® TRIRIGA® 10. This OM package is supported for IBM TRIRIGA versions 10.4.2.x through 10.5.3.x.

To install and use the *Data Erasure Utility*, see the instructions below.

What's New: *Data Erasure Utility*

The *Data Erasure Utility* is provided to allow an administrator to remove personal information (PI) and sensitive personal information (SPI) that your organization may currently store in IBM TRIRIGA.

Only an administrator can access the tool to remove a person's PI and SPI. The tool is intended to be used when a person leaves the organization, changes role and no longer requires TRIRIGA access, or requests to have their PI or SPI removed.

TRIRIGA has always included the ability to easily add and update PI and SPI on the People record, but the *Data Erasure Utility* introduces the ability to quickly and thoroughly remove PI and SPI from the entire TRIRIGA system in one tool.

Important Information

The following items are important information concerning IBM TRIRIGA that are newly added for this release.

Area	Description
Search and Search & Replace	Since the Search and Search & Replace actions are asynchronous, closing the browser window will not stop either action. If the server is stopped while the workflow is running, the workflow will resume when the server restarts as long as the workflow is present in the queue.
Search & Replace	When you use Search & Replace , the search term is replaced throughout the whole TRIRIGA system and cannot be reversed. The only way to stop a Search & Replace after clicking the action button is to delete the <i>Data Erasure Utility</i> record before the workflow begins the replace. You can check the <code>server.log</code> file to determine if the utility stopped before the replace began.
Security Groups	If you create a new security group after you run the SQL provided in Steps 3 and 4 below, to prevent that group from accessing the <i>Data Erasure Utility</i> , you must hide the navigation item (<i>Master Detail - Data Erasure Utility</i>) and the two forms (<i>triIntermediate > triGDPRSearchResults</i> and <i>triProcessForm > triManagePlandSPI</i>) for the new security group. Instructions can be found in the " Customizing navigation components for security groups " topic in the IBM Knowledge Center.
Object Labels	When the <code>IntegrationObject_OM_v100.zip</code> or a later version of Integration Object is applied, the Object Label for components that are part of the <i>triIntegration</i> module will not be <code>IBM-T:DEU-1.0</code> , which is the Object Label given to components that make up the <i>Data Erasure Utility</i> . The Object Label for the <i>triIntegration</i> objects may be In Progress . This

Area	Description
	includes forms, queries, workflows, and business objects that are part of the <i>trilIntegration</i> module.

Installing the *Data Erasure Utility*

To install the *Data Erasure Utility*, you must import the Integration Object OM package, import the *Data Erasure Utility* OM package, add the tool manually to the TRIRIGA navigation, and run two SQL scripts to remove access to the navigation item and *Data Erasure Utility* forms from existing non-admin groups.

Note - The *Data Erasure Utility* search and replace function requires version 100 or later of Integration Object, which is included in this download in the `IntegrationObject_OM_v100.zip` Object Migration package.



If your environment currently has an IGNORE_UPGRADE Integration Object record, which indicates that Integration Object should not be upgraded when the IBM TRIRIGA Application Platform is upgraded, then proceed with the same precautions involving Integration Object before importing the `IntegrationObject_OM_v100.zip` object migration package that you would during an IBM TRIRIGA Application Platform upgrade.

Step 1: Install the OM packages:

1. Browse to the `10.4.2.x-10.5.3.x-TIV-PDM-DataErasureUtility` file downloaded from Fix Central.
2. Untar the file to extract the OM package ZIP files.
3. Log in as an administrator.
4. Go to **Tools > Object Migration**.
5. Click **New Import Package**.
6. Browse for the `IntegrationObject_OM_v100.zip` file and click **OK**.
7. Use the **Validate** action to verify that the objects can be imported successfully.
8. Use the **Import** action to initiate the import process. A notification is sent to the user when the import process is completed.
9. Go to **Tools > Object Migration**.
10. Click **New Import Package**.
11. Browse for the `10.4.2.x-10.5.3.x-TIV-PDM-DataErasureUtility.zip` file and click **OK**.
12. Use the **Validate** action to verify that the objects can be imported successfully.
13. Use the **Import** action to initiate the import process. A notification is sent to the user when the import process is completed.
14. Browse for the accompanying documentation in the `10.4.2.x-10.5.3.x-TIV-PDM-DataErasureUtility-README` file downloaded from Fix Central.

Step 2: Add the *Data Erasure Utility* to the TRIRIGA navigation by adding the **Master Detail - Data Erasure Utility** navigation item to the **TRIRIGA Global Menu** navigation collection by using the following steps:

1. Log in as an administrator.
2. Navigate to **Tools > Builder Tools > Navigation Builder**, select **TRIRIGA Global Menu**, and click **Edit**.
3. In the navigation items that display in the right pane, expand **Landing Page - Tools > Menu Group - System Setup > Menu Group - System**.

4. Select **Navigation Items Library** in the left pane.
5. Enter `Erasure` in the **Name** filter and press **Enter**.
6. Check **Master Detail - Data Erasure Utility**. Click **Add to Collection**.
7. The navigation item is added to the bottom of the **Menu Group - System** list. Click **Save and Close**.
8. Click **OK** in the confirmation message.
9. Sign out of TRIRIGA.
10. Clear your browser cache.
11. Log in to TRIRIGA. The new navigation item displays under **Tools > System Setup > System as Data Erasure Utility**.

Step 3: To hide the *Data Erasure Utility* navigation item from all security groups except the Admin Group, use the **Run Statement** action to run and then use the **Commit** action to commit the following SQL script *only once*:

```

INSERT INTO nav_item_sec_group (
    security_group_id,
    nav_item_id,
    nav_collection_id,
    disabled
) ( SELECT
    spec_id group_id,
    (
        SELECT
            nav_item_id
        FROM
            nav_item
        WHERE
            nav_item_name = 'Master Detail - Data Erasure Utility'
    ) AS nav_item,
    (
        SELECT
            nav_collection_id
        FROM
            nav_collection
        WHERE
            nav_collection_name = 'TRIRIGA Global Menu'
    ) collection_id,
    '1' AS num
FROM
    t_group
WHERE
    trinametx <> 'Admin Group'
);

```

Step 4: To hide the two forms from all security groups except the Admin Group, use the following instructions.

1. For Oracle and DB2 databases: To retrieve insert statements for you to review, copy, and run, use the **Run Statement** action to run the following script:

```

select 'insert into app_object_permission '||
'(' application_id, DD_BO_ID, template_id,
group_id, tab_id, section_id, field_id, service_id,
updated_date, updated_by, created_date, created_by, company_id)
values('
|| g.spec_class_type ||', '|| g.spec_template_id ||', '|| g.gui_id ||',
' || t.spec_id ||', -1, -1, -
1, 1, getDate(), 2994118, getDate(), 2994118 ,

```

```

208133); '
from gui_header g, t_group t
where gui_name in ('triGDPRSearchResults', 'triManagePIandSPI')
and t.spec_id <> 212405
order by t.spec_id;

```

2. For Microsoft SQL Server databases: To retrieve insert statements for you to review, copy, and run, use the **Run Statement** action to run the following script:

```

select concat('insert into app_object_permission ',
'( application_id, DD_BO_ID, template_id,
group_id, tab_id, section_id, field_id, service_id, updated_date,
updated_by, created_date, created_by, company_id) values('
, g.spec_class_type, ', ', g.spec_template_id, ', ', g.gui_id, ', ',
t.spec_id, ', -1, -1, -1, 1, getDate(),
2994118, getDate(), 2994118 , 208133); ' )
from gui_header g, t_group t
where gui_name in ('triGDPRSearchResults', 'triManagePIandSPI')
and t.spec_id <> 212405
order by t.spec_id;

```

3. Copy the insert statements from the **Query Result** tab and paste the statements into the worksheet. Use the **Run Script** action to run and then use the **Commit** action to commit the insert statements **SQL only once**.



Note - If you upgrade the platform version and the *Data Erasure Utility* search and replace function stops working, you should import the *IntegrationObject_OM_v100.zip* Object Migration package. The *Data Erasure Utility* search and replace function requires the current version of Integration Object, which can be overwritten when upgrading to a version of the platform that is not the latest.

Using the *Data Erasure Utility*

The *Data Erasure Utility* allows you to remove or replace (anonymize or pseudonymize) PI and SPI in the TRIRIGA system. The tool provides both the ability to find and remove data from TRIRIGA People records and the ability to do a global search and replace throughout the TRIRIGA system.

Removing data from TRIRIGA People records

When you use the *Data Erasure Utility* to remove data from a TRIRIGA People record, the My Profile record for the user is deleted and the user is no longer able to log in to TRIRIGA. The user's TRIRIGA People record status is set to Retired and the personal information in the People record is removed or replaced. Removing a user's data from the People record does not remove his or her personal information from anywhere else in the TRIRIGA system; to find and remove any other occurrences of the user's personal information, use the global search and replace function.

To remove data from TRIRIGA People records:

1. Log in as an administrator.
2. Select **Tools > System Setup > System > Data Erasure Utility** to open the tool.
3. Click **Add** to create a new *Data Erasure Utility* record.
4. On the **General** tab, enter basic information for the record and click **Create Draft**.



Tip - After you complete the removal of data for this record, you can delete this record. Therefore, you may use PI/SPI in the **ID**, **Name**, and **Description** fields.

5. On the **People** tab, use a name filter to locate and open the records that require removal of PI and SPI.
6. With each record open, click the **Print** action to show the information to be removed. Save the data that is displayed in PDF format to optionally confirm with the person who has requested that their information be removed. Close the records.
7. After you have confirmed that the information to be removed is correct, select the records in the tool and click **Remove People Data**. This action removes the data from the database and records.



Warning - After the data is removed, the My Profile records associated to the People records are deleted and the users can no longer log in to TRIRIGA.



Note - People records that were in Active User, Active, or Revision In Progress status before the data is removed are in Retired status after the data is removed and the personal information is removed or replaced. The last name is replaced with the People record ID and the first name is replaced with DEU.

8. Click **Close** to exit the record.
9. Optionally, select the record and click **Delete**. All *Data Erasure Utility* records remain in the TRIRIGA system until you select the records from the list that appears when you open the tool and then click the **Delete** action. Remember that if you have used any personal information in the **Name** or **Description** fields, this information remains in the TRIRIGA system until the *Data Erasure Utility* record has also been deleted.

Performing a global search and replace

Because a user's PI and SPI is not confined to their TRIRIGA People record, in order to remove a user's PI and SPI from the TRIRIGA system, you likely need to do a global search, determine appropriate search string, and then replace that string with text per your company's standards. For example, you may replace the personal information with a task number or something to identify that the information has been removed, such as DELETED.

This process can be repeated multiple times to remove all of the user's PI and SPI. Each search is a separate *Data Erasure Utility* record; you cannot edit the search criteria in a *Data Erasure Utility* record and do a different search or search and replace.

To avoid unintended data loss, you may want to spend some time experimenting with the search options and viewing the results to be sure you are erasing only the correct data. Although there is a **Search & Replace** action that does both in one workflow, a best practice is to always use the **Search** action, check the search results, and then use the **Replace** action. If you click **Search & Replace**, you do not have an opportunity to check the results before the information is replaced and cannot be reversed.

To perform a global search of the TRIRIGA system:

1. Log in as an administrator.
2. Select **Tools > System Setup > System > Data Erasure Utility** to open the tool.
3. Click **Add** to create a new *Data Erasure Utility* record.
4. On the **General** tab, enter basic information for the record.



Tip - After you complete the removal of data for this record, you can delete this record. Therefore, you may use PI/SPI in the **ID**, **Name**, and **Description** fields.

5. On the **Global** tab, set the criteria for a search.
6. Click **Search** to view the results. The **Status** field displays *Search In Progress* until the search completes. If you refresh the display, partial search results show as they are retrieved. The process is asynchronous, so you can close the record and return later to view the results.

Reviewing the search results:

The results of the search appear on the **Global** tab of the *Data Erasure Utility* record when the status of the record is *Active*. To confirm that the correct information will be replaced, use the following steps to view the record that contains the search string:

1. Click to open one of the results records. The **General** tab of the results record shows the same information that was returned in the query results.
2. Click the **Associations** tab. The search result identifies the type of business object that contains your search string, such as *My Profile*.
3. Navigate to the correct object. For example, *My Profile* records are located in the *triPeople* module, so you would click the *triPeople* module icon in the association tree and then click the *My Profile* business object icon. The associated record displays in the **Records** pane.
4. Click to open the associated record.



Tip - In some circumstances, the association cannot be displayed and a warning appears in the `server.log` file. Often, the search results are not affected even though you will not be able to use this method to confirm the results. View the **Troubleshooting** section for more information about the log results.

To perform a global replace throughout the TRIRIGA system:

1. Log in as an administrator.
2. Select **Tools > System Setup > System > Data Erasure Utility** to open the tool.
3. Click to open the *Data Erasure Utility* record that contains the search you want to replace.
4. On the **Global** tab, you can view the criteria for the search and for the replace, as well as the search results. When you are sure that the criteria are correct, click **Replace** to replace the search string anywhere it is found globally in the TRIRIGA system.



Tip - When the number of characters in the **Replace** field is greater than the number of characters in the **Search** field, the replacement does not occur when doing so would exceed the number of characters defined in the *Data Modeler* for the target field.

If this occurs, a warning that contains the text “replace was not able to update” appears in the `server.log` file.



Warning - You cannot undo a **Replace**. Any text throughout the TRIRIGA system that matches the string that you include in the **Search** field will be replaced.

To confirm that the information is removed, you can check the `server.log` file for error or warning messages. See the **Troubleshooting** section for information about how to locate the logs and some of the possible warnings. Another way to confirm that the information is removed is to create a new *Data*

Erasure Utility record and search again. If you choose to do this, you may want to first roll the `server.log` file to make it easier to distinguish the log information for the first search versus the second.

Troubleshooting

The following information is intended to assist in troubleshooting the process of managing PI and SPI by viewing the `server.log` file results.

To locate the `server.log` file, open the **Administrator Console** and select **Error Logs** from the **Managed Objects** list. Then, in the **Error Logs** section, click `server-<date>.log`. The list of available `server.logs` displays. Select the hyperlinked file name. Depending on the browser, the file downloads or you have a choice to view or download.

To roll the `server.log`, use the **Roll** action to the right of the `server-<date>.log` name in the list.

Type of Issue	Description
Replace not completed (requires additional action)	<p>If for any reason the replace action was not successful, a warning that contains “replace was not able to update” displays in the <code>server.log</code>.</p> <p>One reason that this appears is that the number of characters in the Replace field is greater than the number of characters in the Search field. In this case, the replacement does not occur as doing so would exceed the number of characters defined in the Data Modeler for the target field.</p>
Association results (no action necessary)	<p>If for any reason, the <i>Data Erasure Utility</i> is not able to create an association to a record that is returned in a search, an error appears in the log. You do not need to take any action; the search and replace completes even if the association is not made.</p> <p>The warnings appear between the following two lines in the log file: “Data Erasure Utility process to associate search result records to actual records started.” and “Data Erasure Utility process to associate search result records to actual records completed.”</p> <p>Examples include the following:</p> <pre> 2018-04-09 17:14:54,738 ERROR [com.tririga.ws.TririgaWSImpl](Thread-3482) com.tririga.ws.errors.AccessException: User does not have access to create records in this GUI. [User: Allen, Katherine - kallen, GUI: triGDPRSearchResults] com.tririga.ws.errors.AccessException: User does not have access to create records in this GUI. [User: Allen, Katherine - kallen, GUI: triGDPRSearchResults] at com.tririga.ws.utils.Validator.validateCreateAccess(Validator.java:528) at com.tririga.ws.WSProcessThread.processRecord(WSProces sThread.java:258) at com.tririga.ws.WSProcessThread.run(WSProcessThread.j ava:147) </pre>

Type of Issue	Description
	<pre> ----- ----- 2018-04-07 17:34:23,763 ERROR [com.tririga.design.smartobject.engine.SmartObjectVa luesDAOAnsi](WFA:127341646 - 127368297 triSearch:309101936 IE=309101936) Exception in getSmartSectionDataForTemplate. Template: 104455 java.sql.SQLException: ORA-00904: "T1"."ROW_NUM": invalid identifier at oracle.jdbc.driver.T4CTTIoer.processError(T4CTTIoer. java:450) at oracle.jdbc.driver.T4CTTIoer.processError(T4CTTIoer. java:399) at oracle.jdbc.driver.T4C8Oall.processError(T4C8Oall.ja va:1017) </pre>
SQL to hide navigation items and forms	If you attempt to run the SQL statements to hide the navigation items and forms more than once, you will receive an error in the tool you used to run the SQL.

Additional Information

The following items are additional information concerning IBM TRIRIGA that are newly added for this release.

Type of Information	Description
Requirement	The <i>Data Erasure Utility</i> is only available for administrators of TRIRIGA.
Customization information	To change the design of the as-delivered alternate form used in the <i>Data Erasure Utility</i> when a People record opens, navigate to Tools > Builder Tools > Form Builder > triPeople > triAltPeople .
Customization information	To have a different alternate form display in the <i>Data Erasure Utility</i> for each People record type (Employee, Consultant, or External Contract), you can design an alternate form and select that form. For documentation on alternate forms, see the Application Building for the IBM TRIRIGA Application Platform 3 document.
Related information	TRIRIGA has always included the ability to easily add and update PI and SPI on People records. Brief instructions on how to do each are included here: Adding PI and SPI (view the complete topic in the IBM Knowledge Center) <ol style="list-style-type: none"> 1. Select Portfolio > People and then select the type of people record that you are creating.

Type of Information	Description
	<ol style="list-style-type: none"> 2. Click Add. 3. Specify the user's data and click Create Draft or Activate. 4. If the record is in Draft status, click Save & Close or Activate. <p>Updating PI and SPI:</p> <ol style="list-style-type: none"> 1. Select Portfolio > People and then select the type of people record that you are updating. 2. If the record's status is Active User, click Revise. 3. Specify changes to the user's data and click Save & Close or Activate.

Integration Object Release Notes from 3.5.0-Current

The *Data Erasure Utility* requires the latest version of Integration Object. The following are the Integration Object release notes dating back to TRIRIGA Application Platform 3.5.0 for reference.

Description
File To DC scheme now allows for the selection and use of the DC_PROJECT field in the Data Map. (Tri-180545)
Resolved an Application Custom Class Loader issue. When the Class Loader delegation was to Parent-Last, class loading functionality was unexpectedly being pushed to the parent class loader when the Custom Class Loader attempted to load certain Java classes from packages such as javax.*. (Tri-171886-IV73401)
Resolved an Integration Object issue where the Database Inbound scheme was not correctly populating Note fields. (Tri-172159)
In an integration object, if you select System Module from the drop-down menu in the Data Map tab, the correct objects now appear in the drop-down list. (Tri-216743-IV82712)
The System module will appear in the Select Modules drop down lists within the Data Map tab of Integration Objects when the staging tables exist. (Tri-223765-IV84613)
Resolved an Integration Object File to DC issue where staging tables were not correctly loading on the Data Map tab, if the business object selected had the same name as another business object belonging to a different module. (Tri-237085)
Resolved an Integration Object issue with the File To DC scheme. Mapped number fields that contained decimal values caused validation to fail if the Validation check box was selected on the Integration Object record definition. Integration objects with decimals in mapped number fields now correctly upload. (Tri-237356-IV89067)
The Integration Object HTTP Post now sends multi-byte characters correctly in the outgoing HttpRequest. NOTE: If your Integration Object HTTP Post scheme configuration leaves the Content-Type field blank and if the Content-Type is not defined in the Headers field, the Content-type of the HttpRequest defaults to the following: Content-Type: text/plain; charset=UTF-8. In prior releases, the HttpRequest defaulted to Content-Type: null. (Tri-235755-IV87787)

Description

Resolved an Integration Object File to DC issue involving the Validate checkbox. When the Validate checkbox was selected, the validation process would fail if the Business Object being validated had the same name as another Business Object in a different Module. (Tri-267455-IV96036)

An Integration Object issue is resolved where retrieving query results via Integration Object's external URL functionality was not returning localized JSON results. Two new f parameter values, f=json-loc and f=pjson-loc, are introduced, which can be added to the URL to return localized JSON results. The localized values now appear in the field name value pairs with the name of the field appended with _DISPLAY for each record in the JSON results, that is, "name_DISPLAY":"Some Localized Value". (Tri-252868-IV92257)

An Integration Object issue is resolved where retrieving query results via Integration Object's external URL functionality was not returning localized XML results. Two new f parameter values, f=xml-loc and f=pxml-loc, have been introduced, which can be added to the URL to return localized XML results. The localized values will appear in the displayValue child element of the column element, for each record in the XML results, i.e. <displayValue><![CDATA[Some Localized Value]]></displayValue>. (Tri-259078)

For outbound Integration Object records with the "File" scheme, the Query For Outbound section now includes a field that is labeled "Localized?". When the Localized check box is selected, the results of the specified query are localized in the language that is specified in the user's profile. If the file export type is "Flat", all field values in the file are localized. If the file export type is "JSON", the localized value is contained in the JSON element and the record field name is appended with "_DISPLAY". For example, "name_DISPLAY":"Some Localized Value". If the file export type is "XML", the localized value is contained in the record field child XMO element named "displayValue" for each record element that is returned in the xml. For example, <displayValue><![CDATA[Some Localized Value]]></displayValue>. (Tri-265085-IV94977)

The Integration Object File Outbound scheme now correctly encodes column headers for UTF-8 for files that are exported with the flat file export type. (Tri-267374)

Resolved an issue where the Integration Object File Outbound scheme was not correctly exporting record field values containing UTF-8 characters. The Integration Object File Outbound scheme will now use UTF-8 encoding for exporting record field values. (Tri-29814)

Resolved an Integration Object issue involving the File to DC scheme, where blank number fields included in the import file were causing SQL errors when the integration ran on a Microsoft SQL Server database. Also resolved with this fix, is the Data Map type column for the Integration Object File to DC scheme will no longer default to 'Text'. This part of the fix is for all database types. The type column will now show the actual database field type for the staging table. To see this on existing Integration Object records with the File to DC scheme, open any Integration Object record and select More->ReMap. Note that after running More-ReMap the Server.log file may indicate warnings related to the validation of Data Maps. In general, these are OK, as they just detail previously existing issues with some of your existing Integration Object records. (Tri-5928)

A new checkbox called "Resolve Column Label Spaces?" has been added to the Outbound Bound Query section of the Database Outbound Scheme for Integration Object records. When selected, spaces will be replaced by underscores in the column names for the generated create table and insert SQL of the outbound table. This is necessary because TRIRIGA Query column labels are used for generating column names of outbound tables, and TRIRIGA Query column labels can have spaces. When selected, this checkbox also resolves an issue for any column names, such as those for UOM fields, which automatically get added to the generated outbound SQL, in that any spaces in those will also be replaced with an underscore. (Tri-50152)

Related Documentation

You will find additional documentation in the IBM Knowledge Center at <https://www.ibm.com/support/knowledgecenter/>. The documentation can be found in online IBM Knowledge Center topics, or in PDF files, or both.

Additional documentation is available in the [IBM TRIRIGA wiki](#).

Support

IBM Software Support provides assistance with product defects, answering FAQs, and performing rediscovery. View the IBM Software Support site at <http://www.ibm.com/support/docview.wss?uid=swg21611356>.

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