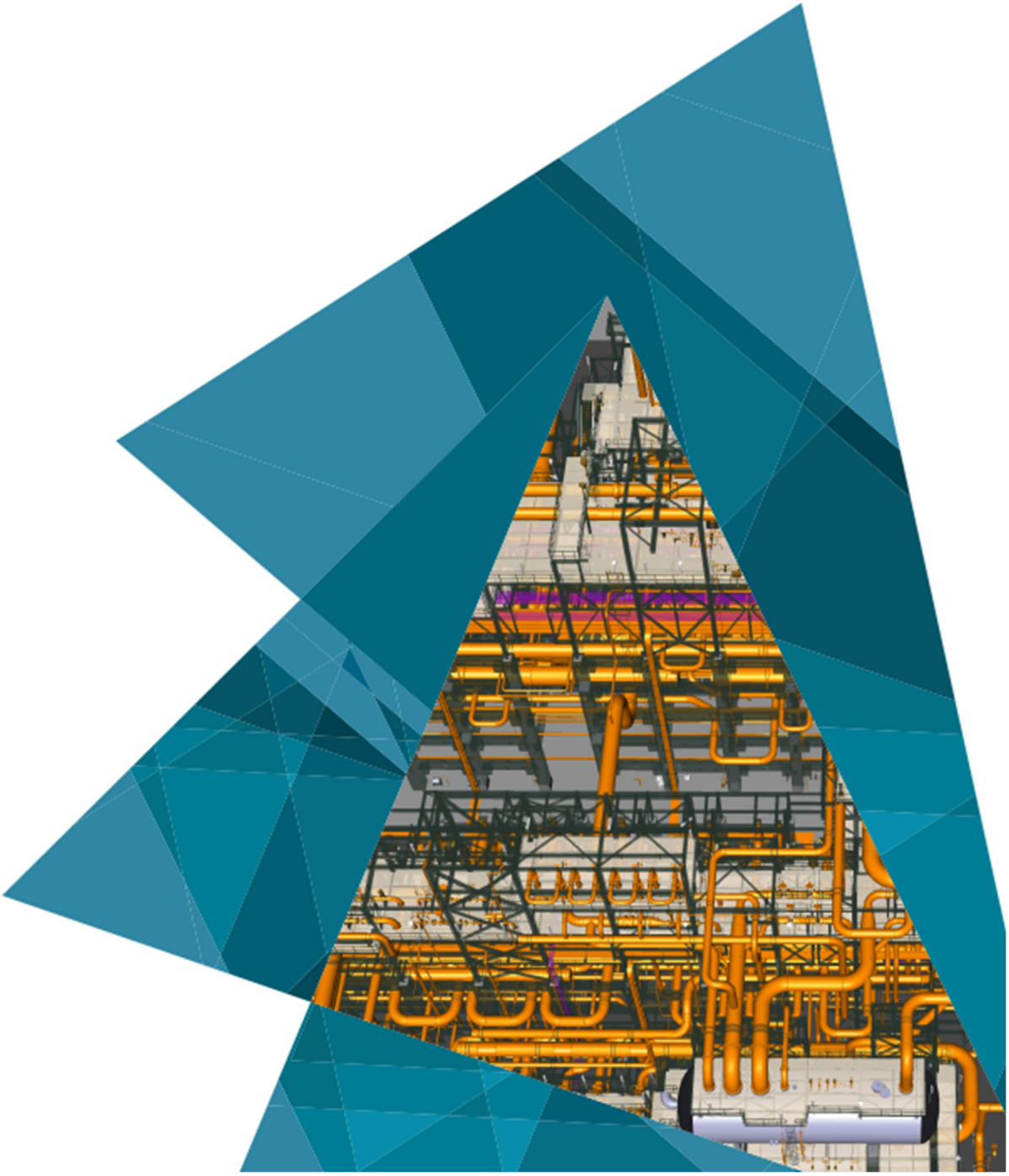
HEXAGON

HxGN EAM Customer Surveys

Version 12.3.0.2

March 2026



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About this brief

The Customer Surveys feature of HxGN EAM provides the ability for a system administrator, quality analyst, or a customer service representative to create, edit, and send a Customer Survey to an individual to provide feedback of an event conducted or managed in HxGN EAM. A survey recipient may be the reporter of a Service Request, an individual returning reservation equipment, or a supplier of a purchase order where capturing their feedback within HxGN EAM is leveraged as a mechanism for continuous improvement or giving praise.

With the release of HxGN EAM v12.2.1, Customer Surveys can be transmitted with either HxGN EAM's native E-mail Messenger or by using HxGN Databridge Pro for cloud implementations of EAM. Usage of Databridge Pro for on-prem EAM implementations is planned for a future release.

See Distributing Surveys by Integration in this brief for more information on using Databridge Pro as the distribution channel for Customer Surveys.

Overview

The objective of the Customer Survey feature of HxGN EAM is to request and receive feedback from users, customers, and others regarding responsiveness, effectiveness, and general satisfaction for events conducted or managed within EAM. The recipients of a survey are not exclusively required to be HxGN EAM users to receive and complete a survey.

Once completed, the results of the Customer Survey are made available on the Results tab of the Customer Survey record.

Intended audience

This brief is intended for the system administrator or services consultant who defines the content of a Customer Survey and configures the distribution mechanism to send surveys for solicitation of customer feedback.

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Configuring EAM

In HxGN EAM you must complete the configuration tasks that are specific to implementation of customer surveys and their specific distribution channel, either using native E-mail Messenger or by using HxGN Databridge Pro for cloud implementations of EAM. These tasks can be completed by the EAM services consultant or the EAM system administrator.

Install Parameters for HxGN EAM

(Navigation: Administration > Security > Install Parameters)

For each install parameter outlined in the table below, select the recommended value.

Installation Parameter and Value	Description
SMTPSERV	The name or IP address of the SMTP E-mail server
SURVYURL	The URL of the customer survey website. Format*: <protocol><server name with port>/survey/*

Note, the SURVYURL install parameter is predefined for HXGN cloud environments. Contact EAM support for the URL.

When the Outbound Type of the survey is designated as “Outbound BOD” the following additional install parameters are required for distribution implementation.

Installation Parameter and Value	Description
@CUSSRVY = Y	Is the Customer Survey Event outbound activated
DFSCID	ClientID for the HXGN-DFS partner. EAM will harvest this value to support usage and enforce security of web services.

Note, the DFSCID install parameter does not have a specific value. The DFSCID parameter can be any value of the client's choosing (e.g. "ValidateAPI"). When Databridge Pro subsequently makes an API call to EAM, it will pass this parameter in the header which EAM will then use to validate the call

Configuration of the Customer Survey

(Navigation: Operations > Setup > Customer Surveys)

Customer Survey screen

The Customer Survey screen creates the framework of the Customer Survey including the survey title, message, routing, and date parameters.

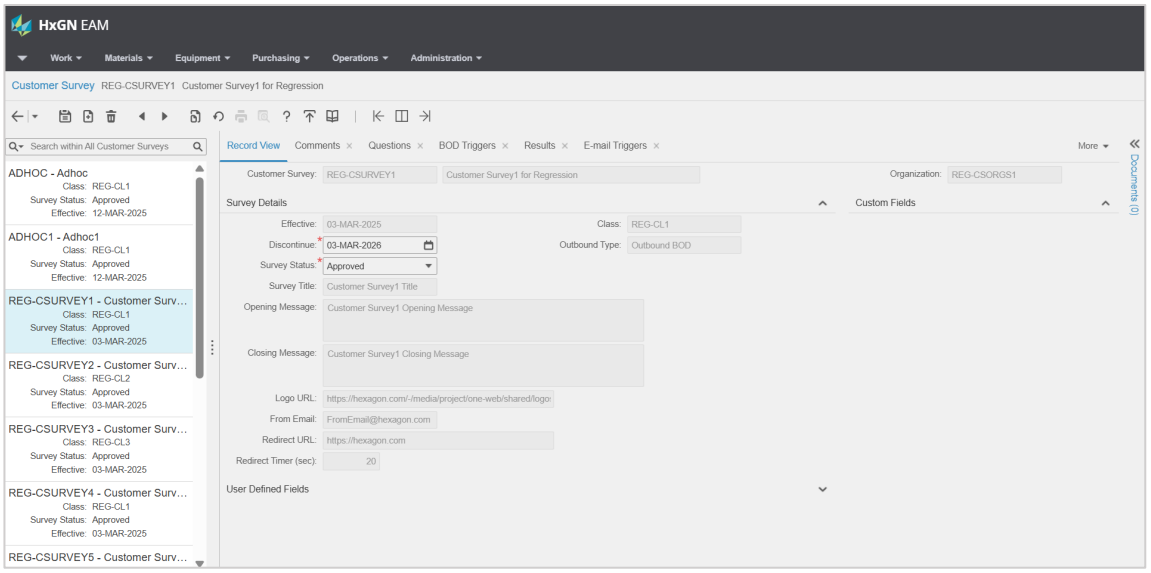


Figure 1: Customer Survey (Record view)

Specify the following information when creating a new Customer Survey:

Customer Survey - Specify a unique code to identify the customer survey, and a description of the customer survey.

Effective - Specify the start date to activate or make the survey available.

Discontinue - Specify the date after which the survey will be closed for responses.

Survey Status - Specify A (Approved) status or U (Unfinished) status for the survey. All survey content should be defined before approving the Customer Survey.

Note: Once a survey has received a response, the Survey Status cannot be revised to Unfinished. If a survey is no longer in use and the Discontinue date is in the future, it is advised to set the Survey Status to "Deactivated".

Outbound Type - Select “Outbound BOD” to relay the survey content via the AssetTrackingData BOD to Databridge Pro. Select “E-mail Messenger” to distribute the survey using EAM’s native E-Mail Messenger service.

Survey Title - Specify a title for the survey.

Opening Message - Specify the message to be displayed when the customer survey is opened.

Closing Message - Specify the message to be displayed when the customer survey is completed.

Logo URL - Specify the URL file path to the logo to be displayed for the customer survey.

From Email - Specify the email address from which the surveys will be sent.

Redirect URL - Specify the URL file path to which users will be redirected when they complete the customer survey and are on the closing message screen. This field value is optional; if the Redirect URL is not specified, the system will remain on the Closing Message screen.

Redirect Timer - Specify the time in seconds after which the user will be navigated to the specified Redirect URL when the user completes the survey.

Once the questions, answers, and triggers have all been defined for the survey, return to the Customer Survey screen to approve the survey. Note, Approved Customer Surveys cannot be altered once the survey has been completed and submitted.

Questions tab

The Questions tab of the Customer Survey screen provides the main content of the Customer Survey. Questions may be in any combination of the following types:

Question Type	Description
Checkboxes	Select one or more answers from a list of provided answers
Integer	Positive cardinal number
Number	Positive or negative numeric value. Decimals are supported
Radio Button	Select one answer from a list of provided answers
Text	Freeform text field, responses up to 255 characters can be submitted

Along with specification of the question type and the text of the question, Description and Sequence number are required fields. The Sequence field allows the survey creator to place the questions in the preferred order. The Sequence number is not the question number displayed on the Customer Survey Completion screen.

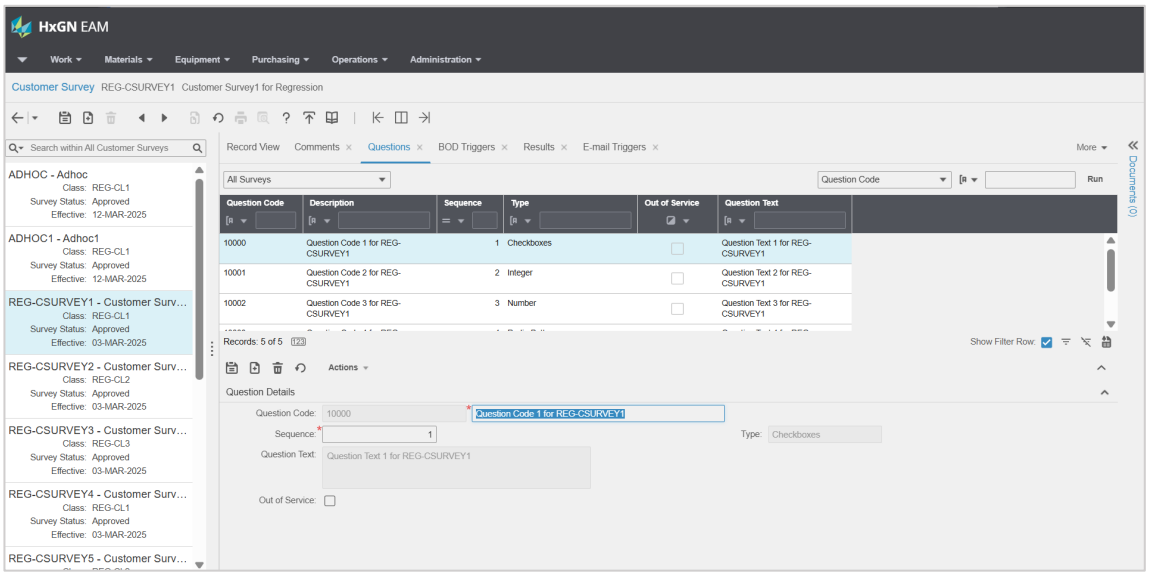


Figure 2: Customer Survey, Question tab

To add a question to a customer survey:

1. Click **Add Question**.
2. Specify a description for the question.
3. Specify the **Sequence**, indicating the sequential order the question will display in the customer survey.
4. **Type** - Specify the question type (e.g. **Checkboxes, Integer,** or **Text**).
5. **Question Text** - Specify the text for the question (limited to 2000 characters). This is the actual question text the users will see.
6. Select the **Out of Service** checkbox to prevent the question from being included in the customer survey.
7. Click **Submit** to add the question to the survey.

Note: For radio button and checkbox type questions, the survey creator must define a list of acceptable answers.

Add/Edit Survey Answers popup

On the **Questions** tab, from the Actions menu, there is a link to add and edit responses to radio button and checkbox type questions.

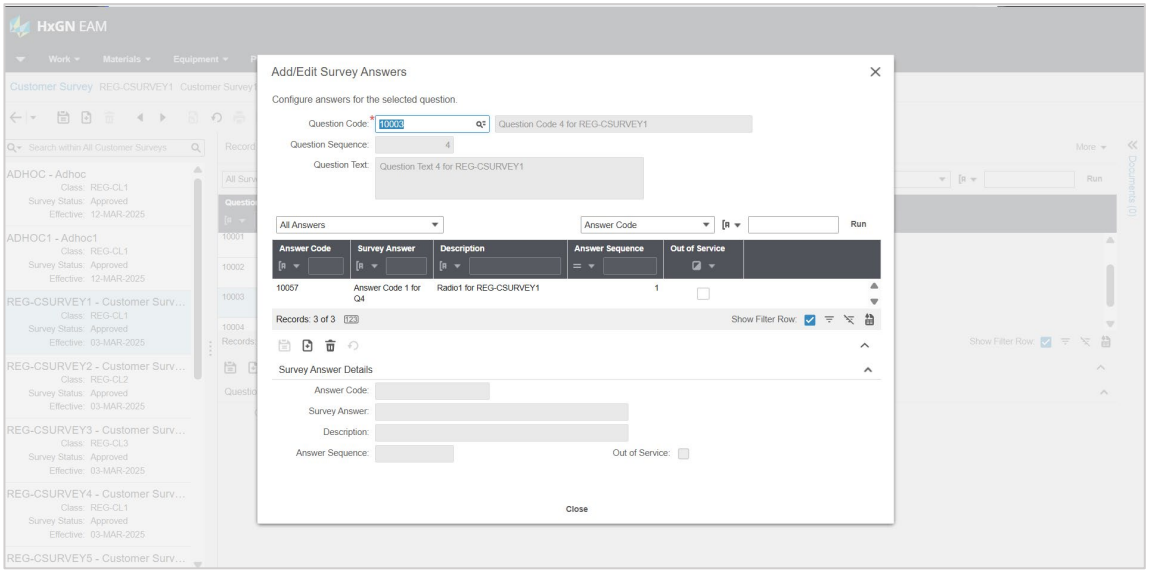


Figure 3: Questions tab, Add/Edit Survey Answers popup (radio button type question)

On the Add/Edit Survey Answers popup:

1. Click the **Question Code** LOV to select a question for which to define answers. Only questions of type Checkboxes or Radio Button will be displayed.

   With selection of the Question Code, the system will populate the Question description, Question Sequence, and Question Text.

2. Complete the Survey Answer Details for the selected question.
   a) Define a **Survey Answer** for the question
   b) Provide a **Description** for the answer to clarify how its selection might be rated.
   c) Provide the **Answer Sequence** number; this value will determine the order in which the answer is displayed with other alternate responses for the same question.
   d) Select the **Out of Service** checkbox to prevent the Survey Answer from being included as a valid response to the selected question.

   Note, these steps will be repeated to create a list of valid responses for the selected question.

3. Click **Submit** to add the Survey Answer as a valid response for the selected Question.

BOD Triggers tab

When the Outbound Type is set to “Outbound BOD”, the user will access the BOD Triggers tab to define the entity event to initiate the generation of the Customer Survey. Customer Surveys initiated from configuration defined on the BOD Triggers tab can be sent based on the status of a Work Order event, Call Center event (named as Service Request), or Service Request event (named as SR-Service Request). The user will also specify the recipient of the survey based on the Email Source selection.

Entity Event	Entity Status	Email Source
Work Order	Status values defined by the System Status entity EVST	Assigned To Created By Reported By Supplier Guest Email (Hospitality Work Orders only)
Call Center	Status values defined by the System Status entity COST	Assigned To Primary Email Request Taken By Secondary Email Supplier
Service Request	Status values defined by the System Status entity SRST	Requestor E-mail Contact E-mail Assigned To Created By Caller ID

The Email Source designated on the BOD Triggers tab for the Entity Event will be used to retrieve the name and email address for the survey recipient. It is important these details are populated on the associated Contact, Employee, Supplier, or User Setup record with valid values.

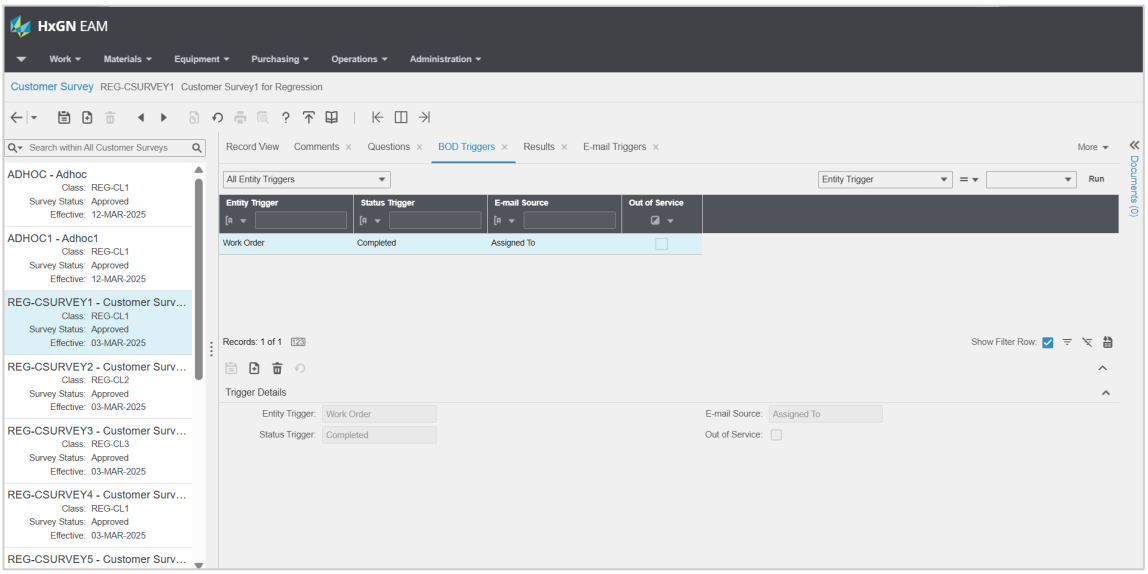


Figure 4: Customer Survey, BOD Triggers tab

From the Customer Survey screen, click the BOD Triggers tab

Click **Add Trigger**.

1. Specify the following information:

Entity Trigger - Specify the entity trigger (i.e. Work Order, SR-Service Request, or Service Request).

Status Trigger - Specify the status trigger for the selected entity.

E-mail Source - Specify the email source. This field value is the recipient who will receive the customer survey. Note, the selected recipient must have a valid email address for the customer survey to be generated and transmitted correctly.

2. Click the **Out of Service** checkbox to prevent the trigger from being included for the customer survey.
3. Click **Submit**.

Note: The BOD Triggers tab is accessible only when the Outbound Type on the Customer Survey header is “Outbound BOD”, indicating the Customer Survey will be sent using a BOD to Databridge Pro. See Distributing Surveys by Integration in this brief for more information on using Databridge Pro as the distribution channel for Customer Surveys.

E-mail Triggers tab

When the Outbound Type is set to “E-mail Messenger”, the user will access the E-mail Triggers tab to define the E-mail template, entity, and status condition to be used in generating the email that will convey the Customer Survey to the designated recipient.

The E-mail Triggers tab is where the user effectively defines an “E-mail Notification Setup” record specific to Customer Surveys. The E-mail Triggers tab record will leverage EAM’s native E-mail Messenger’s functionality to trigger and send a visually appealing e-mail with the survey URL to the survey recipient.

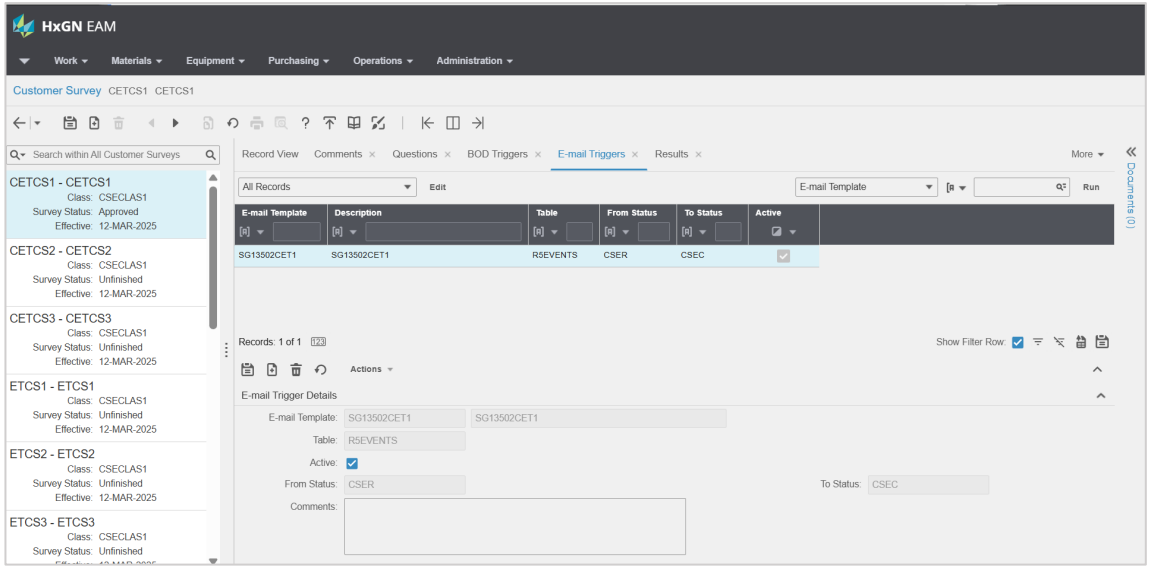


Figure 5: Customer Survey, E-Mail Triggers tab

Specify the following information when creating a new Customer Survey:

E-mail Template - Select an E-mail template to be used in formatting the email. Only E-Mail templates with a Button Content Type of "Customer Survey" can be selected. The description for the E-Mail template will be populated to the **Description** field.

Table - Select a table in alignment with the type of event to which the survey will be associated. For a survey Outbound Type of E-mail Messenger, the following entities are supported

- Call Center Service Request (R5CONTACTRECORDS)
- Case Management (R5CASEMANAGEMENT)
- Customer Contracts (R5CUSTOMERCONTRACTS)
- Customer Invoices (R5CUSTOMERINVOICES)
- Project (R5PROJECTS)
- Purchase Order (R5ORDERS)
- Reservations (R5CUSTOMERRENTALS)
- SR-Service Request (R5SERVICEREQUESTS)
- Work Order (event) (R5EVENTS)

Active - Select the Active checkbox to indicate the E-mail Trigger is active.

From Status - Specify the status associated to the table entity representing the initial state of the entity before its status is updated. The LOV will provide a listing of all status values associated to the specified table entity.

To Status - Specify the end-state status associated to the table entity. The selection of values provided in this LOV will include all status values for the specified table entity excluding the status designated as the **From Status**.

Comments - Enter any informational comments or notes for reference or administrative tracking.

Once the E-mail Trigger record is created, the user can then define Message Parameters and Notification Conditions by accessing the **Create Parameters** popup and the **Create Conditions** popup through the Actions dropdown.

The **Create Parameters** popup is used to define data specific parameters to be included within the content of the email in the order they should be retrieved for contextual meaning.

Parameter - Indicate the numeric order in which the parameter should appear in the email. No more than 25 parameters can be included in an email.

Column - Select the table column from which the parameter will be populated.

Report Parameter Line Number - The Report Parameter Line Number indicates the parameter in the Reports screen (Report | Parameters) for the selected report in the email template screen (Email Template | Record View).

The **Create Conditions** popup is used to define conditional logic to be applied to the data elements selected as parameters. These conditions will be levered to define the triggering event for generation of the survey email

Column – Select the table column to which a condition will be applied to identify a change to specific data element.

Condition - Select the operator that will be used to assess the selected column data. The Condition operators include, “is less than or equal to”, “is not blank”, “does not contain”, “contains”, “is not between”, “is between”, “is blank”, “is greater than or equal to”, “is less than”, “is greater than”, “is not equal to”, and “is equal to”.

- If the **Condition** is “is blank” or “is not blank”, then the **Value 1** and **Value 2** fields are both protected.
- If the **Condition** is “is between”, or “is not between” then the **Value 1** and **Value 2** fields are both required.
- If the **Condition** is anything other than “is blank”, “is not blank”, “is between”, or “is not between” then **Value 1** is required and **Value 2** is protected.

Value 1 - Optionally populate a value based on the selected Condition.

Value 2 - Optionally populate a value based on the selected Condition.

Following this configuration, when the Customer Survey record is Approved and the E-mail Trigger criteria occurs within the Effective and Discontinue date range, EAM will generate and send the Customer Survey.

The Customer Survey URL will be constructed and embedded into the Call-to-Action button of the email template as follows:

<Value of install parameter SURVYURL>/?c=<Customer Survey Event Code>&t=<Tenant>
https://eamexampletenant.com/survey/?c=F4BX20BT7E3PQFQU7DZ41&t=DS_MP_1

The mail event for the Customer Survey can be viewed on the **E-mail Viewer** screen. The mail event code will be reflected on the **Results** tab of the Customer Survey.

Results tab

Once the recipient has completed the survey and clicks Submit at the end of the survey, the Results tab of the customer survey will display the content of the response in tabular format.

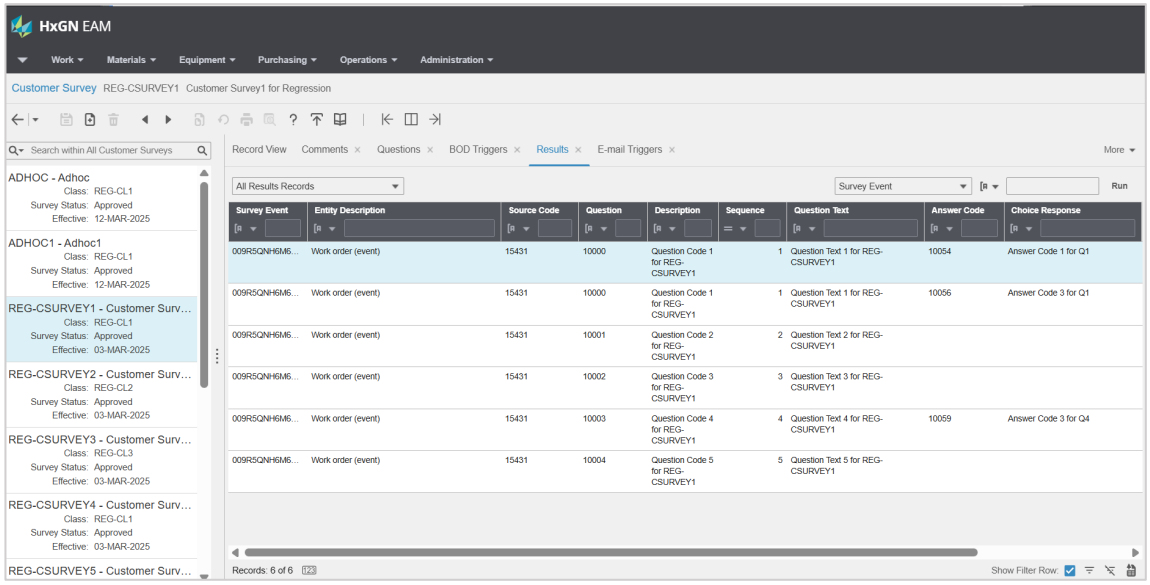


Figure 6: Customer Survey, Results tab

Long Translations tab

The Long Translations tab is used for translation of Questions and Answers included in a customer survey.

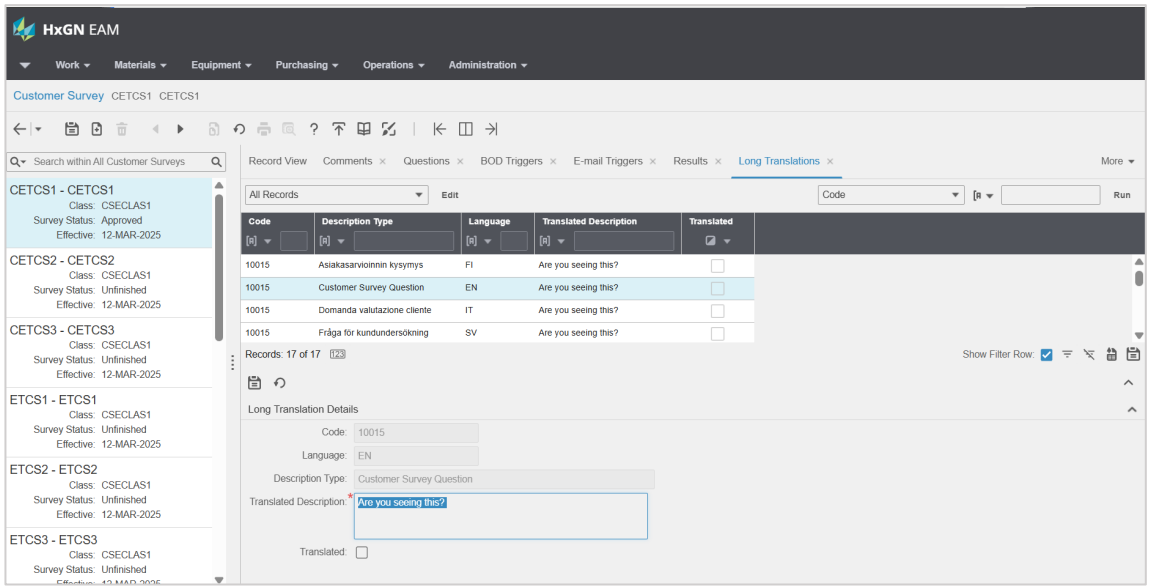


Figure 7: Customer Survey, Long Translations tab

For each question or text-based answer included in a customer survey, a record will be displayed on the Long Translations tab in each of the languages enabled for EAM.

The user will select the language record to update and then the details portion of the screen will become editable.

In the **Translated Description** field, the user will revise the text as appropriate, and the system will automatically select the **Translated** checkbox.

Distributing Surveys by Integration

Databridge Pro, powered by Apache NiFi, is the next generation of EAM Databridge, delivering advanced capabilities for data integration between EAM and external applications. Utilizing components both internal and outside of the EAM application, Databridge Pro provides the ability to build and manage customized data pipelines, streamline endpoint connections and usage, and simplify troubleshooting by offering insights into the complete EAM message journey.

Databridge Pro is a graphical interface middleware utility based on Apache Ni-Fi used to integrate EAM with other software applications. This utility is the primary middleware for cloud-based integrations.

Technical Artifacts

The attached file is the flow definition template for generation of the Customer Survey email using Databridge Pro.

- Customer_Survey_Emails_EAM_v12212.json

Note: Download the PDF to your local machine to view the attachments. Attachments are not accessible while viewing the PDF in your web browser. Adobe Acrobat, by design, will display a warning prompt for json file attachments.

Databridge Partner Configuration

(Navigation: Administration > Databridge > Databridge Partners)

On the Databridge Partners screen, select the HXGN-DFS partner record. This partner record must be set as Active and configured with valid credentials for User ID and Password. Note, the INFOR-ONRAMP partner and the INFOR-IMS partner must both be disabled.

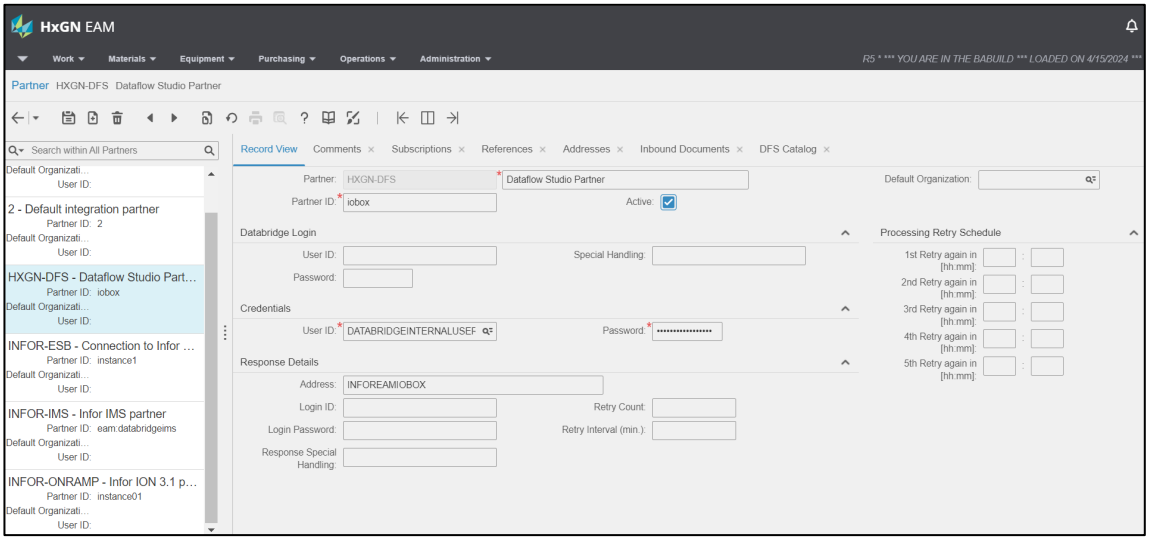


Figure 8: Partners screen, HXGN-DFS partner record

On the Subscriptions tab for the HXGN-DFS partner, search and select the event CUSTSURVEYEVENT, then set this event as enabled.

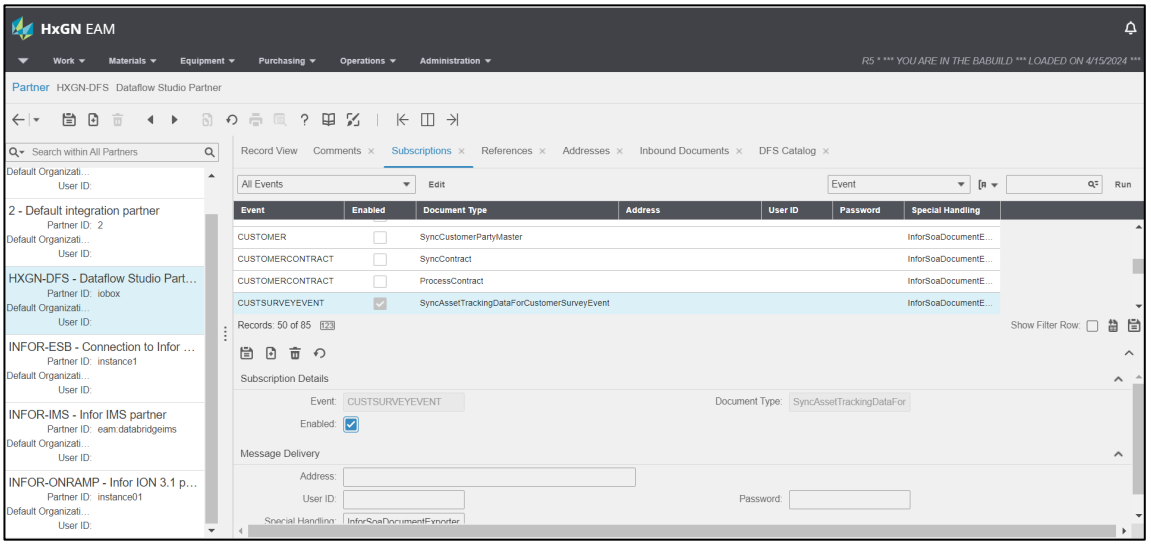


Figure 9: Partners screen, HXGN-DFS partner record, Subscriptions tab

Note: During the provisioning process for the EAM tenant, Databridge must also be provisioned.

Importing Databridge Pro Flow Definitions

Databridge Pro supports the ability to create, download, and import flow definitions. Flow definitions offer a way to share flow configurations for enhanced consistency and implementation between tenants.

The pipeline for generating Customer Survey emails has been delivered in a flow definition. This flow definition should be imported to a process group on the canvas.

Note: The Customer Survey flow definition does not require Controller Service configuration.

Creating flow definitions

1) Right-click on the process group (or root canvas) for the definition you want to create.

2) From the context menu, go to 'Download flow definition' and select:

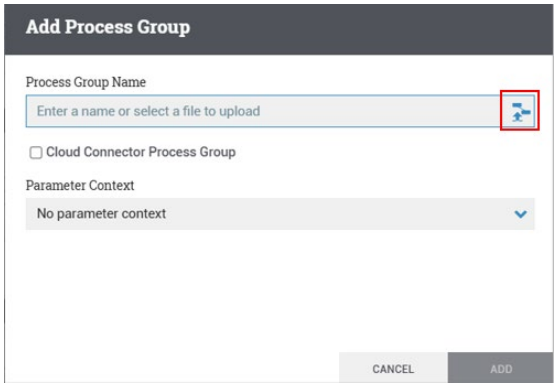
   a) **Without external services**: Does not include controller services used by the selected process group but located outside its scope (such as in a parent group).
   b) **With external services**: Does include controller services used by the selected process group but located outside its scope (such as in a parent group).

3) Once selected, a JSON definition file will be saved to your local machine. The name of the process group will be used as the name of the file.

Importing flow definitions

1) Drag and drop the Process Group icon from the Component toolbar.

2) In the Process Group dialog box, give the Process group a name and then click the **Browse** button. Note, if a Process Group name is not provided, the system will default the name of the imported flow definition as the Process Group name.



3) Select the Flow definition file you want to import from the file browser

4) Click **Add**.

NOTE: To uphold security best practices, sensitive properties are not stored within template configurations; all included processors will have been deactivated from operation. All sensitive values within the flow definition, such as passwords and access/authorization credentials will need to be re-entered and configured appropriately. And, any processors with Controller Services will also have to be reactivated and configured when a flow definition has been added to the canvas.

Processors that require configuration for sensitive properties following importation will have a warning icon on the processor.

Configuration of Processor Passwords

Within the pipeline, by processor group, locate each of the processors that need configuration of sensitive data. These processors will have a warning icon next to the title of the processor. The user should right click on the processor, and then click **Configure** in the context menu. Clicking the **Configure** option will open the processor. For each processor that requires configuration of sensitive data, the user should navigate to the **Properties** tab. On the **Properties** tab, all the properties of the processor will be listed in a grid with their specified value. If a property is listed in bold text, it is required. Other properties not in bold text are optional but may still be required for usage with the specified application being accessed by the processor.

For the **PutEmail** processor, the user will need to populate values for the SMTP Hostname, SMTP Port, SMTP Username, and SMTP Password based on the employed SMTP server. The **PutEmail** processor does not formally require SMTP Username or SMTP Password, however, this processor will need individual review where used in the flow definition as it may not be flagged with a warning icon. Note, the SMTP server and email address will need to be aligned with the designated SMTP server. Usage of the Hexagon SMTP server for messaging services is restricted.

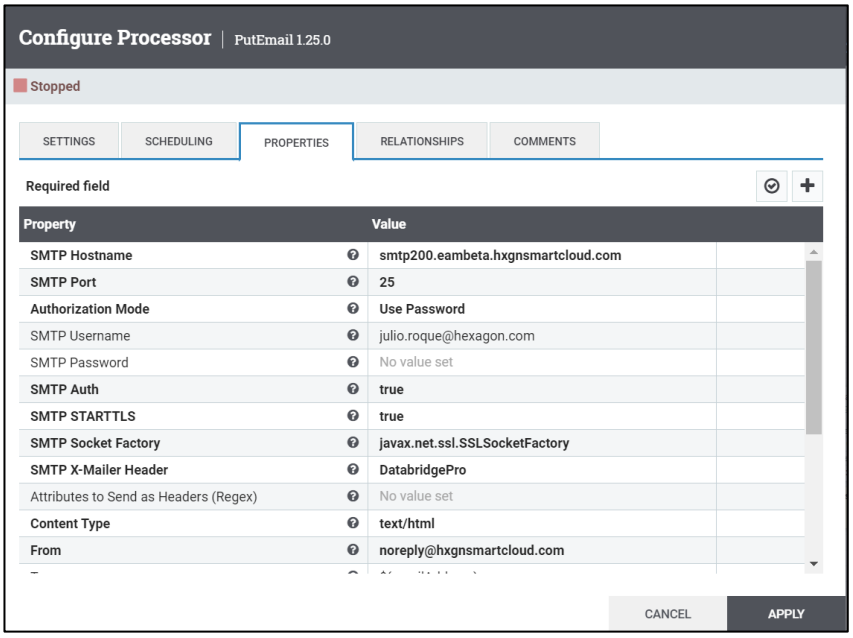


Figure 10: Configure Processor pane, PutEmail processor, Properties tab

Declaration of flow definition parameters

With the August 2025 release of Databridge Pro, variables will no longer be able to be added or modified. And, at the time of the November 2025 release of Databridge Pro, variables will be fully deprecated and have no operability. Note, variables will continue to function through the November 2025 deployment date.

Parameter Contexts and Parameters are introduced as a more robust alternative to variables. Parameter Contexts offer enhanced functionality, including inheritance across process groups, better integration with modern flow designs, and secure handling of sensitive data. Note, Parameters and Parameter Contexts will not be delivered with the flow definition, they will have to be manually created.

Creating Parameters and the Parameter Context

The first step in creating Parameters is to create the Parameter Context. A Parameter Context is a named collection of parameters that can be applied to Process Groups. It allows for dynamic configuration of components within a flow definition by referencing these named parameters, promoting portability and easier management of flows across different environments.

To create the Parameter Context, right-click the process group containing the flow definition for the Customer Survey Emails EAM integration, and then click the **Configure** option in the context menu.

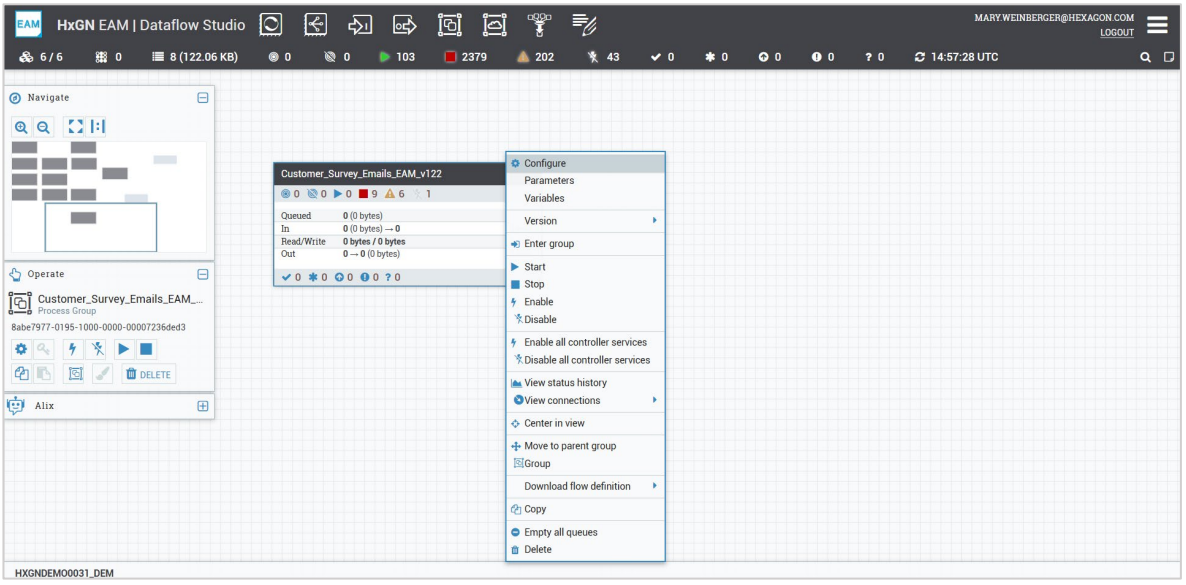


Figure 11: Accessing the configuration of the Customer Survey Email flow definition

In the configuration pane for the flow definition, click the dropdown for the **Process Group Parameter Context** field, and then select **Create new parameter context**. This action will open the **Add Parameter Context** pane.

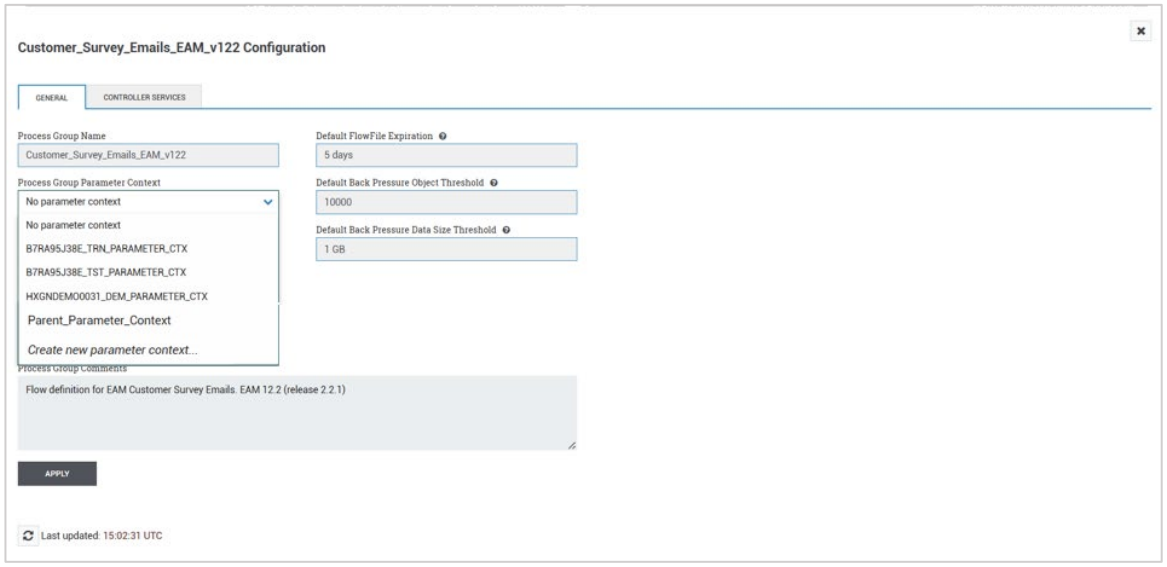


Figure 12: Configuration pane for the Customer Survey Email flow definition

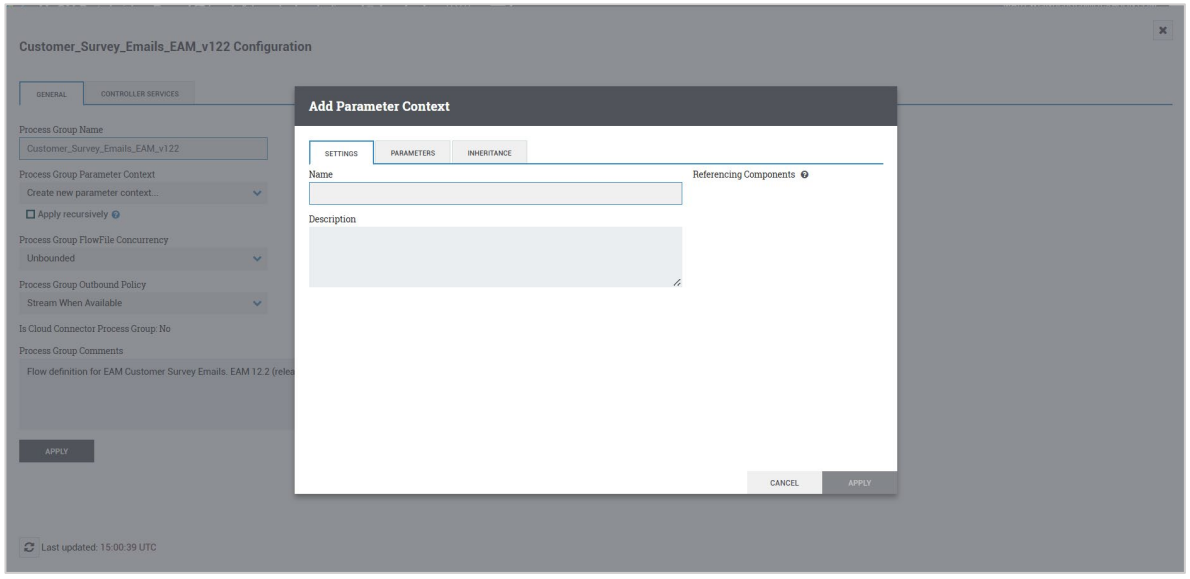


Figure 13: Add Parameter Context pane

On the **Add Parameter Context pane**, the user will enter a name for the new parameter context in the **Name** field (e.g. Customer Survey Email Parameters), optionally add a description, and then click the **Parameters** tab.

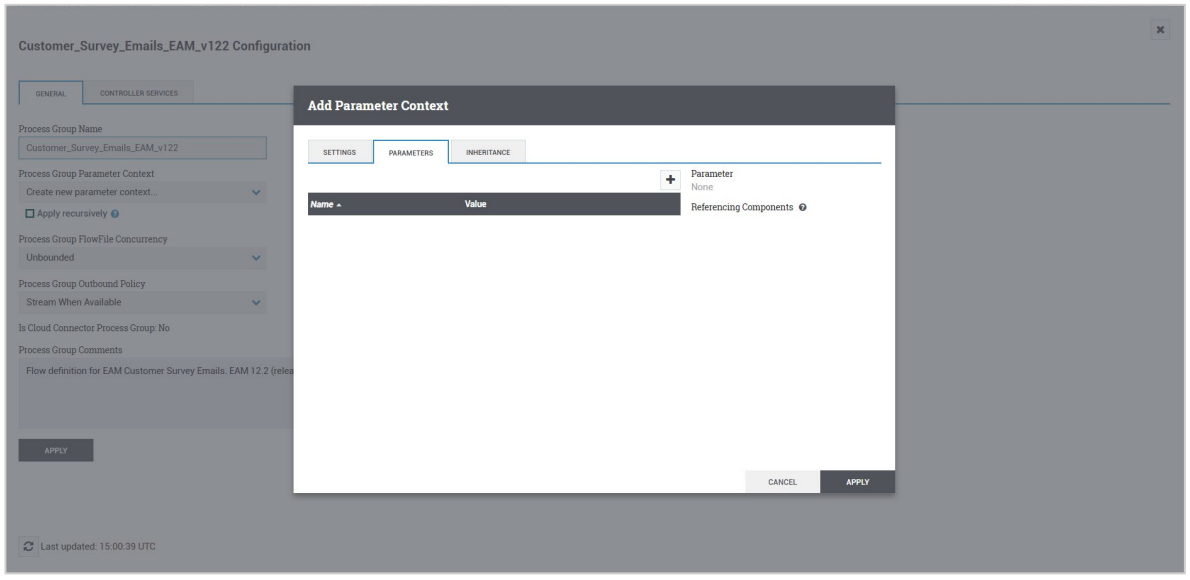


Figure 14: Add Parameter Context pane, Parameters tab

On the **Parameters** tab, the user will define the parameters required to support the flow definition logic. The list of parameters below is taken directly from the template logic; the parameter names and capitalization must be strictly upheld to avoid processing contention.

Parameter	Description
targetEmail-Test	Target email address used by the SyncAssetTrackingData_CustomerSurvey-BOD processor NOTE: This variable is referenced in this one processor for testing purposes only.

For each parameter, click the '+' symbol to add a new parameter. This action will open the **Add Parameter** pane. On the **Add Parameter** pane, the user will populate the name of each parameter, the value, and optionally add a brief description for the parameter. For any parameters that may represent sensitive data including passwords, secrets, token, etc., select the **Yes** radio dial to indicate the parameter is a Sensitive Value. Note, for the Customer Survey Emails EAM template, there is only one parameter, and targetEmail-Test is not a sensitive parameter.

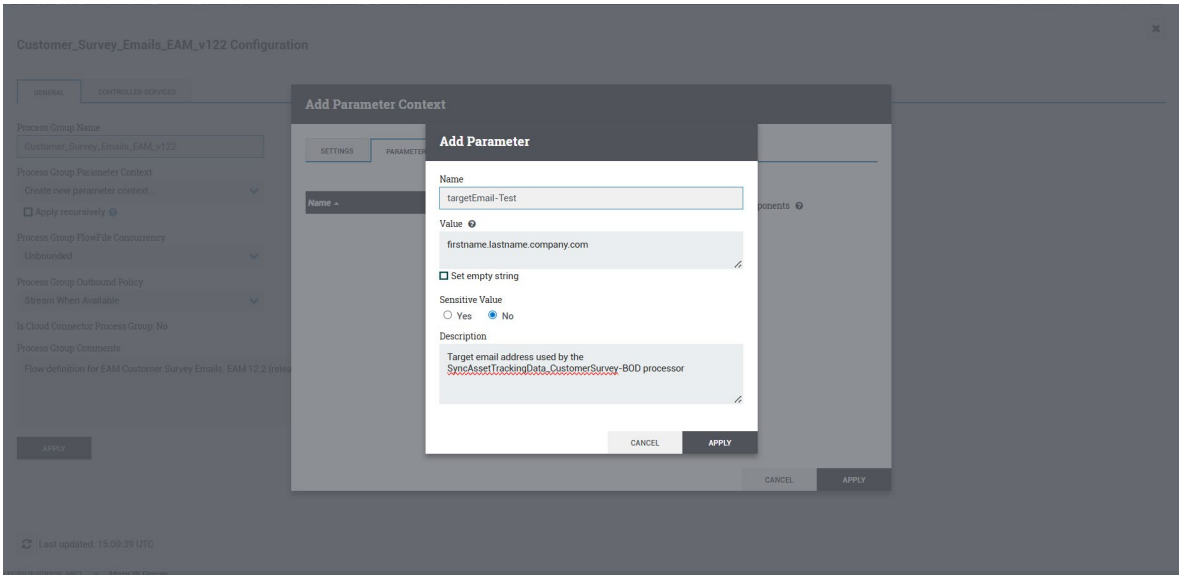


Figure 15: Defining a new parameter for the parameter context

Once the parameter is defined, click the **Apply** button to add the parameter to the Parameter Context. Now, click the **Apply** button on the **Add Parameter Context** pane to save all the changes to the Parameter Context and associate the parameter context to the flow definition.

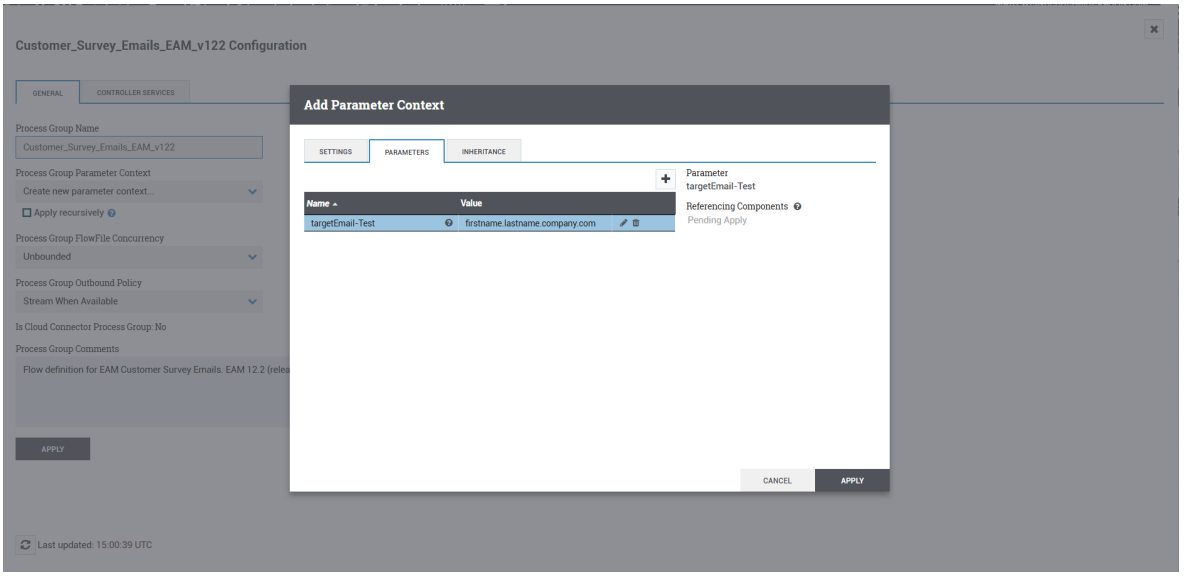


Figure 16: The parameter context has 1 assigned parameter

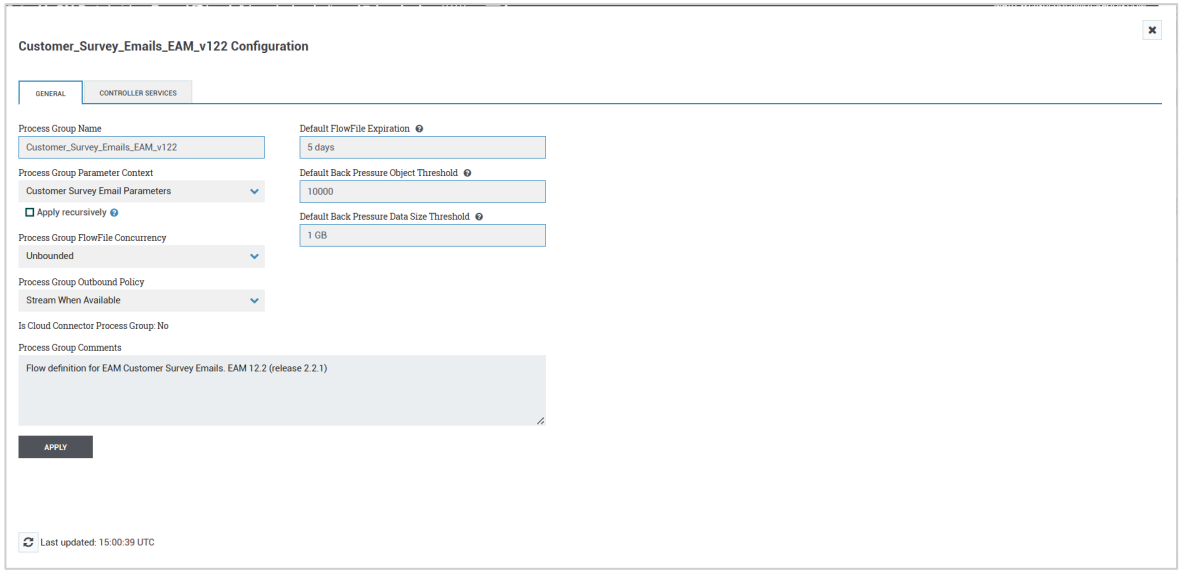


Figure 17: Flow definition Configuration pane

In the above figure, the defined parameter context has been associated to the Customer Survey Emails EAM v122 flow definition. Click the **Apply** button to save the process group configuration with the assigned parameter context. The system will display a success message indicating the parameter context is assigned to the template and is now ready to operate using parameters.

Transitioning the flow definition logic to use parameters

The logic in the processor SyncAssetTrackingData_CustomerSurvey-BOD will need to be converted to use the declared parameter targetEmail-Test if the Customer Survey Emails EAM template version is older than the template version released for EAM version 12.2.1.2

Double-click the processor, and then click the Properties tab.

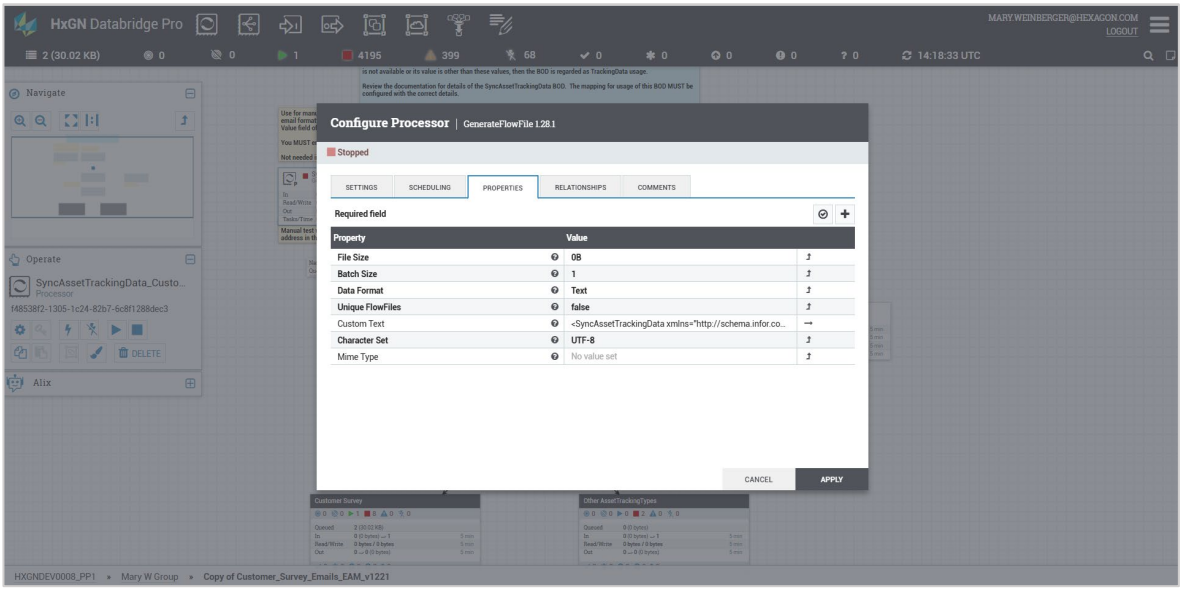


Figure 18: Processor GenerateFlowFile, Properties tab

Now, double-click the **Custom Text** property and scroll down to line which references the targetEmail-Test variable. Update the **$** symbol with the **#** symbol to convert the variable to a parameter and enable the value to be read from the Parameter Context.

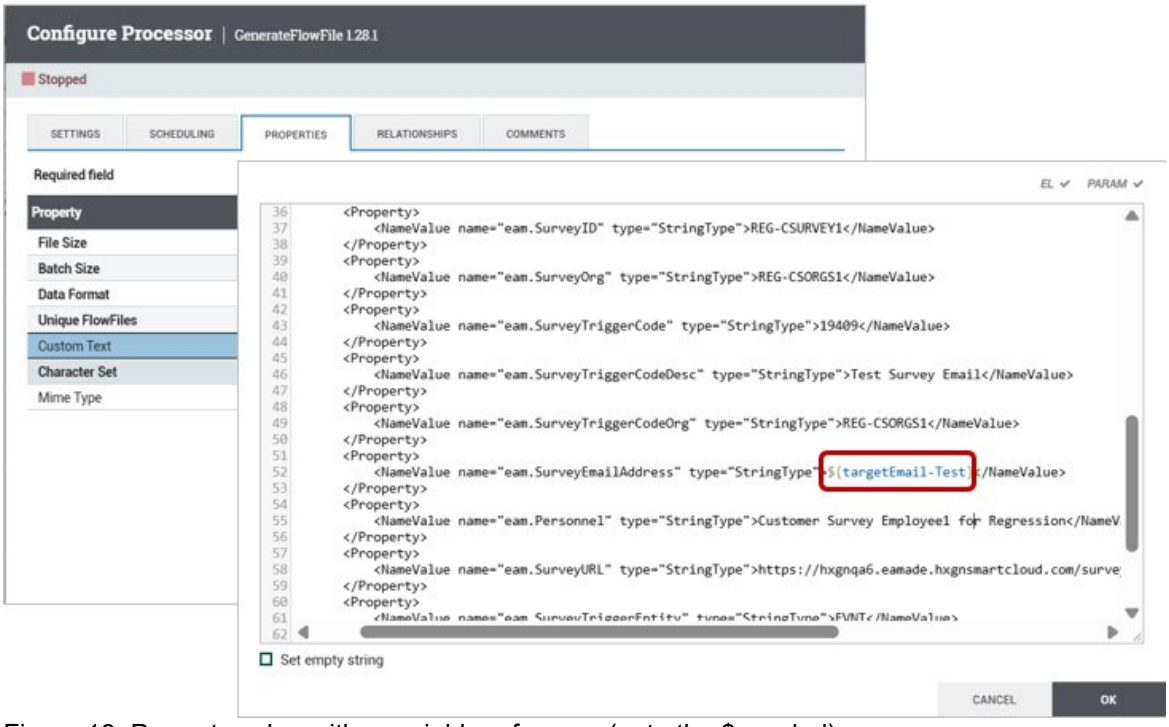


Figure 19: Property value with a variable reference (note the $ symbol)

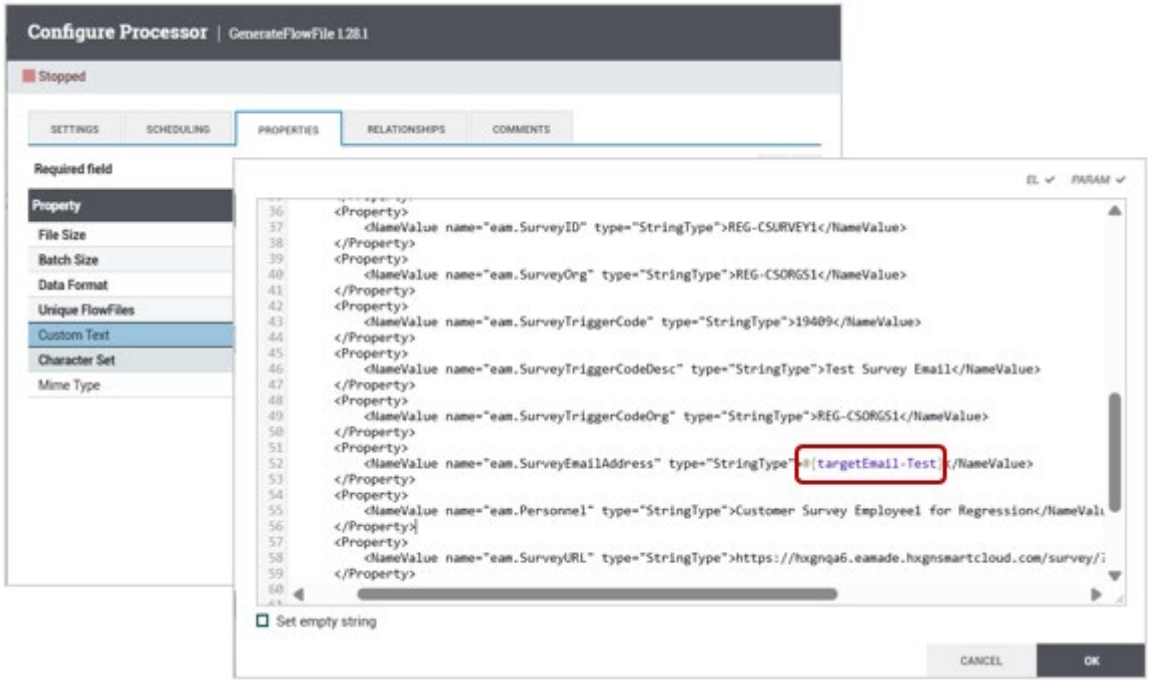


Figure 20: Property value revised to a parameter reference (note the # symbol)

Click the **OK** button to save the change then, click the **Apply** button to save the change to the processor.

Once completed, right-click the canvas again to access **Variables** from the context menu. Then, select the targetEmail-Test variable to verify there are no outstanding variable references to be converted to parameters. When confirmed the targetEmail-Test variable has no Referencing Processors, Controller Services, the flow definition conversion to use parameters is completed.

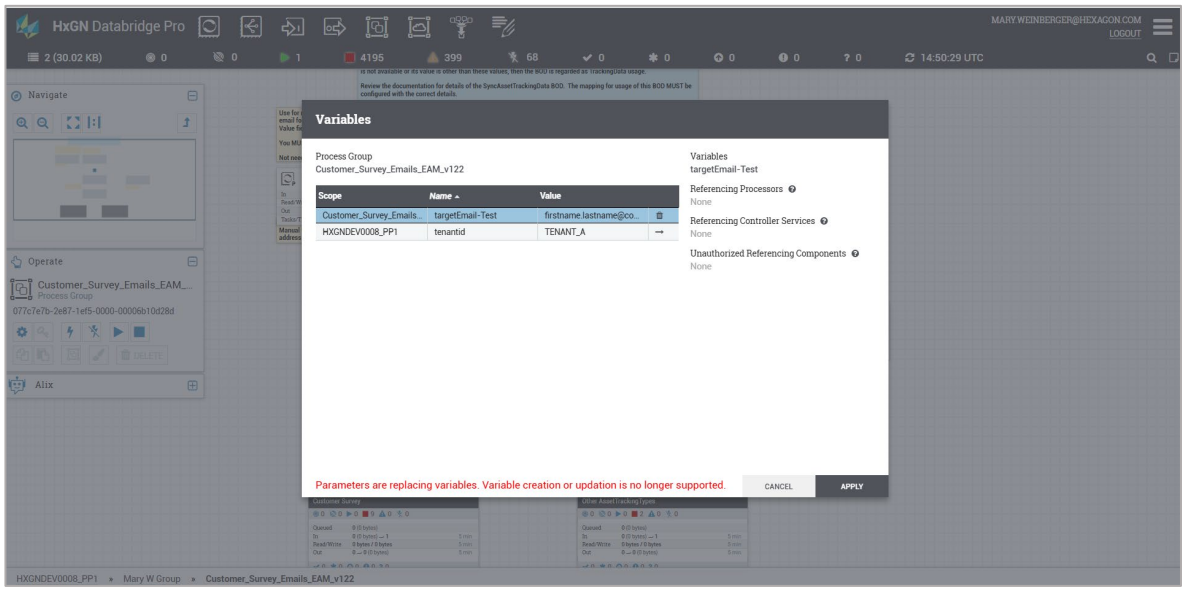


Figure 21: Variables pane, targetEmail-Test variable with no Referencing Processors

Customer Survey Operation and Transmission

In this section, the processing logic for importing and translating the AssetTrackingData BOD content and generating the Customer Survey Email will be reviewed.

Importing the AssetTrackingData BOD

To import the Sync.AssetTrackingData BOD to generate the Customer survey email, the BODFromEAM_V2 processor will be used (processor name, *BODFromEAM_V2*). This processor is specialized to route any outbound BODs that may be generated from EAM. Double click this processor to access and review its configuration. On the Properties tab, scroll down the list of BOD nouns, and for the **Property** Sync.AssetTrackingData, ensure the **Value** is set to true.

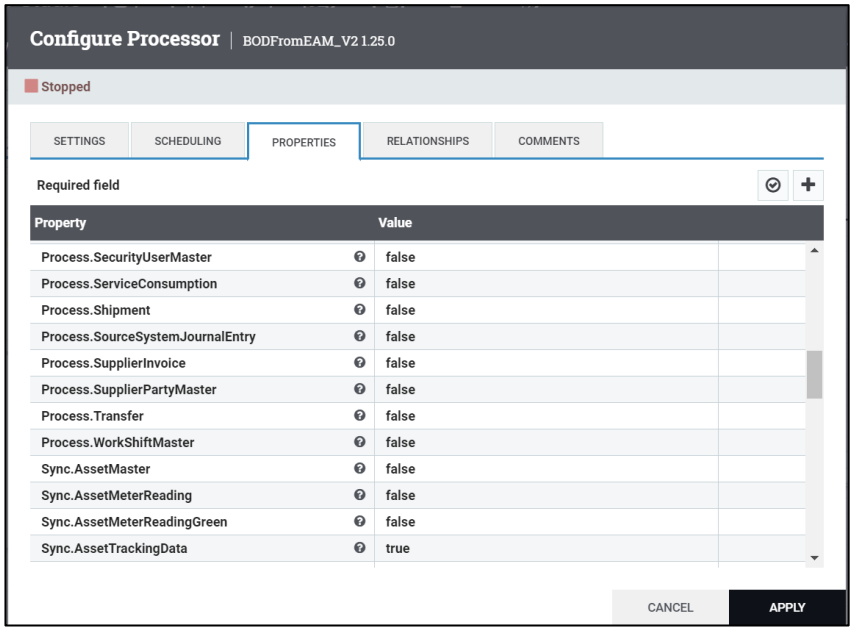


Figure 22: Configure Processor pane, BODFromEAM_V2 Properties tab

Evaluating the AssetTrackingData BOD Type

The AssetTrackingData BOD is used for multiple business purposes including Fuel Issues, Customer Survey Events, Event Log, and Work Order Equipment Replacement. This BOD is additionally used for specialized business scenarios that require data transmission not supported by other BOD nouns.

Due to the multifunctional nature of the AssetTrackingData BOD, the intended business usage must be evaluated. This assessment will be performed in two steps. First, the BOD element eam.TrackingDataType will be mapped, and then its value will be validated for routing.

The **EvaluateXPath** processor will be used to transcribe the eam.TrackingDataType element to a flow definition attribute, trackingDataType (processor name, *Map AssetDataType*).

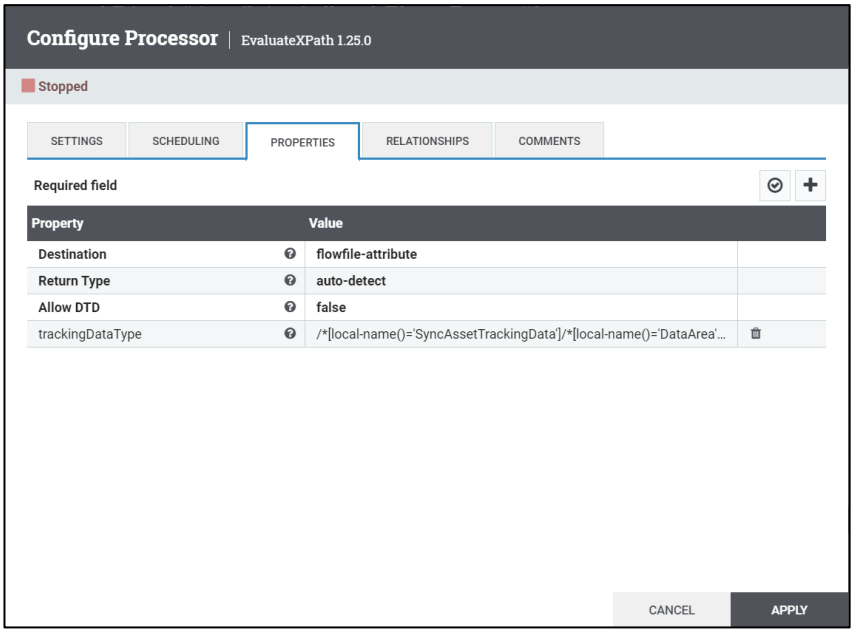


Figure 23: Configure Processor pane, EvaluateXPath Properties tab

The trackingDataType attribute is populated from the flowfile using the XPath for the BOD element eam.TrackingDataType. The XPath for this element (below) is determined by its namespace based on the XML structure of the AssetTrackingData BOD.

/[local-name()='SyncAssetTrackingData']/*[local-name()='DataArea']/*[local-name()='AssetTrackingData']/*[local-name()='UserArea']/*[local-name()='Property']/*[local-name()='NameValue'][@name='eam.TrackingDataType']/text()*

Once defined by a flowfile attribute, the **RouteOnAttribute** processor (processor name, *What is AssetTrackingData BOD type*) will be used to validate the value of the TrackingDataType. The property survey_event is defined to apply the condition logic to ensure the trackingDataType is “CustomerSurveyEvent”. If the trackingDataType is not “CustomerSurveyEvent” the flowfile content is not a Customer Survey and the flowfile will be routed to a log for activity tracking and there will be no further processing of the flowfile.

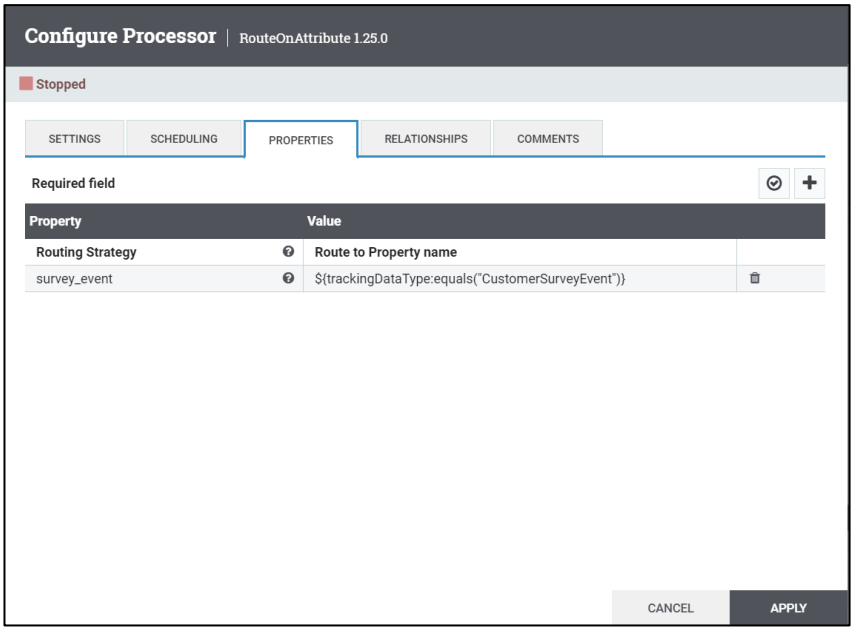


Figure 24: RouteOnAttribute evaluation of trackingDataType attribute

Mapping the AssetTrackingData BOD Content

Once the trackingDataType has been confirmed as “CustomerSurveyEvent”, the **EvaluateXPath** processor will be used to transcribe the remaining content of the AssetTrackingData BOD (processor name, *Retrieve all data from this BOD*). The data translations applied to the AssetTrackingData BOD file content for this processor are specific for usage with Customer Survey Events only.

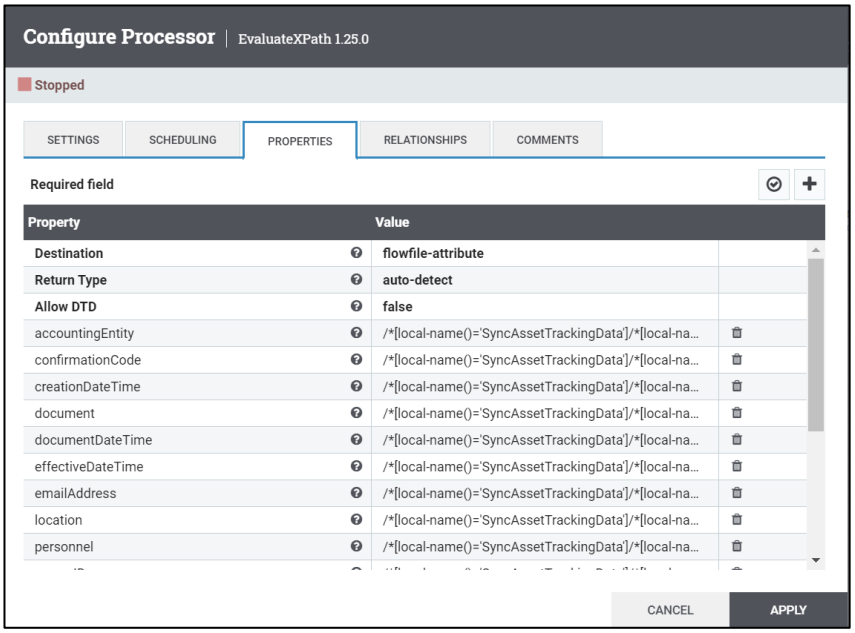


Figure 25: Configure Processor pane, EvaluateXPath Properties tab

Each of the BOD elements will be converted to a flowfile attribute by mapping the XPath of each element to the defined attribute. The XPath for the BOD data elements is determined by its namespace based on the XML structure of the AssetTrackingData BOD. See Appendix A – BOD Data Transcription for more information.

An interim step will be performed to ensure the value of the email address element passed from the AssetTrackingData BOD is not null using the **UpdateAttribute** processor (processor name, *Map eam.SurveyEmailAddress*). The Flowfile Policy for the **UpdateAttribute** processor will validate if the emailAddress is defined. If the attribute emailAddress is not defined the record will be routed as an error.

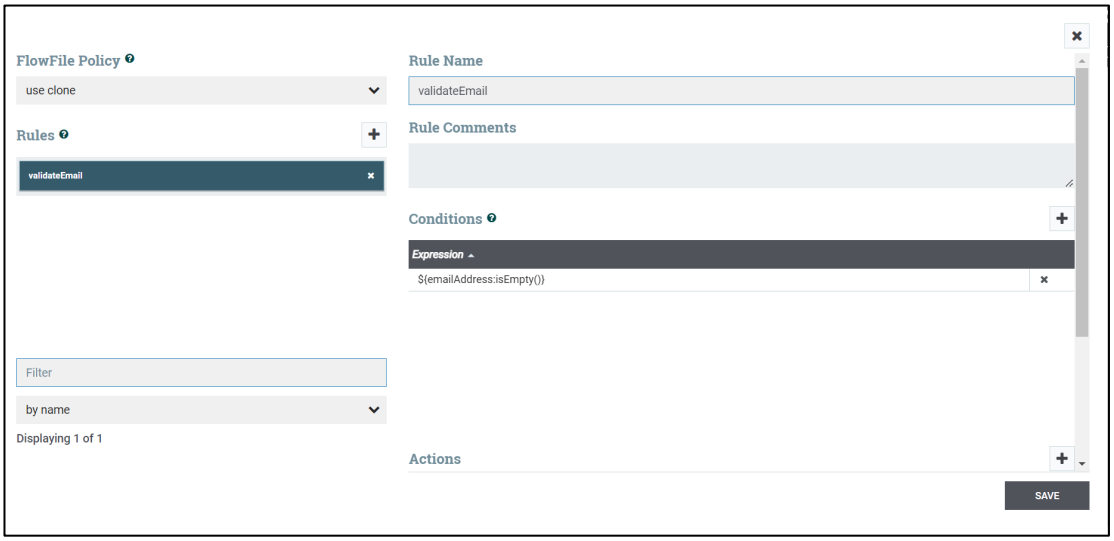


Figure 26: UpdateAttribute processor, Flowfile Policy

Generating and Sending the Survey Email

The **ReplaceText** processor is leveraged to transcribe the mapped content of the AssetTrackingData BOD to the email that will be sent (processor names; *Create the HTML email – version 1* and *Create the HTML email – version 2*).

> The system administrator or services consultant should conduct testing and review of the delivered email formats and delete the queue connector node to the email format that will not be used to avoid sending two copies of each survey email. See Appendix B – Testing the Flow Definition.

The HTML format for the email is stored in the **Value** field of the **Replacement Value** property. Each of the transcribed BOD fields stored in the allocated flowfile attributes will be mapped in the HTML code that generates the email.

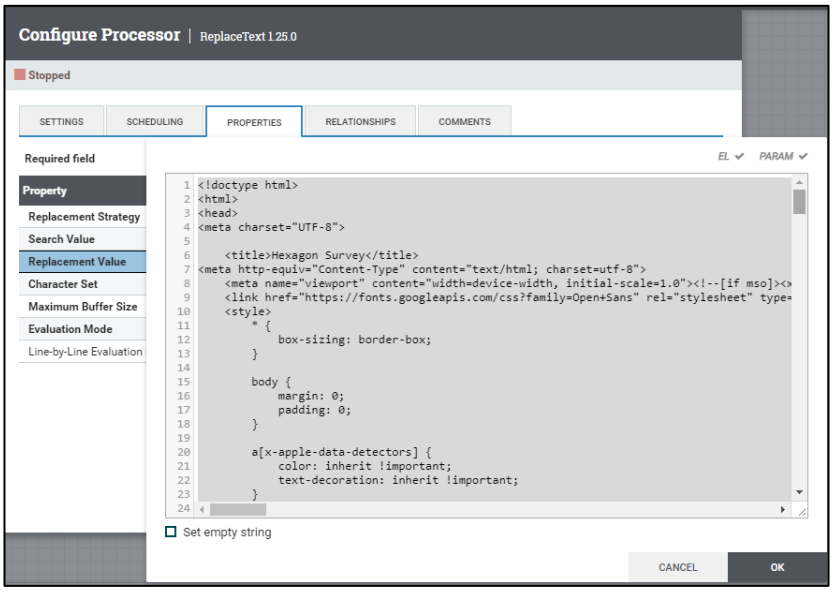


Figure 27: Configure Processor pane, ReplaceText Properties tab

Once the HTML has been populated, the formatted content will advance to the **PutEmail** processor (processor name; *PutEmail*). The **PutEmail** processor is configured to send the email to the named recipient defined in the eam.SurveyEmailAddress element of the AssetTrackingData BOD file.

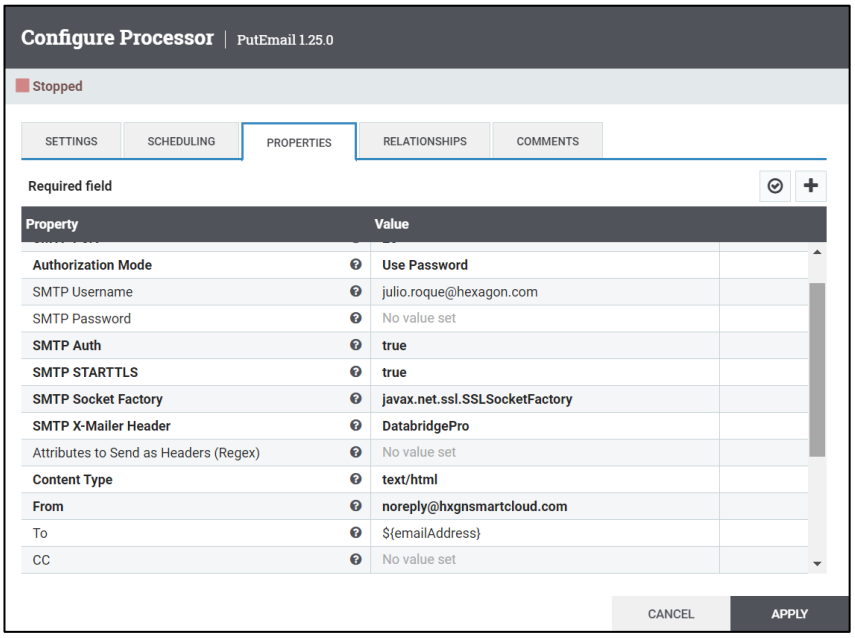


Figure 28: Configure Processor pane, PutEmail processor Properties tab

Appendix A – BOD Data Transcription

The customer survey data from the AssetTrackingData BOD must be converted to flowfile attributes by mapping the XPath of each element to a defined attribute. The XPath for the BOD data elements is determined by its namespace based on the XML structure of the AssetTrackingData BOD.

An XML parsing utility can assist in providing the necessary detail for the XPath. Specifically for the AssetTrackingdata BOD when the eam.TrackingData Type is “CustomerSurveyEvent” the mapping is as follows in the below table.

Flowfile Attribute	BOD Element XPath
accountingEntity	/*[local-name()='SyncAssetTrackingData']/*[local-name()='DataArea']/*[local-name()='AssetTrackingData']/*[local-name()='IDs']/*[local-name()='ID']/@accountingEntity
confirmationCode	/*[local-name()='SyncAssetTrackingData']/*[local-name()='ApplicationArea']/*[local-name()='Sender']/*[local-name()='ConfirmationCode']/text()
creationDateTime	/*[local-name()='SyncAssetTrackingData']/*[local-name()='ApplicationArea']/*[local-name()='CreationDateTime']/text()
document	/*[local-name()='SyncAssetTrackingData']/*[local-name()='DataArea']/*[local-name()='AssetTrackingData']/*[local-name()='IDs']/*[local-name()='ID']
documentDateTime	/*[local-name()='SyncAssetTrackingData']/*[local-name()='DataArea']/*[local-name()='AssetTrackingData']/*[local-name()='DocumentDateTime']/text()
effectiveDateTime	/*[local-name()='SyncAssetTrackingData']/*[local-name()='DataArea']/*[local-name()='Sync']/*[local-name()='ActionCriteria']/*[local-name()='ChangeStatus']/*[local-name()='EffectiveDateTime']/text()
emailAddress	/*[local-name()='SyncAssetTrackingData']/*[local-name()='DataArea']/*[local-name()='AssetTrackingData']/*[local-name()='UserArea']/*[local-name()='Property']/*[local-name()='NameValue'][@name='eam.SurveyEmailAddress']/text()
location	/*[local-name()='SyncAssetTrackingData']/*[local-name()='DataArea']/*[local-name()='AssetTrackingData']/*[local-name()='IDs']/*[local-name()='ID']/@location
personnel	/*[local-name()='SyncAssetTrackingData']/*[local-name()='DataArea']/*[local-name()='AssetTrackingData']/*[local-name()='UserArea']/*[local-name()='Property']/*[local-name()='NameValue'][@name='eam.Personnel']/text()
surveyID	/*[local-name()='SyncAssetTrackingData']/*[local-name()='DataArea']/*[local-name()='AssetTrackingData']/*[local-name()='UserArea']/*[local-name()='Property']/*[local-name()='NameValue'][@name='eam.SurveyID']/text()
surveyMessage	/*[local-name()='SyncAssetTrackingData']/*[local-name()='DataArea']/*[local-name()='AssetTrackingData']/*[local-name()='UserArea']/*[local-name()='Property']/*[local-name()='NameValue'][@name='eam.SurveyMessage']/text()
surveyOrg	/*[local-name()='SyncAssetTrackingData']/*[local-name()='DataArea']/*[local-name()='AssetTrackingData']/*[local-

	name()='UserArea']/*[local-name()='Property']/*[local-name()='NameValue'][@name='eam.SurveyOrg']/text()
surveyTriggerCode	/*[local-name()='SyncAssetTrackingData']/*[local-name()='DataArea']/*[local-name()='AssetTrackingData']/*[local-name()='UserArea']/*[local-name()='Property']/*[local-name()='NameValue'][@name='eam.SurveyTriggerCode']/text()
surveyTriggerCodeDesc	/*[local-name()='SyncAssetTrackingData']/*[local-name()='DataArea']/*[local-name()='AssetTrackingData']/*[local-name()='UserArea']/*[local-name()='Property']/*[local-name()='NameValue'][@name='eam.SurveyTriggerCodeDesc']/text()
surveyTriggerCodeOrg	/*[local-name()='SyncAssetTrackingData']/*[local-name()='DataArea']/*[local-name()='AssetTrackingData']/*[local-name()='UserArea']/*[local-name()='Property']/*[local-name()='NameValue'][@name='eam.SurveyTriggerCodeOrg']/text()
surveyTriggerEntity	/*[local-name()='SyncAssetTrackingData']/*[local-name()='DataArea']/*[local-name()='AssetTrackingData']/*[local-name()='UserArea']/*[local-name()='Property']/*[local-name()='NameValue'][@name='eam.SurveyTriggerEntity']/text()
surveyURL	/*[local-name()='SyncAssetTrackingData']/*[local-name()='DataArea']/*[local-name()='AssetTrackingData']/*[local-name()='UserArea']/*[local-name()='Property']/*[local-name()='NameValue'][@name='eam.SurveyURL']/text()
tenantID	/*[local-name()='SyncAssetTrackingData']/*[local-name()='DataArea']/*[local-name()='Sync']/*[local-name()='TenantID']/text()

Appendix B – Testing the Flow Definition

The delivered flow definition for Customer Surveys includes a mechanism to test the processing logic in advance of implementation. In this manner, the system administrator or solution consultant can confirm all data is being translated as expected and the format of the survey email, its included text, and any graphics are presented as desired by the customer.

At the top of the flow definition is a GenerateFlowFile processor named “SyncAssetTrackingData_CustomerSurvey-BOD”. This processor is delivered as disabled and should only be enabled for testing purposes. This processor will facilitate review of the formatting and content of the email being generated. It will not verify connectivity to EAM or receipt of a BOD generated from EAM.

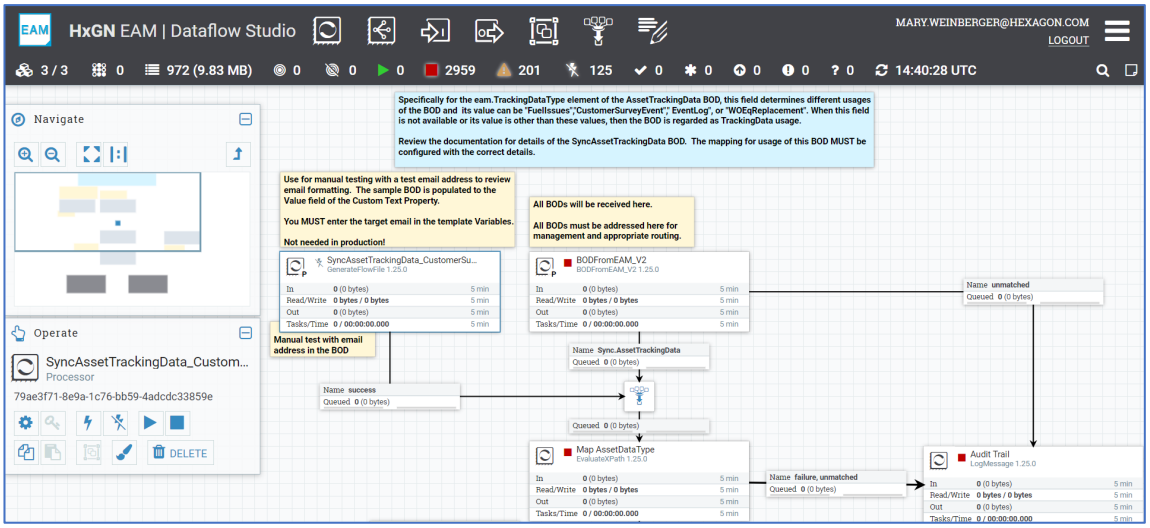


Figure B-1: Flow Definition template with focus on the GenerateFlowFile processor

Double click this processor to access the Configure Processor pane, then click the Properties tab.

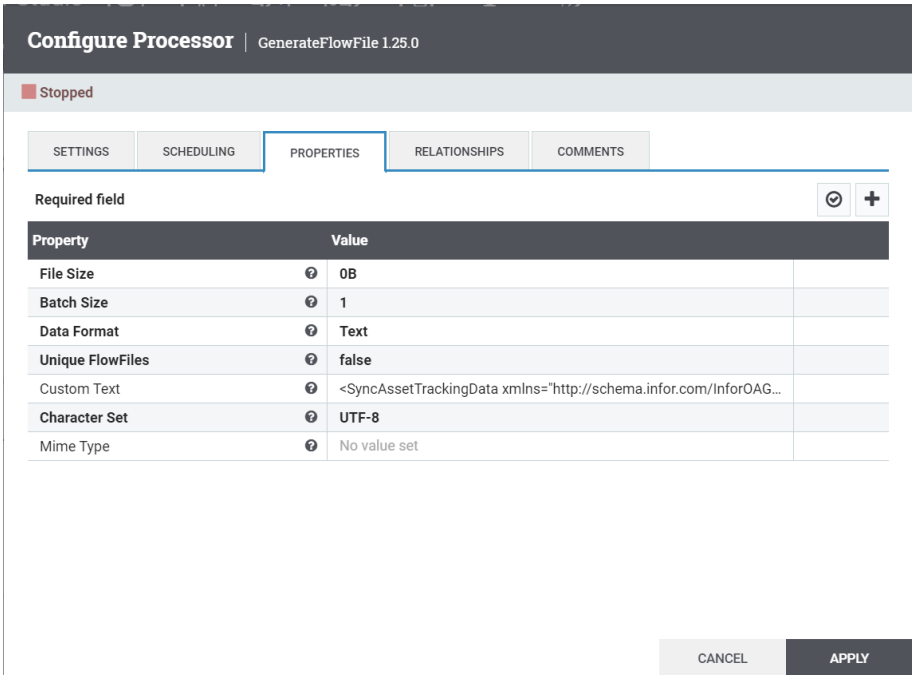


Figure B-2: Configure Processor pane, GenerateFlowFile Properties tab

On the Properties tab, double click the **Value** field of the **Custom Text** property and view a sample Sync.AssetTrackingData BOD with eam.TrackingDataType = “CustomerSurveyEvent” provided for testing. This delivered sample file references the flow definition variable targetEmail-Test.

Alternately, the user may select to copy the content of the Sync.AssetTrackingData BOD with eam.TrackingDataType = “CustomerSurveyEvent” test file to this field. The value of the BOD node eam.SurveyEmailAddress should be reviewed to verify the email address is valid and will be received.

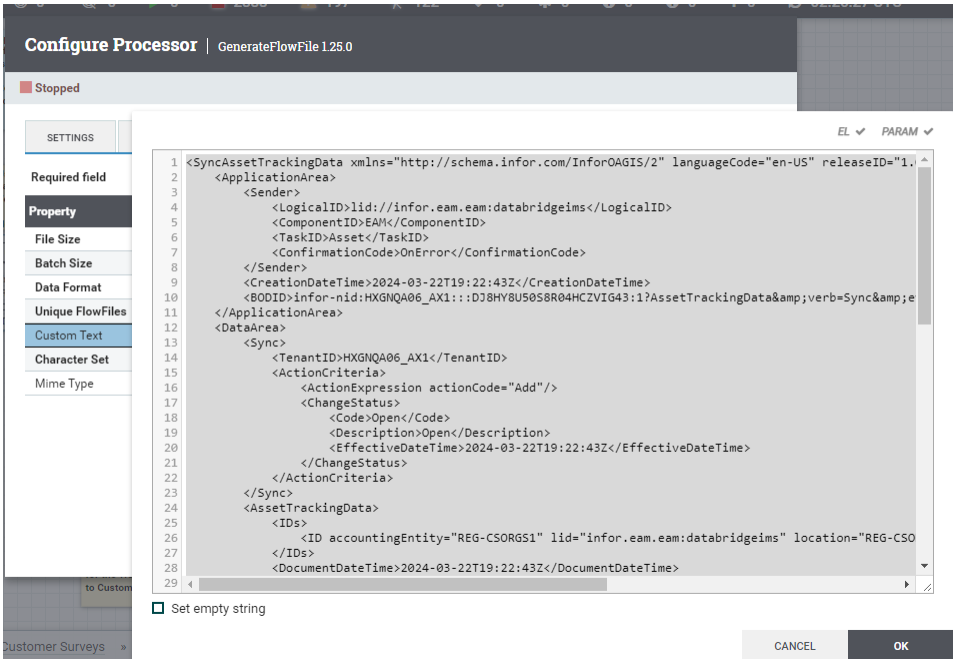


Figure B-3: Custom Text property, Value field with BOD content

Click OK to save the content, and then click APPLY to save the configuration of the GenerateFlowFile processor.

Now, when the user right-clicks the GenerateFlowFile processor to Run Once, the test Sync.AssetTrackingData BOD file will be passed into the flow definition processing logic. The logic of the flow definition can be run in a step-wise manner by right-clicking each processor in line to Run Once and then right-clicking on the canvas and clicking Refresh in the context menu. The user can watch the flowfile advance through the flow definition and review the content of the flowfile by accessing List Queue for a queue connector node or by accessing View data provenance for a processor node.

Once testing and review of the format and content of the generated survey email has been completed, this processor should be disabled. Right-click the “SyncAssetTrackingData_CustomerSurvey-BOD” processor and click Stop in the context menu to stop the processor, and then click Disable to disable the processor.

Appendix C – Deployment Considerations

The flow definition for the Customer Survey Email includes the BODFromEAM_V2 processor. This processor is specialized to route all BODs that can be generated from EAM. It is possible this processor is already in use at a customer site for other integration activities.

In this scenario, this flow definition should be imported to a processor group within the existing processor group that includes the BODFromEAM_V2 processor. For the customer's existing BODFromEAM_V2 processor, the property for the Sync.AssetTrackingData BOD will be set to true. A new connector will then be defined for the customer's existing BODFromEAM_V2 processor to route the Sync.AssetTrackingData BOD to the Customer Survey flow definition. And, in the flow definition for the Customer Survey, the included BODFromEAM_V2 processor will be deleted and an Input Port configured in its place that connects to the funnel of the flow definition.

X