Infor Global Financial Controller Administration Guide

Release 10.4.7.0

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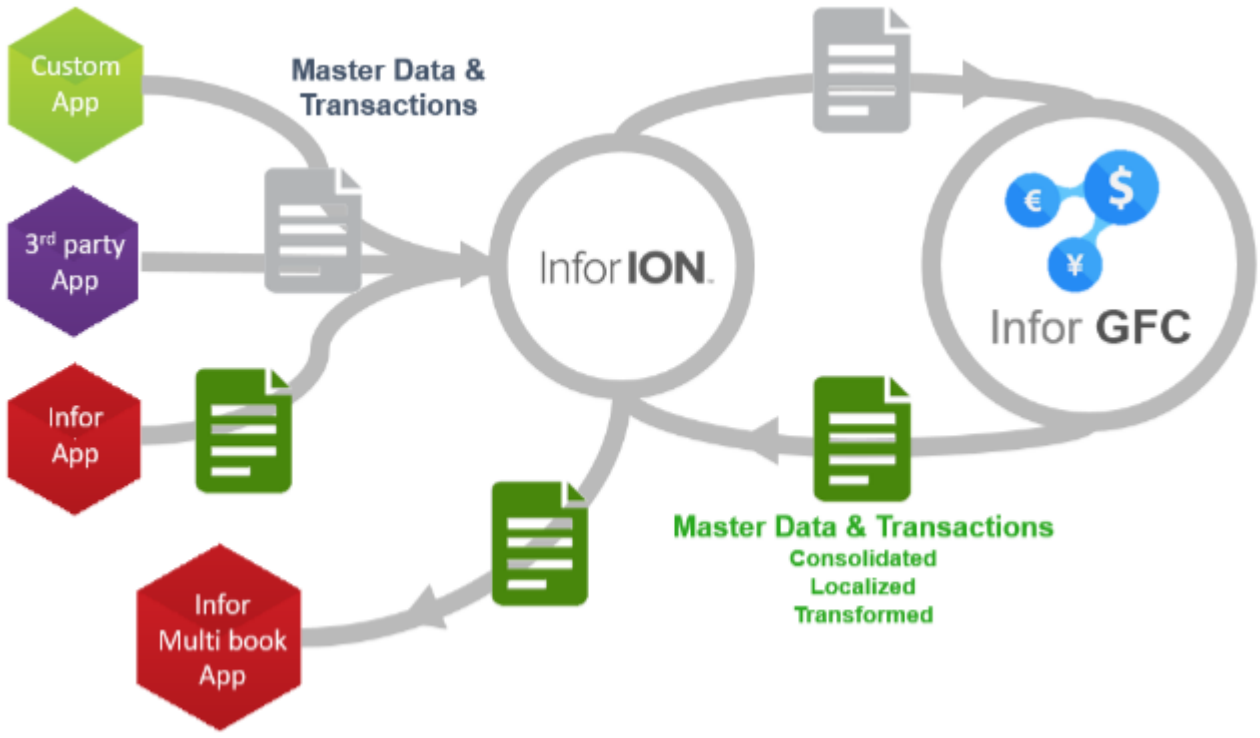
Chapter 1: Overview

This chapter provides an overview and conceptual information on Infor Global Financial Controller.

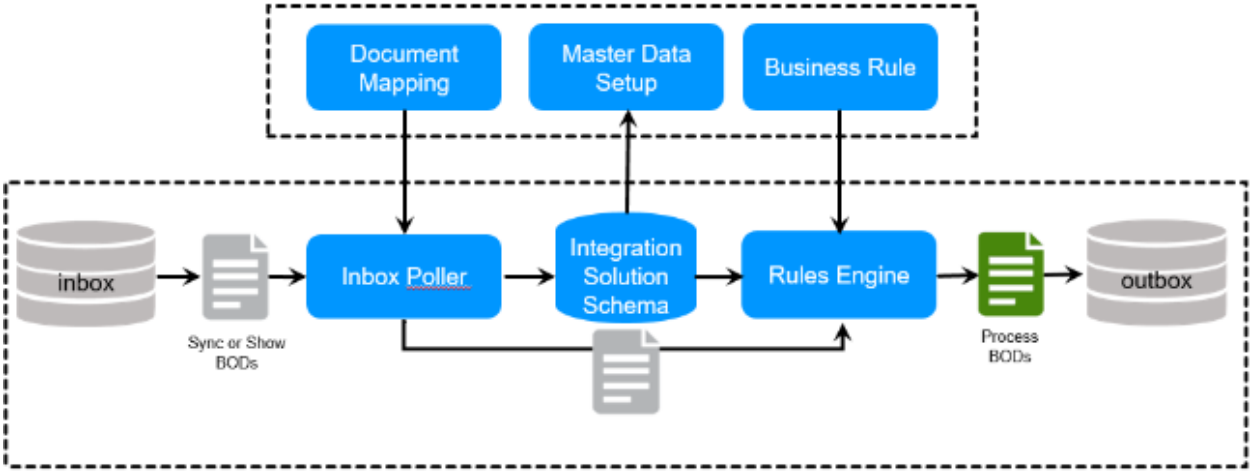
About Infor Global Financial Controller

The Infor Global Financial Controller (IGFC) is a browser-based application designed to integrate business processes. IGFC generates localized accounting journal entry business documents out of input financial transactions. It also provides users the ability to transform an Infor or custom business document and subsequently generate any type of document. The output business documents are generated based on pre-defined rules and configurations. Applications that are enabled to work with ION Process, publishing and consuming master data and transactional business documents, can use IGFC without any changes in the application. Alternatively, applications can also send and retrieve BODs by communicating requests through RESTful API.



IGFC architecture

This diagram shows the architecture of the Infor Global Financial Controller:



- Published Sync and Show business documents from source applications are received by IGFC. Sync or Show Infor or custom master data business documents are then shredded by the Inbox Poller component.
- Using pre-defined BOD mappings, master data business document information is stored in the database.
- A schema-specific database table is available for each master data business document and the attributes included in the mapping are used as the columns of the table.
- The master data records that the Inbox Poller creates are used by the administrator to configure master data setups.
- The administrator also configures the rules for generating journal entries or any business documents.
- When the source application publishes an Infor or custom master data or transactional business document, the Inbox Poller passes the business document to the Rules Engine. The Rules Engine runs the appropriate rules to generate an output Process.SourceSystemJournalEntry or any Process business document.

Publishing documents from and to IGFC

IGFC supports sending and receiving of business documents through the ION Process or RESTful API. By default, output business documents are published through ION. This setting is then driven by how the receiver enterprise application sends its master data business documents to IGFC.

When a receiver sends master data business documents to IGFC through ION, the output business documents remain published through ION. On the other hand, when the master data business documents are sent to IGFC through REST, the output business documents will also be published through REST.

See the *Infor Global Financial Controller Installation Guide* for more information on setup requirements for enterprise applications sending business documents through REST.

Inter-tenant document processing

Tenants refer to customer container in the application applicable to SaaS or in a multitenant cloud environment. For IGFC CE, documents can also be sent and received between different tenants. This inter-tenant communication requires that the input business document contain the sender tenant value in the{Noun}\DataArea\{Verb}\TenantID field. Likewise, the generated output document populates the tenantID field to refer to the receiver tenant. See Registering entities on page 39 for more information on defining entities with tenant value.

IGFC menu bar

The IGFC application contains a menu bar that you can use to open application pages. The menu bar contains these options:

- Administration – Opens a menu where you can access various administration pages. You can use these pages to create users and to manage integrations and entities.
- Content Management – Opens a menu where you can access Import/Export Data.
- Document – Opens a menu where you can access various document definition pages. You can use these functions to perform actions such as registering business documents or creating custom documents. You must perform the tasks on these pages to be able to consume business documents.
- Master Data Setup – Opens a menu where you can access various master data setup pages. You can use these pages to register and map entities, setup account dimension codes, general ledger mappings. Depending on the setup page, relevant master data business documents must have already been received by IGFC before you can perform the tasks on these pages.
- Business Rule – Opens a menu where you can access various rule configuration pages. You can use these pages to define output generation rule, journal entry template, and journal user fields. You must perform the tasks on these pages before IGFC consumes input business documents for generating an output SourceSystemJournalEntry or any business documents.
- View – Opens a menu where you can access various management and troubleshooting pages. You can use these pages to view and monitor input and output documents, error messages, and others.

Inbox poller

The inbox poller is the component of IGFC that reads input business documents for processing. If the inbox poller is active, received master data business documents are written into the IGFC database,

and sent to the rules engine for generation of output business documents if applicable. Received transaction business documents are also sent to the rules engine for generation of output SourceSystemJournalEntry or any business documents. When deactivated, received business documents are not processed until you activate the inbox poller. You should only activate the inbox poller after completing the registration of relevant business documents and definition of business rules.

The inbox poller sends the business document to the proper database using the logical ID and the accounting entity specified in it. In the case of a master data business document, the inbox poller uses the logical ID instead when the business document does not have the accounting entity information. For IGFC CE, the tenant specified in the business document, in addition to logical ID and accounting entity, is also used to identify the proper database for the document. If a tenant is not published, then tenant of the IGFC application is used instead. The information from master data business document is stored in the database according to the pre-defined BOD mappings. The columns of the table refer to the attributes mapped for the document and records created from this processing are used by the administrator to configure master data setups.

Rectification of inaccuracies

Inaccurate or incomplete data can be rectified from the source application, which will update or delete previously shredded master data business document in IGFC through the standard BOD delivery process.

Restriction of processing

Documents can also be restricted from use or processing. The instruction to restrict processing will come from the source applications and will be communicated to IGFC through the standard BOD delivery process. For example, personal account can be put on hold by changing the status to inactive.

Note:

In case of major changes, you must deactivate the inbox poller to suspend the processing of business documents.

Transaction reprocess

Input business documents that were previously processed can be reused through the reprocess option in IGFC. The applicable rules are then executed to generate an output business document.

Manual reprocessing is generally performed when there are errors encountered during processing of input business document in IGFC or when the output business document has been rejected by the receiver application.

For example, a transaction may fail to generate a journal document because the input ledger account does not have a corresponding account mapping in IGFC. On the other hand, an output journal may have been successfully generated but the receiver application rejected the SourceSystemJournalEntry BOD because the transaction occurred in an accounting period that is not yet open.

In manually reprocessing business documents, the reason for the output not being generated or being rejected must first be determined and the necessary changes in setups applied.

Automatic reprocessing applies to input business document with references and source master data that are not yet received in IGFC. For input transactional business documents that are processed to generate an output SourceSystemJournalEntry, automatic reprocessing also applies to updated transactions requiring reversals of the journal, where, the Acknowledge BOD is not yet received for the original transaction.

In both cases, the input business document is pending processing with a Warning message until the pre-requisite documents are received.

See Warning messages on page 112.

Purging documents

Purging is a process that permanently deletes input and output document instances processed in IGFC. When the purge setting is active, documents older than the defined retention days will be deleted. The purging job runs as often as specified in the purging schedule based on these purge settings:

- Retention days – the number of days that the document will be kept or stored before purging. The current date-time is compared against the date-time in IGFC to determine the age of the document in days.
- Purge schedule – defines how often the purging job is executed when active. The schedule is defined in CRON expression that consists of these components: seconds, minutes, hours, day of month, month, day of week, and year. All fields are required, except for the year component.

When an input or output document is purged, access to the XML copy in IGFC View page will no longer be available as the “View” hyperlink is not displayed. The journal control containing a condensed format of the output SourceSystemJournalEntry and the “Reprocess” action is also not available. However, the rest of details of the input or output entry in the View page is still shown. These details provide information on the inbox or outbox ID, status, document name, document ID, received date time, sender or receiver entity, and the rule that was executed to generate an output.

User roles

User roles determine the access level or permissions of a user within the IGFC application. An IGFC user can be a Customer Admin, Rule Builder, or System Accountant.

Customer admin

A Customer Admin user serves as the system administrator of a tenant and is tasked to manage the setup data of all the integrations of the tenant. A user with this role can perform these actions for both on premise and IGFC Cloud Edition (IGFC CE):

- Manage integrations

- Manage entity registration and mapping
- Activate and deactivate the inbox poller
- Activate and deactivate the purging of documents
- Export and import content package
- Manage Infor and custom BOD registrations
- Manage custom master data registration and data entry
- Upload custom BOD definitions and properties
- Manage dimension code assignments
- Manage general ledger mappings
- Manage search templates, API configurations, and expressions
- Manage API security keys and definitions
- Manage journal user fields
- Manage journal entry templates
- Manage scenarios and rules
- View the status of BODs

For on-premise deployment, a customer admin can perform this action:

- Manage user accounts

For IGFC CE, a customer admin is limited to viewing Users page.

Rule builder

Sets up data that will be used for creating rules for output generation, the export and import of the setup data, as well as viewing the status of BODs, except for Reprocess. The functions of this role include:

- Manage Infor and custom BOD registrations
- Manage custom master data registration, excluding data entry
- Upload custom BOD definitions and properties
- Manage search templates, API configurations, and expressions
- Manage API security keys and definitions
- Manage journal entry templates
- Manage journal user fields
- Manage scenarios and rules
- Export and import data

The rule builder is limited to viewing these:

- Inbox Poller and Purging settings
- Entity registration and mappings
- Data Entry page in Custom Master Data
- Dimension code assignments and general ledger mappings
- Status of BODs in View page

System accountant

Primarily responsible for setting up customer-specific data such as the content of Custom Master Data (Data Entry), entities, general ledger mappings, and dimension codes. The functions of this role include:

- Manage data entry for custom master data
- Manage entity registration and mappings
- Manage dimension code assignments and general ledger mappings
- Reprocess BODs

The system accountant is limited to viewing these:

- Inbox Poller settings
- Infor and custom BOD registration and mappings
- Custom master data registration
- Uploaded custom BOD record
- Search templates, API definitions, and expressions

Integration

An integration refers to a solution in IGFC which is identified in terms of enterprise applications that interact with each other. It holds all the master data business documents and setup data which are required to be placed in separate containers or databases. This facilitates routing of business documents as well as prevent conflict of information by organizing data that are related to one integration.

There are two types of integration in IGFC, Accounting Framework and Flexible Output.

Accounting framework generates output SourceSystemJournalEntry BOD out of input transactional business documents. On the other hand, an integration with a type of flexible output generates any business document out of transforming input master data or transactional business documents.

Both integrations display these pages for each menu option:

- Administration - Integration, Entity Registration, Users and Settings
- Content Management - Import/Export Data
- Document - BOD, Custom Master Data, Custom BOD
- Master Data Setup - Entity and Entity Mapping
- Business Rule - API, Expressions, Scenarios and Rules
- View
  - For accounting framework integration, separate view pages are available for Transactional and Master Data
  - For flexible output integration, processed master data and transactional business documents are combined in one page

For accounting framework integration, additional pages are available that are specific to journal entry configuration:

- Master Data Setup - Dimension Code Assignment and General Ledger Mapping
- Business Rule - Journal Entry Templates and Journal User Fields

Entity

Registration of an entity includes specifying the name and the logical ID of the enterprise application that is the source or destination of the business documents. An accounting entity code is also specified, if applicable.

The registration of an entity with an accounting entity code is especially required for an enterprise application that publishes business documents at accounting entity level. IGFC allows for registration of an entity even if the enterprise application does not publish AccountingEntity business document. In this case, the logical ID and accounting entity must be manually specified.

Logical IDs identify the enterprise application to which the business document belongs. IGFC also uses this information to distinguish similar accounting entities with different source or destination applications.

For IGFC CE, registration also includes specifying the tenant of the source or destination of the business document.

IGFC also requires that the entity is registered before processing business documents, except for the AccountingEntity business document.For entities processing journal entry transactions, registration also includes identifying whether the journal uses signed credit amounts and if the entity requires a balancing entry. One or more entities can be registered.

Export and import functionalities

IGFC allows for existing configuration and setup data of one schema to be transferred into and used by another instance in order to facilitate quick implementation.

Export allows the users to extract data from an IGFC instance to another. The user specifies which master data and transactional BODs to export. The data is then placed into a folder called package. The package has these contents:

- Master data BODs – the selected Infor and custom master data document's mapping of attributes with names, description and data types, and its related search templates. For flexible output integration, the content for a master data BOD also includes its related expressions and rules.
- Custom master data – the selected custom master data's setup of table structure which includes attributes with names, description and data types, the content (data entry), and its related search templates.
- Transactional BODs – the selected Infor or custom transactional document's mapping of attributes with names, description and data types, its related expression and rules. For accounting framework integration, a transactional BOD content also includes its related journal entry templates and journal user fields.

Import makes use of the exported content package to input a set of data to an IGFC instance. This requires that the content comes from a source with an earlier or the same IGFC version as that of the destination.

Note:

For IGFC versions 10.4.1.0 or earlier, import requires that the content comes from a source with the same application version as that of the destination.

Given the relationship between business documents, it is important that a package also includes the related documents that provide relevant information. Consider a purchase order transaction that refers to an item master to determine standard cost. In this case, both documents should be included in the package.

These are not included in the package:

- Entity registration
- Entity mapping
- General ledger mapping
- API security keys and definitions

The first three are all under master data setup module, which requires relevant master data business documents to be sent first to IGFC. While REST API type expressions are also included in the content package, if applicable, the corresponding API components are not part of the exported content from IGFC as this must come directly from ION API. This ensures that the API security keys and definitions are accurate and up to date when used in IGFC output generation rules.

Customize records

Users are allowed to modify an imported setup data according to their specific requirements. Custom master data content (data entry) can be updated directly. These setup data can only be modified through the use of a customize option:

- Search templates
- Expressions
- Journal entry templates
- Journal user fields
- Rule setup and Rule script

Note: Rule setups and rule script can only be customized after entity references are updated. Scenarios and BOD registrations cannot be customized.

Revert customizations

IGFC allows users to undo changes to a customizable setup data and revert to the latest imported version.

These tasks need to be performed after restoring a search template, expression, or rule:

- Search template - Related Master Data BOD must be regenerated. In addition, the related expressions and rules may need to be updated and reactivated, respectively.
- Expression - Rules where the restored expression is used must be reactivated.
- Rule - The rule must also be reactivated.

Note:

A restored journal entry template or journal user field requires no further update on any other record.

BOD registration

Before business document instances can be processed, you need to register the appropriate Infor or custom business documents because BOD registrations are the building blocks of the different configurations and output generation rules.

Registering a business document involves selecting and defining its attributes, and optionally, creating one or more search templates for master data type of business documents.

Attributes

To use the GFC pages correctly, the specific master data BODs must be registered with the complete attributes. For example, Chart of Accounts Mapping and Dimension Code Assignments need the AccountingChart and the ChartOfAccounts BOD mappings. Currency Rate Type and Accounting Journal BOD mappings are required if setting up Currency Rate Type Assignments. CodeDefinition BOD mapping is required if Dimension Code Assignments uses this document as a source of dimension values. See Attributes for BOD Mapping in GFC on page 165 for the attributes to be mapped

Attributes are elements of a business document that contains data. In registering a business document, you need to select its attributes that will be used in the different configurations and rules for generating output business documents.

You need to create more than one registration depending on the number of a document's components, repeating components and repeating attributes within components. For example, the Invoice document is comprised of the InvoiceHeader and InvoiceLine components. The InvoiceLine component can repeat because an invoice can contain multiple lines. Within an invoice line, there can be several items.

```
<InvoiceHeader>
             <DocumentID>
                 <ID>INV-001</ID>
                <DocumentDateTime>2013-03-27T06:56:52Z</DocumentDateTime>

             </DocumentID>
        </InvoiceHeader>
        <InvoiceLine>
          <LineNumber>1<LineNumber>
          <Item>
            <ItemID>
               <ID accountingEntity="AE1" location="Loc1">1001</ID>
            </ItemID>
            <ItemID>
               <ID accountingEntity="AE1" location="Loc1">1002</ID>
            </ItemID>
         </Item>
        <Quantity>10</Quantity>
        <UnitPrice>
           <Amount currencyID="USD">100</Amount>
        </UnitPrice>
      </InvoiceLine>
      <InvoiceLine>
         <LineNumber>2<LineNumber>
         <Item>
           <ItemID>
               <ID accountingEntity="AE1" location="Loc2">1003</ID>
```

```
          </ItemID>
        </Item>
        <Item>
          <ItemID>
              <ID accountingEntity="AE1" location="Loc2">1004</ID>
          </ItemID>
       </Item>
      <Quantity>5</Quantity>
      <UnitPrice>
         <Amount currencyID="USD">20</Amount>
    </UnitPrice>
  </InvoiceLine>
```

In the invoice business document example above, there are three groups of registrations, namely, for the invoice header attributes, for the invoice line attributes, and for the invoice line item attributes. A grouping element must be specified for each registration. This refers to the root attribute that does not have a value, but contains all other attributes in the group. The invoice line item component and its attributes have to be registered separately because it occurs multiple times in an invoice line. In registering the invoice line item attributes, it has to be specified that the parent of the invoice line item registration is the invoice line registration.

This table shows sample registrations of the invoice business document with the first attribute as the grouping element:

Business Name	BOD Registration Name	Attributes	Parent
Invoice	InvoiceHeader	• invoiceHeader • id • dateTime	n/a
Invoice	InvoiceLine	• invoiceLine • lineNumber • quantity • unitPrice • unitPriceCurrency	n/a
Invoice	InvoiceLineItem	• invoiceLine • itemID • accountingEntity • location	InvoiceLine

BOD registration and attribute mapping for AccountingEntity and SourceSystemJournalEntry BODs are created during installation. There is no need to register and map these BODs. Modification to the Accounting Entity BOD mappings is not allowed. However, SourceSystemJournalEntry mappings can be modified only to include attribute filters.

See Registering business object documents (BODs) on page 47.

Attribute filters

Elements and attributes that are part of a repetitive structure may need additional filtering in order to be used in a condition or as a source of information. Consider registering elements and attributes with

filters. For example, the element ClassificationCode occurs several times in a ReceiveDelivery document. You must register the specific ClassificationCode filtered by the value that will be used in condition evaluation or as a source of information.

Document references

Attributes of a business document could be tagged as a document reference, which indicates that the document is used as a reference by another originating document for output generation.

The attributes of the business document that should be tagged as document references are the noun ID, as well as the document IDs of the BOD's reference component. Normally, there are components in a business document that hold the information on document references, such as "SalesOrderReference" in ReceiveDelivery, or "PurchaseOrderReference" in SupplierInvoice. There is also the generic component, "Document Reference".

See Business rule on page 26.

Custom BOD

Create custom BODs for information that is not included in Infor master data or transactional BODs. IGFC comes with a set of definitions and properties of Infor BODs which enables BOD registration without preliminary configuration. For custom BODs, you need to upload the corresponding noun definition and metadata properties files in IGFC before the custom documents can be registered and processed.

The upload file contains these components:

- Custom noun schema file (.xsd) - refers to the custom business document's definition of elements, attributes of elements and data types.
- Custom noun metadata properties file(.xml) – refers to the custom business document's list of XML Paths (XPaths), supported verbs and noun relationships.

Once uploaded, register custom BODs following the same process of registering Infor BODs.

See BOD registration on page 17 and Registering business object documents (BODs) on page 47.

For enterprise applications working with ION Process to send and receive business documents, the same custom BOD must also be defined in ION. See the *Infor ION Desk User Guide* for more information on uploading custom documents.

Custom noun schema file

Define a custom noun schema file by adapting the file template below. Replace all occurrences of 'MySampleDocument' with the custom noun name and add, modify or remove elements, as required. Save the file with a name that matches that of the custom noun name, for example, MySampleDocument.xsd

```
<?xml version="1.0" encoding="utf-8"?>
<xs:schema targetNamespace="http://schema.infor.com/InforOAGIS/2"
 xmlns="http://schema.infor.com/InforOAGIS/2"
```

```
xmlns:xs="http://www.w3.org/2001/XMLSchema"
 elementFormDefault="qualified" attributeFormDefault="unqualified" ver
sion="1.0.0">
 <xs:element name="MySampleDocument" type="MySampleDocumentType" />
 <xs:complexType name="MySampleDocumentType">
  <xs:sequence>
   <xs:element name="SampleHeader" type="SampleHeaderType" minOccurs="1"
 />
   <xs:element name="SampleLine" type="SampleLineType"
    minOccurs="0" maxOccurs="unbounded" />
  </xs:sequence>
 </xs:complexType>
 <xs:complexType name="SampleHeaderType">
  <xs:sequence>
  <xs:element name="DocumentID" type="xs:normalizedString" minOccurs="0"
 />
  <xs:element name="DocumentDateTime" type="xs:dateTime" minOccurs="0" />

  <xs:element name="Status" type="xs:string" minOccurs="0" />
  <xs:element name="Description" type="xs:string" minOccurs="0" />
  <xs:element name="ShipmentID" type="xs:normalizedString" minOccurs="0"
 />
  <xs:element name="IsActive" type="xs:boolean" minOccurs="0" />
  </xs:sequence>
 </xs:complexType>
 <xs:complexType name="SampleLineType">
  <xs:sequence>
  <xs:element name="LineNumber" type="xs:integer" />
  <xs:element name="Amount" type="xs:decimal" minOccurs="0" />
  <xs:element name="Note" type="xs:string" minOccurs="0"
   maxOccurs="unbounded" />
</xs:sequence>
</xs:complexType>
</xs:schema>
```

.

Custom noun metadata properties file

Specify the identifier of the custom noun and the verbs that are supported. Optionally, you can also add an entry to specify the relation it has with other nouns. In this file, the definition of ‘IDXpath’ is required. Save the file with a name that matches that of the custom noun name, for example, MySampleDocument.xml. Below is a sample file template.

```
<?xml version="1.0" encoding="utf-8"?>
<NounMetadata xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns="http://schema.infor.com/InforOAGIS/2">

<Noun>
  <NounName>MySampleDocument</NounName>
  <NounType>Transactional</NounType>
  <IDXPath>/*/DataArea/MySampleDocument/SampleHeader/DocumentID
  </IDXPath>
  <DescriptionXPath>/*/DataArea/MySampleDocument/SampleHeader/Description
```

```
  </DescriptionXPath>
  <StatusXPath>/*/DataArea/MySampleDocument/SampleHeader/Status
  </StatusXPath>
  <DocumentDateTimeXPath>/*/DataArea/MySampleDocument/SampleHeader/Docu
mentDateTime
 </DocumentDateTimeXPath>
 <SupportedVerbs>
  <SupportedVerb>Acknowledge</SupportedVerb>
  <SupportedVerb>Process</SupportedVerb>
  <SupportedVerb>Sync</SupportedVerb>
  </SupportedVerbs>
</Noun>
<Relation type="Transactional">
  <ToNoun>Shipment</ToNoun>
  <Priority>10</Priority>
  <RelationLabel>My sample document linked to
  shipment</RelationLabel>
  <RelationPaths> <FromNounPath>/*/DataArea/MySampleDocument/SampleHead
er/ShipmentID</FromNounPath>
   <ToNounPath>/*/DataArea/Shipment/ShipmentHeader/DocumentID[1]/ID</To
NounPath>
  </RelationPaths>
 </Relation>
</NounMetadata>
```

Both files must be placed in one folder with a name that matches that of the custom noun name, then compressed into a .zip file before uploading to IGFC.

Custom master data

A custom master data is a set of reference data that can be used in generating output documents when there is no Infor or custom business document available for it. You define the structure of the custom master data and populate the data.

Defining a custom master data structure is similar to registering a business document. The attributes have to be identified first. If the reference data contains repeating data such as details of common header information, repeating attributes must also be separated in a different custom master data definition. To maintain data normalization, the header information and repeating attributes of the line must be mapped in a different custom master data definition and must be associated with the parent information.

Search template

For registered master data BODs and custom master data, you can create search templates for retrieving relevant information from the IGFC database. A search template is similar to a database query that

will return a single or multiple values from a specific record that matches specified comparison conditions. The conditions are based on specified parameters and attributes from the registered BOD.

A search template definition contains these details:

- Search result - An attribute or attributes of the master data BOD whose value will be returned by the search template.
- Filters - One or more conditions that compare search parameters against the attributes of the master data BOD. Search parameters are represented by attributes of the master data prefixed with "p_". You can use various relational operators in creating comparison conditions. Conditions can be combined using the logical operators AND and OR.

Types of relational operators available are:

==	Equal
>	Greater than
>=	Greater than or equal
<	Less than
<=	Less than or equal
!=	Not equal
IN	Contained in

Example 1

A search template definition for CurrencyExchangeRateMaster to get the currency exchange rate between two currency codes during a specific date and time:

Search result	
The rateNumeric attribute of the CurrencyExchangeRateMaster BOD	rateNumeric
Filters	
p_sourceCur, p_targetCur and p_startDate are the search parameters that will be compared against sourceCur, targetCur, startDate, and endDate attributes of the CurrencyExchangeRateMaster BOD	sourceCur == p_sourceCur AND targetCur == p_targetCur AND startDate <= p_startDate AND endDate >= p_startDate

Example 2

A search template definition for AccountingBookDefinition to get the currency code, and accounting chartreference, and the financial calendar reference of an accounting book ID:

Search result	
The currrencyCode attribute of the Accounting-BookDefinition BOD	currencyCode
The accounting chart reference ID attribute of the AccountingBookDefinition BOD	accChartRef
The financial calendar reference ID attribute of the	finCalRef
Filters	
p_acctgBookId is the search paramater that will be compared against acctgBookId attribute of the AccountingBookDefinition BOD	acctgBookId == p_acctgBookId

You cannot create a search template for transactional BODs.

For accounting framework integration, there are predefined search templates for retrieving master data setup and journal user field information. They are called System-Defined search templates which are delivered with IGFC.

See Master data setup on page 23 and Business rule on page 26.

Search templates alone cannot be used to retrieve master data information. They are used in conjunction with expressions. During generation of the output, expressions are used to assign values to the attributes of the output business document.

See Business rule on page 26.

Master data setup

A master data setup is a collection of master data configurations that are referenced during creation of an output business document. It is comprised of these components:

- Entity
- Entity Mapping

For accounting framework integration, master data setup includes these additional components:

- Dimension Code Assignments
- General Ledger Mapping

Note:

The information used in the different master data configurations comes from the master data business documents received by IGFC.

Entity mapping

Each registered entity has to be identified whether it is a sender or a receiver. A sender entity is the source of the input business documents. A receiver entity is the destination of the output business document. A single entity can be a sender and a receiver at the same time.

Dimension code assignments

Dimensions are pre-defined grouping of values assigned to journal transactions for the purpose of reporting and analysis. Examples of dimensions are cost center, project code, group/division/department, and product.

The dimensions that can be assigned depend on the Accounting Chart, as dimension types are defined in this document. You can specify dimensions for every transaction such as Purchase Order and Receive Delivery. You can also specify dimensions to the level of transaction type. For example, Receive Delivery transaction types could be PO receipt and Non-PO receipt.

Depending on the requirements of the integration, a set of dimensions can be specified for each account number and/or accounting book. The dimension codes that need to appear in a journal entry must be carefully planned for each integration solution.

The source of each dimension must be specified. It may be an attribute of a master data, a transaction document, or a value from the CodeDefinition business document. Dimension values may also come from data that have have undergone string manipulations, whether split or concatenation.

During creation of the output SourceSystemJournalEntry, the journal line dimension codes are populated accordingly.

General ledger mapping

IGFC can transform an input transaction based on the rules defined in the General Ledger Mapping. You can add sender and receiver accounting books to enable multi-book processing. This multi-book solution involves these transformations:

- ledger account
- accounting dates
- functional or base currency amount

Ledger account transformation requires a mapping of ledger accounts of the source entity and destination entity. This also includes allocating the amounts of the input transaction to several ledger accounts through the use of allocation rates. The mapping of ledger accounts is used in converting the ledger accounts of the input transaction to the ledger accounts used by the destination entity. Several source ledger accounts can be mapped to one destination ledger account. Conversely, one source ledger account can also be mapped to multiple ledger accounts.

The financial calendar of the destination entity is used in determining the accounting year and accounting period of the output SourceSystemJournalEntry.

The functional amounts in the lines of the input transaction are converted to the functional currency of the destination entity. The currency exchange rates are based on the currency rate type assigned per accounting journal type. The accounting journal type is determined during runtime depending on the accounting journal reference found in the input transaction business document.

Master data setup search templates

To retrieve information from master data setups, system-defined search templates are available. These search templates are predefined and delivered with IGFC. Using these search templates, you can retrieve master data setup information from dimension code assignment and general ledger mapping.

These are the available system-defined search templates:

Search Template	Description
getAcquirerAccountNumber	Retrieves the destination ledger account number that is mapped to a given source entity, source accounting book, source ledger account, destination entity, and destination accounting book.
getAcquirerAccountNumberList	Retrieves the destination ledger account number with its corresponding allocation rate that is mapped to a given source entity, source accounting book, source ledger account, destination entity, and destination accounting book.
getAcquirerAcctChart	Retrieves the destination accounting chart that is mapped to a given source entity, source accounting book, destination entity, and destination accounting book.
getCurrencyRateType	Retrieves the currency rate type that is mapped to a given source entity, source accounting book, source accounting journal type, destination entity, and destination accounting book.
getTargetAccountNumberBySourceAcctChart	Retrieves the destination ledger account number that is mapped to a given source entity, source accounting book, source accounting chart, source ledger account, destination entity, and destination accounting book.
getTargetAccountNumberListBySourceAcctCha	Retrieves the destination ledger account number with its corresponding allocation rate that is mapped to a given source entity, source accounting book, source accounting chart, source ledger account, destination entity, and destination accounting book.
getTargetAcctChartBySourceAcctChart	Retrieves the destination accounting chart that is mapped to a given source entity, source accounting book, source accounting chart, destination entity, and destination accounting book.

Search Template	Description
getTargetCurrencyRateTypeBySourceAcctChart	Retrieves the currency rate type that is mapped to a given source entity, source accounting book, source accounting chart, source accounting journal type, destination entity, and destination accounting book.
getDimensionCodeList	Retrieves the dimension codes that are assigned to a given accounting chart, entity, accounting book, ledger account number, and transaction.
getDimensionCodeListbyTransType	Retrieves the dimension codes that are assigned to a given accounting chart, entity, accounting book, ledger account number, transaction, and transaction type.

For the detailed configuration of the system-defined search templates, see System-defined search templates on page 84 and IGFC scripting language guide on page 90.

Business rule

A business rule is a collection of output generation rules that are used to create an output business document. It is comprised of these major components:

- API
- Expressions
- Scenarios
- Rules

For accounting framework integration, business rule includes these additional components:

- Journal entry templates
- Journal user fields

IGFC first determines if there is a rule defined for the input document. When a rule is found, the rule engine executes the corresponding rule script to generate output values. You can configure multiple rules for a specific type of output business document. Multiple output business documents can be generated from a single input business document depending on the number of matching rules.

For accounting framework integration, the relevant journal entry template is also used after the execution of the rule script, to complete the output journal entry.

API

REST API calls can be used to directly retrieve information from enterprise applications. This is an alternative source of data input for IGFC, instead of referencing business documents or custom master data. For this feature, IGFC only supports JSON return value from the API and utilizes ION API Gateway

which centralizes the implementation of all inbound and outbound APIs for Infor applications. See the *Infor ION API Administration Guide* for more information.

Two components are required in IGFC for APIs to be configurable for output generation rule. These are security keys and API definitions, both can be downloaded from ION API:

- Security Keys – the IGFC application must be registered as an authorized client application in ION API to enable making calls into the gateway and access a chosen set of APIs. This registration includes generation of .ionapi file referred to as security keys.
  Important: When registering IGFC, ensure that the type of application specified is “Backend Service”.
- API Definitions – available APIs include a documentation that contains the name, URL, result keys and parameters used to obtain a response from enterprise applications. The response received from these APIs must exactly match the actual format or model defined in the documentation. API definitions are downloaded as a swagger file.
  - It must be a valid swagger file (to verify, you can use an editor tool such as https://editor.swagger.io)
  - The swagger file of the API registered in ION API must also conform to a specific pattern for it to be supported in IGFC. It must contain the required fields host, basePath, schemes and paths.
    - host – refers to the base URL of the API. For example, http or https.
    - basePath – refers to the base path of the API where the paths will be appended. For example, www.yourapi.com
    - schemes – refers to the protocol used by the API. For example, /YourAPI
    - paths – defines the individual end points in the API. For example, /user/{userId}

  Here is a sample documentation with the usage of host, basePath and schemes fields:

```
host: “www.yourapi.com”
basePath: “/YourAPI”
schemes:
-  “https”
```

  Here is a sample basic paths template with parameter:

```
paths:
   /user/{userId}:
      get:
        summary: Returns a user by ID.
        parameters:
         -    name: userId
              in: path
              required: true
              description: Parameter description in CommonMark or HTML.
              schema:
                  type: integer
                  format: int64
                  minimum: 1
        responses:
         ‘200’:
            description: OK
```

  For more information on paths, visit the swagger documentation site.

For IGFC, proxy securities supported are OAuth2.0 and No OAuth. However, it is recommended to use OAuth2.0 as the proxy security when creating APIs.

REST APIs are used in conjunction with expressions to provide value during generation of output business document.

Expression

An expression is an important component of IGFC that is used by rules to provide value during generation of an output business document. For accounting framework integration, an expression is also used by journal entry templates.

Expressions are created per type of input business document that will be processed.

There are four types of expressions, a formula, a search template, a text, and REST API.

Formula-type expression

A formula expression is an arithmetic computation that uses the addition, subtraction, multiplication, or division operations.

The types of operands available are:

- Fixed numeric value
- Attribute of a master data or transactional BOD with a numeric data type
- An expression that returns a numeric value, excluding expressions of type REST API.

Note:

You can use operands of different types in a formula expression. Parentheses are used to specify the order of computation.

Example

A formula expression for a sales order business document to get the total amount in a sales order line:

```
SOLineTotalAmount = SOLine.unitPrice * SOLine.quantity
```

Name of the expression	SOLineTotalAmount
Operand 1 UnitPrice attribute of the SalesOrderLine BOD registration	SOLine.unitPrice
Arithmetic operator	*
Operand 2 Quantity attribute of the SalesOrderLine BOD registration	SOLine.quantity

Search template-type expression

This type of expression is created if you want your expression to return a master data or custom master data information.

See Search template on page 21.

The swagger file must also conform to a specificThese details are required in defining an expression that uses a search template:

- Source master data - This is the name of the registered master data BOD or custom master data which will be searched.
- Source search template - This is the name of the particular search template of the selected master data BOD or custom master data that will return the desired information.
- Source entity - This is the entity to which the source master data is associated. This detail is required only for search template-type expressions with master data business document as the source master data
- Arguments - A value should be assigned to each parameter defined in the search template. The data types of the value and the parameter should match.

The types of values that can be assigned as an argument are:

- Fixed value - A numeric or text value.
- Attribute of a master data or transactional BOD - The value is determined from the input business document.
- Rule setup value - Value of a parameter from the rule being executed.

  See Defining output generation rules on page 71.
- Another expression, excluding expressions of type REST API - See section on Nested Expression.

Example

An expression for a sales order business document that uses a FinancialCalendar search template in retrieving the appropriate PeriodID attribute value:

Name of the expression	SOAcctgPeriodId
Source master data FinancialCalendar BOD registration name	FinCal
Source search template getAcctgPeriod is the search template that returns a PeriodID.Parameters are transaction date and accounting entity.	getAcctgPeriod(p_transDate ,p_acctgEntity
Arguments SalesOrder.dateTime will be used as the transaction date and SalesOrder.soAcctgEntity will be used as the accounting entity.	SalesOrder.dateTime SalesOrder.soAcctgEntity

Text type-expression

A text type expression performs string operations to split or concatenate operand values. This type of expression is used to derive the values of an output document attribute.

The types of operands available are:

- Fixed alphanumeric value

- Attribute of master data or transactional document
- An expression of type text
- An expression of type search template with single return value.

Example

The example illustrates text expressions to derive the Year and Organization Code values. The input transaction is SourceSystemJournalEntry business document.

In the first example, Year is the value to be returned. This is derived from the vehicle registration code which is a dimension attribute of the input transaction. The vehicle registration code consists of 10 characters, where the first four digits is the transaction Year, and the next six digits is the registration ID.

Name of the expression	TransYr
Text Function	Split
Operand Input transaction's dimension attribute for vehicle registration	JeLine.veReg
Starting character	1
Ending character	4

The second example is another text expression to join the cost center and department code to return the Organization Code value:

Name of the expression	OrgCd
Operand 1 Input transaction's dimension attribute for cost center	JeLine.costCtr
Text Function	&
Operand 2 Input transaction's dimension attribute for department code	JeLine.deptCd

REST API-type expression

This type of expression is created if you want to directly retrieve information from an enterprise application by sending out REST API requests.

These details are required in defining an expression that uses REST API:

- API Definition – This is the name of the imported API definition that will be used for retrieving information.
- Parameters – A value should be assigned to each parameter key defined for the API to obtain the corresponding result key or keys.

The type of values that can be assigned to a parameter are:

- Fixed value – A numeric or text value
- Attribute of a master data or transactional BOD – The value is determined from the input business document.

Example

An expression for a SourceSystemJournalEntry document that uses a Forex API named “convert” in translating the transaction amount currency to the functional amount currency of the receiving general ledger entity.

Name of the expression	ApiConvertAmt
API Definition	convert
Parameters	
Key	from, to
Value JeLine.lnAmount will be used as the input amount for conversion, with USD as the target currency.	JeLine, InAmt, "USD"

Nested Expression

A formula expression can have another expression as one of its operands.

Example

A formula expression for an invoice business document that returns the total amount of an invoice line. The total amount is the sum of the invoice line amount and tax amount. This expression uses another formula expression that computes the tax amount of the invoice line:

```
InvLineTotAmt = InvLine.amt + InvLineTaxAmt
```

Name of the expression	InvLineTotAmt
Operand 1 Amount attribute of the InvoiceLine BOD registration	InvLine.amt
Arithmetic operator	+
Operand 2 Formula expression of the invoice business document that multiplies the invoice line amount with the tax rate	InvLineTaxAmt

The formula expression that computes the invoice line tax amount should be defined with these details:

```
InvLineTaxAmt = InvLine.amt * InvLine.taxRate
```

Name of the expression	InvLineTotAmt

Operand 1 Amount attribute of the InvoiceLine BOD registration	InvLine.amt
Arithmetic operator	*
Operand 2 Tax rate attribute of the InvoiceLine BOD registration	InvLineTaxAmt

Example

A formula expression for an invoice business document that uses a search template expression in converting the invoice amount to the Euro currency:

```
InvTotAmtToEuro = Invoice.totAmt * InvToEuroCurrXRate
```

Name of the expression	InvTotAmtToEuro
Operand 1 Total amount attribute of the Invoice BOD registration	Invoice.totAmt
Arithmetic operator	*
Operand 2 A search template expression of the invoice business document that returns the exchange rate between the invoice amount's currency and Euro currency.	InvToEuroCurrXRate

The InvToEuroCurrXRate search template expression should be defined with these:

Name of the expression	InvTotAmtToEuro
Source master data CurrencyExchangeRateMaster BOD registration name	CurrXchgeRateMaster
Source search template getCurrencyRate is the search template that returns an exchange rate between two currencies during a specific period of time. Parameters are source currency, target currency and transaction date	getCurrencyRate(p_sourceCurr,p_targetCurr, p_startDate)

Arguments	Invoice.totAmtCurr
A search template expression of the invoice business document that returns the exchange rate between the invoice amount's currency and Euro currency.	'EUR' Invoice.dateTime

Journal entry template

A journal entry template is a listing of attributes of the SourceSystemJournalEntry business document with corresponding values. A journal entry template should be defined for each type of input transactional business document that will be processed. For example, if you want IGFC to generate a SourceSystemJournalEntry business document when it receives an Invoice business document, you must define a journal entry template for the Invoice business document.

In creating a journal entry template, you must identify the header and line attributes of the SourceSystemJournalEntry business document you want to be filled up with values. Header attributes refer to the elements of the JournalEntryHeader component of the SourceSystemJournalEntry business document, while line attributes refer to the JournalEntryLine component. You must also specify how a value will be assigned to them.

These are the type of values that can be assigned to attributes:

- Fixed Value - You can specify a number or a text value. For example, if the journal entry template is for the invoice business document, the source document reference type attribute in the journal header can have a fixed value of "Invoice".
- Expression - You can specify that the value will come from a master data, a custom master data record, or a split or concatenated text.

  See Business rule on page 26 and Search template on page 21.
- Attribute - You can specify an attribute of the input transactional business document. The value of this attribute in the input business document will be copied. For example, if the journal entry template is for the ReceiveDelivery business document, the journal line's source document ID attribute (SourceDocumentReference/DocumentID/ID) can be assigned with the ReceiveDeliveryHeader's receiver number attribute (DocumentID/ID).
- Rule Setup - You can specify a sender or receiver information from a rule setup.

During processing of an input transactional business document, the IGFC engine retrieves the relevant journal entry template and evaluates each attribute of the SourceSystemJournalEntry business document depending on the assigned type of value.

Several attributes of the SourceSystemJournalEntry business document have been pre-assigned with default system-generated values. They are based on this factor: the attribute's values are derived the same way regardless of the type of transaction. For example document date and time attribute of the journal header is always assigned with the current date and time.

Journal user fields

The journal user fields let you define supplementary information for a journal header or line. You define both the name and value of the journal user field.

Multiple journal user field sets can be created per type of input transactional business document that will be processed. A set contains the journal user field assignments that identifies that source of value for each additional field.

The type of values that can be assigned to a journal user field are:

- Fixed value
- Attribute of a transactional BOD
- Expression

Names of the journal user fields are defined in the BOD Registration page. You must map UserArea properties (UserArea/Property/NameValue) with filter on the name attribute. This can be added in the JournalEntryHeader or JournalEntryLine component of the SourceSystemJournalEntry BOD Registration.

See Registering business object documents (BODs) on page 47.

For example, assume that for an input PurchaseOrder transaction, the output SourceSystemJournalEntry business document must have three (3) additional fields for each journal entry line, namely, PO Item Number, PO Item Description and PO Unit Price. Each field must have a corresponding mapping in the JournalEntryLine component with Xpath as follows:

- SourceSystemJournalEntry/JournalEntryLine/UserArea/Property/NameValue{'@name' == 'POItem Number'}
- /SourceSystemJournalEntry/JournalEntryLine/UserArea/Property/NameValue{'@name' == 'POItem Description'}
- /SourceSystemJournalEntry/JournalEntryLine/UserArea/Property/NameValue{'@name' == 'POUnit Price'}

Journal user fields search templates

There are two system-defined search templates available to retrieve the setup information from Journal User Fields.

Search template	Description
getJournalHeaderUserField	Retrieves the header journal user fields that are assigned to a given transaction and journal user field set name.
getJournalLineUserField	Retrieves the line journal user fields that are assigned to a given transaction and journal user field set name.

Scenarios

Scenarios are just logical groupings of rules. You can organize your rules, into separate scenarios. Scenarios do not have an impact on the generated output business documents.

For example, you can create a scenario called "Procure to Pay" under which you can define the rules for purchase order, invoice, receive delivery, and payment transactions.

Rules

You can define a rule for every type of business event that has accounting impact in creating journal entries or for every type of transformation requirement in generating any business document. Examples of business events are order of goods, receipts of goods, and payments to suppliers. Examples of

transformation requirements are data harmonization for master data business documents and process integration for intercompany transactions.

A rule contains conditions, receiver information and a rule script. If the conditions are met, a corresponding rule script is used to generate output business documents. For accounting framework integration, a rule also contains output settings.

The rule conditions contain these details:

- Business document - Here you specify the particular master data or transactional document the rule applies to. For accounting framework integration, you specify only the input transactional business document as the output always refers to SourceSystemJournalEntry. For a flexible output integration, both the input and output business document must be defined.
- Document references - Given the flow of business events that occur for an industry and organization, business documents that emanate from these events will naturally link with one another. In order to correctly create an output, some information from another business document is needed.

  For example, assuming that a ReceiveDelivery document contains only the quantity of goods received and not the price. In order to correctly compute for the amount of the transaction, the unit price from the related purchase order document must be obtained. In this case, PurchaseOrder is referenced by ReceiveDelivery. In IGFC, you could define this relationship thru the document references. It allows you to identify the document and the specific attribute that is used as reference for a given rule.

  Given above example, IGFC suspends processing of the ReceiveDelivery document without the PurchaseOrder document. A warning message is displayed pending the receipt of the document reference. Once received, an automatic reprocessing feature is triggered in IGFC.

  See Error messaging in IGFC on page 110.
- Sender entity - Here you specify the source entity of the input business document.

The receiver information contains this detail:

- Entity - Here you specify the destination entity of the output business document.

For accounting framework integration, the receiver information contains these additional details:

- Receiver Accounting Book. Here you specify the destination accounting book of the output SourceSystemJournalEntry business document.

  Location. Here you specify the location value that will be indicated in the output SourceSystemJournalEntry business document.

The rule script creates the values for the output business document.

For accounting framework integration, the rule script is responsible for creating journal entry lines of the output SourceSystemJournalEntry business document. Specifically, the journal line values that the rule script populates are:

- All amount and currency attributes
- Ledger account number
- Dimensions
- Journal line user fields

Rule script also populates the header values.

In writing rule scripts, you need to use a scripting language proprietary to IGFC.

See IGFC scripting language guide on page 90.

Output settings

For accounting framework integration, the output settings are an additional rule configuration that allow you to specify whether the journals that are to be created are in detailed or summarized form. These are referred to as posting methods.

By default, journals are created using the detailed posting method.

When summarized posting method is selected, you can define the parameters by which you want to group journal lines. The primary and required summarization parameter is the account number. You can specify one or more account numbers or a range of account numbers. Also, all account numbers can also used as a summarization parameter.

Optionally, attributes of the journal line can be included as additional summarization parameters. This include the attributes of the SourceSystemJournalEntry business document that are mapped in IGFC, except these:

- Amount and currency attributes, except memo amount
- Ledger account attributes
- Accounting chart reference attributes
- Dimension code attributes

Using the summarization parameters, multiple journal entry lines are aggregated into a single journal entry line to generate the output journal, with the amounts totalled to arrive at their net balance.

The order by which IGFC summarizes journals is as follows:

- Ledger account number
- Amount currencies
- Other attributes defined as additional parameter

This facility is found within the rules setup page. Alternatively, output settings is also found within the rule script page.

Chapter 2: Procedures in this chapter

This chapter describes the different procedures that must be completed in IGFC.

Managing users

Note: Creating and deleting users is not allowed in IGFC CE, but the list of registered users can be viewed. Users are provisioned and managed by Ming.le Cloud Edition. In addition, Single Sign-On (SSO) and Single Logout (SLO) features are enabled to login to and logout of IGFC CE. Optionally, the same features can be set up in an on-premise application deployed in Ming.le.

Create users

1. Select **Administration > Users**.
2. Click Add.
3. Specify this information:

   Name
   Specify the name of the user.

   User Name
   Specify a unique name for the user.

   Password
   Specify the password of the user.

   Confirm Password
   Specify the password of the user.

   Role

   Select role. Possible values are Customer Admin, Rule Builder, and

   System Accountant. See User roles on page 12.

   When Rule Builder and/or System Accountant is selected, you must assign the integrations to which the user has access to.

Integration

Select the integration to which the user belongs. This field is available only when Rule Builder or System Accountant role is selected.

a Select the integration from the Available list.

b Click the right arrow icon to move the integration to the 'Selected' list.

Alternatively, click and drag the vertical ellipsis that displays on hover of an integration value.

4 Click **Save**.
The new user is displayed.
Note: Activate the inbox poller when adding new users through Ming.le for the changes to take effect in IGFC. See Activating and deactivating the inbox poller on page 41

Delete users

1 Select **Administration > Users**.

2 Select the user you want to remove.

3 Click **Delete** and confirm **Yes**.

Managing integration

Perform these steps to create an integration and to switch between integrations.

Create an integration

1 Select **Administration > Integration**.

2 Click **Add**.

3 Specify this information:

Name

Specify a unique name that identifies the integration. Valid characters are a–z, 0–9, and underscore. The first character should be a letter and maximum length is 35 characters.

Type

Select type of integration. Possible values are **`Accounting Framework`** and **`Flexible Output`**. See Integration on page 14.

4 Click **Save**. The new integration is displayed.

Note: For IGFC CE, ensure that pre-loaded mappings for AccountingEntity and SourceSystemJournalEntry in Document > BOD page are displayed before navigating to other IGFC setup pages.

Switch between integration

1. Click on the field beside the name of the user.
   Integration names to which the user belongs are listed accordingly.
2. Select the integration.
   The IGFC home page is displayed for the selected integration.

Registering entities

IGFC's entity registration lets you associate an entity to an integration. This is done through Administration and Master Data Setup modules, respectively. An entity can be registered through these options:

- With an accounting entity code - Used when the enterprise application publishes both master data and transaction documents, or, when the enterprise application only publishes master data business documents with reference to an accounting entity. Registration includes specifying the logical ID and the accounting entity code.
- Without an accounting entity code - Used when the enterprise application only publishes master data business documents without reference to an accounting entity. In this case, the registration only requires the logical ID value.

  Important: For IGFC CE, registration on either of the above options also include specifying the tenant value.

1. Select **Administration > Integration**.
2. Click **Add**.
3. Specify this information:

   Name

   Specify the name of the entity to be registered. The maximum length is 15 characters.

   Entity

   For entity registration using the first option, select the entity to be registered. The list displays the logical ID and accounting entity code specified in the AccountingEntity business document received in IGFC. For IGFC CE, the list displays the tenant, logical ID and accounting entity code specified in the AccountingEntity business document. Alternatively, select the Specify Other option if Accounting Entity business document is not published.

   For entity registration using the second option, select the Specify Other option.

Tenant
This field is available only for IGFC CE. By default, this is populated with the tenant of the IGFC application. If the entity is associated to a different tenant, you must specify the value in this field.

Logical ID

For entity registration using the first option, specify the logical ID of the application and the accounting entity code in the field provided.

For entity registration using the second option, specify the logical ID of the application and leave the accounting entity field blank.

Valid characters for the logical ID value are a–z, A–Z, 0–9, and special characters underscore(_) or dash(-). The ID must also contain two periods following the sample pattern of "infor.erp.erp".

Signed Amounts

Optionally, for accounting framework integration, select this flag to indicate that the entity's SourceSystemJournalEntry business documents recognize credit amounts with the negative sign. For flexible output integration, leave this field clear.

4 Click **Save**. The new entity record is displayed in the Entity Registration table.

Note:

The preceding steps relate to registering entities at Integration level. Ensure that you are logged in to the correct integration.

5 Select **Master Data Setup > Entity**.

6 Click **Add**. The new entity record is displayed in the Entity Registration table.

7 Specify this information:

Name

Select the Entity. The list contains the entities registered in step 3.

Balancing Entry

Optionally, for accounting framework integration, select this if this is the receiver entity requires IGFC to generate a balancing entry for out-of-balanced journal transactions. For flexible output integration, leave this field blank.

Suspense Account

Available only when Balancing Entry is selected. For accounting framework integration, specify the ledger account number where IGFC would post the entry to balance journals. This list is dynamic; if there are chart of accounts associated to the accounting entity of the selected entity, the chart of accounts are displayed in the list. Also, if there are chart of accounts with the same logical ID as that of the selected entity, the chart of accounts are shown with an asterisk (*) prefix.

For IGFC CE, the tenant value is also used to associate chart of accounts to the selected entity.

Note:

You must first register the entity and publish the associated ChartofAccounts BOD before ledger account numbers are displayed in this field. Return to this page to select the suspense account.

8 Click **Save**.
The entity record is displayed in the Entity table of the particular integration.

Activating and deactivating the inbox poller

Note: For new users logging in for the first time, ensure that an integration is selected before setting the inbox poller. See Switch between integration on page 39.

Activate the inbox poller

1 Select **Administration > Settings**.
2 In the **General** section, click the inbox poller switch to activate the toggle control.
3 Click **Save** to confirm the activation.

Note:

The inbox poller is deactivated after installation of IGFC. You should only activate it after completing the registration of the business document to be used.

Deactivate the inbox poller

1 Select **Administration > Settings**.
2 In the **General** section, click the inbox poller switch to deactivate the toggle control.
3 Click **Save** to confirm the deactivation.

Note:

You should deactivate the inbox poller to suspend the processing of incoming business documents before making changes to document registrations, master data setup and business rules.

Setting the transaction reprocess display

Note: The reprocess hyperlink can be found on the View page.

Enable display of reprocess hyperlink at all times

1 Select **Administration > Settings**.
2 In the **General** section, click the transaction reprocess switch to activate the toggle control.
3 Click **Save** to confirm the activation.

Note: For accounting framework integration, this will display a ‘Reprocess’ hyperlink for all input transactional business documents. For a flexible output integration, this will display a 'Reprocess' hyperlink for all master data and transactional business documents.

Disable display of reprocess hyperlink at all times

1. Select **Administration > Settings**.
2. In the **General** section, click the transaction reprocess switch to deactivate the toggle control.
3. Click **Save** to confirm the activation.

   Note: This will display a 'Reprocess' hyperlink for all input business document, except for records with a 'Success' outbox status. For accounting framework integration, input refers to transactional business documents. For flexible output integration, input refers to master data and transactional business documents.

Activating and deactivating the document formatter

For on-premise deployment, the document formatter is a component of IGFC that removes empty fields from the output business document.

Activate the document formatter

1. Select **Administration > Settings**.
2. In the **General** section, click the document formatter switch to activate the toggle control.
3. Click **Save** to confirm the activation.

Deactivate the document formatter

1. Select **Administration > Settings**.
2. In the **General** section, click the document formatter switch to deactivate the toggle control.
3. Click **Save** to confirm the activation.

Defining security keys for API requests

Enterprise applications sending REST API requests, for business document processing, must use the consumer key and access key that is defined in IGFC.

1. Select **Administration > Settings**.
2. In the **Security** section, specify the **`Access Key`** and **`Secret Key`**.
3. Click **Save**.

Note: The keys are encrypted on save. To update values, click "Edit Keys". See the *Infor Global Financial Controller Installation Guide* for more information on setup requirements for enterprise applications sending business documents through REST.

Purging documents

Activate the purging of documents

1. Select **Administration > Settings**.
2. In the **Purging** section, click the Purge Documents switch to activate the toggle control.
3. Specify this information:

   Retention days
   Specify a numeric value that refers to the number of days to keep an input or output document before being purged.

   Purge schedule
   Specify the schedule following the format of a CRON expression that refers to how often the purging job should be executed when active.

4. Click **Save**.

Deactivating the purging of documents

1. Select **Administration > Settings**.
2. In the **Purging** section, click the Purge Documents switch to deactivate the toggle control.
3. Click **Save**.

Viewing output document counter

Select **Administration > Output Document Counter**.
The count of journal entry lines generated by IGFC for each month in a year is displayed.

Exporting and importing data

Export a content package

To prevent errors during Import, it is recommended that the content to be exported has been tested; it must be able to generate a complete and correct output business document.

For custom master data, ensure that the columns which contain customer specific data have been cleared.

Only the user performing this procedure should access IGFC. Ensure that poller is deactivated to prevent inconsistent results during runtime processing.

1 Select **Content Management > Import/Export Data**.

2 Select **Export**.

3 Specify this information:

Specify a unique name that describes the content package. Valid characters are a–z, A–Z, 0–9, and special characters.

Note: The Package Name Must not start with a space and must not contain these reserved special characters: \ / : * ? " < >.

4 Select the documents that will be exported. Documents that can be included are:

- Registered Infor and custom master data BODs
- Custom master data
- Registered Infor and custom transactional BODs

Note: For accounting framework integration, SourceSystemJournalEntry BOD must always be selected as one of the documents to be exported.

In selecting which documents to export, make sure that related or referenced documents to obtain relevant data for the creation of an output business document are also included in the package. The content package must always contain the complete setup data of one integration solution.

5 Click **Export**.
A message confirming the export of documents is displayed.

6 Click **Yes**.

A downloadable .zip file is created where the file name is the same as the package name. This file contains the exported documents in CSV format.

7 Click **Save**.

The .zip file is stored in the browser-designated downloads folder. Optionally, click **Save As** to choose a specific location where to store the content package.

Import a content package

1 Select **Content Management > Import/Export Data**.

2 From **Import**, select the content package to be imported.

Note: A content package must be in .zip file format to be valid.

3 Click **Import**.
A message confirming the import of the content package is displayed.

4 Click **Yes**.

Note: Upon confirmation, inbox poller is automatically deactivated to suspend processing of business documents.

The imported documents along with its related search templates will be displayed in BOD and custom master data pages; these documents are automatically generated. For accounting framework integration, business rules will contain expressions, journal entry templates, journal user fields and rules for the transactional business documents. For flexible output integration, business rules will contain expressions and rules for the master data and transactional business documents.

5 Run these tasks after import:

a Modify the configurations and setup data.

Configurations and setup data that are imported cannot be modified directly, except for custom master data content (data entry). A customize option is available to allow changes to a record.

See Customize an imported record on page 46.

b Rules included in the package will not contain entity references. In order to define Sender/Receiver entities in the rules page, these relevant setups must be performed:

1 Register the entities. See Register entities on page 133.
2 Map the entities. See Mapping entities on page 55.
3 Update search template type expressions with source entity references. This applies to expressions whose source master data is a master data business document. Upon import, a default "Sender Entity" is assigned for expressions previously defined with a specific entity from the source of the content package. Review the expressions and update the source entity accordingly.
4 Import API security keys and definitions referenced in expressions. See Importing API components on page 61
5 Update the rules page with sender and receiver entities.
Note: Click Customize before specifying the entities.
6 Save and activate the rule record.
7 For accounting framework integration, dimension code assignments and general ledger mapping pages must also be updated, if applicable.

See Assigning dimensions on page 55 and Defining general ledger mapping on page 57.

c For accounting framework integration, rules with a summarized posting method are imported with Account summarization option set to All, by default. If applicable, modify this setting.

See Defining rule output settings on page 73.

d Activate the inbox poller.

Customizing and restoring imported content

Customize an imported record

Note: Records from these pages can be customized:

- Search templates
- Expressions
- Rule setup and Rule script

For accounting framework integration, records from these pages can also be customized:

- Journal entry templates
- Journal user fields

1. Select an imported record.
2. Click **Customize**.
3. Specify your changes.

   Note: All fields can be updated except for Name.
4. Click **Save**.

   The data grid shows the customized record. Details form is enabled for these customized records to allow subsequent changes to be made directly.

   You can compare versions of a customized record and you can revert the changes or customization made to a record.

   See Restore from import a customized record on page 47.

Restore from import a customized record

1. Select a customized record.
2. Click **Restore**.
   A window shows the comparison of the customized and imported record.
3. Click **Restore**.
   A message confirming that the record has been restored is displayed.
   Note:

   In the data grid, the customized record is replaced by the latest version of the imported record. The details form is disabled for modification.

   Optionally, batch restore can be performed on multiple customized records.

   See Managing customized data on page 47.

Managing customized data

View status of a customized data

Important:

Perform this step after every succeeding import of a content package to examine the updates made to the imported version of a customizable record.

Select **Content Management > Import/Export Data**.
These customized records and its status are displayed in the Customized Data tab:

Status	Description
Modified	A record has been customized but its imported version was not updated from the latest content package.
Outdated	A record has been customized and its imported version was updated from the latest content package.

Restore from import a customized record

1. Select **Content Management > Import/Export Data**.
2. On the **Customized Data** tab, select a single or multiple customized records.
3. Click **Restore**.

   A message confirming restore of customized records shows. Included in the message are notes on the updates required for the restored record:

   - Search Template - A Master Data BOD with restored search template must be regenerated. Related expressions and rules may need to be updated and re-activated, respectively.
   - Expression - Rules with restored expression must be re-activated.
   - Rule - Specific rule restored must be re-activated.
4. Click **Yes**.
   The customized records is removed from the list in the Customized Data tab.

Registering business object documents (BODs)

Important:

Upload custom BOD definitions and properties to IGFC in order to display the custom noun names in the list of documents that can be registered.

See Uploading custom BODs on page 54.

1 Create the registration record of a business document:

a Select **Document > BOD**.

b Click **Add**.

c Specify this information:

Name

Specify a unique name that identifies the BOD registration. You can use the component element name of the business document. For example, specify "InvoiceLine" if you are registering this component of the invoice business document.

Valid characters are a-z, A-Z, and 0-9. The first character should be an uppercase letter. The maximum length is 15 characters.

Document Type

Select **Transactional** or **MDM**.

Document Name

Select the business document to be registered. The list displays Infor and custom BODs. A pencil icon is displayed to indicate a custom document.

Parent

Optionally, for document registration that contains repeating attributes, select the relevant BOD registration that contains the component to which the repeating attributes belong to.

See BOD registration on page 17.

d Click **Save**.
The new BOD registration is displayed.

2 Select the attributes of the registered business document:

a Click the Attribute hyperlink of the new BOD registration.

b Click **Add** to display the Select Attributes window.

c Expand the tree and select the check boxes of the desired attributes.

d Click **Save and Close**.
The selected attributes are displayed
Note: Ensure that a grouping element, or the root attribute, is selected for each registration. For example, in an "InvoiceLine" registration, select the attribute for InvoiceLine. This is shown below the Invoice attribute in the tree.
.

3 Specify the names, descriptions, and data types of the selected attributes:

Note: In specifying names, you can include the name of the document that the attribute belongs to. Further information can be included in the description. These are useful if you selected common attribute from different parts of the business document.

a Select an attribute from the Attributes table to display it in the Details form.
The attribute's XPath or XML Path is displayed.

b Specify this information:

Name

Specify a unique name that identifies attribute. You can include the name of the document or the component element, to which the attribute belongs, as a prefix.

For example, you can specify "poReferenceAccountingEntity" for the PurchaseOrderReference/DocumentID/ID@accountingEntity attribute of the Invoice document. This is useful if you selected similarly named attributes from different parts of the business document.

Valid characters are a-z, A-Z, and 0-9. The first character should be a lowercase letter. The maximum length is 15 characters.

Description
Specify the description of the attribute.

Data Type
Select the data type of the attribute. Possible values are:

- Alphanumeric - contains letters, numbers, and other characters.
- Number - contains numbers.
- Date - contains a date and time value.

Document Reference

Optionally, select this if the attribute will serve as a reference to other input documents for generation of an output business document.

The attributes tagged as Document Reference must include the document ID of the business document, as well as the document IDs of the business document's reference components. The reference component may refer to a specific component, such as PurchaseOrderReference inside the ReceiveDelivery business document. It may also be generic component, such as DocumentReference that uses the "type" attribute inside any business document.

Attribute

Optionally, select the mapping to use for filtering. This list is dynamic; it displays all attributes of the elements included in the XML Path. However, the list will not include the attribute that is on the same level as that of the selected XML Path.

Value
Specify a value for the filter. This is either numeric or text.

c Click **Save**.
The path of the attribute is updated with the attribute filter.

Defining search templates

The attributes of the registered master data document, for which you want to define a search template, must have already been selected and specified with names, descriptions, and data types.

1 Select **Document > BOD**.

2 Click the Search Templates link of the corresponding record.

Note: Search template is applicable only to registered Infor and custom master data BODs.

3 Click **Add**.

4 Specify this information:

Name

Specify a unique name that identifies the search template. Validcharacters are a-z, A-Z, and 0-9. The first character should be a lowercase letter. The maximum length is 15 characters.

Search Result

Select the attribute or attributes that will be searched.

a Select an attribute from the 'Attribute' list box. The list contains mapped attributes of the master data business document.

b Click the right arrow to move the selection to the 'Search Result' list box.

Filters

Create filter templates to be used in retrieving the master data search result.

a Select an attribute from the 'Attribute' list box that will be used as a search parameter.

b Click the right arrow to move the selection to the 'Filters' list box.

1 Parameters (first column) - select the attribute of a master data that will be compared against the search parameter (third column).

2 Relation Operator - select the relational operator to be used.

3 Parameters (third column) - refers to the search parameter that will be compared against the attribute of a master data. The value source for this parameter will be defined in the Expressions setup.

See Defining expressions of type formula on page 61

4 Logical Operator - select AND or OR to combine comparison conditions.

Note: Click the Add (+) icon to duplicate a filter template.

5 Click **Save**.

The new search template displays in the Search Templates table.

Below is a sample definition of a search template for the CurrencyExchangeRateMaster BOD registration that will return the currency exchange rate between two currency codes duringa specific date and time.

Name

Specify "getCurrencyRate".

Note: For readability purpose, the recommended format in naming a search templateis the word "get", followed by the name of attribute that will be searched.

Search Result

1 Select rateNumeric from the 'Attribute' list box, if this is the name for the attribute "CurrencyExchangeRate/RateNumeric".

2 Click the right arrow to move the rateNumeric attribute to the 'Search Result' list box.

Filters

1 Select sourceCur from the 'Attribute' list box, if this is the name for the attribute "CurrencyExchangeRate/SourceCurrencyCode".

2 Click the right arrow to move the sourceCur attribute to the 'Filters' list box.
   a In the Parameters field (first column), select sourceCur, if this is the name for the attribute. "CurrencyExchangeRate/SourceCurrencyCode".
   b In the Relational Operator field, select ==.
   c In the Parameters field (third column), "p_sourceCur" displays.
   d In the Logical Operator field, select AND.
3 Select targetCur from the 'Attribute' list box, if this is the name for the attribute. "CurrencyExchangeRate/TargetCurrencyCode".
4 Click the right arrow to move the targetCur attribute to the 'Filters' list box.
   a In the Parameters field (first column), select targetCur, if this is the name for the attribute "CurrencyExchangeRate/TargetCurrencyCode".
   b In the Relational Operator field, select ==.
   c In the Parameters field (third column), "p_targetCur" displays.
   d In the Logical Operator field, select AND.
5 Select startDate from the 'Attribute' list box, if this is the name for the attribute "CurrencyExchangeRate/EffectiveTimePeriod/StartDateTime".
6 Click the right arrow to move the startDate attribute to the 'Filters' list box.
   a In the Parameters field (first column), select startDate, if this is the name for the attribute "CurrencyExchangeRate/EffectiveTimePeriod/StartDateTime".
   b In the Relational Operator field, select <=.
   c In the Parameters field (third column), "p_startDate" displays.
   d In the Logical Operator field, select AND
7 Click the Add (+) icon to duplicate the filter template for startDate.
   a In the Parameters field (first column), select endDate, if this is the name for the attribute "CurrencyExchangeRate/EffectiveTimePeriod/EndDateTime".
   b In the Relational Operator field, select >=.
   c In the Parameters field (third column), "p_startDate" displays.
8 Click Save.

Activating master data (MDM) BOD registrations

This section describes how to activate an MDM BOD registration. Before you can perform this task, you must select the attributes of the master data document and define the search templates.

1 Select **Document > BOD**.
2 Select the master data BOD registration you want to activate and click **Activate**.

   Note: To ensure that updated documents are used, re-activate the BOD registration when there are changes to attribute mappings and search templates.

Defining custom master data structures

1 Select **Document > Custom Master Data**.

2 Click **Add**.

3 Specify this information:

Name
Specify a unique name that identifies the custom master data. Valid characters are a-z, A-Z, and 0-9. The first character should be an uppercase letter. The maximum length is 15 characters.

Parent
Leave this blank.

See Associating custom master data definitions on page 52.

4 Click **Save**.
The new custom master data record is displayed.

5 Click the Attributes hyperlink of the newly created record.

6 Specify at least one attribute of the custom master data.

7 Click **Add**.

8 Specify this information:

Name
Specify a unique name that identifies the attribute. Valid characters are a-z, A-Z, and 0-9. The first character should be a lowercase letter.The maximum length is 15 characters.

Description
Specify the description of the attribute.

Data Type
Select the data type of the attribute. Possible values are:

- Alphanumeric - contains letters, numbers, and other characters.
- Number - contains numbers.
- Date - contains a date and time value.

Reference Attribute
Leave this unselected.

See Associating custom master data definitions on page 52.

9 Click **Save**.
The new attribute is displayed.

Associating custom master data definitions

Optional. If you have separate custom master data structures for header and detail information, you can associate these definitions to each other.

1. Select **Document > Custom Master Data**.
2. Click the Attributes hyperlink of the corresponding custom master data.
3. Identify one or two attributes that will represent the custom master data:

   Important: The to-be value or the attribute or the combination of the two attributes must be unique because it will be displayed in the data entry page of the detail information.

   a. Select the attribute to display it in the Details form.
   b. Select the Reference Attribute check box.

      Note: The Reference Attribute field is used in associating a header custom master data to a detail custom master data.

   c. Click **Save**.
4. Click Custom Master Data link.
5. Select the custom master data that contains the detail attributes.
6. Associate it to the master data containing the header attributes by performing these tasks:
   a. In the Details form, specify the name of the master data containing the header attributes by selecting it from the Parent list.

      The Parent field is used in associating a detail custom master data to a header custom master data.

   b. Click **Save**.

Defining search templates for custom master data

The attributes of the registered custom master data document, for which you want to define a search template, must have already been selected and specified with names, descriptions, and data types. The procedure for defining search templates of custom master data is the same as for master data document.

See Defining search templates on page 49.

Activating custom master data registrations

Before you can perform this task, you must define the attributes of the custom master data, and define all the search templates.

1. Select **Document > Custom Master Data**.
2. Select the custom master data record you want to activate and click **Activate**.

Creating custom master data records

1 Select **Document > Custom Master Data**.

2 Click the Data Entry hyperlink of the corresponding custom master data record you want to specify records for.

Note: The Data Entry and Details form are dynamic. The displayed columns and fields correspond to the attributes defined in the custom master data structure.

3 Click **Add**.

4 Specify the required information in the fields displayed in the Details form.

5 Click **Save**.
The new custom master data record is displayed.
Note: Optional. If the record that you created is for a header custom master data, the name of a detail custom master data associated to it displays as a hyperlink. Click this hyperlink to display the Data Entry page of the detail custom master data.

Uploading custom BODs

Before you start, prepare the custom BOD definition in a compressed file (.zip or .rar). It must contain:

- A folder named as the custom noun name
- One noun schema file (.xsd) and one noun metadata properties file (.xml) enclosed in the folder.

See Custom BOD on page 19.

1 Select **Document > Custom BOD**.

2 Click **Add**.

3 Specify this information:

Name
Specify a unique name that identifies the custom document

Valid characters are a-z, A-Z, and 0-9. The first character should be an uppercase letter.

.

Document Type
Select Transactional or MDM.

File Location
Select the custom BOD file (.zip or .rar) to be uploaded.

4 Click **Save**.
The new custom BOD upload is displayed.

Mapping entities

Before performing these steps, you must have registered the entities of the integrating application systems.

1 Select **Document > Custom BOD**.

2 Click **Add**.

3 Specify this information:

Sender
Select the entity that will send the input business documents.

Receiver
Select the entity that will receive the output business documents.

4 Click **Save**.
The new entity mapping record is displayed in the Entity Mapping table.

Assigning dimensions

Note: These procedures apply to accounting framework integration only.

Before you start, create the BOD registration of these business documents:

- AccountingChart
- AccountingBookDefinition
- ChartOfAccounts
- CodeDefinition

Important: See Attributes for BOD Mapping in GFC on page 165 for the complete list of attributes to be mapped. You must also create BOD registrations for the master data and transaction business documents that will be used as source of dimension.

1 Select **Master Data Setup > Dimension Code Assignments**.

2 Specify this information:

Entity
Select the desired entity. This list is dynamic; it displays receiver entities registered with an accounting entity.

Accounting Book
Optionally, select the desired accounting book. This list is dynamic; if there are accounting books associated to the accounting entity of the selected entity, the accounting books are displayed in the list. Also, if there are accounting books with the same logical ID as that of the selected entity, the accounting books are shown with an asterisk prefix.

For IGFC CE, the tenant value is also used to associate accounting books to the selected entity.

Accounting Chart
Select the desired accounting chart. This list is dynamic; if there are accounting charts associated to the accounting entity of the selected entity, the accounting charts are displayed in the list. Also,

if there are accounting charts with the same logical ID as that of the selected entity, the accounting charts are shown with an asterisk prefix.

For IGFC CE, the tenant value is also used to associate accounting charts to the selected entity.

Account
Optionally, select the desired ledger account. This list is dynamic; it displays the account numbers and the respective description associated to the selected Accounting Chart.

Transaction
Select the transaction for which you want to define dimension types. This list is dynamic; it displays the document name of registered transactional documents (PurchaseOrder, SupplierInvoice, etc.) As an alternative, this field can be left blank.

Note: Leaving the Transaction field blank allows you to display existing dimension code assignments for all transactions.

3 Click **Filter**.
The existing dimension code assignments are displayed and the Add button is enabled. The grid displays dimension code assignments for the selected transaction or, if Transaction field is left blank, the grid displays all records for all transactions.

4 Click **Add**.
The details form is displayed.

5 Specify this information:

Transaction
This is available only when the Transaction field is left blank in step 2. Select the name of the transaction for which you want to define dimension types. This list is dynamic; it displays the document name of registered transactional BODs (PurchaseOrder, SupplierInvoice, etc.).

Dimension Type
Select the dimension type. This list is dynamic; it displays the dimensions indicated in the selected accounting chart.

Transaction Type
Optionally, specify the Transaction type. Use this only when the dimension you want to assign is for a specific transaction type.
Note: Transaction type is used to further classify a transaction, and which requires a specific accounting treatment. For example, in certain industries, a Receive Delivery transaction could be further classified as "PO Receipt", "Non-PO Receipt", or "Transfer Receipt".

Source
Select the source of the dimension code. Possible values are:

- Code – Select this option if the dimension code is a value defined in CodeDefinition.

  When Code is selected, you must specify the information for this field:

  Dimension Code - Select the dimension code. This list is dynamic; if there are dimension codes associated to the dimension type and selected entity, the dimension codes are displayed in the list. Also, if there are dimension codes associated to the selected dimension type and with the same logical ID as the selected entity are shown.

  For IGFC CE, the tenant value is also used to associate dimension codes to the selected entity.

- Attribute – Select this option if the dimension code is an attribute of a transactional business document.

  When Attribute is selected, you must specify the information for these fields:

  - Document - Select the document name, for example, PurchaseOrder, ReceiveDelivery. This list is dynamic; it displays the registered transactional documents.
  - Mapping - Select the specific BOD registration. This list is dynamic; it displays the BOD registrations associated with the selected Document.
  - Attribute - Select the attribute that will indicate the source of dimension code. This list is dynamic; it displays the attributes associated with the selected mapping.
- Expression - Select this option if the dimension code will come from an attribute of a master data or custom master data or a result of splitting or concatenating a text value. This should be a search-template returning a single result or text type of expression. Expressions of type formula and REST API are not displayed. Note that before an expression could be selected, it must be defined first in Business Rule > Expressions.

  See Business rule on page 26.

  When Expression is selected, you must fill in this field:

  Expression - Select the name of expression. This list is dynamic; it displays the expressions defined for the selected Transaction.

6 Click **Save**.
The new record is displayed.
Note: To view details of an expression used as a source, click on the hyperlink across a specific dimension.

Defining general ledger mapping

Note: These procedures apply to accounting framework integration only.

Before you start, create the BOD registration of these business documents:

- AccountingBookDefinition
- AccountingChart
- ChartOfAccounts
- AccountingJournal
- CurrencyRateType

Important: Refer to Attributes for BOD Mapping in GFC on page 165 for the complete list of attributes to be mapped.

The integrating enterprise applications of your sender entity must send these business documents to IGFC:

- AccountingBookDefinition
- AccountingChart
- ChartOfAccounts
- AccountingJournal

The integrating enterprise applications of your receiver entity must send these business documents to IGFC:

- AccountingBookDefinition
- AccountingChart
- ChartOfAccounts
- CurrencyRateType

Create a general ledger mapping

1 Select **Master Data Setup > General Ledger Mapping**.

2 Click **Add**.

3 Specify this information:

From Entity
Select the desired entity. This list is dynamic. It displays the sender entities registered with an accounting entity.

See Register entities on page 133 and Mapping entities on page 55.

From Accounting Book
Optionally, select the desired accounting book. This list is dynamic. If there are accounting books associated to the accounting entity of the selected From Entity, the accounting books are displayed in the list. Also, if there are accounting books with the same logical ID as that of the selected From Entity, the accounting books are shown with an asterisk prefix.

For IGFC CE, the tenant value is also used to associate accounting books to the selected From Entity.

From Accounting Chart
Select the desired accounting chart. This list is dynamic. If there are accounting charts associated to the accounting entity of the selected From Entity, the accounting charts are displayed in the list. Also, if there are accounting charts with the same logical ID as that of the selected From Entity, the accounting charts are shown with an asterisk prefix.

For IGFC CE, the tenant value is also used to associate accounting charts to the selected From Entity.

To Entity
Select the desired entity. This list is dynamic. It displays the received entities registered with an accounting entity.

See Register entities on page 133 and Mapping entities on page 55.

To Accounting Book
Optionally, select the desired accounting book. This list is dynamic. If there are accounting books associated to the accounting entity of the selected To Entity, the accounting books are displayed in the list. Also, if there are accounting books with the same logical ID as that of the selected To Entity, the accounting books are shown with an asterisk prefix.

For IGFC CE, the tenant value is also used to associate accounting books to the selected To Entity.

To Accounting Chart
Select the desired accounting chart. This list is dynamic. If there are accounting charts associated to the accounting entity of the selected To Entity, the accounting charts are displayed in the list. Also, if there are accounting charts with the same logical ID as that of the selected To Entity, the accounting charts are shown with an asterisk prefix

For IGFC CE, the tenant value is also used to associate accounting charts to the selected To Entity.

.

4 Click **Save**.
The new general ledger mapping record is displayed.

Create a chart of accounts mapping

1 Click the Accounts hyperlink of the corresponding general ledger mapping record you want to create chart of accounts mapping for.
2 Select manual or batch uploading.

For manual adding, perform these steps:

a Click **Add**.
b Specify this information:

From Account
Select the desired account number. This list is dynamic. It displays the account numbers associated to the selected From Accounting Chart.
Note: Total Mapped Rate displays below this field to show the accumulated allocation rate mapped for the same source ledger account.

Allocation Rate
Specify a numeric value ranging from 0.01 to 100.00 representing the percentage of amount to be allocated from source ledger account to destination ledger account.

To Account
Select the desired account number. This list is dynamic. It displays the account numbers associated to the selected To Accounting Chart.

For batch uploading, perform these steps:

Note: The batch upload facility allows to create multiple chart of accounts mapping records from an upload file.

The upload file must have an extension of .csv and adhere to this format:

Column Names	Type	Field size
From Account	Alphanumeric	255
Description	Alphanumeric	255
Allocation Rate	Numeric	15
To Account	Alphanumeric	255

Column Names	Type	Field size
Description	Alphanumeric	255

Important: Make sure to convert the GL accounts properly. For example, if the GL account starts with leading zeroes, ensure that the .csv file must start with zeroes.

a Click **Import Account Mapping**.

b Specify this information:

File Location
Select the .csv file to be imported.

c Click Upload.

3 Click **Save**.
The new chart of accounts mapping record shows in the Chart Of Accounts Mapping table.

Assign currency rate types to accounting journal types

1 Click the Currency Rate Types hyperlink of the corresponding general ledger mapping record you want to create currency rate types assignment for.

2 Click **Add**.

3 Specify this information:

From Accounting Journal
Select the desired accounting journal. This list is dynamic. If there are accounting journal types associated to the accounting entity of the selected From Entity, the accounting journal types are displayed in the list. Also, if there are accounting journal types with the same logical ID as that of the selected From Entity, the accounting journal types are shown with an asterisk (*) prefix.

Currency Rate Type
Select the desired currency rate type. This list is dynamic. If there are currency rate types associated to the accounting entity of the selected To Entity, the currency rate types are displayed in the list. Also, if there are currency rate types with the same logical ID as that of the selected To Entity, the currency rate types are shown with an asterisk (*) prefix.

For IGFC CE, the tenant value is also used to associate accounting journals and currency rate types to the selected From and To Entity, respectively.

4 Click **Save**.

The new currency rate type assignment record is displayed in the Currency Rate Type Assignments table.

Importing API components

You must first download these security keys and API definitions from ION API:

- Security keys are associated with the registration for the Authorized Apps. Obtain the .ionapi file through the Download Credentials option. Ensure that “Create Service Account” field is toggled on and that an authenticated “User Name” is specified before performing download.
- The swagger documentation for APIs which are posted on the Available APIs page.

Import API security key

Note: Imported security keys apply to all integration within a tenant.

1. Select **Business Rule > API**.
2. Select **Import > Security Key**.
3. Locate the security key file in the **Upload IONAPI File** field.
4. Click **Import.**

   The security keys are imported.

Import API definition

1. Select **Business Rule > API**.
2. Select **Import > API Definition**.

   The Upload a swagger file window is displayed.
3. Locate the API Definition file in the **Upload Swagger File** field.
4. Click **Import.**

   The imported API definitions are displayed.

Defining expressions of type formula

1. Select **Business Rule > Expressions**.
2. In the Document field, select the input business document that you want to define an expression for.

   The list of available expressions is displayed.

   For accounting framework integration, the list displays transactional BOD registrations. For a flexible output integration, both the master data and transactional BOD registrations are shown.
3. Click **Add**.
4. Specify this information:

Name
Specify a unique name that identifies the expression. Valid characters are a–z, A–Z, and 0–9. The first character should be an uppercase letter. The maximum length is 15 characters.

Type
Select Text.
Note: A Statement field is displayed containing these controls:

- Operand Types - possible values are Attribute, Expressions and Fixed Value.
- Operators
- Statement Control buttons - use these buttons to navigate and perform editing functions on the statement.

5 Click the desired operand type. The displayed fields depend on the selected operand type.

For argument of type Attribute:

Mapping
Select the desired BOD registration. This list is dynamic. It displays all master data and transactional BOD registrations.

Attribute
Select the desired attribute. This list is dynamic. It displays the attributes with number data type associated to the selected BOD registration.

For argument of type Expression:

Name
Select the desired expression. This list is dynamic. It displays existing expressions associated to the selected document, excluding expressions of type REST API. For expressions of type search template, only expressions returning a single result is displayed.

For argument of type Fixed Value:

Value
Specify a fixed value.

6 Click **Add** to include the operand in the expression.

7 Before adding another operand, click an operator to specify an arithmetic operation.

Note: Use parenthesis to group operands and operators, and specify order of computation.

8 Click **Save**.
The new expression is displayed.

Defining expressions of type search template

1 Select **Business Rule > Expressions**.

2 In the Document field, select the input business document that you want to define an expression for.
The list of available expressions is displayed.

For accounting framework integration, the list displays transactional BOD registrations. For a flexible output integration, both the master data and transactional BOD registrations are shown.

3 Click **Add**.

4 Specify this information:

Name
Specify a unique name that identifies the expression. Valid characters are a–z, A–Z, and 0–9. The first character should be an uppercase letter. The maximum length is 15 characters.

Type
Select Search Template.

Source Master Data
Select the master data or custom master data of the search template that you want to use.

Source Search Template
Select the desired search template. This list is dynamic. It shows the search templates associated to the selected master data or custom master data.
Note: Upon selecting a search template, the displayed syntax lists the search parameters required.

Source Entity
Available only when the selected source master data is a master data business document. Select Sender Entity, Receiver Entity or the specific entity to which the master data business document is associated. The list displays the entities registered in Master Data Setup > Entity page.

See Registering entities on page 39.

Sender Entity represents the source entity value specified in the rule setup page. Receiver Entity represents the destination entity value specified in the rule setup page. Specific entities listed are the entities registered in Master Data Setup > Entity page.

See Registering entities on page 39.

5 Specify the arguments for each search parameter:

a Click the 'SET' hyperlink of the corresponding search parameter.

b Select the argument type. Possible values are:

- Attribute
- Expression
- Fixed Value
- Rule Setup

c Specify the values for the remaining fields. The displayed fields depend on the selected argument type.

For argument of type Attribute, you must specify these fields:

Mapping
Select the desired BOD registration. This list is dynamic. It shows all master data and transactional BOD registrations.

Attribute
Select the desired attribute. This list is dynamic. It shows the attributes associated to the selected BOD registration.

For argument of type Expression, you must specify these fields:

Name
Select the desired expression. This list is dynamic. It displays expressions associated to all Document, excluding expressions of type REST API. For expressions of type search template, only expressions returning a single result is displayed.

For argument of type Fixed Value, you must specify this field:

Value
Specify a numeric or text value.

For argument of type Rule Setup, you must specify this field:

Value
For accounting framework integration, select Sender Entity, Receiver Entity, Receiver Location, or Receiver Accounting Book. For flexible output integration, select Sender Entity or Receiver Entity.

Sender Entity represents the source entity value specified in the rule setup page. Receiver Entity represents the destination entity value specified in the rule setup page. Receiver Location represents the location value specified in the rule setup page. Receiver Accounting Book represents the value of the destination accounting book specified in the rule setup page.

6 Click Yes to include the argument in the expression.
7 Click **Save**.
The new expression is displayed.

Defining expressions of type text

Define a split string expression

1 Select **Business Rule > Expressions**.
2 In the Document field, select the input business document that you want to define an expression for.
The list of available expressions is displayed.

For accounting framework integration, the list displays transactional BOD registrations. For a flexible output integration, both the master data and transactional BOD registrations are shown.

3 Click **Add**.
4 Specify this information:

Name
Specify a unique name that identifies the expression. Valid characters are a–z, A–Z, and 0–9. The first character should be an uppercase letter. The maximum length is 15 characters.

Type
Select Text.
Note: A Statement field is displayed containing these controls:

- Operand Types - possible values are Attribute, Expressions and Fixed Value.
- Operators
- Statement Control buttons - use these buttons to navigate and perform editing functions on the statement.

5 Click **Split**.

6 Click the desired operand type. This refers to the value that will be split. Possible values are:

- Attribute
- Expression
- Fixed Value

7 Specify the information for the remaining fields. The displayed fields depend on the selected operand type.

For argument of type Attribute:

Mapping
Select the desired BOD registration. This list is dynamic. It displays all master data and transactional BOD registrations.

Attribute
Select the desired attribute. This list is dynamic. It displays the attributes associated to the selected BOD registration.

For argument of type Expression:

Name
Select the desired expression. This list is dynamic. It displays the expressions associated to the selected Document, excluding expressions of type REST API. For expressions of type search template, only expressions returning a single result is displayed.

For argument of type Fixed Value:

Value
Specify a fixed value.

8 Specify character positions that will define the range to be extracted from the operand value.

Start
Specify a numeric value. This refers to the starting character from the left of the operand value.

End
Specify a numeric value. This refers to the ending character from the left of the operand. Alternatively, leave blank to extract string up to the end or last character of the operand value.

9 Click **Add**.
The statement box is populated with the split operation.

10 Click **Save**.
The new expression is displayed.

Define a concatenate string expression

1 Select **Business Rule > Expressions**.

2 In the Document field, select the input business document that you want to define an expression for.
The list of available expressions is displayed.

For accounting framework integration, the list displays transactional BOD registrations. For a flexible output integration, both the master data and transactional BOD registrations are shown.

3 Click **Add**.

4 Specify this information:

Name
Specify a unique name that identifies the expression. Valid characters are a–z, A–Z, and 0–9. The first character should be an uppercase letter. The maximum length is 15 characters.

Type
Select Text.
Note: A Statement field is displayed containing these controls:
- Operand Types - possible values are Attribute, Expressions and Fixed Value.
- Operators
- Statement Control buttons - use these buttons to navigate and perform editing functions on the statement.

5 Click the desired operand type. This refers to the value that will be split. Possible values are:
- Attribute
- Expression
- Fixed Value

6 Specify the information for the remaining fields. The displayed fields depend on the selected operand type.

For argument of type Attribute:

Mapping
Select the desired BOD registration. This list is dynamic. It displays all master data and transactional BOD registrations.

Attribute
Select the desired attribute. This list is dynamic. It displays the attributes associated to the selected BOD registration.

For argument of type Expression:

Name
Select the desired expression. This list is dynamic. It displays the expressions associated to the selected Document, excluding expressions of type REST API. For expressions of type search template, only expressions returning a single result is displayed.

For argument of type Fixed Value:

Value
Specify a fixed value.

7 Click **Add**.
The statement box is populated with the selected operand to be used for concatenation.
8 Before adding another operand, click the **&** button to indicate a concatenation.
9 Click **Save**.
The new expression is displayed.

Defining expressions of type REST API

1 Select **Business Rule > API**.
2 In the Document field, select the input business document that you want to define an expression for.

The list of available expressions is displayed.

Note: For accounting framework integration, the list displays transactional BOD registrations. For a flexible output integration, both the master data and transactional BOD registrations are shown.

3 Click **Add**.
4 Specify this information:

Name
Specify a unique name that identifies the expression.

Valid characters are a–z, A–Z, and 0–9. The first character should be an uppercase letter. The maximum length is 15 characters.

Type
Select **REST API**.

API Definition
Select the name of the API definition that you want to use.

5 Specify the parameter value for each key:
a Click the SET hyperlink of the corresponding key.
b Select the parameter type. Possible values are:
- Attribute
- Fixed Value

c Specify the values for the remaining fields. The displayed fields depend on the selected argument type.

For argument of type Attribute, you must specify these fields:

Mapping
Select the desired BOD registration.

This list is dynamic. It shows all master data and transactional BOD registrations.

Attribute
Select the desired attribute.

This list is dynamic. It shows the attributes associated to the selected BOD registration.

For argument of type Fixed Value, you must specify this field:

Value
Specify a numeric or text value.

6 Click Yes to include the argument in the expression.

7 Click **Save**.

The new expression is displayed.

Creating journal entry templates

Note: These procedures apply to accounting framework integration only.

1 Select **Business Rule > Journal Entry Templates**.

2 In the Document field, select the transactional business document that you want to configure a journal entry template for.

3 Click **Add**.

4 Specify this information:

Header/Line
Select Header Fields or Line Fields.

Name
This list is dynamic. It shows the descriptions of the attributes relevant to the selected component of the SourceSystemJournalEntry business document.

Type
Select the desired value type. Possible values are:

- Attribute
- Expression
- Fixed Value
- Rule Setup

5 Specify the information for the remaining fields. The displayed fields depend on the selected operand type.

For value type Attribute:

Mapping
Select the desired BOD registration. This list is dynamic. It displays the BOD registrations associated to the selected transaction.

Attribute
Select the desired attribute. This list is dynamic. It displays the attributes associated to the selected BOD registration.

For value type Expression:

Name
Select the desired expression. This list is dynamic. It shows the expressions associated to the selected transaction business document. Only expressions of type search template returning a single result and text is displayed. Expressions of type formula and REST API will not be displayed.

For value type Fixed Value:

Value
Specify a number, text, or date value.

For value type Rule Setup:

Value
Select Sender Entity, Receiver Entity, Receiver Location, or ReceiverAccounting Book.

Sender Entity represents the source entity value specified in the rule setup page. Receiver Entity represents the destination entity value specified in the rule setup page. Receiver Location represents the location value specified in the rule setup page. Receiver Accounting Book represents the value of the destination accounting book specified in the rule.

6 Click **Save**.
The new journal entry attribute setup is displayed.

Creating journal user field set

Note: These procedures apply to accounting framework integration only.

1 Select **Business Rule > Journal User Fields**.
2 Click **Add**.
3 Specify this information:

Transaction
Select the business document that you want to define a journal user field set for. This list is dynamic. It displays the document name of registered transactional documents.

Name
Specify a unique name that identifies the journal user field set.

4 Click **Save**.
The new journal user field set is displayed in the Name list for the selected transaction.

Assigning journal user fields

Before you start, create filters for the UserArea properties (UserArea/Property/NameValue) in the JournalEntryHeader or JournalEntryLine component of the SourceSystemJournalEntry BOD Registration. The attribute used for filtering must be /NameValue/@name.

1 Select **Business Rule > Journal User Fields**.
The existing journal user field assignments is displayed and the Add button for Header and Line tab is enabled.

2 Specify this information:

Transaction
Select the business document that you want to define a journal user field set for. This list is dynamic. It displays the document name of registered transactional documents.

Name
Select the name of the journal user field set that will contain the journal user field assignment. This list is dynamic. It displays the names of the journal user field sets added for the selected transaction.

3 Select **Header** or**Line**.

Note: Header refers to the JournalEntryHeader component, while Line refers to the JournalEntryLine component of the SourceSystemJournalEntry business document.

4 Click **Add** in the selected Header or Line tab.

5 Specify this information:

Name
Select the business document that you want to define a journal user field set for. This list is dynamic. It displays the document name of registered transactional documents.

Type
Select the desired value type. Possible values are:
- Fixed Value
- Attribute
- Expression

6 Specify the information for the remaining fields. The displayed fields depend on the selected operand type.

For value type Fixed Value:

Value
Specify a number, text, or date value.

For value type Attribute:

Mapping
Select the desired BOD registration. This list is dynamic. It displays all transactional BOD registrations.

Attribute
Select the desired attribute. This list is dynamic. It displays the attributes associated to the selected BOD registration.

For value type Expression:

Expression
Select the name of expression. This list is dynamic. It displays the expressions defined for the selected Transaction, excluding expressions of type REST API. For expressions of type search template, only expressions returning a single result is displayed.

7 Click **Save**.
The new journal user field assignment is displayed.

Creating scenarios

1 Select **Business Rule > Scenarios**.
2 Click **Add**.
3 Specify this information:

Name
Specify a unique name that identifies the scenario. Valid characters are a-z, A-Z, and 0-9. The first character should be an upper case letter.

Description
Specify a description of the scenario.

4 Click **Save**.
The new scenario is displayed.

Defining output generation rules

Before you start, for accounting framework integration, you need to create the BOD registration for Location business document and the integrating enterprise applications of the receiver entity must have sent its Location business documents to IGFC.

See Registering business object documents (BODs) on page 47.

1 Select **Business Rule > Rules**.
2 Click **Add**.
3 Specify this information:

Scenario
Select the scenario you want the rule to be associated to.

Name
Specify a unique name that identifies the scenario. Valid characters are a-z, A-Z, and 0-9. The first character should be an upper case letter.

Description
Specify a description of the scenario.

Document
This field is available only for accounting framework integration. Select the business document for which you want to create accounting entries. For purposes of this guide, we shall refer to this data as the originating document. This list is dynamic. It displays the registered transactional BODs.

Input Document
This field is available only for flexible output integration. Select the business document for which you want to create output business documents. This list is dynamic. It displays the registered master data and transactional BODs.

Document Attribute
Optionally, select an attribute of the originating document which indicates the ID of the referenced document. This is used to associate with the Reference Attribute. The list is dynamic; it displays the attributes flagged as "Document Reference" associated to the selected Document or Input Document.

Reference Document
Select the document that is referenced by the originating document. This contains the information needed to create accounting entries. This list is dynamic; For accounting framework integration, it displays registered transactional BODs. For flexible output integration, registered master data and transactional BODs are shown.

Reference Attribute
Select the ID attribute of the reference document defined above. This list is dynamic; it displays attributes flagged as "Document Reference" associated to the selected Reference Document.

Sender Entity
Select the entity you want this rule to apply to. This list is dynamic. For accounting framework integration, it displays sender entities registered with an accounting entity. For flexible output integration, the entities displayed depend on the selected Input Document. If the input is a transactional BOD, sender entities registered with an accounting entity are shown. If the input is a master data BOD, all sender entities are shown.

See Registering entities on page 39 and Mapping entities on page 55.

Output Document
This field is available only for flexible output integration. Select the business document to be generated. This list is dynamic. It displays the registered master data and transactional BODs.

Receiver Entity
Select the entity that will receive the output business documents. This list is dynamic. For accounting framework integration, it displays receiver entities registered with an accounting entity. For flexible output integration, the entities displayed depend on the selected Output Document. If the output is a transactional BOD, receiver entities registered with an accounting entity are shown. If the output is a master data BOD, all receiver entities are shown.

See Registering entities on page 39 and Mapping entities on page 55.

Receiver Accounting Book
This field is available only for accounting framework integration. Optionally, select the accounting book to where the journal will be posted. This list is dynamic. If there are accounting books associated to the accounting entity of the selected Receiver Entity, the accounting books are displayed in the list. Also, if there are accounting books with the same logical ID as that of the selected Receiver Entity, the accounting books are shown with an asterisk prefix.

Receiver Location Type
This field is available only for accounting framework integration. Optionally, select the desired location type. This list is dynamic. If there are location types associated to the accounting entity of the selected Receiver Entity, the location types are displayed in the list. Also, if there are location types with the same logical ID as that of the selected Receiver Entity, the location types are shown with an asterisk prefix.

Receiver Location
This field is available only for accounting framework integration. Optionally, select the desired location that will be indicated in the output SourceSystemJournalEntry business document. This list is dynamic. If there are locations associated to the accounting entity of the selected Receiver Entity, the locations are displayed in the list. Also, if there are locations with the same logical ID as that of the selected Receiver Entity, the locations are shown with an asterisk prefix.

For IGFC CE, the tenant value is also used to associate accounting books, location types, and locations to the selected Receiver Entity.

4 Click **Save**.
The new rule is displayed.
Note: Changes to the rule setup take effect immediately. There is no need to activate the rule.

Creating rule scripts

1 Select **Business Rule > Rules**.
2 Click the rule script icon of the corresponding rule.
3 Specify the rule script.

Note: Use Rule scripting shortcut keys on page 108 to display the list of possible values for rule script syntax, output document fields, and other value sources.

4 Click **Actions > Save**.
A message displays confirming activation of the rule. Click **Yes** to activate the rule or click **No** to only save the rule script.

See IGFC scripting language guide on page 90.

Defining rule output settings

Note: These procedures apply to accounting framework integration only.

Changes to the rule output setting take effect immediately. There is no need to activate the rule.

Define a detailed journal entry posting method

1 Select **Business Rule > Rules**.

2 Click the Output Settings hyperlink of the corresponding rule.

Note: Alternatively, Output Settings menu can be accessed within the rule script page. Click **Settings** to display the menu.

3 In the **Posting Method** field, select **Detailed**.

4 Click **Save**.

Define a summarized journal entry posting method

1 Select **Business Rule > Rules**.

2 Click the Output Settings hyperlink of the corresponding rule.

Note: Alternatively, Output Settings menu can be accessed within the rule script page. Click **Settings** to display the menu.

3 In the **Posting Method** field, select **Summarized**.

4 Specify this information:

Accounts
Select the accounts by which you want to summarize journal entries. Possible values are:

- All - Select this option if journal entry lines should be summarized by all account numbers.
- Range - Select this option if journal entry lines should be summarized by a range of account numbers.
- Specific - Select this option if journal entry lines should be summarized by specific account numbers.

5 Specify the information for the remaining fields. The displayed fields depend on the option selected for Account.

For range of accounts, you must specify these fields:

From
Select the starting account number of the range. This list is dynamic. If there are chart of accounts associated to the accounting entity of the selected receiver entity, the chart of accounts are displayed in the list. Also, if there are chart of accounts with the same logical ID as that of the selected receiver entity, the chart of accounts are shown with an asterisk prefix.

To
Select the ending account number of the range. This list is dynamic. If there are chart of accounts associated to the accounting entity of the selected receiver entity, the chart of accounts are displayed in the list. Also, if there are chart of accounts with the same logical ID as that of the selected receiver entity, the chart of accounts are shown with an asterisk prefix.

For specific accounts, you must select an account number in the field provided. This list is dynamic. It displays the account numbers associated to the selected Receiver Entity.

For IGFC CE, the tenant value is also used to associate chart of accounts to the selected Receiver Entity.

6 Click **Add** to include the range or specific accounts to the list.

7 Optionally, specify additional parameters for summarization of journal entries:

Mapping
Select the desired BOD registration. It displays the pre-selected BOD registrations for SourceSystemJournalEntry document associated to the JournalEntryLine component.

See Business rule on page 26.

Attribute
Select the desired attribute. It displays the pre-selected attributes associated to the selected BOD registration.
Important: Selected attributes must have an assigned journal entry value in the rule script.

8 Click **Add** to include the attribute as additional parameter.

9 Click **Save**.

Activating output generation rules

1 Select **Business Rule > Rules**.

2 Select a rule that you want to activate and click **Actions > Activate**.

Note: You cannot activate a rule that does not have a rule script. In order for the changes to take effect, activate the rule whenever there are changes to the rule script.

For imported rule in IGFC, ensure that the content is Customized before activating the rule.

See Import a content package on page 45.

Duplicating output generation rules

1 Select **Business Rule > Rules**.

2 Select a rule record that you want to copy.

3 Click **Actions > Duplicate**.
The menu to duplicate a rule is displayed.

4 Specify this information:

Name
Specify a unique name that identifies the scenario. Valid characters are a-z, A-Z, and 0-9. The first character should be an upper case letter.
Note: IGFC generates a suggested name "{RuleName}_copy". When a copy of a rule exists with this name, succeeding duplicates will have an incrementing number appended to its generated name.

Sender Entity
Select the entity to which you want this rule to apply. This list is dynamic. For accounting framework integration, it displays sender entities registered with an accounting entity. For flexible output integration, the entities displayed depend on the selected Input Document. If the input is a transactional BOD, sender entities registered with an accounting entity are shown. If the input is a master data BOD, all sender entities are shown.

See Registering entities on page 39 and Mapping entities on page 55.

Receiver Entity
Select the entity that will receive the output business document. This list is dynamic. or accounting framework integration, it displays receiver entities registered with an accounting entity. For flexible output integration, the entities displayed depend on the selected Output Document. If the output is a transactional BOD, receiver entities registered with an accounting entity are shown. If the output is a master data BOD, all receiver entities are shown.

See Registering entities on page 39 and Mapping entities on page 55.

Receiver Accounting Book
This field is available only for accounting framework integration. Optionally, select the accounting book to where the journal will be posted. This list is dynamic. If there are accounting books associated to the accounting entity of the selected Receiver Entity, the accounting books are displayed in the list. Also, if there are accounting books with the same logical ID as that of the selected Receiver Entity, the accounting books are shown with an asterisk prefix.

Receiver Location Type
This field is available only for accounting framework integration. Optionally, select the desired location type. This list is dynamic. If there are location types associated to the accounting entity of the selected Receiver Entity, the location types are displayed in the list. Also, if there are location types with the same logical ID as that of the selected Receiver Entity, the location types are shown with an asterisk prefix.

Receiver Location

This field is available only for accounting framework integration. Optionally, select the desired location. This will be populated to the output SourceSystemJournalEntry business document. This list is dynamic. If there are locations associated to the accounting entity of the selected Receiver Entity, the locations are displayed in the list. Also, if there are locations with the same logical ID as that of the selected Receiver Entity, the locations are shown with an asterisk prefix.

For IGFC CE, the tenant value is also used to associate accounting books, location type and location to the selected Receiver Entity.

Posting Method
This field is available only for accounting framework integration. Select a posting method. Possible values are Detailed or Summarized.

When Summarized is selected, you must specify this information:

- Account - Select the accounts by which you want to summarize journal entries. Possible values are All, Range, and Specific.

Specify the information for the remaining fields. The displayed fields depend on the option selected for Account.

For range of accounts, you must specify this information:

- From - Select the starting account number of the range. This list is dynamic. If there are chart of accounts associated to the accounting entity of the selected receiver entity, the chart of accounts are displayed in the list. Also, if there are chart of accounts with the same logical ID as that of the selected receiver entity, the chart of accounts are shown with an asterisk prefix.
- To - Select the ending account number of the range. This list is dynamic. If there are chart of accounts associated to the accounting entity of the selected receiver entity, the chart of accounts are displayed in the list. Also, if there are chart of accounts with the same logical ID as that of the selected receiver entity, the chart of accounts are shown with an asterisk prefix

  For specific accounts, you must select an account number in the field provided. This list is dynamic. It displays the account numbers associated to the selected Receiver Entity.

  Note: Click Add to include the range or specific accounts to the list.

  For IGFC CE, the tenant value is also used to associate chart of accounts to the selected Receiver Entity.

Activate
Optionally, select this if you want to automatically activate the duplicate rule record. This is available only when the rule script being copied is not blank.

5 Click **Save**.
The duplicate rule is displayed.
Note: Changes to the rule setup take effect immediately. There is no need to activate the rule.

Simulating output generation rules

Simulate a rule to test the behavior of processing a rule by manually uploading business documents in IGFC. This feature allows user to identify the results of running test documents against a specific rule by displaying a successfully generated XML, a warning or an error message, whichever is applicable.

1 Select **Business Rule > Rules**.

2 Select a rule record that you want to simulate.

Note: Alternatively, rule simulation can be accessed within the rule script page.

3 Select **Actions > Simulate**.

The window to upload a business document for simulation is displayed.

4 From **File Location**, select the upload file for simulation.

Note: An upload file must be in .zip format and contain these:

- An input master data or transaction business document
- Reference documents, either master data or transaction business documents, if applicable

For the execution of search template type expressions, IGFC will refer to the master data documents published and displayed in the **View > BODs** page.

5 Click **Simulate**.

The rule simulation result is displayed. For successful simulation, an output XML is shown. Otherwise, the detail of the warning or error message is shown.

Viewing BOD data

View BOD data in accounting framework integration

1 Select **View > BOD**.

2 Select **Transactional** or **Master Data**.

For transactional type of documents, these tabs are displayed:

Inbox ID
The unique identifier of the input business document record in IGFC's COR_INBOX_ENTRY table. An inbox ID with a suffix of "-N" indicates a business document published through ION, while a suffix of "-R" indicates a business document published through REST API requests.

Inbox Status
Indicates whether IGFC has processed successfully the input transaction business document. This table shows the different status:

Status	Description
Success	The input transaction was processed and an output SourceSystemJournalEntry business document was published.
Warning	The input transaction was processed but no output was published.
Error	An error was encountered and a ConfirmBOD was sent to ION. We recommend activating e-mail alerts to be notified that a Confirm BOD has arrived in ION. See *ION Connect Administration Guide*. **Note:** Clicking the icon will display these details: Date Time, Message No., Type, Reason Code, Description.
Information	The input transaction is used as a reference to another transaction and do not have an applicable rule to generate its own journal.

Document Name
The name of the business document.

Sender Entity
The entity of the input transaction business document.

Input Document ID
The unique identifier of the input transaction, based on the headerdocument ID. For example, the PurchaseOrder number, Invoice number, etc.

Received Date Time
The date and time the business document was received.

XML
The hyperlink that displays the input business document in a window. A download option is available to obtain a copy of the business document.

Reprocess
You can use the Reprocess option to enable IGFC to re-use the input document and run it against the applicable rules. Once an input document has been reprocessed, an icon will appear beside the Reprocess link.

Outbox ID
The unique identifier of the business document record in IGFC's COR_OUTBOX_ENTRY table.

Outbox Status
Indicates whether the receiving application has processed successfully the output SourceSystemJournalEntry business document published by IGFC. The table below explains the different status:

Status	Description
Success	The receiver application has successfully processed the SourceSystemJournalEntry, and published an Acknowledge<noun> business document with action code "Accepted". **Note:** Clicking the icon will display these details: Creation Date Time, Journal ID from the Acknowledge <noun> business document.
Warning	The receiver application has not yet published an Acknowledge<noun> business document.
Error	The receiver application published an Acknowledge <noun> business document with action code "Rejected". **Note:** Clicking the icon will display these details: Creation Date Time, Message No., and Description from the Acknowledge <noun> business document.
New	The receiver enterprise application has not yet picked up the SourceSystemJournalEntry. This is only applicable for enterprise applications sending REST API requests to IGFC.

Output Document ID
The journal ID generated by IGFC.

Rule
The name of the rule that was executed.

XML
Hyperlink that displays the output SourceSystemJournalEnty business document in a window. A download option is available to obtain a copy of the business document.

Receiver Entity
The entity of the output SourceSystemJournalEnty business document.

Receiver Accounting Book
The accounting book of the output SourceSystemJournalEntry business document.

Journal Control
Displays the SourceSystemJournalEntry business document in condensed format, where one can view only the important details of the journal line, as well as the summary totals. Clicking the icon displays these details:

Status	Description
Balanced	Displays the Journal Control of journals where total debit amount is equal to total credit amount.
With Balancing Entry	Displays the Journal Control of journals that have a balancing entry line. Its total debits are equal to total credits.
Out-of-Balance	Displays the Journal Control of journals where total debit amount is not equal to total credit amount.
Reversal	Displays the Journal Control of journals that were generated by the Reversal process.

For Master Data type of documents, these details are displayed:

Inbox ID
The unique identifier of the business document record in IGFC's COR_INBOX_ENTRY table. An inbox ID with a suffix of "-N" indicates a business document published through ION, while a suffix of "-R" indicates a business document published through REST API requests.

Document Name
The name of the business document.

Sender Entity
The entity of the input transaction business document.

Input Document ID
The unique identifier of the master data, usually found in the ID or Document ID component of the noun.

Received Date Time
The date and time the business document was received.

XML
The hyperlink that displays the input business document in a window. A download option is available to obtain a copy of the business document.

View BOD data in flexible output integration

Select **Views > BODs**.
The processed master data and transactional business documents are combined in one IGFC page and displayed with these tabs:

Inbox ID
The unique identifier of the business document record in IGFC's COR_INBOX_ENTRY table. An inbox ID with a suffix of "-N" indicates a business document published through ION, while a suffix of "-R" indicates a business document published through REST API requests.

Inbox Status
Indicates whether IGFC has processed successfully the input transaction business document. This table shows the different status:

Status	Description
Stored	The input master data was stored successfully into the database. No rule exists for generation of an output business document.
Success	The input master data or transaction was processed and an output business document was published.
Warning	The input master data or transaction was processed but no output business document was published.
Error	An error was encountered and a ConfirmBOD was sent to ION. We recommend activating e-mail alerts to be notified that a Confirm BOD has arrived in ION. See *ION Connect Administration Guide*. **Note:** Clicking the icon will display these details: Date Time, Message No., Type, Reason Code, Description.
Information	The input document is used as a reference to another document and do not have an applicable rule to generate its own output.

Inbox ID
The unique identifier of the business document record in IGFC's COR_INBOX_ENTRY table. An inbox ID with a suffix of "-N" indicates a business document published through ION, while a suffix of "-R" indicates a business document published through REST API requests.

Document Name
The name of the business document.

Sender Entity
The entity of the input transaction business document.

Input Document ID
The unique identifier of the master data, usually found in the ID or Document ID component of the noun.

Received Date Time
The date and time the business document was received.

XML
The hyperlink that displays the input business document in a window. A download option is available to obtain a copy of the business document.

Reprocess
You can use the Reprocess option to enable IGFC to re-use the input document and run it against the applicable rules. Once an input document has been reprocessed, an icon will appear beside the Reprocess link.

Outbox ID
The unique identifier of the business document record in IGFC's COR_OUTBOX_ENTRY table.

Outbox Status
Indicates whether the receiving application has processed successfully the output SourceSystemJournalEntry business document published by IGFC. The table below explains the different status:

Status	Description
Success	The receiver application has successfully processed the SourceSystemJournalEntry, and published an Acknowledge<noun> business document with action code "Accepted". **Note:** Clicking the icon will display these details: Creation Date Time, Journal ID from the Acknowledge <noun> business document.
Warning	The receiver application has not yet published an Acknowledge<noun> business document.

Status	Description
Error	The receiver application published an Acknowledge <noun> business document with action code "Rejected". **Note:** Clicking the icon will display these details: Creation Date Time, Message No., and Description from the Acknowledge <noun> business document.
New	The receiver enterprise application has not yet picked up the SourceSystemJournalEntry. This is only applicable for enterprise applications sending REST API requests to IGFC.

Document Name
The name of the output business document.

Output Document ID
The document ID generated by IGFC.

Rule
The name of the rule that was executed.

XML
Hyperlink that displays the output business document in a window. A download option is available to obtain a copy of the business document.

Receiver Entity
The entity of the output business document.

Appendix A: System-defined search templates

System-defined search templates

This appendix contains the definition details of the available system-defined search templates available only in accounting framework integration.

getAcquirerAccountNumber

This search template is used in the transformation of the ledger accounts of the input transaction. It retrieves the destination ledger account number from chart of accounts mapping.

- Search Result: To account
- Parameters:
  - Source entity
  - Source accounting book
  - Source ledger account
  - Destination entity
  - Destination accounting book
- Filters:
  - Source entity == Rule - sender entity
  - AND Source accounting book == From accounting book or a fixed value 'NULL' if there was no From Accounting Book specified in general ledger mapping
  - AND Source ledger account == From account
  - AND Destination entity == Rule - receiver entity
  - AND Destination accounting book == Rule - receiver accounting book or a fixed value 'NULL' if there was no To Accounting Book specified in general ledger mapping.

getAcquirerAccountNumberList

This search template is used in the transformation of the ledger accounts of the input transaction. It retrieves the destination ledger account and its corresponding allocation rate from chart of accounts mapping.

- Search Result: To account and allocation rate
- Parameters:
  - Source entity
  - Source accounting book
  - Source ledger account
  - Destination entity

    - Destination accounting book
- Filters:
    - Source entity == Rule - sender entity
    - AND Source accounting book == From accounting book or a fixed value 'NULL' if there was no From Accounting Book specified in general ledger mapping.
    - AND Source ledger account == From account
    - AND Destination entity == Rule - receiver entity
    - AND Destination accounting book == Rule - receiver accounting book or a fixed value 'NULL' if there was no To Accounting Book specified in general ledger mapping.

getAcquirerAcctChart

This search template is used in the transformation of the ledger accounts of the input transaction. It retrieves the destination accounting chart ID from general ledger mapping.

- Parameters:
    - Source entity
    - Source accounting book
    - Destination entity
    - Destination accounting book
- Filters:
    - Source entity == Rule - sender entity
    - AND Source accounting book == From accounting book or a fixed value 'NULL' if there was no From Accounting Book specified in general ledger mapping.
    - AND Destination entity == Rule - receiver entity
    - AND Destination accounting book == Rule - receiver accounting book or a fixed value 'NULL' if there was no To Accounting Book specified in general ledger mapping.

getCurrencyRateType

This search template is used in the transformation of the amounts and currencies of the input transaction. It retrieves the currency rate type from currency rate type assignment.

- Search Result: Currency rate type
- Parameters:
    - Source entity
    - Source accounting book
    - Source accounting journal
    - Destination entity
    - Destination accounting book
- Filters:
    - Source entity == Rule - sender entity
    - AND Source accounting book == From accounting book or a fixed value 'NULL' if there was no From Accounting Book specified in general ledger mapping.
    - AND Source accounting journal = = From accounting journal
    - AND Destination entity == Rule - receiver entity

- AND Destination accounting book == Rule - receiver accounting book or a fixed value 'NULL' if there was no To Accounting Book specified in general ledger mapping.

getTargetAccountNumberBySourceAcctChart

This search template is a variant of getAcquirerAccountNumber that has an additional parameter for source accounting chart.

- Search Result: To account
- Parameters:
  - Source entity
  - Source accounting book
  - Source accounting chart
  - Source ledger account
  - Destination entity
  - Destination accounting book
- Filters:
  - Source entity == Rule - sender entity
  - AND Source accounting book == From accounting book or a fixed value 'NULL' if there was no From Accounting Book specified in general ledger mapping.
  - AND Source accounting chart == From accounting chart
  - AND Source ledger account == From account
  - AND Destination entity == Rule - receiver entity
  - AND Destination accounting book == Rule - receiver accounting book or a fixed value 'NULL' if there was no To Accounting Book specified in general ledger mapping.

getTargetAccountNumberListBySourceAcctChart

This search template is a variant of getAcquirerAccountNumberList that has an additional parameter for source accounting chart.

- Search Result: To account and allocation rate
- Parameters:
  - Source entity
  - Source accounting book
  - Source accounting chart
  - Destination entity
  - Destination accounting book
- Filters:
  - Source entity == Rule - sender entity
  - AND Source accounting book == From accounting book or a fixed value 'NULL' if there was no From Accounting Book specified in general ledger mapping.
  - AND Source accounting chart == From accounting chart
  - AND Source ledger account == From account
  - AND Destination entity == Rule - receiver entity
  - AND Destination accounting book == Rule - receiver accounting book or a fixed value 'NULL' if there was no To Accounting Book specified in general ledger mapping.

getTargetAcctChartBySourceAcctChart

This search template is a variant of getAcquirerAcctChart that has an additional parameter for source accounting chart.

- Search Result: To accounting chart
- Parameters:
  - Source entity
  - Source accounting book
  - Source accounting chart
  - Destination entity
  - Destination accounting book
- Filters:
  - Source entity == Rule - sender entity
  - AND Source accounting book == From accounting book or a fixed value 'NULL' if there was no From Accounting Book specified in general ledger mapping.
  - AND Source accounting chart == From accounting chart
  - AND Source accounting journal = = From accounting journal
  - AND Destination entity == Rule - receiver entity
  - AND Destination accounting book == Rule - receiver accounting book or a fixed value 'NULL' if there was no To Accounting Book specified in general ledger mapping.

getTargetCurrencyRateTypeBySourceAcctChart

This search template is a variant of getCurrencyRateType that has an additional parameter for source accounting chart.

- Search Result: Currency rate type
- Parameters:
  - Source entity
  - Source accounting book
  - Source accounting chart
  - Destination entity
  - Destination accounting book
- Filters:
  - Source entity == Rule - sender entity
  - AND Source accounting book == From accounting book or a fixed value 'NULL' if there was no From Accounting Book specified in general ledger mapping.
  - AND Source accounting chart == From accounting chart
  - AND Destination entity == Rule - receiver entity
  - AND Destination accounting book == Rule - receiver accounting book or a fixed value 'NULL' if there was no To Accounting Book specified in general ledger mapping.

getDimensionCodeList

Note: Only the rule script is using this search template.

This search template retrieves the dimension codes from dimension code assignments.

- Search Result:
  - Dimension type
  - Dimension sequence
  - Dimension code
- Parameters:
  - Accounting chart
  - Entity
  - Ledger account number
  - xsdName
  - Accounting book
- Filters:
  - Source entity == Rule - sender entity
  - AND Entity == Rule - receiver entity
  - AND Ledger account number == Account or a fixed value 'NULL' if there were no ledger account numbers specified in dimension code assignment.
  - AND xsdName == Fixed value noun name e.g PurchaseOrder, ReceiveDelivery
  - AND Accounting Book == Accounting Book or a fixed value 'NULL' if there were no specific accounting books defined in dimension code assignment.

getDimensionCodeListByTransType

This search template is a variant of getDimensionCodeList that has an additional parameter for transaction type.

- Search Result:
  - Dimension type
  - Dimension sequence
  - Dimension code
- Parameters:
  - Accounting chart
  - Entity
  - Ledger account number
  - xsdName
  - Transaction type
  - Accounting book
- Filters:
  - Accounting chart == Accounting chart
  - AND Entity == Rule - receiver entity
  - AND Ledger account number == Account or a fixed value 'NULL' if there were no ledger account numbers specified in dimension code assignment.
  - AND xsdName == Fixed value noun name e.g PurchaseOrder, ReceiveDelivery
  - AND transType == Fixed value name of transaction type
  - AND Accounting Book == Accounting Book or a fixed value 'NULL' if there were no specific accounting books defined in dimension code assignment.

getJournalHeaderUserField

This search template retrieves the list of header journal user field assignments from the journal user fields page.

- Search Result:
  - Journal user field name
  - Journal user field data type
  - Journal user field value
- Parameters:
  - Transaction
  - Journal user field set name
- Filters:
  - Transaction == Fixed value noun name, for example, PurchaseOrder, ReceiveDelivery
  - AND Journal user field set name == Fixed value name of the journal user field set name

Appendix B: IGFC scripting language guide

IGFC scripting language guide for accounting framework integration

This appendix describes the IGFC scripting language used in writing rule scripts.

Through rule scripts, you specify how journal entry lines are created depending on the type of input transactional business document. A rule script is a sequence of statements that the IGFC rules engine executes to create journal entry lines. Within these statements, attributes of the relevant transactional business document registration, expressions, or local variable definitions are used to represent data used in processing.

These are the different statements available:

- Set
- Assignment
- If Else If
- For Every
- Create Entry
- Create Header

Set

This statement is used to define a new variable and assign an initial value.

Syntax

```
set variable_name = initial_value
```

Argument	Description
variable_name	Name of the variable (composed of letters and digits). **Note:** Reserved variables 'dimCdSet' and 'usrFieldVal' are used to declare a search template-type expression that is assigned as a value source for a dimension and journal user field, respectively.
initial_value	Possible values: • Number • Text enclosed in double quotes

Examples:

```
set debitCounter = 0

set journalType = "AP"
```

Assignment

This statement is used to assign a new value to an existing variable definition.

Syntax

```
variable_name = new_value
```

Argument	Description
variable_name	Name of the variable (composed of letters and digits).
new_value	Possible values: • Number • Text enclosed in double quotes • Registered attribute of the relevant transactional BOD. • A defined expression of the relevant transactional BOD. • Rule setup value such as Rule.ruleSndrErp (for Sender Entity), Rule.ruleRcvrErp (for Receiver Entity), Rule.ruleRcvrLoc (for Receiver Location), or Rule.ruleRcvrActgBook (for Receiver Accounting Book). • Another variable • An arithmetic computation involving any of the above-mentioned values (numeric data type only) as operands.

Examples:

```
acquirerBookCur = BookCurrency

totalAmount = totalAmount + InvLine.unitPriceAmt

creditCounter = creditCounter + 1
```

If Else If

This statement is used to control the conditional execution of statements.

Syntax

```
If (RdHeader.docRefType == "PurchaseOrder") {
// statement block
}
If (InvLine.unitPriceAmtCurr == BookCurrency) {
// statement block
```

```
} else {
// statement block
}
If (JeLine.functAmt <= 1000) {
// statement block
} else if (JeLine.functAmt > 1000) {
// statement block
}
```

Argument	Description
condition	A comparison of two values using a conditional operator. Possible values: • Number • Text enclosed in double quotes • Registered attribute of the relevant transactional BOD. • A defined expression of the relevant transactional BOD. • Rule setup value such as Rule.ruleSndrErp (for Sender Entity), Rule.ruleRcvrErp (for Receiver Entity), Rule.ruleRcvrLoc (for Receiver Location), or Rule.ruleRcvrActgBook (for Receiver Accounting Book). • Another variable Available conditional operators: • == (equal) • != (not equal) • > (greater than) • >= (greater than or equal) • < (less than) • <= (less than or equal)

Examples:

```
If (RdHeader.docRefType == "PurchaseOrder") {
 // statement block
}
If (InvLine.unitPriceAmtCurr == BookCurrency) {
 // statement block
} else {
 // statement block
}
If (JeLine.functAmt <= 1000) {
 // statement block
} else if (JeLine.functAmt > 1000) {
 // statement block
}
```

Here is an example rule script for an invoice business document.

```
1    set invLineAmount = 0
2             set totalInvLineAmount = 0
3             for every InvLine {
4               if (InvLine.taxAmt > 0) {
5                  create entry (drCr: "debit",
                                 amount: InvLine.taxAmt,
                                 amountCurr: InvLine.taxAmtCurr,
                                 accountNum: InvoiceTaxAccountNum)
6                }
7                if (InvLine.invoiceChargeAmt > 0) {
8                   create entry (drCr: "debit",
                                   amount: InvLine.invChargeAmt,
                                   amountCurr: InvLine.invChargeAmtCurr,
                                   accountNum: InvoiceChargeAccountNum)
9                }
10                invLineAmount = InvLine.unitPriceAmt * InvLine.qty
11                create entry (drCr: "debit",
                                amount: invLineAmount,
                                amountCurr: InvLine.unitPriceAmtCurr,
                                accountNum: ItemAccountNum)
12                totalInvLineAmount = totalInvLineAmount + invLineAmount
13               }
14               create entry (drCr: "debit",
                           amount: totalInvLineAmount,
                           amountCurr: InvLine.unitPriceAmtCurr
                           accountNum: InvoiceAccrualAccountNum)
```

Lines 1-2 creates two local variables, namely invLineAmount and totalInvLineAmount.

Using the FOR EVERY statement in line 3, all statements from lines 4 to 12 is executed for every invoice line in the input invoice business document.

Line 5 creates a journal line if the invoice line has a tax amount. The journal line is a debit equivalent to the tax amount of the invoice line. The ledger account number is determined by the expression InvoiceTaxAccountNum.

Line 8 creates a journal line if the invoice line has an invoice charge amount. The journal line is a debit equivalent to the invoice charge amount. The ledger account number is determined by the expression InvoiceChargeAccountNum.

Line 11 creates a journal line without a condition. The journal line is a debit equivalent to the value of the local variable invLineAmount. invLineAmount is computed in line 10 by multiplying the invoice line's unit price amount and quantity. The ledger account number is determined by the expression ItemAccountNum.

Line 12 sums up all computed invLineAmount values per invoice line using the local variable totalInvLineAmount.

Line 14 creates a credit journal line after all the invoice lines have been created with debit journal lines. The amount is equivalent to the value of the local variable totalInvLineAmount and the currency equal to the currency of the invoice line's unit price amount. The ledger account number is determined by the expression InvoiceAccrualAccountNum.

For Every

This statement is used to repeat the execution of a block of statements for every occurrence of a repeating component in the input transactional business document.

Syntax

```
for every repeating_component {
// statement block
}
```

Argument	Description
repeating_component	Registration name of a repeating component of the relevant transactional business document referenced within the 'for every' statement.

Examples:

```
for every InvLine {
// statement block
}
for every InvLineItem {
// statement block
}
```

Statements specific to search template type expressions with multiple search results

User-defined search templates

Specify the attribute to be retrieved by the expression among the multiple search results using the each and @ statements.

Each

This statement is used to repeat the execution of a block of statements for each search result.

@

This statement is used to assign the search result attribute to a specific variable. The syntax must include the statement "@" and the name of the expression.

Syntax

```
each Expression {
variable_name = Expression@attributeName
variable_name = Expression@attributeName
// statement block
}
```

Argument	Description
Expression	Name of the expression for the user-defined search template returning multiple search results.
variable_name	Name of the variable (composed of letters and digits). Must be unique for each search result attribute. The variable name is assigned as the source value of an attribute of the output journal entry in the create entry or create header statement.
attribute_name	Name of the search result attribute.

Examples

Argument	Description
Expression	PoItemDetail (search template name is getPoItemDetail with search results itemTrackingInd and itemUnitVal).
variable_name	trackInd for search result attribute itemTrackingInd unitVal for search result attribute itemUnitVal
attribute_name	itemTrackingInd and itemUnitVal

```
each PoItemDetail {
trackInd = PoItemDetail@itemTrackingInd
unitVal = PoItemDetail@itemUnitVal
// statement block
}
```

System-defined search templates

Search templates getAcquirerAccountNumberList and getTargetAccountNumberListBySourceAcctChart retrieve a list of destination account numbers and its corresponding allocation rate from chart of accounts mapping. When the expressions using these search templates are used in the rule script, you must specify which of the two return values (account numbers or allocation rates) is retrieved by the expression using the each and in statements.

Each

This statement is used to repeat the execution of a block of statements for each search result in the list.

In

This statement is used to assign search results account numbers and allocation rate to a specific variable. The syntax must include the statement "in" and the name of the expression.

Syntax

```
each Expression {
variable_name = toAccountNumber in Expression
variable_name = allocationRate in Expression
// statement block
}
```

Argument	Description
Expression	Name of the expression for getAcquirerAccount-NumberList.
variable_name	Name of the variable (composed of letters and digits).
toAccountNumber	Reserved search result name for destination account number.
allocationRate	Reserved search result name for allocation rate.

Examples

```
each BookAccountNumberList {
acctNumber = toAccountNumber in BookAccountNumberList
allocationrate = allocationRate in BookAccountNumberList
// statement block
}
```

Create Entry

This statement is used to create a journal entry line. The parameters are attribute-value pairs separated by a comma.

Syntax

```
create entry (attribute : value, …)
```

Argument	Description
attribute	Registered attribute of the SourceSystemJournalEntry BOD's journal line component.

Argument	Description
value	Possible values: • Number Example: 1975 • Text enclosed in double quotes Example: "debit" • Registered attribute of the relevant transactional BOD. Example: InvLine.unitPriceAmt • A defined expression of the relevant transactional BOD. Example: SalesInvoiceAccountNum • Rule setup value such as Rule.ruleSndrErp (for Sender Entity), Rule.ruleRcvrErp (for Receiver Entity), Rule.ruleRcvrLoc (for Receiver Location), or Rule.ruleRcvrActgBook (for Receiver Accounting Book). • A local variable

Examples

```
create entry (drCr: "debit", amount: InvLine.unitPriceAmt, amountCurr:
InvLine.unitPriceAmtCurr,
accountNum: SalesInvoiceAccountNum)
}
```

Create Header

This statement is used to create a journal entry header. The parameters are attribute-value pairs separated by a comma.

Syntax

```
create header (attribute : value, …)
```

Argument	Description
attribute	Registered attribute of the SourceSystemJournalEntry BOD's journal header component.

Argument	Description
value	Possible values: • Number • Text enclosed in double quotes • Registered attribute of the relevant transactional BOD. • A defined expression of the relevant transactional BOD. • Rule setup value such as Rule.ruleSndrErp (for Sender Entity), Rule.ruleRcvrErp (for Receiver Entity), Rule.ruleRcvrLoc (for Receiver Location), or Rule.ruleRcvrActgBook (for Receiver Accounting Book). • A local variable

Examples

```
create header (actgJrnlRefId: journalType, ledgerTyp: "Commitment",
ledgerId: "C")
}
```

Statements specific to REST API type expressions with multiple result keys

REST API type expressions with multiple result keys can be assigned in the rule script as a value source for a defined variable or as a definition of an output attribute field in the create entry or create header statements. It can also be a value for comparison in an if condition.

To use this type of expression, specify the attribute to be retrieved by the expression among the multiple result keys using the @ statement. The attribute name refers to the values displayed in the result keys list box.

Syntax

As a value source for a defined variable:

```
variable_name = Expression@attributeName
```

As a value source for an output attribute field:

```
create entry (attribute : variable_name, …)
```

```
create header (attribute : variable_name, …)
```

Alternatively, the expression with @ statement can also be assigned directly to the output attribute field:

```
create entry (attribute : Expression@attributeName, …)
```

```
create header (attribute : Expression@attributeName, …)
```

As a value for comparison in an if condition:

```
If (value1 relationalOperator value2) {
//statement block
```

Where value1 or value2 may refer to:

- The variable name of the REST API type expression with an @ statement
- The REST API type expression with an @ statement

Note: REST API type expressions with single result keys need not use the @ statement.

IGFC rule scripting guide for flexible output integration

These are the different statements available:

- Set
- Variable Assignment
- If Else If
- For Every
- Attribute-value Assignment

Set

This statement is used to define a new variable and assign an initial value.

Syntax
```
set variable_name = initial_value
```

Argument	Description
variable_name	Name of the variable (composed of letters and digits).
initial_value	Possible values: • Number • Text enclosed in double quotes

Examples:

```
set itemUnitVal = 0
set itemUnitCd = "BOX"
set custId = ""
```

Variable Assignment

This statement is used to define a new variable and assign an initial value.

Syntax:

```
set variable_name = new_value
```

Argument	Description
variable_name	Name of the variable (composed of letteName of the variable (composed of letters and digits) initially declared from set statement .
new_value	Possible values: • Number • Text enclosed in double quotes • Registered attribute of the relevant master data or transactional BOD • A defined expression of the relevant master data or transactional BOD • Rule setup value such as Rule.ruleSndrErp (for Sender Entity) or Rule.ruleRcvrErp (for Receiver Entity). • Another variable • An arithmetic computation involving any of the above-mentioned values (numeric data type only) as operands.

Examples:

```
custId = CustomerID
salesAmount = PoLine.lnTotAmt * RateNumeric
```

If Else If

This statement is used to control the conditional execution of statements.

Syntax:

```
If (value_source1 == value_source2) {
// statement block
}
If (value_source1 != value_source2) {
// statement block
} else {
// statement block
}
If (value_source1 >= value_source2) {
// statement block
} else if (value_source1 < value_source2) {
// statement block
}
```

Argument	Description
condition	Possible values: • Number • Text enclosed in double quotes • Registered attribute of the relevant master data or transactional BOD • A defined expression of the relevant master data or transactional BOD • Rule setup value such as Rule.ruleSndrErp (for Sender Entity) or Rule.ruleRcvrErp (for Receiver Entity) • Another variable Available conditional operators: • == (equal) • != (not equal) • > (greater than) • >= (greater than or equal) • < (less than) • <= (less than or equal) Available logical operators to combine condition statements: • and • or Use parenthesis () to enclose a condition statement and to specify the order of evaluation in combined conditions. **Note:** An open curly brace immediately follows that of condition statement.

Examples:

```
If (SoLine.supplierPartyId == "VEN-100") {
// statement block
}
If (InvLine.unitPriceAmtCurr != AeCurrency) {
// statement block
} else {
// statement block
}
If (TaxRate >= 0.30) {
// statement block
} else if (TaxRate < 0.10) {
// statement block
}
```

For Every

This statement is used to repeat the execution of a block of statements for every occurrence of a repeating component in the input master data or transactional business document.

Syntax:

```
for every repeating_component {
// statement block
}
```

Argument	Description
repeating_component	Registration name of a repeating component of the relevant input master data or transactional business document referenced within the ‘for every’ statement.

Examples:

```
for every PoLine {
// statement block
}
for every PoLineItem {
// statement block
}
```

Controlling the repetition of for every statement

A counter can be used to limit the execution of a block of statement in a rule script. This applies to generation of a single or limited number of a component of an output document that references a repeating attribute in the for every statement.

For example, a single header component need to be generated for the output Sales Order document, with Purchase Order as the input document. Part of the desired output header component is a field that references a value from the PurchaseOrderLine which repeats multiple times in the document. Thus, the PurchaseOrderLine component need to have its own for every statement before the attribute value assignment for the SalesOrderHeader such as:

```
for every PoLine {
  "soHead": {
   //statement block
                }
```

Without a control syntax that limits the creation of the header component, the output document will have as many headers as there are input lines following above statement. Create a variable that refers to the execution count and an if condition that validates whether to execute the statement block.

Argument	Description
variable_name	Name of the variable that refers to the counter
initial_value / new_value	Numeric value that is used in conjunction with the condition statement

Argument	Description
condition	Matches the counter variable against a numeric limit that determines when to execute a block of statement

Example:

```
set headerCount=0

    for every PoHead {
        for every PoLine {
            if (headerCount == 0) {
                      "soHead": {
                          //statement block
                           }
                          "soLine": [
                         headerCount = 1
                  }
                          //statement block
            }
          }
                    if(headerCount == 1) {
                           ]
                         }
```

In the above example, an soHead component will only be created when the value of the variable headerCount equals 0. Note that after the execution of the first statement block for soHead, the headerCount is assigned with a value of 1 which stops the creation of another soHead.

Statements specific to search template type expressions with multiple search results

Specify the attribute to be retrieved by the expression among the multiple search results using the each and @ statements.

Each

This statement is used to repeat the execution of a block of statements for each search result.

@

This statement is used to assign the search result attribute to a specific variable. The syntax must include the statement "@" and the name of the expression.

Syntax

```
each Expression {
variable_name = Expression@attributeName
variable_name = Expression@attributeName
// statement block
}
```

Argument	Description
Expression	Name of the expression for the user-defined search template returning multiple search results.
variable_name	Name of the variable (composed of letters and digits). Must be unique for each search result attribute. The variable name will be assigned as the source value of an attribute of the output business document.

Examples

Argument	Description
Expression	PoItemDetail (search template name is getPoItemDetail with search results itemTrackingInd and itemUnitVal).
variable_name	trackInd for search result attribute itemTrackingInd unitVal for search result attribute itemUnitVal
value	Possible values: • Number • Text enclosed in double quotes • Registered attribute of the relevant master data or transactional BOD • A defined expression of the relevant master data or transactional BOD • Rule setup value such as Rule.ruleSndrErp (for Sender Entity) or Rule.ruleRcvrErp (for Receiver Entity) • A local variable

Argument	Description
enclosures	Possible values are: • { } - curly brace. Used to group attribute-value assignments. • [ ] - square bracket. Used when the grouping element is a repeating attribute. The open square bracket immediately follows that of the grouping element and precedes the statement for the actual attribute-value assignment, and the conditions and loops, if applicable. These must be observed in using the [ ] enclosure: • At least one [ ] enclosure set is required in a rule script. • Write the related 'For every' statements after the "grouping element ": [• When a repeating attribute exists within a grouping element, the attribute:value assignment for that repeating attribute must not be written last. Another attribute:value assignment for a non-repeating attribute must follow.

```
each PoItemDetail {
trackInd = PoItemDetail@itemTrackingInd
unitVal = PoItemDetail@itemUnitVal
// statement block
}
```

Attribute-value assignment

This statement is used to define the value for each field in the output business document. The parameters are attribute-value pairs, separated by a comma.

Syntax

```
"grouping_element": {
"attribute": value,
"attribute": {
"attribute": value
}
},
"grouping_element": [
{
"attribute": value,
"attribute": value
}
{
"attribute": value,
"attribute": value
```

```
}
]
```

Argument	Description
grouping_element	Registered attribute of the output master data or transactional business document that refers to the root attribute of the BOD registration record. This attribute does not have a value, but contains the rest of the attributes in the registration group. A grouping element is named after the BOD registration, only that it begins with a lowercase letter.
attribute	Registered attribute of the relevant output master data or transactional business document that will be defined with a value source. It can also refer to a component that contains the attribute to be defined. **Note:** Attribute-value assignment must be defined in the same order as they are structured in the BOD instance. For example: • Line component before another grouping element within the same line component • Attribute field before filters within the same attribute tag

```
"grouping_element": {
                    "attribute": value,
                    "attribute": [
                        {
                            "attribute": value,
                            "attribute": value
                        },
                        {
                            "attribute": value,
                            "attribute": value
                        }
                    ],
                    "attribute": value
}
```

Here is an example rule script for a purchase order business document that is transformed into a sales order document:

```
1     set salesAmount = 0
2     set trackInd = ""
3     set unitVal = ""
4        for every PoHead {
5            if (PoHead.poType == "IC") {
6                salesAmount = PoHead.extAmt * RateNumeric
```

```
7                    "soHead": {
                          "documentDate": PoHead.docDate,
                          "statusCode": PoHead.statCd,
                          "statusListId": "Sales Order Status",
                          "hdrTotAmt": salesAmount,
                          "hdrTotAmtCur": TargetBaseCur,
                          "soPoRef": {
                                  "soPoRefId": PoHead.poNuM
                          },
8                    }
9                  "soLine": [
10                     for every PoLine {
11                     salesAmount = PoLine.lnExtAmt * RateNumeric
12                     for every PoItemId {
13                     each PoItemDetail {
                       trackInd = PoItemDetail@itemTrackingInd
                       unitVal = PoItemDetail@itemUnitVal
14                        {
15                          "itemId": ItemID,
                            "lnTotAmt": salesAmount,
                            "lnTotCur": TargetBaseCur,
                            "lnUnitTotAmt": unitVal,
                            "lnUnitTotCur": PoLine.unitPriceCur,
                            "quantity": PoLine.qty,
                            "quantityUnitCd": PoLine.qtyUCd,
                            "lnUserTrackInd": trackInd
16                                            }
17                               }
18                               }
19                            }
20                        ]
21                    }
22                }
```

Lines 1-3 will create three local variables, namely salesAmount, trackInd and unitVal.

Using the if condition in Line 5 that validates the transaction type for the input purchase order, an output business document will be generated with fields defined in Lines 6-16.

Line 6 defines the variable salesAmount as the product of multiplying the extended amount from the input purchase order header document with the exchange rate numeric determined by the expression RateNumeric. This variable is then assigned as the value for sales order header total amount in Line 7.

Using the for every statement in Lines 10 and 12, all assignments from Line 14 will be executed for every purchase order line and item ID from the input business document.

Line11 defines the variable salesAmount as the product of multiplying the extended amount from the input purchase order line document with the exchange rate numeric determined by the expression RateNumeric. This variable is then assigned as the value for sales order line total amount in Line 14.

Additional variable definition is stated in Line 13 that is coming from an expression that returns multiple search result. Each search result is assigned to variables trackInd and unitVal, which is then assigned as a value source in Line 14.

Statements specific to REST API type expressions with multiple result keys

REST API type expressions with multiple result keys can be assigned in the rule script as a value source for a defined variable or as a definition of an output attribute field in the attribute-value assignment statements. It can also be a value for comparison in an if condition.

To use this type of expression, specify the attribute to be retrieved by the expression among the multiple result keys using the @ statement. The attribute name refers to the values displayed in the result keys list box.

Syntax

As a value source for a defined variable:

```
variable_name = Expression@attributeName
```

As a value source for an output attribute field:

```
"attribute": variable_name, …
```

Alternatively, the expression with @ statement can also be assigned directly to the output attribute field:

```
If (value1 relationalOperator value2) {

//statement block
```

Where value1 or value2 may refer to:

- The variable name of the REST API type expression with an @ statement
- The REST API type expression with an @ statement

Note: REST API type expressions with single result keys need not use the @ statement.

Rule scripting shortcut keys

Facilitate rule script creation by using shortcut keys that display a list of possible values for rule script syntax, output document fields and other value sources. Clicking the “Shortcut Keys” button will display below information on key combinations and its corresponding values to be displayed in a dropdown list:

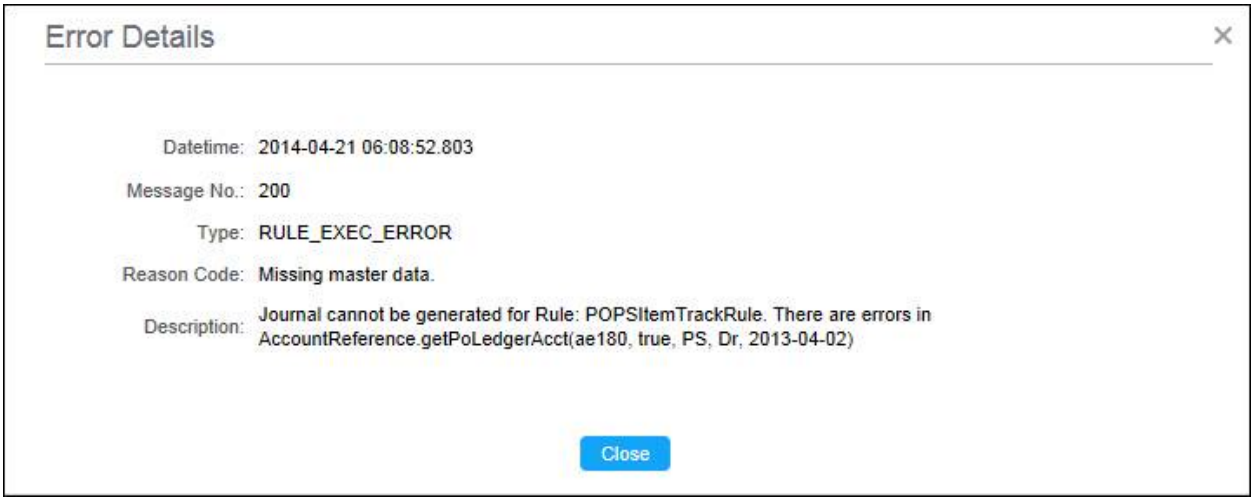
Shortcut	Values displayed
Ctrl + space	Rule script syntax
Ctrl + semicolon (;)	Output fields / BOD attributes
Ctrl + comma (,)	Expressions
Ctrl + dot (.)	Input fields / BOD attributes
Ctrl + slash (/)	Rule setup

This feature is available on both accounting framework and flexible output type of integrations.

Appendix C: Error messaging in IGFC

Error detail components

This screenshot shows a typical IGFC error screen and its corresponding field descriptions:



- Datetime - the date and time when the error occured.
- Message No. - the message number of the error.
- Type - the type of the error.
- Reason Code - Reason for the error.

  See Error types and reason codes on page 110.
- Description - Provides more detail on the error. May indicate these:
  - The rule that was run.
  - The expression and its corresponding argument values derived from the transaction business document. This expression can be traced directly from the rule script or the Journal Entry.
  - The required field of the output SSJE that was not populated by IGFC.

Error types and reason codes

Errors in IGFC messaging can be classified into three types:

- Poller error (POLLER_ERROR) – errors that originate from the inbox poller in the process of reading the business documents.
- Rule execution error (RULE_EXEC_ERROR) – errors that originate from the rule engine.
- Journal entry generation error (JE_GENERATE_ERROR) – errors that originate from the journal generator module.

  For each type, there are specific reason codes that further provide details on the error. This table shows the major reason codes behind poller, rule execution, and journal entry generation error.

Error type		Reason code	
	Invalid BOD	Missing master data	Missing GFC Setup
Poller Error (POLLER_ERROR)	An incoming business document is considered invalid when: • The attribute value for TenantID, VariationID or Action Code is blank. • The attribute value for VariationID or Action Code is not recognized. • There is an error on a system file named NounIDsInstance.xml		These setup does not exist: • Tenant Registration • Valid License Key • BOD Mapping
Rule execution error (RULE_EXEC_ERROR)	A search-template type expression was included in the rule script that was run. However, the search template could not retrieve a value because the arguments did not match the records being searched.		For an existing search template, parameters have been added or removed but the related master data BOD was not regenerated after the change.

Error type		Reason code	
	Invalid BOD	Missing master data	Missing GFC Setup
Journal entry generation error (JE_GENERATE_ERROR)	A search-template type expression was defined for an SSJE attribute in the JE. However, the search template could not retrieve a value because the arguments did not match the records being searched. This will be triggered only for mandatory SSJE attributes.		The JE template setup does not exist for these mandatory attributes: • JournalEntryHeader/BaseJournalEntryHeader/AccountingJournalReference/ID • JournalEntryLine/GLAccount/GLNominalAccount • JournalEntryLine/SourceAccountingDate/PostDateTime

A "Failed Message" reason code is also available for all types of error. This is generally applied as a catch-all message when the cause of the error does not specifically fall under any existing error category.

See Troubleshooting guide on page 116.

Warning messages

A warning message indicates that input transactions did not generate a journal because it did not meet certain processing conditions. Warning messages in IGFC do not necessarily indicate an execution error and can be classified into two types:

- Poller warning (POLLER_WARNING) – warning that originates from the inbox poller in the process of reading the business documents.
- Rule execution warning (RULE_EXEC_WARNING) – warning that originates from the rule engine.

Similar to error messages, there are specific reason codes that further provide details on the warning. This table shows the reason codes behind poller and rule execution type of warnings.

Warning type		Reason code	
	Variation ID outdated	Rule script condition did not create journal	Missing reference or Missing master data
Poller warning (POLLER_ WARNING)	An incoming BOD has an outdated variation ID when IGFC has processed an updated BOD for the same document ID.		These setup does not exist: • Tenant Registration • Valid License Key • BOD Mapping
Rule execution warning (RULE_ EXEC_WARNING)		No output was generated for some applicable rules because the condition in the rule script was not met.	The required document is not yet received in GFC: • A referenced document, or • An Acknowledge BOD required for reversal

Appendix D: Content maintenance and troubleshooting

This section includes information that you can use to manage changes in content and troubleshoot the Infor Global Financial Controller along with recommended best practices in running the application.

Managing changes to IGFC content

Changes to a content must be reflected to other related IGFC setups that references the updated content. This table lists the tasks that must be performed, as applicable, based on the content that was updated.

Updated content	Changes to the related setups
BOD name	• Update the grouping element in the Attributes page to refer to the new name. • Specify the argument or operand for expressions that references the BOD name as an attribute value source. • For accounting framework integration, re-select the journal entry templates setup that directly references the BOD name as an attribute value source. • Update rule script statement that directly references the BOD name. • Re-activate the rule that directly or indirectly references the BOD name (through expressions) in the rule script. **Note:** Master data BOD names can no longer be modified once activated.

Updated content	Changes to the related setups

Attribute name	For master data and custom master data attribute names:
	• Re-select the search filters that use the updated attribute.
	• For previously activated document, re-activate the master data or custom master data document to reflect changes to attribute name or addition of new attributes. This results to a new column with an empty value for the master data table in the database or in the data entry table for custom master data. Hence, previously published master data documents need to be re-published or data entry records need to be specified.
	• For flexible output integration:
	  • Re-select the argument for expressions that references the master data attribute as a value source.
	  • Update the rule script statement that directly references the master data attribute.
	  • Re-activate the rule that directly or indirectly references the master data attribute (through expressions) in the rule script.
	For transactional attribute names:
	• Re-select the argument for expressions that references the attribute as a value source.
	• For accounting framework integration, re-select the journal entry templates setup that directly references the attribute name as an attribute value source.
	• Update the rule script statement that directly references the attribute.
	• Re-activate the rule that directly or indirectly references the attribute (through expressions) in the rule script.

Updated content	Changes to the related setups
Search template	• Re-activate the master data or custom master data document where the search template is created. • For addition of search template parameters, update the search template type expression by adding an argument. • For update in search template name and removal of search template parameters, update the search template type expression by saving the record. • Re-activate the rule that directly or indirectly references the expression (through another expression) in the rule script.
Expression	Re-activate the rule that directly or indirectly references the expression (through another expression) in the rule script.
Rule script	Re-activate the rule.

Troubleshooting guide

This table lists the various run time errors and warnings in IGFC and other relevant information that may help resolve the issue.

Message	Details of Run Time error	Additional information	How to investigate and troubleshoot
102	**Description** BOD already exists. **Type** POLLER_ERROR. **Reason Code** Invalid BOD	An earlier business document was already processed by the poller for the same BODID. A BODID contains the Document, DocumentID, VariationID, AccountingEntity, and Location.	Verify from the IGFC View page for the same document that was processed.

Message	Details of Run Time error	Additional information	How to investigate and troubleshoot
103	**Description** BOD mapping does not exist. **Type** POLLER_ERROR. **Reason Code** Invalid BOD	There were no attributes mapped on the BOD Registration page.	Define attributes for the corresponding BOD in the IGFC BOD Registration page. Go to Documents > BOD > then click Attributes hyperlink for the particular noun. Add and define attribute records.
104	**Description** Variation ID does not exist. **Type** POLLER_ERROR. **Reason Code** Invalid BOD	The business document's attribute for variationID is blank.	Attribute {Noun}\DocumentID\ID\@variationID must be defined with a numeric value.
105	**Description** Unable to find BOD XSD. **Type** POLLER_ERROR. **Reason Code** Invalid BOD	The incoming business document is not registered in IGFC.	Register the business document in the IGFC BOD Registration page. Go to Documents > BOD and add and define a new record for the particular business document.
106	**Description** Unable to find class file. **Type** POLLER_ERROR. **Reason Code** Invalid BOD	The Master Data BOD is not yet generated in the BOD Registration page.	Generate Master Data BOD in the IGFC BOD Registration page. Go to Documents > BOD > Select the particular MDM then click Generate Class.

Message	Details of Run Time error	Additional information	How to investigate and troubleshoot
107	**Description** Action Code not recognized. **Type** POLLER_ERROR. **Reason Code** Invalid BOD	The value retrieved for ActionCode attribute from the business document is not valid. Valid action codes in IGFC are Add, Replace, Delete and Accepted.	Attribute {Verb}/ActionCriteria/ActionExpression/@actionCode must be defined with a valid value.
108	**Description** Error reading {Document Name}.xml **Type** POLLER_ERROR **Reason Code** Invalid BOD	A required system file of the document does not exist or is corrupted.	Ensure that the system file of the document found in IGFC Folder(gfc\xsd\Standard\XML) exists and is not corrupted.
109	**Description** Activation Key not found for BOD LogicalID **Type** POLLER_ERROR **Reason Code** Missing IGFC Setup	The source application's logicalID does not match an existing license key.	Ensure license file exists in gfc\resources\ license folder.
112	**Description** BOD Entity is not registered in GFC **Type** POLLER_ERROR **Reason Code** Missing GFC setup	The tenant, logical ID or the accounting entity code for the business document is not registered in IGFC.	The combination of logical ID and accounting entity code must exist in the Administration > Entity Registration page. The same entity record must also be associated to a specific integration through Master Data Setup > Entity page. For IGFC CE, the entity record must refer to the combination of tenant, logical ID and accounting entity code.

Message	Details of Run Time error	Additional information	How to investigate and troubleshoot
199	**Description** {Description of Error} **Type** POLLER_ERROR **Reason Code** Failed Message	An error was encountered during poller processing that does not have a specific error category.	All other errors that do not fall under a specific error category will be investigated based on the error description.
204	**Description** Cannot run Rule: {Rule Name}. Search Template:{Search Template Name and Parameters} is not active. **Type** RULE_EXEC_ERROR **Reason Code** Missing GFC setup	For an existing search template, parameters have been added or removed but the relevant master data BOD was not re-activated after the change. A new search template was added and the relevant master data BOD has not yet been generated.	Generate the relevant master data in BOD page. Go to Document > BOD to generate the master data BOD.
209	**Description** Reference master data is missing for Search template {Search template name and parameters}. Document must be manually reprocessed once all missing master data are sent to GFC. **Type** RULE_EXEC_ERROR **Reason Code** Missing master data	The search template used in an expression failed to retrieve a value because the master data document being referenced is not yet received by IGFC after 45 minutes from the receipt of the input transaction document.	Verify that the referenced master data exists in IGFC View > BOD > Master Data before clicking the Reprocess hyperlink. Alternatively, check the accuracy of the expression arguments; they must match a master data being searched.

Message	Details of Run Time error	Additional information	How to investigate and troubleshoot
250	**Description** Journal not generated for the following rules: {Rule Name}l **Type** RULE_EXEC_WARNING **Reason Code** Rule script condition did not create journal.	Rule script conditions for the rule names listed in the message description were not met.	Warning Message only and does not necessarily indicate an execution error. If no output is generated from the input business document, check whether there is an existing rule record which matches the accounting entity and document name but has inactive status.
251	**Description** Output not generated for rule: {Rule Name}. Document Reference is missing. Document will be automatically reprocessed once all Document References are sent to GFC. **Type** RULE_EXEC_WARNING **Reason Code** Missing reference	The business document referenced by the originating master data or transaction is not yet received by IGFC.	This message does not necessarily indicate an execution error. IGFC will process the master data or transaction once it receives the referenced document.
252	**Description** Journal not generated for rule: {Rule Name}. Acknowledge BOD for the original document was not yet received. Updated document will be automatically reprocessed once acknowledgment is sent to GFC. **Type** RULE_EXEC_WARNING **Reason Code** Missing reference	The Acknowledge BOD for the original document which is the basis for processing the updated document is not yet received by IGFC.	The message does not necessarily indicate an execution error. IGFC will process the transaction once it receives the Acknowledge BOD for the original document.

Message	Details of Run Time error	Additional information	How to investigate and troubleshoot
253	**Description** Output not generated for the following rules: {Rule Name}. Reference master data is missing for Search template {Search template name and parameters}. Document will be automatically reprocessed once all missing master data are sent to GFC. **Type** RULE_EXEC_WARNING **Reason Code** Missing master data	The search template used in an expression failed to retrieve a value because the master data document being referenced is not yet received by IGFC.	This message does not necessarily indicate an execution error. IGFC will process the transaction once it receives the referenced master data document. The master data document must exist in IGFC within 45 minutes from the time of receipt of the input transaction document. Alternatively, check the accuracy of the expression arguments; they must match the master data being searched.
254	**Description** Rules not found. Please check if Rule record or Rule script exists and has Active status. **Type** RULE_EXEC_WARNING **Reason Code** Missing GFC setup.	Applicable rule record does not exist or is not active for the input BOD.	This message does not necessarily indicate an execution error. There is no active rule record that matches the document type and sender entity of the input document. Check the status or the setup of the applicable rule record, if any. Go to Business Rule > Rules to check if the desired rule record exists or activate an inactive rule.

Message	Details of Run Time error	Additional information	How to investigate and troubleshoot
255	**Description** This is a document reference for the following rules: {Rule Name}. The input document or other document references are not yet received. **Type** RULE_EXEC_WARNING **Reason Code** Missing reference.	The document is used as a reference to another input document through the Reference Mapping facility in the Rule setup. The input document applicable for the rule or other related references are not yet received by IGFC to generate an output journal.	This message does not necessarily indicate an execution error. IGFC will process the transaction once it receives the required documents.
256	**Description** Journal not generated for rule: {Rule Name}. A document with higher variation ID has been processed. **Type** RULE_EXEC_WARNING **Reason Code** Variation ID outdated.	IGFC received a transaction business document with lower variation ID after processing the same document with a higher variation ID. Alternatively, multiple variations of the same document are pending processing in IGFC due to missing references. Once the reference is received, the document with highest variation ID will be processed. As a result, the outdated document will no longer be processed.	Identify the updated document with higher variation ID and ensure that it was processed correctly.

Message	Details of Run Time error	Additional information	How to investigate and troubleshoot
299	**Description** Journal cannot be generated for Rule: {Rule Name}.Reason: {Error} **Type** RULE_EXEC_ERROR **Reason Code** Failed Message	An error was encountered during rule execution which does not have a specific error category. An example would be when AccountingEntityID of the input business document is not defined.	All other errors that do not fall under a specific error category will be investigated based on the error description. For the particular example given, fix can be made by defining the Accounting Entity in Accounting Entity Registration and Accounting Entity Mapping pages; or change the AccountingEntityID of the input business document to that which has been registered in the Accounting Entity Registration and Accounting Entity Mapping pages.

Message	Details of Run Time error	Additional information	How to investigate and troubleshoot
300	**Description** Journal cannot be generated for Rule: {Rule Name}.There are errors in {Expression Value}. **Type** JE_GENERATE_ERROR **Reason Code** Missing master data	A search-template type expression was defined for an SSJE attribute in the JE template. However, the expression could not retrieve a value because the arguments did not match a master data record. This will be triggered only for mandatory SSJE attributes. Mandatory SSJE attributes are: • JournalEntryLine/GLAccount/GLNominalAccount- • JournalEntryLine/SourceAccountingDate/PostDateTime- • JournalEntryHeader/BaseJournalEntryHeader/AccountingJournalReference/ID ID	The error message will indicate the expression in question, including its arguments. Check the accuracy of the arguments, they must match the master data being searched.
302	**Description** Journal cannot be generated for Rule: {Rule Name}. {Output SSJE Attribute} is blank. **Type** JE_GENERATE_ERROR **Reason Code** Missing GFC setup	The JE template setup does not exist for mandatory SSJE attributes.	Ensure that mandatory SSJE attributes are defined in Rule Setup or Journal Entry Templates. Go to Business Rule > Rules or Business Rule > Journal Entry Templates to check whether mandatory SSJE attributes have been defined and the value source returns an actual value.

Message	Details of Run Time error	Additional information	How to investigate and troubleshoot
398	**Description** Reference BOD has been purged. **Type** JE_GENERATE_ERROR **Reason Code** Missing reference	The master data or transaction document referenced by the input document is no longer available in IGFC as a result of purging activities.	Identify and republish the referenced document from the source application, if applicable.
399	**Description** Journal cannot be generated for Rule: {Rule Name}. Reason: {Error} **Type** JE_GENERATE_ERROR **Reason Code** Failed Message	An error was encountered during output generation which does not have a specific error category. An example would be when a search-template type expression was defined for an SSJE attribute in the JE template. However, the search template could not retrieve a value because the expression used no longer investigate by checking exists or has been removed.	All other errors that do not fall under a specific error category will be investigated based on the error description. For the particular example given, investigate by checking the existing JE Templates with type "Expression" and look for values which are not actually a name of an expression. Usually presented as a numeric value which means that the JE template uses a deleted expression.

General issues

This table lists samples of generic issues encountered and recommended steps that may help resolve the issue.

Issue description	Troubleshooting checklist Verify any of these settings/document content:
Published BOD from source application is shown in ION as delivered to IGFC but not displayed in Data View page	• Ensure that the inbox poller is active • Verify that the Accounting Entity on the BOD header is registered in Entity Registration. • If the Accounting Entity is registered, verify that the Logical ID on the Entity Registration and on the BOD is correct. • For master data documents, verify that the BOD is registered and it is activated. Most of the time, it is best to activate the BOD registration of the master data in question. • For transactional documents, verify that the BOD is registered. • Verify the Document tab of the IGFC connection point to make sure that it contains the documents that need to published to IGFC. Ensure that “Receive in application” is selected for input master data and transactional documents with verb Sync. • For updated documents with existing record in Data View page, the variation ID on the BOD header must be higher than that of the existing BOD in IGFC. • The tenant ID on the IGFC connection point should have the correct value.
Published BOD from IGFC is not delivered to the receiver application	• Verify the Document tab of the IGFC connection point to make sure that it contains the documents that need to published from IGFC. Ensure that “Send from application” is also selected with verb Process. • The tenant ID on the IGFC connection point should have the correct value.
Missing inbox poller setting	This is expected for new users logging in to the application for the first time. To display the setting, select an integration from the field beside the name of the user.
Application URL or setup page not displayed	Ensure that tomcat service is running or restart the tomcat service.

Accessing IGFC logs

When troubleshooting IGFC processes, you can access the logs in *<GFCDirectory>\logs* for more information.

Best practices

This table lists recommended best practices in running IGFC.

Activity	Best Practice
Activating documents	Finish mapping the attributes and creating the search templates before activating the document. The same is recommended for changes made to attributes and search templates, re-activate the document only when all changes for both setups are completed.
Clicking of buttons	Avoid multiple clicks of a button (or hyperlink) when the response to the initial action is not yet shown. Wait for the response to completely load before initiating another action.
Starting up of tomcat service and logging in to the application	Log in to the IGFC only after the restart of Tomcat services is fully completed. This is indicated in the logs with the message `"Loading activities completed. You may now log on to the application."` See Accessing IGFC logs on page 127.

Appendix E: Enterprise application adoption guide for IGFC

Enterprise application adoption guide for IGFC

This appendix provides the steps in setting up IGFC to transform source system transactions into journal entries using the accounting framework integration. Source systems may refer to enterprise applications such as asset management, hotel management, banking, and insurance administration applications. These transactions are mainly transformed through user-defined rules in GFC.

The basic considerations in planning for IGFC implementation are:

- The business events that need to be accounted
- The source system for these events and which system will receive and manage the journal entries
- The specific accounting requirements of these business events

In analyzing the business events of the source system, you may need to examine the flow of documents, their life cycle, and the events in the flow that have financial impact. You can then identify the transactions that need to be journalized as well as the accounting treatment for these transactions.

A transaction is usually associated to a single business document (BOD). The next step is to determine the business documents that have financial impact, as well as the master data that are referenced by these transactions. Accounting master data business documents such as AccountingChart or FinancialCalendar must also be identified.

Ensure that the source transactions include all the information needed to create journal entries. These include account numbers and amounts, or the general ledger dimensions that must appear.

These sections give an example of a use case and the corresponding setups in IGFC to transform source system transactions into journal entries.

The use case

Overview

The key points to consider for the use case are:

- The purchase order (PO) and PO receipt transactions are generated in an asset management system and is referred to as the source enterprise application.
- Methods of tracking an item are stocked and non-stocked.
- In creating a PO, you can indicate the type of the item, whether stocked or direct item.
- The journal entries of these transactions are maintained in a general ledger system which is referred to as the GL system.
- Functional or base currency is USD, while transaction currency is EURO. Item master unit prices are denominated in the base currency.
- An accounting period is considered to be one month.
- The accounting year consists of 12 months, and runs from January 1st through December 31st. The organization uses only one calendar and accounting chart.

Analysis of events and their accounting treatment

The creation of a PO is the event that requires commitments entries to be recorded for items which are tracked as stocked-type. The entry to record this transaction is a debit to commitment suspense account and a credit to commitment payable. PurchaseOrder is the business document needed for this transaction while the master data referenced in this transaction include the ItemMaster.

Another event in the flow that requires accounting is the receiving of items. It is classified into receipt with PO and receipt without PO, where each has their own requirement for recording of accounting entries. It is necessary to identify what information in the transaction indicates the transaction type, since this is going to be part of the IGFC setup.

For the purpose of this example, we shall only deal with receipt with PO. This transaction will cause the reversal of the related PO commitment entries and recognition of the inventory, charged to accrual. For this transaction, ReceiveDelivery is the relevant business document to use.

In the GL system, commitment entries and reversal of commitments are included in ledger type C (commitment), while recognition of inventory is charged to ledger type A (actual). These two transactions are recorded in separate journal types, which are represented in the journal as AccountingJournalReference attribute. The general ledger dimensions include item class and buyer. Both are applicable to commitment accounts only.

Analysis of information needed to create journal entries

To understand the requirements of each element and attribute of the journal entry, you must know the computation of the transaction amount or the logic to determine the account number.

These are the specific considerations necessary for accounting:

- Account numbers are determined from a combination of tracking method (stocked or non-stocked) and PO item type (stocked or direct items).
- Functional amount is derived from PO unit price converted to base currency * PO line quantity.
- Transaction amount is also recorded and derived directly from the PO line’s extended amount.
- Posting date is derived from the PO header effective date and the related accounting period and year are derived based on the calendar setup.
- Dimension codes that are relevant to a commitment account are item class and buyer.

For PO receipt, these are the specific line details necessary for accounting:

- Account numbers are determined from a combination of tracking method (stocked or non-stocked), PO item type (stocked or direct items), and costing method (moving average and standard).
- Functional amount is derived from PO unit price converted to base currency * received quantity.
- Transaction amount is derived from PO line unit price * received quantity.
- Posting date and dimension codes are derived the same way as for PO transactions above.

You must complete this analysis to include the requirements of other journal entry elements. For more information, refer to the BOD documentation of the GL system's inbound SourceSystemJournalEntry.

Relevant to this analysis, and based on the type of transaction and the requirements of the organization, you need to establish the source attributes and how they are going to be captured.

This table shows the source attributes held in source business documents, either transaction or master data.

Journal entry elements	Source attributes	Source business documents
Line accounting period	Period ID	FinancialCalendar
	Document date	PurchaseOrder and ReceiveDelivery
Line accounting year	Accounting year	FinancialCalendar
	Document date	PurchaseOrder and ReceiveDelivery
Line posting date	Document date	PurchaseOrder and ReceiveDelivery
Source document ID	Document ID	PurchaseOrder and ReceiveDelivery
Functional currency	Functional currency code	ItemMaster
Transaction currency	Transaction currency code	PurchaseOrder and ReceiveDelivery
Line description	Description from the header	PurchaseOrder and ReceiveDelivery
Debit/credit flag	Business rules that states when to debit and when to credit a transaction	AccountReference
Account number	Tracking method	ItemMaster
	PO item type	PurchaseOrder and ReceiveDelivery
	Costing method	ItemMaster

Journal entry elements	Source attributes	Source business documents
Functional amount	PO unit price	PurchaseOrder
	PO quantity	
	Received quantity	PurchaseOrder
	Exchange rate	ReceiveDelivery
		PurchaseOrde
Transaction amount	PO extended amount	PurchaseOrder
	PO unit price	
	Received quantity	PurchaseOrder
		ReceiveDelivery
Dimension code – item class	Classification code = MRO Classes	ItemMaster
	Item	PurchaseOrder and ReceiveDelivery
Dimension code – buyer	Buyer code	PurchaseOrder and ReceiveDelivery
Tracking indicator	Tracking indicator	Item Master
	Item	PurchaseOrder and ReceiveDelivery
Costing method	Costing Method Code	Item Master
	Item code	PurchaseOrder and ReceiveDelivery
Item type	Item	PurchaseOrder and ReceiveDelivery
	POLineType	PurchaseOrder
Transaction type	Transaction Type	AccountReference

BODs and custom master data

These business documents are identified as relevant to these events and can be registered in IGFC:

Document type	Verb	BOD	Description
Transactional	Sync	ReceiveDelivery	Transaction business documents that will be processed.
	Sync	PurchaseOrder	
	Process	SourceSystemJournalEntry	The output of IGFC processing. Registration is required.
Master data business documents referenced by transactions	Sync	SupplierPartyMaster	Identifies the supplier
	Sync	ItemMaster	Source of information on the item costing method, Item Class, tracking method, and others. These are used in generating a journal and could also be a source of dimension code information.
Accounting master data business documents	Sync	AccountingEntity	Conveys information on the accounting entity or company.
	Sync	AccountingChart	Defines the chart of accounts.
	Sync	ChartofAccounts	Defines the individual ledger accounts that belong to the chart.
	Sync	CurrencyExchangeRateMaster	Identifies the exchange rate between two currencies.

Note: When there is no specific business document that provides the account number, then a custom master data is used. It involves mapping the relationship of transactional data and master data references to get the account number. This is explained further in the section for registering custom master data.

Creating an integration

An integration in IGFC refers to a solution offering. In this use case, the transformation of asset management application transactions into journal entries is a solution offering in IGFC, which has unique configurations and data setups. This must then be defined as an integration record with accounting framework type. In the background, this action will create a database schema. The database schema will be used to store configurations and data setups for the particular solution offering.

Register entities

One or more entities must be registered to identify the owner of business documents that will flow into and out of IGFC.

Tip: Entity name is limited to a specific number of characters. You should assign a name that accurately describes the entity.

The parties involved are asset management and general ledger system. You also have to determine whether the entity uses signed amounts, in which case the signed amounts field should be tagged.

Name	Entity	Signed amounts
ASSETMGT	COMP11	YES
GL	COMP12	YES

Associate entities to an integration

Participating parties in a solution are identified by associating entities to an integration.

Note: Entities can only be associated to an integration after registration.

In this process, you also have to determine whether the entity requires balancing entry when there are discrepancies between debit and credit amount. In which case, the Balancing Entry field must be tagged and a suspense account where IGFC can post balancing entries to must be defined.

Name	Balancing Entry	Suspense account
ASSETMGT	No	Not applicable
GL	Yes	100999

Mapping entities

To properly route output journal entries, entities must be assigned in a sender-receiver pair. It serves to identify which is the source and destination of transaction business documents.

Note: Sender and receiver entity can refer to the same enterprise application.

Following the registration of entities, determine who will send input business documents and who will receive the output SSJEs. Since IGFC generates journal entries, the entity it forwards its output to must be the party who maintains those journal entries, which for this case is the general ledger system.

Sender	Receiver
ASSETMGT – COMP11	GL – COMP12

Registering BODs and their attributes

Register these transactional and master data business documents that need to be processed:

- The relevant transactional business documents
- Master data business documents referenced by transactions
- Accounting master data business documents

A master data business document is registered once, while a transactional business document can be registered more than once if it contains several components.

See BOD registration on page 17 to view a sample of a BOD registration with several components.

The attributes of each of these business document must also be registered. The attributes to be registered are those that will be used in different configurations and rules.

Tip: BOD names and attribute names are limited to a certain number of characters. Using abbreviations is highly recommended. Assign an attribute name that accurately represents the object.

For example, the attribute */ChartOfAccounts/DefaultContraAccountReference/GLNominalAccount* can be registered with an attribute name of *contraAcct* instead of *defContAcct*.

These are the attributes that will be used in our example:

Xpath	Parent	Attribute name	Description
/AccountingChart/IDs/ID	AcctChart	acctChartId	Accounting Chart ID

Xpath	Parent	Attribute name	Description
/AccountingChart/IDs/ID@accountingEntity	ChartofAcc	accEnt	Chart Accounting Entity
ChartOfAccounts/AccountingChartReference/ID	ChartofAcc	acctChartId	Accounting Chart Reference ID
/ChartOfAccounts/AccountingChartReference/Name	ChartofAcc	actgChartName	Accounting Chart Reference Name

Xpath	Parent	Attribute name	Description
/FinancialCalendar/FinancialCalendarID/ID/@accountingEntityD	FinCal	accEnt	Company
/FinancialCalendar/CalendarYear/Period/PeriodID	FinCal	periodId	Accounting Period

Xpath	Parent	Attribute name	Description
/FinancialCalendar/CalendarYear/Year	FinCal	acctYear	Accounting Year
/FinancialCalendar/Status/EffectiveDateTime	FinCal		Effective Date
/FinancialCalendar/CalendarYear/Period/EffectiveTimePeriod/StartDateTime	FinCal		Period start date
/FinancialCalendar/CalendarYear/Period/EffectiveTimePeriod/EndDateTime	FinCal		Period end date

Xpath	Parent	Attribute name	Description
/ItemMaster/ItemMasterHeader/ItemID/ID	ItemMaster	itemId	Item ID
/ItemMaster/ItemMasterHeader/ItemID/ID/@accountingEntity	ItemMaster	accEnt	Company
/ItemMaster/ItemMasterHeader/Classification/Codes/Code/@listID	ItemMaster	classListId	Item Classification ID
/ItemMaster/ItemMasterHeader/Classification/Codes/Code	ItemMaster	itemClass	Item Classification Code
/ItemMaster/ItemMasterHeader/TrackingIndicator	ItemMaster	trackMethod	Tracking Indicator
/ItemMaster/ItemMasterHeader/ItemValue/CostingMethodCode	ItemMaster	costMethod	CostingMethod Code
/ItemMaster/ItemLocation/ItemValue/UnitValue/Amount/@currencyID	ItemMaster	itemCurr	Item Cost Currency

Xpath	Parent	Attribute name	Description
/PurchaseOrder/PurchaseOrderHeader/DocumentID/ID/@accountingEntity	PoHdr	accEnt	Document Accounting Entity
/PurchaseOrder/PurchaseOrderHeader	PoHdr	poHdr	Document Header
/PurchaseOrder/PurchaseOrderHeader/DocumentDateTime	PoHdr	docDate	Document Date
/PurchaseOrder/PurchaseOrderHeader/Status/Code	PoHdr	statCd	Status Code
/PurchaseOrder/PurchaseOrderHeader/DocumentID/ID	PoHdr	poNum	Document Number

Xpath	Parent	Attribute name	Description
/PurchaseOrder/PurchaseOrderHeader/CustomerParty/BuyerContact	poHdrBuy	poHdrBuy	Buyer Contact
/PurchaseOrder/PurchaseOrderHeader/CustomerParty/BuyerContact/ID	PoHdrBuy	poHdrBuyId	Buyer Contact
/PurchaseOrder/PurchaseOrderHeader/SupplierParty/PartyIDs	poHdrSup	poHdrSup	Supplier Party
/PurchaseOrder/PurchaseOrderLine	poLine	poLine	Purchase Order Line
/PurchaseOrder/PurchaseOrderLine/ExtendedAmount	PoLine	extAmt	Transaction Amount
/PurchaseOrder/PurchaseOrderLine/ExtendedAmount/@currencyID	PoLine	extCur	Transaction Currency
/PurchaseOrder/PurchaseOrderLine/LineNumber	PoLine	poLineNum	Purchase Order Line Number

Xpath	Parent	Attribute name	Description
/PurchaseOrder/PurchaseOrderLine/UnitPrice/Amount	PoLine	unitPriceAmt	Unit Price
/PurchaseOrder/PurchaseOrderLine/UnitPrice/Amount/@currencyID	PoLine	unitPriceCur	Unit Price Currency
/PurchaseOrder/PurchaseOrderLine/Quantity	PoLine	qty	Quantity
/PurchaseOrder/PurchaseOrderLine/UserArea/Property/NameValue {'@name'== 'eam.ExchangeRate'}	PoLine	userArexchRate	Exchange Rate
/PurchaseOrder/PurchaseOrderLine/== 'eam.POLineType'}	PoLine	userArType	Item Type
/PurchaseOrder/PurchaseOrderLine/Item/ItemID	PoItem	poItem	Purchase Order Item
/PurchaseOrder/PurchaseOrderLine/Item/ItemID/ID	PoItem	itemID	Item ID

Xpath	Parent	Attribute name	Description
/ReceiveDelivery/ReceiveDeliveryHeader/DocumentID/ID/@accountingEntity	RdHdr	rdHdr	Document Header
/ReceiveDelivery/ReceiveDeliveryHeader	RdHdr	docDate	Document Date
/ReceiveDelivery/ReceiveDeliveryHeader/DocumentDateTime	RdHdr	docNum	Document Number
/ReceiveDelivery/ReceiveDeliveryHeader/WarehouseLocation	RdWhsLoc	rdWhsLoc	Warehouse Location

Xpath	Parent	Attribute name	Description
/ReceiveDelivery/ReceiveDeliveryHeader/ShipFromParty/PartyIDs	RdShipFr	rdShipFr	Ship from Party ID
/ReceiveDelivery/ReceiveDeliveryItem	RdItem	rdItem	Receive Delivery Item
/ReceiveDelivery/ReceiveDeliveryItem/ItemID/ID	RdItem	itemID	Item ID
/ReceiveDelivery/ReceiveDeliveryItem/PurchaseOrderReference/Document ID/ID	RdItem	poRefID	PO Reference ID
/ReceiveDelivery/ReceiveDeliveryItem/PurchaseOrderReference/LineNumber	RdItem	rdPoLine	Purchase Order Reference Line Number
/ReceiveDelivery/ReceiveDeliveryItem/ReceivedQuantity	RdItem	receivedQty	Item Received Quantity

Xpath	Parent	Attribute name	Description
/SourceSystemJournalEntry/JournalEntryLine/UserArea/ Property/NameValue{'@name' =='gfc.eamTrackingMethod'}	JeLine	jufTrackMtd	Tracking Method
/SourceSystemJournalEntry/JournalEntryLine/UserArea/ Property/NameValue{'@name' =='gfc.eamItemType''}	JeLine	jufItemTyp	Item Type
/SourceSystemJournalEntry/JournalEntryLine/UserArea/ Property/NameValue{'@name' =='gfc.eamCostingMethod'}	JeLine	jufCostMtd	Costing Method

These tables also define the document references. They identify the related transactional business document that is used as source of information to create journal entries.

In the example, to generate the journal entries of a PO receipt transaction requires data from the PurchaseOrder business document. You have to define as a document reference the PurchaseOrderReference attribute of the ReceiveDelivery business document – *ReceiveDelivery/ReceiveDeliveryItem/PurchaseOrderReference/Document ID/ID*.

Note: After registering the master data BODs and their attributes, you can publish the master data business documents to IGFC.

Registering the custom master data

The custom master data is set of reference data that can be used in creating journal entries when there is no business document available for the same. IGFC will allow you to define the structure of the custom master data table, and subsequently populate it with values. This facility allows you to quickly define the mappings of various input data to come up with a specific output value to populate journal entry attributes.

This object can also be used for Account Number and journal type assignment. Data from the source transactions as well as the master data references are mapped to define the logical relationships that will determine the account number for a particular transaction.

One search template for custom master data must be defined, with "account number" as return value. Another must also be defined with "journal type" as the return value.

This table shows the structure of the custom master data:

Attribute	Attribute name	Description
Sender	accEnt	Indicates the accounting entity of the source enterprise application. In a custom master data setup, the value of this field shall be the same for all records.
BOD	bod	The transactional business document.
Transaction Type	tranType	Detailed classification of a transaction. Example, PO receipt may be classified into PO receipt and Non-PO receipt.
Transaction Set	tranSet	Defines the set of debit and credit accounts for a given mapping. This also defines the sequence of accounting entries for a given event.

Attribute	Attribute name	Description
Tracking Method	trackMethod	Identifies whether the item is tracked in the item master as stocked-type or non-stocked.
PO Item Type	itemType	Identifies whether the purchased item is stocked type or direct type.
Costing Method	costMethod	Standard or moving average.
Receiver	recAccEnt	Indicates the accounting entity of the general ledger system. In a custom master data setup, the value of this field shall be the same for all records.
Account Number	account	The Account Number to be used in a journal entry. This should refer to a ChartofAccounts business document.
Account Description	accDesc	Name of the ledger account.
Journal Type	journalType	The journal type of the custom master data.
DrCr Flag	drCr	Indicates whether the account is debited or credited in a journal entry.
Effective Date	effDate	Date when the record is effective.

This is the populated table:

	BOD	Transaction Type	Transaction Set	Tracking Method	PO Item Type	Costing Method	DrCr Flag	Account Number	Account Description	Journal Type
1	PurchaseOrder			true	PS	DR	102500	Commitment PO On Order	POPS	
2	PurchaseOrder			true	PS	CR	142000	Commitment Payable	POPS	

	BOD	Transaction Type	Transaction Set	Tracking Method	PO Item Type	Costing Method	DrCr Flag	Account Number	Account Description	Journal Type
3	PurchaseOrder			true	PD	DR	102509	Commitment PO On Order - COGS	POPD	
4	PurchaseOrder			true	PD	CR	142000	Commitment Payable	POPD	
5	ReceiveDelivery	PO Receipt	Set 1	true	PS	DR	142000	Commitment Payable	RDSS	
6	ReceiveDelivery	PO Receipt	Set 1	true	PS	CR	102500	Commitment PO On Order	RDSS	
7	ReceiveDelivery	PO Receipt	Set 2	true	PS	DR	110001	Inventory	RDSS	
8	ReceiveDelivery	PO Receipt	Set 2	true	PS	CR	252000	Accrual GRNI	RDSS	

Note: All Senders are COMP11 and all Receivers are COMP 12. Effective date for all is 1/1/1999.

Set 1 records of ReceiveDelivery (5 and 6) refer to the reversal of commitment entries, while Set 2 records (7 and 8) refer to the recognition of Inventory.

Search templates

Before you set up your search templates, you must have determined the information from a master data (BODs or custom master data) that you need for journal entry creation.

For example, accounting period and year are directly captured from the FinancialCalendar business document. You need to create search templates of the said business document for specifically assigning a value to the accounting period and year attributes of a journal entry. Another example is that of a master data value used as a parameter in combination with other data from source transactions to determine a particular value. Costing method is an element of the ItemMaster and is used as one of the parameters for determining the account number. You need to create search template of the ItemMaster to capture the costing method.

A search template allows you to capture data in a standard format. It must be associated to a transaction and combined with other data from source transactions to create journal entries. It is reusable as one search template can be associated to various transactions. This setup is done thru expressions.

Based on the analysis of information above, these search templates must be defined:

Accounting period and year

Based on the structure of the FinancialCalendar, an accounting period and year is identified with a date range. The transaction date must fall within a date range to decide the correct accounting period and year.

	Master Data BOD	Search template name	Search result	Search parameters	Filters
Line Accounting Period	FinancialCalendar	getAccPeriod	periodId	p_effDate	p_EffDate >= periodStart AND p_ EffDate <= periodEnd
Line Accounting Year	FinancialCalendar	getAccYear	acctYear	p_effDate	p_EffDate >= periodStart AND p_ EffDate <= periodEnd

Accounting chart reference

Prior to defining the account numbers to be used in a journal entry, you must identify the accounting chart that holds the record for these accounts.

	Master Data BOD	Search template name	Search result	Search parameters	Filters
Accounting Chart Reference ID	ChartofAccounts	getActChartRefId	actgChartId	p_accEnt	p_accEnt == accEnt
AccountingChart	ChartofAccounts	getAcctChartName	actgChartName	p_accEnt	p_accEnt == accEnt

Account number and journal type

The logic for assignment of account numbers is held in a custom master data, the search template parameters are based on the attributes shown in this table:

Attribute	Attribute Name
Accounting Entity	accEnt
Transaction Type	tranType
Transaction Set	tranSet
Tracking Method	trackMethod
PO Item Type	itemType
DrCr Flag	drCr
Costing Method	costMethod
Account Number	account

	Master Data BOD	Search template name	Search result	Search parameters	Filters
Account Number	Custom Master Data <name>	getLedgerAcct	account	p_accEnt p_tranType p_tranSet p_trackMethod p_itemType p_costMethod p_drCr p_bod	p_accEnt == accEnt p_tranType == tranType p_tranSet == tranSet p_trackMethod == trackMethod p_itemType == itemType p_costMethod ==costMethod p_drCr == drCr p_bod == bod

	Master Data BOD	Search template name	Search result	Search parameters	Filters
Journal Type	Custom Master Data <name>	getJournalType	JournalType	p_accEnt p_tranType p_tranSet p_trackMethod p_itemType p_costMethod p_effDate p_bod	p_accEnt == accEnt p_tranType == tranType p_tranSet == tranSet p_trackMethod == trackMethod p_itemType == itemType p_costMethod ==costMethod p_effDate >= effDate p_bod == bod

Currency conversion

In order to identify if there is a need for converting transaction amounts, the item's functional currency is first obtained and verified whether this differs from input transaction's currency.

	Master Data BOD	Search template name	Search result	Search parameters	Filters
Item Cost Currency	ItemMaster	getCostCurrency	itemCurr	p_itemId	p_itemId ==itemId

Dimension Codes

The dimension code item class will be extracted from ItemMaster. For this use case, you need to configure search template to get the value for item class.

	Master Data BOD	Search template name	Search result	Search parameters	Filters
Dimension Code - Item Class	ItemMaster	getItemClass	itemClass	p_itemId p_classListId	p_itemId ==itemId p_classListId = = classListId

System-defined search template – getDimensionCodeList and getDimensionCodeListbyTransType

In IGFC, pre-created search templates have been provided especially for the dimension code assignment page for retrieving dimensions of specific accounts. Search Template getDimensionCodeList is defined as:

Search result:

- Dimension Type
- Dimension Sequence
- Dimension Code

Search parameters:

- Accounting Chart
- Entity
- Ledger Account Number

A variant of getDimensionCodeList is the search template getDimensionCodeListbyTransType with additional search parameters:

- xsdName
- Transaction Type

Tracking method and costing method

Tracking method and costing method are information from master data to get the value of ledger account. They are also used as a condition in the rules to distinguish the usage of a particular journal line.

	Master Data BOD	Search template name	Search result	Search parameters	Filters
Tracking Method	ItemMaster	getTracking-Method	trackMethod	p_itemId	p_itemId ==itemId
Costing Method	ItemMaster	getCosting-Method	costMethod	p_itemId	p_itemId ==itemId

Assigning dimension codes

A prerequisite in performing this step is that the relevant master data business documents must be sent to IGFC:

- AccountingChart – contains the dimension types to be used within an organization.
- ChartofAccounts – provides information regarding GL Account Number and name.
- CodeDefinition – defines dimension codes for a particular dimension type.

Specify the account number, the corresponding dimension type by which you want to analyze the account, and how the dimension code value can be retrieved. A dimension code value can be expressed as:

- an attribute of master data (also referred to as an expression)
- an attribute of transactional data, or
- fixed, with a dimension code defined in CodeDefinition business document.

A dimension can also be assigned to multiple account numbers, and an account number can also be used to apply to different dimension types.

When the nature of a transaction can be classified into different types, assignment of dimension types should be made for each transaction type.

Important: In specifying transaction types, it is necessary that names accurately correspond to the transaction types used in other modules within IGFC.

See table below for a purchase order receipt where dimensions were assigned specifically for transaction types "PO receipt" and "NonPO receipt". These text strings should exactly match the transaction types specified in expressions or other relevant module in IGFC.

Dimensions with type "expression" must be included in the rule script and assigned to a dimension code variable. This is further illustrated in the rule script section.

Following our use case example, analyzing a particular purchase transaction in terms of its item class, would require you to determine which document contains information regarding the item's classification code. In this case, an item master business document is used as the reference to retrieve the corresponding value. When the dimension type looks up to a master data to obtain information, a search template type expression should be used.

When a dimension type uses a transactional document as reference, attributes are used to define how the corresponding value is retrieved. Using the dimension type buyer as an example to get a buyer ID, the particular mapping from a purchase order BOD that contains this information was identified and used as the source, which is *PurchaseOrder/PurchaseOrderHeader/CustomerParty/BuyerContact/ID*.

This table shows the assignments that can be set up in IGFC:

Account Number	Account Description	Dimension Type	Source	Value Source
102500	Commitment PO on Order	Item Class	Expression	PoItemClass
		Buyer	Attribute	PoHdrBuy.poHdrBuyId
102500	Commitment PO on Order	Item Class	Expression	RdItemClass
		Buyer	Attribute	PoHdrBuy.poHdrBuyId
110001	Inventory Account	Part Class	Expression	RdPartClass

Alternatively, a fixed code can also be assigned:

Account Number	Account Description	Dimension Type	Source	Value Source
110001	Inventory Account	Item Class	Code	'001 – Rawmaterials'

Configuring journal user fields

Following our use case for a PO Receipt transaction where account number is driven by three elements: tracking method, item type and costing method, user fields can be configured to have these values as a reference information in the journal entries.

This table shows the journal user field assignments for the line fields that can be setup in IGFC:

Name	Type	Value
Tracking Method	Expression	RdTrackMethod
Item Type	Attribute	PoLine.userArType
Costing Method	Expression	RdCostMethod

Important: As a prerequisite for the sample scenario above, output journal user fields for Tracking method, Item Type and Costing Method must first be mapped as an attribute of the JournalEntryLine component of the SourceSystemJournalEntry BOD Registration.

See Registering BODs and their attributes on page 134.

Configure expressions

In configuring an expression, you must first associate a search template to a transaction and map each parameter of the search template to an attribute of source transactions, a rule setup component, a fixed value or another expression. You must also define the entities associated to the source master data business document. An expression that consists of a mathematical formula may also be configured. Expressions are combined with rules to create journal entries.

For expressions that derive the account number and dimension codes, consider defining one expression for each set of journal entry and each type of transaction.

Currently the parameter, transaction type or tranType is mapped only as a fixed value, which is free text with no validation. In this example, the tranType parameter is used by the expression that gets the account number from the custom master data. You must ensure that the data entered in the expression exactly matches the data in the custom master data to get accurate results. These are the expressions that are set up for each transaction:

Transaction: Purchase Order

Purpose	Expression Name	Type	Source	Search Template	Accounting Entity	Parameters	Type	Value
To get accounting period	PoAccPeriod	Search Template	FinancialCalendar	getAccPeriod	GL – COMP12	p_effDate	Attribute	PoHdr.docDate
To get accounting year	PoAccYear	Search Template	FinancialCalendar	getAccYear	GL – COMP12	p_effDate	Attribute	PoHdr.docDate
To get tracking method	PoTrackMethod	Search Template	ItemMaster	getTrackingMethod	ASSETMGT – COMP11	p_itemId	Attribute	PoItem.itemID
To get item class	PoItemClass	Search Template	ItemMaster	getItemClass	ASSETMGT – COMP11	p_itemId	Attribute	PoItem.itemID
						p_classListID	Fixed Value	"MRO Classes"
To get Accounting Chart Reference	PoCharRefId	Search Template	ChartofAccounts	getAcctChartRefId	GL – COMP12	p_accEnt	Rule setup	Receiver AE
To get Accounting Chart Reference Name	PoCharRefName	Search Template	ChartofAccounts	getAcctChartName	GL – COMP12	p_accEnt	Rule setup	Receiver AE
To get the account number to be debited	PoLedgerAcctDr	Search Template	Custom Master Data	getLedgerAcct	*not applicable*	p_accEnt	Attribute	PoHdr.accEnt
						p_tranType	Fixed Value	"NULL"
						p_tranSet	Fixed Value	"NULL"
						p_trackMethod	Expression	PoTrackMethod
						p_itemType	Attribute	PoLine.userArType
						p_costMethod	Fixed Value	"NULL"
						p_drCr	Fixed Value	"Dr"
						p_bod	Fixed Value	PurchaseOrder
To get the account number to be credited	PoLedgerAcctCr	Search Template	Custom Master Data	getLedgerAcct	*not applicable*	p_accEnt	Attribute	PoHdr.accEnt
						p_tranType	Fixed Value	"NULL"
						p_tranSet	Fixed Value	"NULL"
						p_trackMethod	Expression	PoTrackMethod
						p_itemType	Attribute	PoLine.userArType
						p_costMethod	Fixed Value	"NULL"
						p_drCr	Fixed Value	"Cr"
						p_bod	Fixed Value	PurchaseOrder

Transaction: Purchase Order (Cont.)

Purpose	Expression Name	Type	Source	Search Template	Accounting Entity	Parameters	Type	Value
To get dimension code list for accounts that are debited	PoDimCodeListDr	Search Template	System-defined	getDimensionCode List	*not applicable*	accChart	Expression	PoCharRefId
						accEntity	Rule Setup	Receiver AE
						accNumber	Expression	PoLedgerAcctDr
						xsdName	Fixed Value	"PurchaseOrder"
						accBook	Fixed Value	"NULL"
To get dimension code list for accounts that are credited	PoDimCodeListCr	Search Template	System-defined	getDimensionCode List	*not applicable*	accChart	Expression	PoCharRefId
						accEntity	Rule Setup	Receiver AE
						accNumber	Expression	PoLedgerAcctCr
						xsdName	Fixed Value	"PurchaseOrder"
						accBook	Fixed Value	"NULL"
To get journal type	PoJournalType	Search Template	Custom Master Data	getJournalType	*not applicable*	p_accEnt	Attribute	PoHdr.accEnt
						p_tranType	Fixed Value	"NULL"
						p_tranSet	Fixed Value	"NULL"
						p_trackMethod	Expression	PoTrackMethod
						p_itemType	Attribute	PoLine.userArType
						p_costMethod	Fixed Value	"NULL"
						p_effDate	Attribute	PoHdr.docDate
						p_bod	Fixed Value	"PurchaseOrder"
To get item cost currency	PoCostCurrency	Search Template	ItemMaster	getCostCurrency	ASSETMGT – COMP11	p_itemId	Attribute	PoItem.itemID

Transaction: Receive Delivery

Purpose	Expression Name	Type	Source	Search Template	Accounting Entity	Parameters	Type	Value
To get accounting period	RdAccPeriod	Search Template	FinancialCalendar	getAccPeriod	GL – COMP12	p_effDate	Attribute	RdHdr.docDate
To get accounting year	RdAccYear	Search Template	FinancialCalendar	getAccYear	GL – COMP12	p_effDate	Attribute	RdHdr.docDate
To get tracking method	RdTrackMethod	Search Template	ItemMaster	getTrackingMethod	ASSETMGT – COMP11	p_itemId	Attribute	RdItem.itemID
To get costing method	RdCostMethod	Search Template	ItemMaster	getCostingMethod	ASSETMGT – COMP11	p_itemId	Attribute	RdItem.itemID
To get item class	RdItemClass	Search Template	ItemMaster	getItemClass	ASSETMGT – COMP11	p_itemId	Attribute	PoItem.itemID
						p_classListID	Fixed Value	"MRO Classes"
To get Accounting Chart Reference ID	RdCharRefId	Search Template	ChartofAccounts	getAcctChartRefId	GL – COMP12	p_accEnt	Rule setup	Receiver AE
To get Accounting Chart Reference Name	RdCharRefName	Search Template	ChartofAccounts	getAcctChartName	GL – COMP12	p_accEnt	Rule setup	Receiver AE
To get the account number to be debited	RdLedgerAcctDrSet1	Search Template	Custom Master Data	getLedgerAcct	*not applicable*	p_accEnt	Attribute	RdHdr.accEnt
						p_tranType	Fixed Value	"PO Receipt"
						p_tranSet	Fixed Value	"Set 1"
						p_trackMethod	Expression	RdTrackMethod
						p_itemType	Attribute	PoLine.userA/Type
						p_costMethod	Expression	RdCostMethod
						p_drCr	Fixed Value	"Dr"
						p_bod	Fixed Value	"ReceiveDelivery"

Transaction: Receive Delivery (Cont.)

Purpose	Expression Name	Type	Source	Search Template	Accounting Entity	Parameters	Type	Value
To get the account number to be credited	RdLedgerAcctCrSet1	Search Template	Custom Master Data	getLedgerAcct	*not applicable*	p_accEnt	Attribute	RdHdr.accEnt
						p_tranType	Fixed Value	"PO Receipt"
						p_tranSet	Fixed Value	"Set 1"
						p_trackMethod	Expression	RdTrackMethod
						p_itemType	Attribute	PoLine.userArType
						p_costMethod	Expression	RdCostMethod
						p_drCr	Fixed Value	"Cr"
						p_bod	Fixed Value	"ReceiveDelivery"
To get dimension code list for accounts that are debited	RdDimCodeListDrSet1	Search Template	System-defined	getDimensionCodeListbyTransType	*not applicable*	accChart	Expression	RdCharRefId
						accEntity	Rule Setup	Receiver AE
						accNumber	Expression	RdLedgerAcctDrSet1
						xsdName	Fixed Value	"ReceiveDelivery"
						transType	Fixed Value	"PO Receipt"
						accBook	Fixed Value	"NULL"
To get dimension code list for accounts that are credited	RdDimCodeListCrSet1	Search Template	System-defined	getDimensionCodeListbyTransType	*not applicable*	accChart	Expression	RdCharRefId
						accEntity	Rule Setup	Receiver AE
						accNumber	Expression	RdLedgerAcctCrSet1
						xsdName	Fixed Value	"ReceiveDelivery"
						transType	Fixed Value	"PO Receipt"
						accBook	Fixed Value	"NULL"
To get journal type	RdJournalTypeSet1	Search Template	Custom Master Data	getJournalType	*not applicable*	p_accEnt	Attribute	RdHdr.accEnt
						p_tranType	Fixed Value	"PO Receipt"
						p_tranSet	Fixed Value	"Set 1"
						p_trackMethod	Expression	PoTrackMethod
						p_itemType	Attribute	PoLine.userArType
						p_costMethod	Expression	RdCostMethod
						p_effDate	Attribute	PoHdr.docDate
						p_bod	Fixed Value	"PurchaseOrder"
To get the account number to be debited	RdLedgerAcctDrSet2	Search Template	Custom Master Data	getLedgerAcct	*not applicable*	p_accEnt	Attribute	RdHdr.accEnt
						p_tranType	Fixed Value	"PO Receipt"
						p_tranSet	Fixed Value	"Set 2"
						p_trackMethod	Expression	RdTrackMethod
						p_itemType	Attribute	PoLine.userArType
						p_costMethod	Expression	RdCostMethod
						p_drCr	Fixed Value	"Dr"
						p_bod	Fixed Value	"ReceiveDelivery"

Transaction: Receive Delivery (Cont.)

Purpose	Expression Name	Type	Source	Search Template	Accounting Entity	Parameters	Type	Value
To get the account number to be credited	RdLedgerAcctCrSet2	Search Template	Custom Master Data	getLedgerAcct	*not applicable*	p_accEnt	Attribute	RdHdr.accEnt
						p_tranType	Fixed Value	"PO Receipt"
						p_tranSet	Fixed Value	"Set 2"
						p_trackMethod	Expression	RdTrackMethod
						p_itemType	Attribute	PoLine.userArType
						p_costMethod	Expression	RdCostMethod
						p_drCr	Fixed Value	"Cr"
						p_bod	Fixed Value	"ReceiveDelivery"
To get dimension code list for accounts that are debited	RdDimCodeListDrSet2	Search Template	System-defined	getDimensionCodeListbyTransType	*not applicable*	accChart	Expression	RdCharRefId
						accEntity	Rule Setup	Receiver AE
						accNumber	Expression	RdLedgerAcctDrSet2
						xsdName	Fixed Value	"ReceiveDelivery"
						tranType	Fixed Value	"PO Receipt"
To get dimension code list for accounts that are credited	RdDimCodeListCrSet2	Search Template	System-defined	getDimensionCodeListbyTransType	*not applicable*	accChart	Expression	RdCharRefId
						accEntity	Rule Setup	Receiver AE
						accNumber	Expression	RdLedgerAcctCrSet2
						xsdName	Fixed Value	"ReceiveDelivery"
						tranType	Fixed Value	"PO Receipt"
To get journal type	RdJournalTypeSet2	Search Template	Custom Master Data	getJournalType	*not applicable*	p_accEnt	Attribute	RdHdr.accEnt
						p_tranType	Fixed Value	"PO Receipt"
						p_tranSet	Fixed Value	"Set 2"
						p_trackMethod	Expression	PoTrackMethod
						p_itemType	Attribute	PoLine.userArType
						p_costMethod	Expression	RdCostMethod
						p_effDate	Attribute	PoHdr.docDate
						p_bod	Fixed Value	"PurchaseOrder"
To get item cost	RdCostCurrency	Search Template	ItemMaster	getCostCurrency	ASSETMGT –	p_itemId	Attribute	RdItem.itemID
To get journal user fields assigned for <Journal User Field Set Name>	LineUserFields	Search Template	System-defined	getJournalLineUserField	*not applicable*	transaction	Fixed Value	ReceiveDelivery
						userFieldSetName	Fixed Value	<Journal User Field Set Name>

Configuring journal entry templates

Journal entry templates allow you to map source values to each journal entry attribute in the header and line within the context of a transaction, and use them to create journal entries.

You will use this only if the source values do not vary for each journal entry line, and the methods of deriving the values do not involve complex conditions and business rules. Attributes that only require fixed values are appropriate to be defined in the journal entry templates.

For this sample scenario, you could use the journal entry templates to map the source value to the journal line posting date, since there are no special conditions for deriving its value. It simply copies the document date attribute of the transaction to each line.

Attributes whose source values vary for each journal entry line and are defined with complex conditions and business rules are handled in the rules. These attributes are defined in journal entry templates under the "Default" transaction type.

Configuring scenarios

A scenario classifies rules together to indicate that one scenario is a collection of accounting rules for related transactions. For example, one scenario may be associated for rules that relate to procurement to payment transactions. It may also be used to organize rules that refer to a specific accounting treatment. For example, a scenario containing rule sets that comply with International Financial Reporting Standards (IFRS) may be created.

Scenarios allow for organization of rules and they do not affect in any way the creation of a journal entry.

Configuring rules

Each rule record is connected to one transaction and one entity. It is processed to create one journal or one instance of SourceSystemJournalEntry, which is essentially identified by its unique header components such as LedgerID/ LedgerType, or AccountingJournalReference. Consider creating a rule for every type of accounting event that requires a unique LedgerID or AccountingJournalReference. In some implementation projects, rules may be numerous, but may be identical to one another as to the journal entry requirements; the slight difference may lie only in the definition of conditions.

Rules also define whether journals are generated in detailed or summarized journal lines. By default, IGFC generates journals in detailed form. Should you require that journals are consolidated based on a specific journal field, for example, vendor account, rule output settings can be configured to define a summarized posting method with a range of vendor account numbers as its summarization parameter. Other journal entry attributes can also be added as a parameter to summarize the journals.

While it is easy to define the rule setup record, writing of the rule scripts could be a challenging task. In which case, you may copy an existing rule script from the rule script editor page and paste it onto a new rule script editor.

For example, PO receipt transaction is classified into two types, receipt with PO and receipt without PO. Each type is identified by a different AccountingJournalReference ID, thus requires separate journals. Different rules must then be created for each transaction type.

If the transaction to be processed requires data from another source transaction to make a journal entry, then the referenced source transaction document and its attributes must be indicated in the rule setup through the reference document fields.

Rule scripts include the definitions for the generation of journal entry for an accounting event. It combines attributes, expressions, and conditions. Conditions restrict the usage of a rule to a particular type of transaction. For example, you can specify a condition that will enable a set of journal entry lines to be created only for a combination of a particular item type and tracking method.

When a dimension code value is retrieved through an expression, then this expression must be assigned to a dimension code variable in the rule scripts.

Similarly, when a journal user field is retrieved through an expression, then this expression must also be assigned to a journal user field variable in the rule scripts.

Rule sets combined with dimension code assignments, journal user fields, and journal entry templates is processed by the journal generation module to provide a complete journal entry.

This is the rule script for Purchase Order creation transaction where item type "stocked" and tracking method "stocked":

```
set ledgerTypVal = ""
set ledgerIdVal= ""
set journalType = ""
set dimCdSet = ""
set unitPriceAmt = ""
set totalPoCost = ""

if (PoHdr.statCd == "Open"){
  ledgerIdVal = "C"
  ledgerTypVal = "Commitment"
} else {
  ledgerIdVal = "A"
  ledgerTypVal = "Actual"
}
for every PoHdrBuy {
   for every PoHdrSup{
      for every PoLine {
         for every PoItem{
           if(PoLine.userArType == "PS" and PoTrackMethod == "true"){
   dimCdSet = PoItemClass

           if (PoCostCurrency != PoLine.extCur) {
                    unitPriceAmt = PoLine.unitPriceAmt*PoLine.userArex
chRate
       totalPoCost = unitPriceAmt*PoLine.qty
          }
          else{
              totalPoCost =PoLine.extAmt
          }
create entry (drCr: "DEBIT", lnAmt:PoLine.extAmt, lnAmtCur:PoLine.extCur,
 lnFuncAmtCur:PoCostCurrency,
  lnFuncAmt:totalPoCost, jlDimCd:PoDimCodeListDr, acctNum:PoLedgerAcctDr,
 jlActgChartId:PoCharRefId,
  acctgChName:PoCharRefName, lnDocRefIdTyp: "PurchaseOrder", lnDocRefId:
 PoHdr.poNum)

create entry (drCr: "CREDIT", lnAmt:PoLine.extAmt, lnAmtCur:PoLine.extCur,
lnFuncAmtCur:PoCostCurrency, lnFuncAmt:totalPoCost, jlDimCd: PoDim
CodeListCr, acctNum: PoLedgerAcctCr,
  jlActgChartId:PoCharRefId, acctgChName:PoCharRefName, lnDocRefIdTyp:
"PurchaseOrder", lnDocRefId:
  PoHdr.poNum)
       journalType = PoJournalType
          } }}}}
create header (ledgerTyp: ledgerTypVal, ledgerId: ledgerIdVal, actgJrnlRe
fId: journalType)
```

This is the rule script for receiving of items where item type "stocked" and tracking method "stocked":

Rule Script for Set1 to reverse commitment entries:

```
set journalType = ""
set dimCdSet = ""
set linecurr = ""
set receivedQty = ""
set unitPriceAmt = ""
set totalPoCost = ""
set amt= ""

for every RdWhsLoc {
   for every RdShipFr {
      for every RdItem {
        for every PoHdrBuy {
          for every PoLine {

           if(RdItem.rdPoLine == PoLine.poLineNum){

           for every PoItem {
             if(PoLine.userArType == "PS" and RdTrackMethod == "true"){

             dimCdSet = RdItemClass

                     linecurr = RdCostCurrency

                     receivedQty = RdItem.receivedQty
                   if (RdCostCurrency != PoLine.unitPriceCur){
            unitPriceAmt = PoLine.unitPriceAmt*PoLine.userArexchRate
                  totalPoCost = unitPriceAmt*receivedQty
                }else{
               unitPriceAmt = PoLine.unitPriceAmt
              totalPoCost = unitPriceAmt*receivedQty
                 }

                                      amt = RdItem.receivedQty*PoLine.unit
PriceAmt

create entry (drCr: "DEBIT", lnAmt:amt, lnAmtCur:PoLine.extCur,
lnFuncAmt:totalPoCost,lnFuncAmtCur:linecurr, acctNum: RdLedgerAcctDrSet1,
 jlActgChartId:RdCharRefId,
 acctgChName:RdCharRefName, jlDimCd: RdDimCodeListDrSet1)

create entry (drCr: "CREDIT", lnAmt:amt, lnAmtCur:PoLine.extCur,
lnFuncAmt:totalPoCost,lnFuncAmtCur:linecurr, acctNum: RdLedgerAcctCrSet1,
 jlActgChartId:RdCharRefId,
  acctgChName:RdCharRefName, jlDimCd: RdDimCodeListCrSet1, lnDocRefIdTyp:
 "ReceiveDelivery",lnDocRefId:
  RdHdr.docNum)

              journalType = RdJournalTypeSet1
                }}}}
          }
        }
      }
    }
```

```
create header (actgJrnlRefId: journalType, ledgerTyp: "Actual", ledgerId:
 "A")
```

Rule Script for Set2 to recognize inventory:

```
set journalType = ""
set dimCdSet = ""
set linecurr = ""
set receivedQty = ""
set unitPriceAmt = ""
set totalPoCost = ""
set amt= ""
set usrFieldVal = ""

for every RdWhsLoc {
for every RdShipFr {
for every RdItem {
for every PoHdrBuy {
for every PoLine {
 if(RdItem.rdPoLine == PoLine.poLineNum){
  for every PoItem {
   if(PoLine.userArType == "PS" and RdTrackMethod == "true"){

   dimCdSet = RdItemClass
   usrFieldVal = RdTrackMethod
   usrFieldVal = RdCostMethod
   linecurr = RdCostCurrency
   receivedQty = RdItem.receivedQty

   if (RdCostCurrency != PoLine.unitPriceCur){
    unitPriceAmt = PoLine.unitPriceAmt*PoLine.userArexchRate
    totalPoCost = unitPriceAmt*receivedQty
   }else{
     unitPriceAmt = PoLine.unitPriceAmt
     totalPoCost = unitPriceAmt*receivedQty
   }
   amt = RdItem.receivedQty*PoLine.unitPriceAmt

   create entry (drCr: "DEBIT", lnAmt:amt, lnAmtCur:PoLine.extCur,
   lnFuncAmt:totalPoCost,lnFuncAmtCur:linecurr, acctNum: RdLedgerAcct
DrSet2,
jlActgChartId:RdCharRefId,
   acctgChName:RdCharRefName, jlDimCd: RdDimCodeListDrSet2, lnUserArea:
LineUserFields)

   create entry (drCr: "CREDIT", lnAmt:amt, lnAmtCur:PoLine.extCur,
   lnFuncAmt:totalPoCost,lnFuncAmtCur:linecurr, acctNum: RdLedgerAc
ctCrSet2,
jlActgChartId:RdCharRefId,
  acctgChName:RdCharRefName, jlDimCd: RdDimCodeListCrSet2, lnDocRefIdTyp:
"ReceiveDelivery",lnDocRefId:
   RdHdr.docNum, lnUserArea: LineUserFields)
   journalType = RdJournalTypeSet2
   }}}}
}
}
```

```
}
}
```

Export and import data

In IGFC, you may extract the content that resides in a database schema or "integration" thru the export facility. The exported content will be available for download in a .zip file format and is stored in a browser designated downloads folder. Optionally, you may select a specific location where to store the content package.

To import this content to a second IGFC instance, browse and select the content package from where it is stored.

Note: Dimension code assignments, entity registration, entity mapping, and general ledger mapping setups are not included in export.

Type of document	Content being exported and imported
Master Data BODs	BOD mapping
	Search Templates
Transactional BODs	BOD mapping
	Expressions
	Journal Entry Templates
	Rules
Custom Master Data	Table structure and all the data in it
	Search Templates

Appendix F: Reserved words

Reserved words

This appendix provides a listing of nonusable words on selected IGFC setups.

JAVA reserved words

These are the list of words not allowed to be used as BOD short name, BOD attribute name, custom master data name, custom master data attribute name, and expression name:

ABSOLUTE	BYTE	CORRESPONDING
ABSTRACT	CALL	COUNT
ACCESS	CALLED	COVAR_POP
ACTION	CARDINALITY	COVAR_SAMP
ADA	CASCADE	CREATE
ADD	CASCADED	CROSS
ADMIN	CASE	CUBE
AFTER	CAST	CUME_DIST
AGGREGATE	CATALOG	CURRENT
ALIAS	CATCH	CURRENT_CATALOG
ALL	CHAR	CURRENT_DATE
ALLOCATE	CHAR_LENGTH	CURRENT_DEFAULT_TRANS-FORM_GROUP
ALTER	CHARACTER	CURRENT_PATH
AND	CHARACTER_LENGTH	CURRENT_ROLE
ANY	CHECK	CURRENT_SCHEMA
ARE	CHECKPOINT	CURRENT_TIME
ARRAY	CLASS	CURRENT_TIMESTAMP
AS	CLOB	CURRENT_DEFAULT_TRANS-FORM_GROUP_FOR_TYPE

ASC	CLONE	CURRENT_USER
ASENSITIVE	CLOSE	CURSOR
ASSERT	CLUSTER	CYCLE
ASSERTION	CLUSTERED	DATA
ASYMMETRIC	COALESCE	DATABASE
AT	COLLATE	DATE
ATOMIC	COLLATION	DAY
AUDIT	COLLECT	DBCC
AUTHORIZATION	COLUMN	DEALLOCATE
AUTO	COMMENT	DEC
AVG	COMMIT	DECIMAL
BACKUP	COMPLETION	DECLARE
BEFORE	COMPRESS	DEFAULT
BEGIN	COMPUTE	DEFERRABLE
BETWEEN	CONDITION	DEFERRED
BINARY	CONNECT	DELETE
BIT	CONNECTION	DENY
BIT_LENGTH	CONST	DEPTH
BLOB	CONSTRAINT	DEREF
BOOLEAN	CONSTRAINTS	DESC
BOTH	CONSTRUCTOR	DESCRIBE
BREADTH	CONTAINS	DESCRIPTOR
BREAK	CONTAINSTABLE	DESTROY
BROWSE	CONTINUE	DESTRUCTOR
BULK	CONVERT	LATERAL
BY	CORR	LEADING
DETERMINISTIC	GENERAL	LEFT
DIAGNOSTICS	GET	LESS
DICTIONARY	GLOBAL	LEVEL
DISCONNECT	GO	LIKE
DISK	GOTO	LIKE_REGEX

DISTINCT	GRANT	LIMIT
DISTRIBUTED	GROUP	LINENO
DO	GROUPING	LN
DOCUMENT	HAVING	LOAD
DOMAIN	HOLD	LOCAL
DOUBLE	HOLDLOCK	LOCALTIME
DROP	HOST	LOCALTIMESTAMP
DUMP	HOUR	LOCATOR
DYNAMIC	IDENTIFIED	LOCK
EACH	IDENTITY	LONG
ELEMENT	IDENTITY_INSERT	LOWER
ELSE	IDENTITYCOL	MAP
END	IF	MATCH
END_EXEC	IGNORE	MAX
ENDINGEND_EXEC	IMMEDIATE	MAXEXTENTS
ENUM	IMPLEMENTS	MEMBER
EQUALS	IMPORT	MERGE
ERRLVL	IN	METHOD
ESCAPE	INCLUDE	MIN
EVERY	INCREMENT	MINUS
EXCEPT	INDEX	MINUTE
EXCEPTION	INDICATOR	MLSLABEL
EXCLUSIVE	INFINITY	MOD
EXEC	INITIAL	MODE
EXECUTE	INITIALIZE	MODIFIES
EXISTS	INITIALLY	MODIFY
EXIT	INNER	MODULE
EXTENDS	INOUT	MONTH
EXTERN	INPUT	MULTISET
EXTERNAL	INSENSITIVE	NAMES
EXTRACT	INSERT	NAN

FALSE	INSTANCEOF	NATIONAL
FETCH	INT	NATIVE
FILE	INTEGER	NATURAL
FILLFACTOR	INTERFACE	NCHAR
FILTER	INTERSECT	NCLOB
FINAL	INTERSECTION	NEW
FINALLY	INTERVAL	NEXT
FIRST	INTO	NO
FLOAT	IS	NOAUDIT
FOR	ISOLATION	NOCHECK
FORTRAN	ITERATE	NOCOMPRESS
FOUND	JOIN	NONCLUSTERED
FREE	KEEP	NONE
FREETEXT	KEY	NORMALIZE
FREETEXTTABLE	KILL	NOT
FROM	LANGUAGE	NOWAIT
FULL	LARGE	NULL
FULLTEXTTABLE	LAST	ROWNUM
FUNCTION	PRIVATE	ROWS
FUSION	PRIVILEGES	RULE
NULLIF	PROC	SAVE
NUMBER	PROCEDURE	SAVEPOINT
NUMERIC	PROTECTED	SCHEMA
OBJECT	PUBLIC	SCOPE
OCCURENCES_REGEX	RAISERROR	SCROLL
OCTET_LENGTH	RANGE	SEARCH
OF	RAW	SECOND
OFF	READ	SECTION
OFFLINE	READS	SECURITYAUDIT
OFFSETS	READTEXT	SEMANTICK-EYPHRASETABLE

OLD	REAL	SEMANTICKEYSIMILARITYDE-TAILSTABLE
ON	RECONFIGURE	SEMANTICKEYSIMILARI-TYTABLE
ONLINE	REF	SENSITIVE
ONLY	REFERENCES	SEQUENCE
OPEN	REFERENCING	SESSION
OPENDATASOURCE	REGISTER	SESSION_USER
OPENQUERY	REGR_AVGX	SET
OPENROWSET	REGR_AVGY	SETS
OPENXML	REGR_COUNT	SETUSER
OPERATION	REGR_INTERCEPT	SHARE
OPTION	REGR_R2	SHORT
OR	REGR_SLOPE	SHUTDOWN
ORDER	REGR_SXX	SIGNED
ORDINALITY	REGR_SXY	SIMILAR
OUT	REGR_SYY	SIZE
OUTER	RELATIVE	SIZEOF
OUTPUT	RELEASE	SMALLINT
OVER	RENAME	SNAN
OVERLAPS	REPLICATION	SOME
OVERLAY	RESOURCE	SPACE
PACKAGE	RESTORE	SPECIFIC
PAD	RESTRICT	SPECIFICTYPE
PARAMETER	RESULT	SQL
PARAMETERS	RETURN	SQLCA
PARTIAL	RETURNS	SQLCODE
PARTITION	REVERT	SQLERROR
PASCAL	REVOKE	SQLEXCEPTION
PATH	RIGHT	SQLSTATE
PCTFREE	ROLE	SQLWARNING
PERCENT	ROLLBACK	START

PERCENT_RANK	ROLLUP	STATE
PERCENTILE_CONT	ROUND_CEILING	STATEMENT
PERCENTILE_DISC	ROUND_DOWN	STATIC
PIVOT	ROUND_FLOOR	STATISTICS
PLAN	ROUND_HALF_DOWN	STDDEV_POP
POSITION	ROUND_HALF_EVEN	STDDEV_SAMP
POSITION_REGEX	ROUND_HALF_UP	STRICTFP
POSTFIX	ROUND_UP	STRUCT
PRECISION	ROUTINESTRUCTURE	STRUCTURE
PREFIX	ROW	WAITFOR
PREORDER	ROWCOUNT	WHEN
PREPARE	ROWGUIDCOL	WHENEVER
PRESERVE	ROWID	WHERE
PRIMARY	TRIGGER	WHILE
PRINT	TRIM	WIDTH_BUCKET
PRIOR	TRUE	WINDOW
SUBMULTISET	TRUNCATE	WITH
SUBSTRING	TRY	WITHIN
SUBSTRING_REGEX	TRY_CONVERT	WITHINGROUP
SUCCESSFUL	TSEQUAL	WITHOUT
SUM	TYPE	WORK
SUPER	TYPEDEF	WRITE
SWITCH	UESCAPE	WRITETEXT
SYMMETRIC	UID	XMLAGG
SYNCHRONIZED	UNDER	XMLATTRIBUTES
SYNONYM	UNION	XMLBINARY
SYSDATE	UNIQUE	XMLCAST
SYSTEM	UNKNOWN	XMLCOMMENT
SYSTEM_USER	UNNEST	XMLCONCAT
TABLE	UNPIVOT	XMLDOCUMENT
TABLESAMPLE	UNSIGNED	XMLELEMENT

TEMPORARY	UPDATE	XMLEXISTS
TERMINATE	UPDATETEXT	XMLFOREST
TEXTSIZE	UPPER	XMLITERATE
THAN	USAGE	XMLNAMESPACES
THEN	USE	XMLPARSE
THIS	USER	XMLPI
THROW	USING	XMLQUERY
THROWS	VALIDATE	XMLSERIALIZE
TIME	VALUE	XMLTABLE
TIMESTAMP	VALUES	XMLTEXT
TIMEZONE_HOUR	VAR_POP	XMLVALIDATE
TIMEZONE_MINUTE	VAR_SAMP	YEAR
TO	VARCHAR	ZONE
TOP	VARCHAR2	
TRAILING	VARIABLE	
TRAN	VARYING	
TRANSACTION	VIEW	
TRANSIENT	VOID	
TRANSLATE	VOLATILE	
TRANSLATE_REGEX		
TRANSLATION		
TREAT		

Windows reserved words

These are the list of disallowed words as package name for exporting content:

CON	COM5	LPT4
PRN	COM6	LPT5
AUX	COM7	LPT6
NUL	COM8	LPT7
COM1	COM9	LPT8
COM2	LPT1	LPT9

COM3	LPT2	CLOCK$
COM4	LPT3	

Appendix G: Attributes for BOD Mapping in GFC

Attributes for BOD Mapping in GFC

Accounting Chart

/AccountingChart/IDs/ID

/AccountingChart/IDs/ID/@accountingEntity

/AccountingChart/DimensionSequence/SequencedDimension/ListID

/AccountingChart/DimensionSequence/SequencedDimension/@sequence

Accounting Book Definition

/AccountingBookDefinition/DocumentID/ID/@accountingEntity

/AccountingBookDefinition/AccountingChartReference/ID

/AccountingBookDefinition/DocumentID/ID

/AccountingBookDefinition/CurrencyCode

Chart Of Accounts

/ChartOfAccounts/AccountingChartReference/ID

/ChartOfAccounts/BaseChartOfAccounts/GLNominalAccount

/ChartOfAccounts/BaseChartOfAccounts/Description

/ChartOfAccounts/IDs/ID/@accountingEntity

/ChartOfAccounts/AccountingChartReference/ID/@accountingEntity

Code Definition

/CodeDefinition/CodeValue

/CodeDefinition/ListID

/CodeDefinition/CodeValue/@accountingEntity

Currency Rate Type

/CurrencyRateType/DocumentID/ID/@accountingEntity

/CurrencyRateType/DocumentID/ID

/CurrencyRateType/Description

Accounting Journal

/AccountingJournal/DocumentID/ID/@accountingEntity

/AccountingJournal/DocumentID/ID

/AccountingJournal/Description

Location

/Location/ID

/Location/ID/@accountingEntity

/Location/Name

/Location/@type