Salesforce Field Service and Billing Connector

Last updated: June 2, 2021

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Salesforce Field Service & Billing Connector Introduction

The Field Service and Billing Connector is a managed package from Salesforce Labs and allows customers of both Salesforce Field Service (SFS) and Biling to bill for work order labor, parts and expenses. This connector package will also be available as open source via GitHub. Please look into the installation instructions listed below

The goal of the connector is to allow the creation of Sales Orders and Invoices from the Work Order and its associated objects: Work Order Line Items, Products Consumed and Expenses. Salesforce Billing capabilities enhance invoicing and payment visibility: Calculate Taxes, Generate Invoices, Collect and Track Payments, Recognize Revenue.

The connector supports the following use cases:

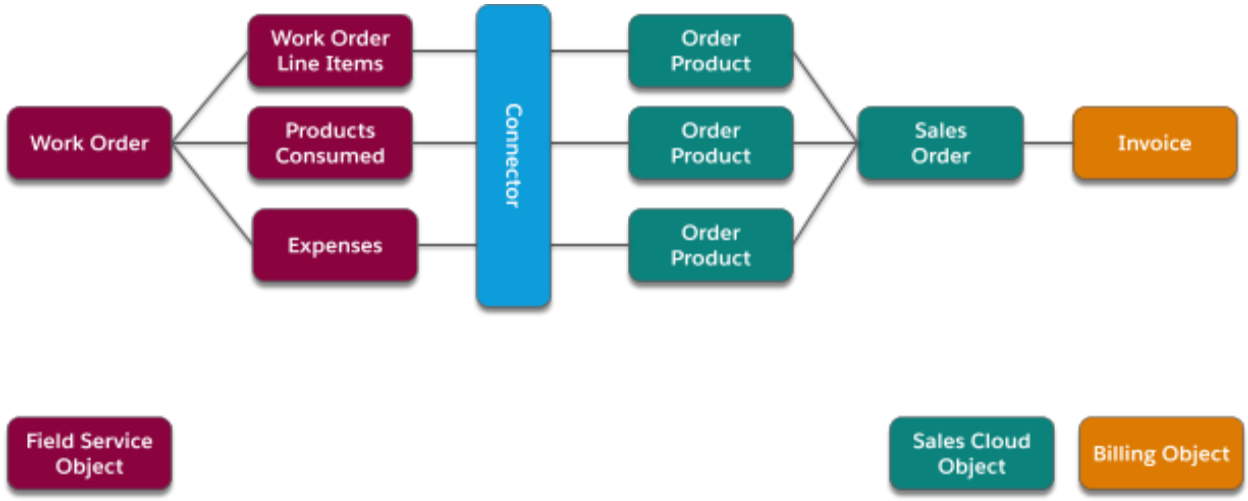
- On-demand creation of a Sales Order from a Work Order
- On-demand creation of a Sales Order and an Invoice from a Work Order
- Automated creation of a Sales Order from a Work Order
- Automated creation of a Sales Order and an Invoice from a Work Order
- Creation of multiple Sales Orders and/or Invoices from a single Work Order (staggered invoicing)

General Connector Information

- Connectors are a developer enablement framework designed to accelerate cross-cloud integration vs. a productized solution.
- Connectors support a core set of use cases and can be extended to support additional customer-driven use cases.
- Connectors will require customization and configuration in Salesforce Field Service and Salesforce Billing.
- Plan your connector implementation with a data strategy and governance policy.

Available in: Enterprise, Performance, Unlimited, and Developer Editions

Workflow


Work Order
Work Order Line Items
Products Consumed
Expenses
Connector
Order Product
Order Product
Order Product
Sales Order
Invoice
Field Service Object
Sales Cloud Object
Billing Object

Considerations - Salesforce Field Service & Billing Connector

There are important considerations to understand before implementing the Connector capabilities. Below are the list of considerations.

- It is assumed that the Sales Order and Invoice creation are triggered from the browser application. The connector does not support the creation of Sales Order and Invoices from the Salesforce Field Service Mobile App natively.
- The connector only creates Sales Order Line Items and Invoice Lines from Work Order Line Items, Expenses and Products Consumed.
- The Work Order Lines Items, the Products Consumed and the Expenses must be rated before being converted into Sales Order Line Items and Invoice Lines. The connector itself or Salesforce Billing are not rating these elements.
- Even though the connector supports modifying a Sales Order after creation from a Work Order, it does not provide a User Interface for doing so.
- Modifications to the code in the package may be required to suit all business requirements
- The Lightning Connector was last tested against the Spring ‘21 Salesforce release.

Prerequisites

1. Billing Spring '21 (230) or later is installed
2. Salesforce Field Service Spring '21 (230) or later is installed
3. Product Records (for Work Order Line Items, Products Consumed and Expenses) are created and set-up for Billing:
    a. Price Book Entries
    b. Billing Rules
    c. Revenue Recognition Rules
    d. Tax Rules

Install Managed Package

Assumptions:

1. Billing Spring '21 (230) or later is installed
2. Salesforce Field Service Spring '21 (230) or later is installed

Procedure: A Salesforce Administrator can install the Field Service and Billing Connector

1. Log into the Salesforce instance where you want to install the package
2. In a new browser tab, paste the link to the version of the Connector package you want to install
3. Alternatively, you can download the package from AppExchange
4. Choose **Install for Admins Only** radio button
5. Click **Install**
6. The installation of the package takes a few minutes; Salesforce sends a confirmation email when the installation is complete, informing the success (or failure) of the installation
7. Verify that the package is installed successfully by navigating to **Setup | Installed Packages**

Set-up Permissions

3 Permission sets are included in the package:

- **SFSBC System Administrator**: allows users to adjust the configuration (settings)
- **SFSBC Field Technician**: allows users to inform fields on the Work Order Line Items (“Billable”), Product Consumed (“Billable”), Expense (“Product”, “Bilable”)
- **SFSBC Billing Assistant**: Provides the Billing assistant the same capabilities as the field technician (see above).

1. Navigate to **Setup | Administration | Users | Users**
2. Click on the user
3. Add the required **SFSBC** Permission set to the user
4. Click **Save**

In order to test the package, at least one user needs to be granted the SFSBC Billing Assistant permission set.

In addition to these permission sets:

- Set “Flow User” on User Record or “Run Flows” within a permission set
- Create new permission set and apply to user:
    - Grant Read access to Invoices
    - Grant Read access to ProductConsumed.TotalPrice
    - Grant permission to Activate Orders
    - Edit Activated Order (to allow system to uncheck Bill Now)

Page Layouts

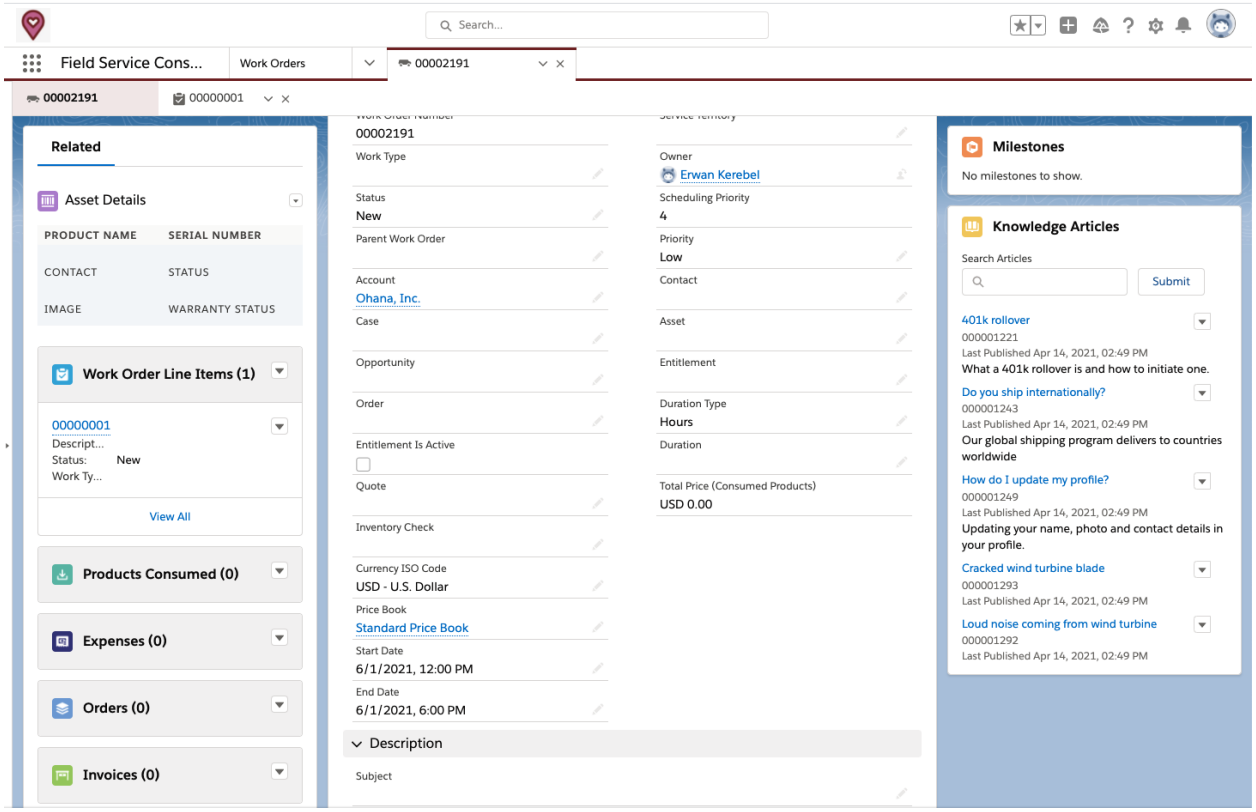
Work Order

Ensure that the following fields are visible in the Work Order Page Layout:

- Price Book
- Start Date
- End Date

Ensure that the following related lists are visible:

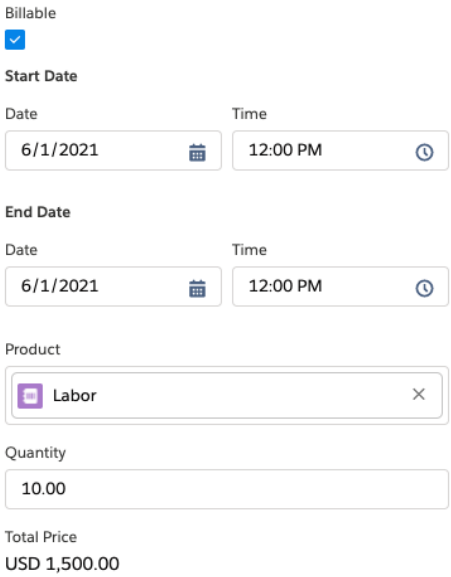
- Orders
- Invoices



Work Order Line Item

Ensure that the following fields are visible in the Work Order Line Item Page Layout:

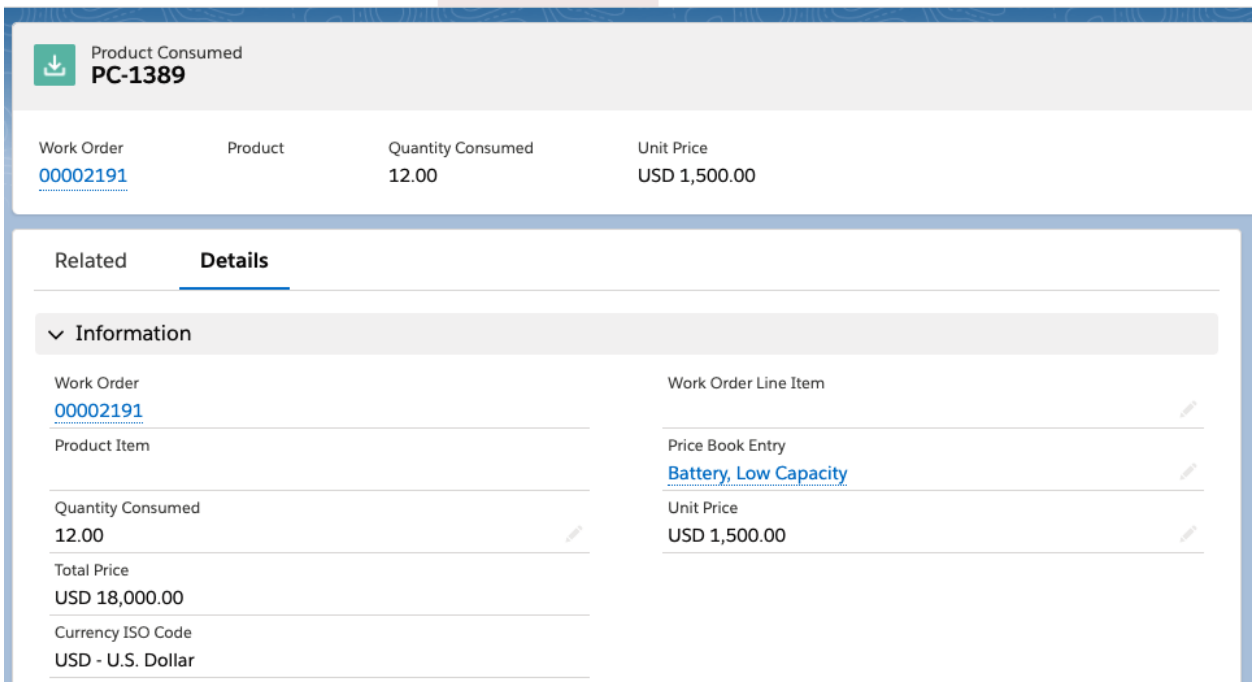
- Billable
- Quantity
- Start Date
- End Date
- Total Price (for reference only)
- Product



Product Consumed

Ensure that the following fields are visible in the Product Consumed Page Layout:

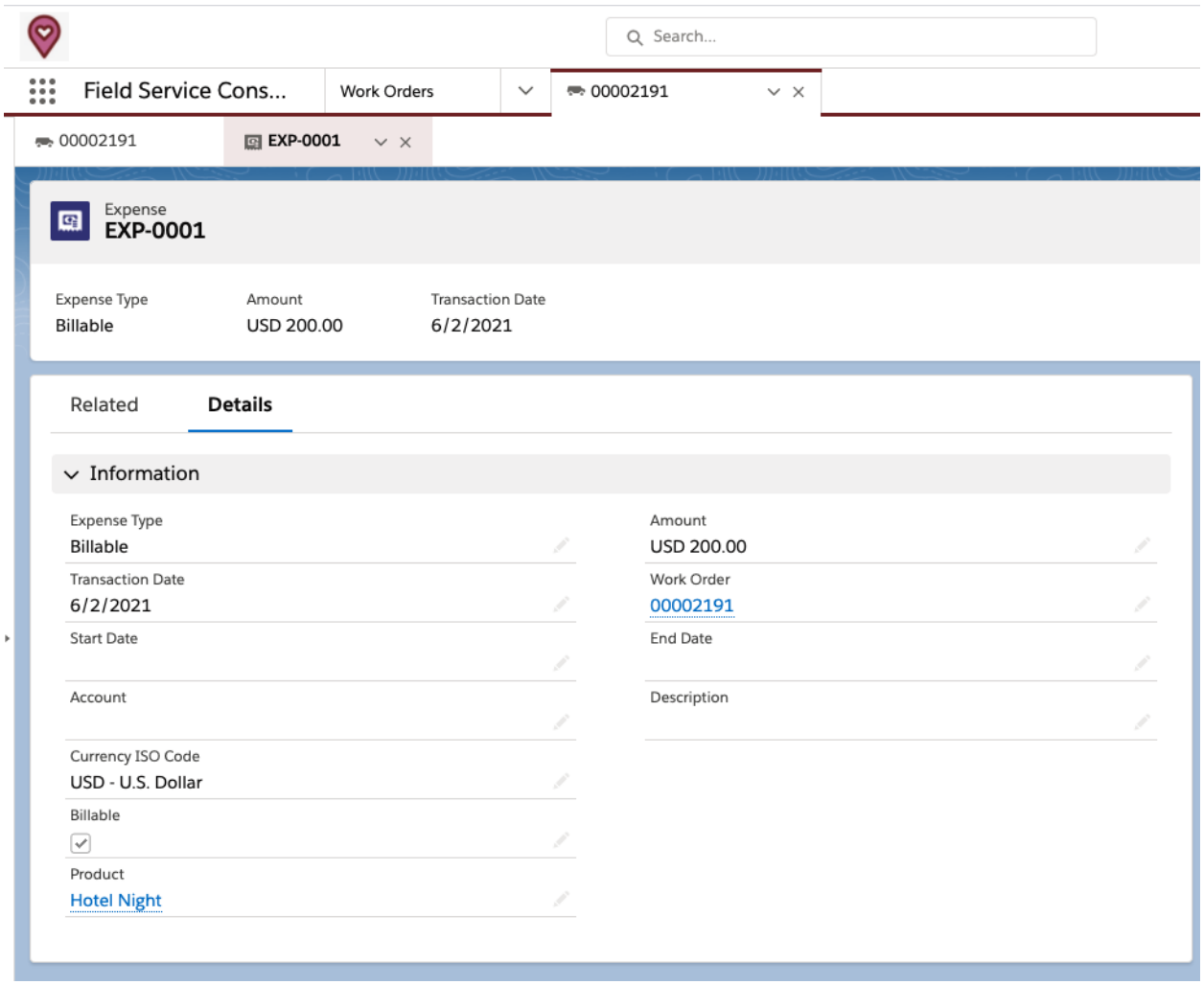
- Billable
- Price Book Entry
- Quantity
- Total Price



Expense

Ensure that the following fields are visible in the Expense Page Layout:

- Billable
- Product



Order

Make sure the Work Order field is visible in the Page Layout.

Order Product

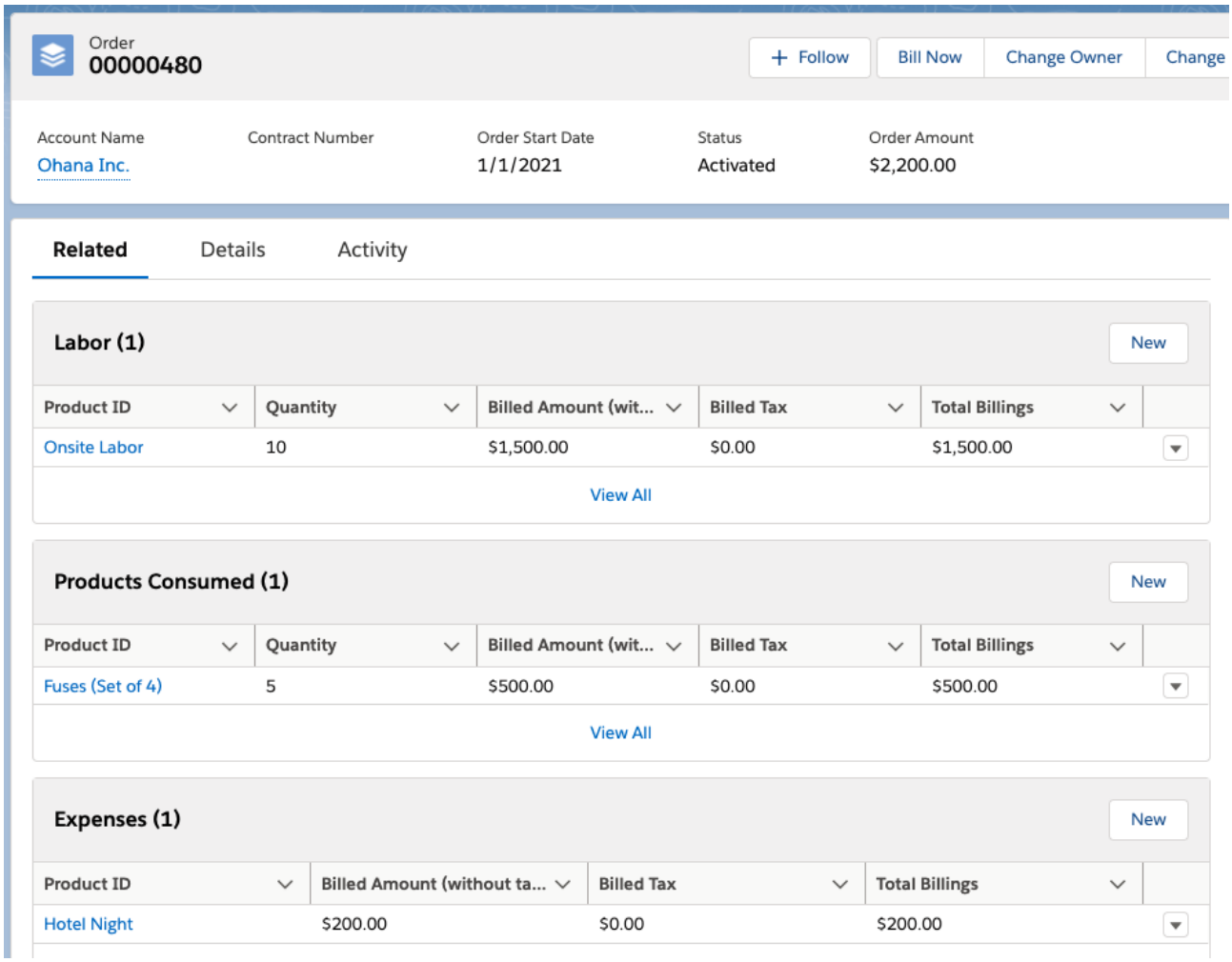
Make sure the Work Order Line Item, Product Consumed and Expense fields are visible in the page layout.

Optionally, and for more clarity in the UI, you can segregate the Order Products based on their origin (Work Order Line Items, Product Consumed or Expense).

Create a formula field (Order Product Type):

IF(sfsbc__WorkOrderLineItem__c !=NULL,"WOLI",IF(sfsbc__ProductConsumed__c !=NULL,"PC",IF(sfsbc__Expense__c !=NULL,"EXP","")))

You can then use this field, combined with a Custom Lightning Component to group the Order Products based on their origins:



Invoice

Make sure the Work Order Field is visible in the page layout.

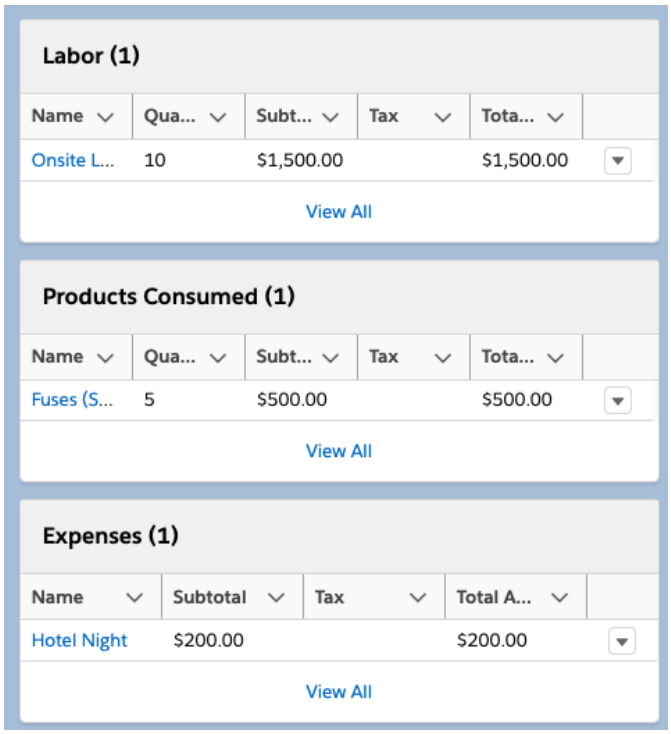
Invoice Lines

Optionally, and for more clarity in the UI and in the Invoice Document, you can segregate the Invoice Lines based on their origin (Work Order Line Items, Product Consumed or Expense).

Create a formula field (Invoice Line Type):

IF(blng__OrderProduct__r.sfsbc__WorkOrderLineItem__c !=NULL,"WOLI",IF(blng__OrderProduct__r.sfsbc__ProductConsumed__c !=NULL,"PC",IF(blng__OrderProduct__r.sfsbc__Expense__c !=NULL,"EXP","")))

You can then use this field, combined with a Custom Lightning Component to group the Invoice Lines based on their origins:



Labor (1)

Name	Qua...	Subt...	Tax	Tota...	
Onsite L...	10	$1,500.00		$1,500.00	

View All

Products Consumed (1)

Name	Qua...	Subt...	Tax	Tota...	
Fuses (S...	5	$500.00		$500.00	

View All

Expenses (1)

Name	Subtotal	Tax	Total A...	
Hotel Night	$200.00		$200.00	

View All

Work Order to Sales Order Flow

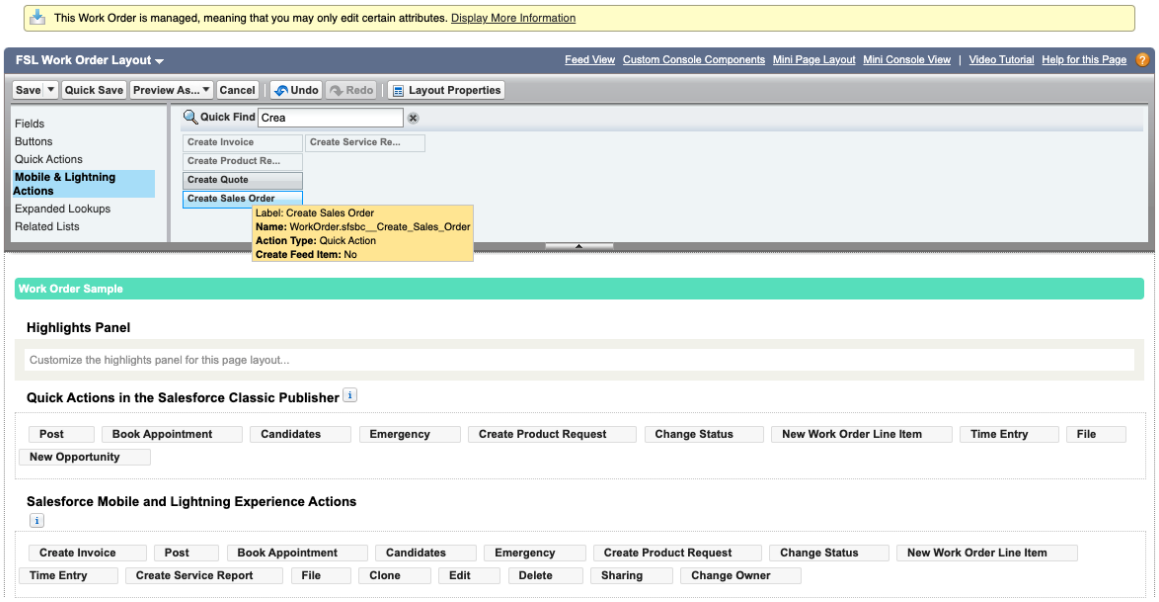
In order to invoice a Work Order, a Sales Order will need to be created. The administrator then has 2 options:

- Create a Sales Order (so that a user can then convert the sales order into an invoice later or a Salesforce Billing Invoice Scheduler can do that automatically and consolidate multiple orders into a single invoice per customer)
- Create a Sales Order and immediately convert it into an Invoice

This section describes the Sales Order Creation process, which can be manual (button) or automated, for example when the status of the work order is updated.

Option #1: Manual

In order to manually create a Sales Order from a Work Order, the administrator will need to add the “Create Sales Order” button in the Work Order Page Layout:

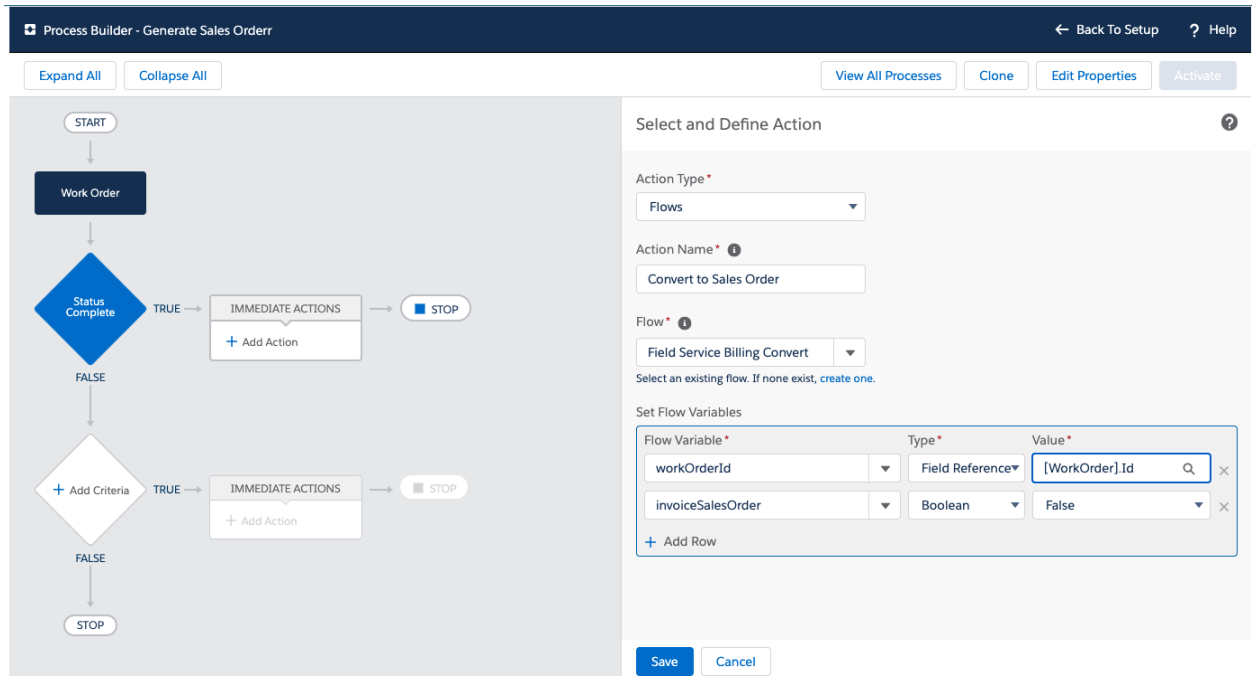


Option #2: Automation

Instead of having to rely on a button press, you can also automate the creation of a Sales Order from the Work Order on an event such as a Work Order Status change for example.

In order to achieve this, you can launch the Flow provided in the package (Field Service Billing Convert). It uses 2 parameters:

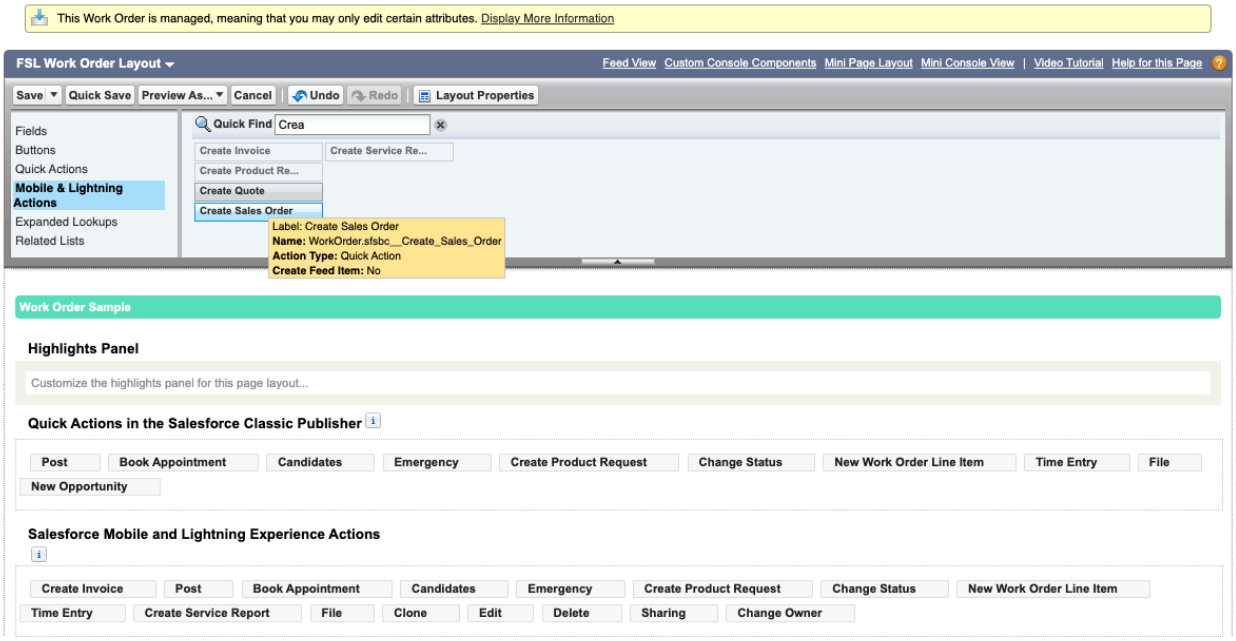
- workOrderId
- invoiceSalesOrder (false to only generate the sales order)


Process Builder - Generate Sales Orderr
Back To Setup
Help
Expand All
Collapse All
View All Processes
Clone
Edit Properties
Activate
START
Work Order
Status Complete
TRUE
IMMEDIATE ACTIONS
Add Action
STOP
FALSE
Add Criteria
TRUE
IMMEDIATE ACTIONS
Add Action
STOP
FALSE
STOP
Select and Define Action
Action Type *
Flows
Action Name *
Convert to Sales Order
Flow *
Field Service Billing Convert
Select an existing flow. If none exist, create one.
Set Flow Variables
Flow Variable *
Type *
Value *
workOrderId
Field Reference
[WorkOrder].Id
invoiceSalesOrder
Boolean
False
Add Row
Save
Cancel

Work Order to Invoice

Option #1: Manual

In order to manually create an Invoice from a Work Order, the administrator will need to add the “Create Invoice” button in the Work Order Page Layout:

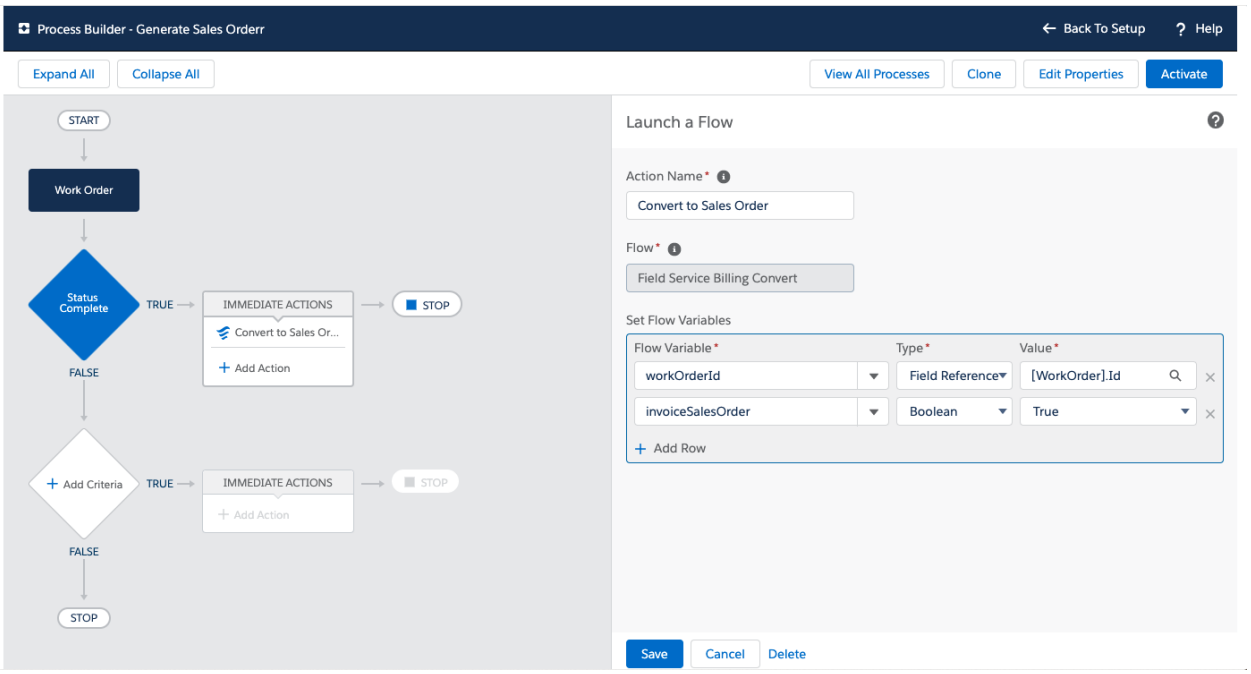


Option #2: Automation

Instead of having to rely on a button press, you can also automate the creation of an Invoice from the Work Order on an event such as a Work Order Status change for example.

In order to achieve this, you can launch the Flow provided in the package (Field Service Billing Convert). It uses 2 parameters:

- workOrderId
- invoiceSalesOrder (true to generate the sales order and the invoice)



The setup is complete!

Mapping

Work Order

Work Order Field	Order Field
AccountId *	AccountId
Street	BillingAddress
City	BillingAddress
State	BillingAddress
PostalCode	BillingAddress
Country	BillingAddress
ContactId	BillToContactId
Description	Description
StartDate	EffectiveDate
EndDate	EndDate
Pricebook2Id *	Pricebook2Id
Id *	sfsbc__WorkOrder__c
	Status = “Draft”
WorkOrderNumber *	Name (“Work Order “+WorkOrderNumber)

* = Mandatory

Work Order Line Item

Work Order Line Item Field	Order Product Field
Id *	sfsbc__WorkOrderLineItem__c
Quantity *	Quantity
Description	LineDescription
UnitPrice	UnitPrice
StartDate	ServiceDate

EndDate	EndDate
	SBQQ__ChargeType__c="One Time"
TotalPrice *	blng__Billable_Unit_Price__c
PricebookEntryId *	PricebookEntryId
PriceBookEntry.ProductId.blng__Billing_Rule__c *	blng__Billing_Rule__c
PriceBookEntry.ProductId.blng__Revenue_Recognition_Rule__c *	blng__Revenue_Recognition_Rule__c
PriceBookEntry.ProductId.blng__Tax_Rule__c *	blng__Tax_Rule__c

* = Mandatory

Product Consumed

Product Consumed Field	Order Product Field
Id *	sfsbc__ProductConsumed__c
QuantityConsumed *	Quantity
Description *	Line Description
TotalPrice *	blng__Billable_Unit_Price__c
PricebookEntry *	PricebookEntryId
PriceBookEntry.ProductId.blng__Billing_Rule__c *	blng__Billing_Rule__c
PriceBookEntry.ProductId.blng__Revenue_Recognition_Rule__c *	blng__Revenue_Recognition_Rule__c
PriceBookEntry.ProductId.blng__Tax_Rule__c *	blng__Tax_Rule__c

* = Mandatory

Expense

Expense Field	Expense Field
Id *	sfsbc__Expense__c
Amount *	blng__Billable_Unit_Price__c
sfsbc__Product__c *	PricebookEntryId (get from product and Work Order Price Book)

PriceBookEntry.ProductId.blng__Billing_Rule__c *	blng__Billing_Rule__c
PriceBookEntry.ProductId.blng__Revenue_Recognition_Rule__c *	blng__Revenue_Recognition_Rule__c
PriceBookEntry.ProductId.blng__Tax_Rule__c *	blng__Tax_Rule__c

* = Mandatory

Staggered Invoicing

When a Sales Order gets created against a Work Order, it will create Order Products for all the Work Order Line Items, Products Consumed and Expense records that are not yet fully represented in existing Order Products.

Work Order Example:

Object	Quantity	Product
Work Order Line Item	20	Onsite Labor
Product Consumed	5	Low Voltage Battery
Product Consumed	7	High Voltage Battery
Expense	N/A	Hotel Night
Expense	N/A	Mileage

Suppose a Sales Order has already been created against this Work Order:

Quantity	Product
12	Onsite Labor
5	Low Voltage Battery
N/A	Hotel Night

The next sales order that will get created by the connector will contain:

Quantity	Product
8 (=20-12)	Onsite Labor
7	High Voltage Battery
1	Mileage

Configuration

Settings

Go to Setup > Custom Settings > SFSBC Configuration > Manage

The following settings can be adjusted:

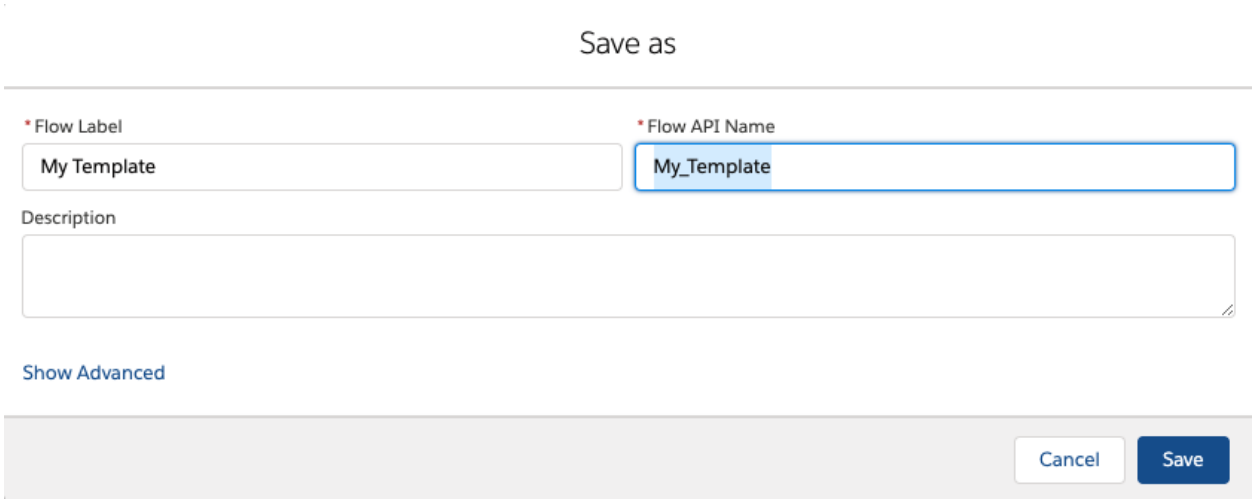
- Conversion Flow API Name: can be changed to a custom flow (see “Flow Customization below”)
- Conversion Flow Namespace:
- Disable Multi-Order Billing: check if only one sales order should get created against a work order (to prevent staggered invoicing described in the previous section)

Flow Customization

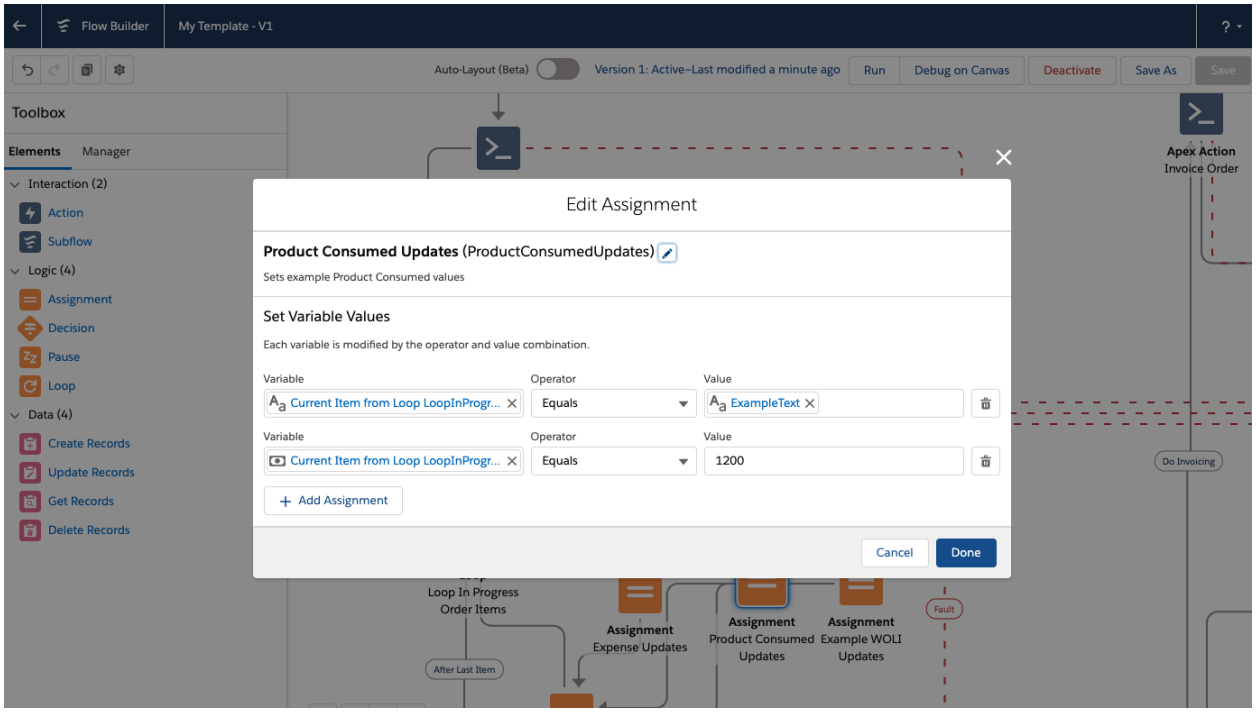
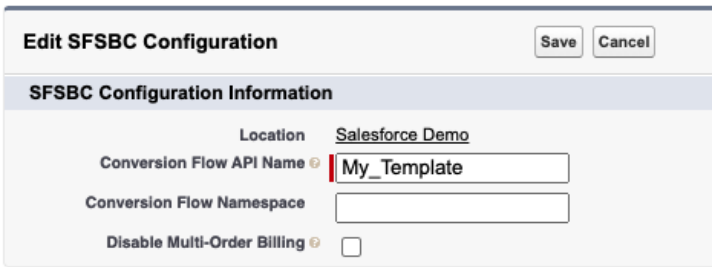
If you wish to adjust the behavior of the connector, you can create a custom flow, based on the template provided in the package (Field Service Billing Convert Template).

In order to do so, follow the steps:

1. Open the Flow Template: “Field Service Billing Convert Template”
2. Save As a new Flow:



3. Make the adjustments. For example, one can adjust the Product Consumed Assignment step in order to adjust the mapping between the product consumed and the order product:



4. Save and Activate
5. Update the Custom Settings for “SFSBC Configuration”: