
FSM 6: Essentials
Core Entities
IFS Academy
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Welcome

- Agenda: The Course & Today
- Practical Information & Safety
- Our Training Approach
- About the Course & Learning Outcomes

YOUR TRAINER

Name:

Contact number:

Email:

Agenda
FSM Foundation Course

01 FSM Introduction & Solution Overview

02 FSM Core Entities

03 FSM Core Processes

This is the agenda for the week's course.
This morning is highlighted in the green box

Agenda – Day 01 and 02

01 Set up for Core Entities introduction

02 Core Entities: Person

03 Core Entities: Place

04 Core Entities: Model & Product

05 Core Entities: Part & Stock

06 Core entities review

Learning Outcomes

FSM Core Entities

By the end of this section of the course, you will be:

- Able to complete the setup requirements for Core Entities
- Able to distinguish between the types of FSM Core Entities
- Able to describe and explain the appropriate usage of the IFS FSM Core Entities for different purposes within a standard process flow
- Feel confident in knowing the purpose served by the different Core Entities

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Access?

1. Setup For Core Entities

Setup For Core Entities

Learning Outcomes

By the end of this lesson, you should have:

- The ability to recognize on-the-entity vs. stand-alone records
- An understanding of Work Calendars
- An understanding of Notes
- An understanding of Teams
- An understanding of different Code tables
- An understanding of application parameters

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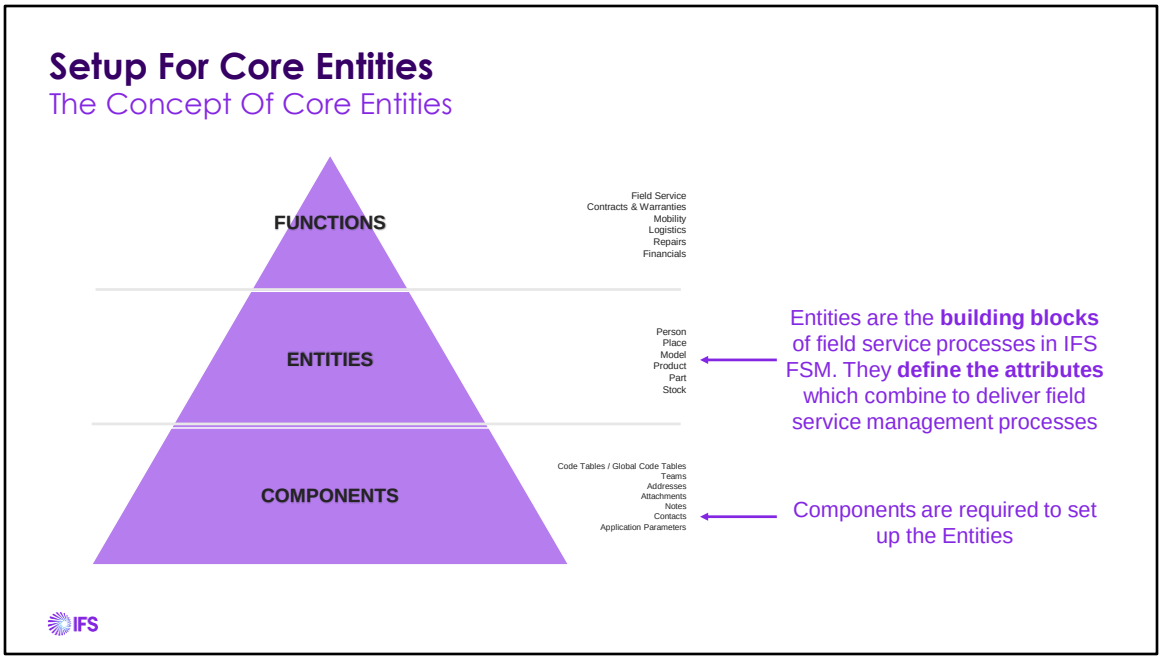


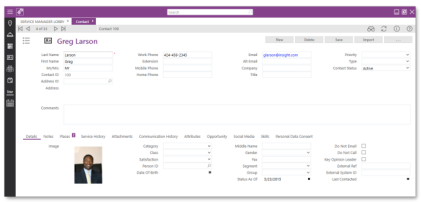
This diagram shows how the building blocks of FSM combine to deliver the FSM core processes. Each functional area (e.g., Financials, Repair Center, Field Service) is separated into individual entities (e.g., person, place, product, part, stock). All the entities work together to provide management of the full service lifecycle. This course, *FSM Core Entities,* will walk you through what is needed to set up the core entities, such as code tables, addresses, contacts, and teams.

The next course, *FSM Core Processes*, will walk you through actual processes, e.g., taking a call, creating a contract.

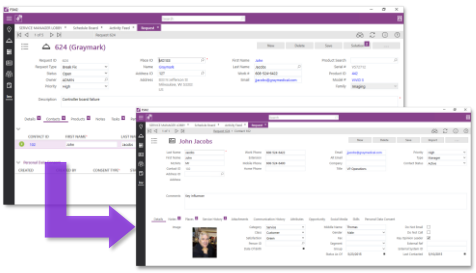
Setup For Core Entities
Understanding Entity Records

- Some records **(Contacts, Addresses, Attachments)** can be created in either 'Stand-Alone' or 'On-The-Entity' modes

STAND ALONE ENTITY RECORD
Create from the Admin Menu
Include more detail



ON-THE-ENTITY RECORD
Create from the Entity itself
Less detail / quick entry



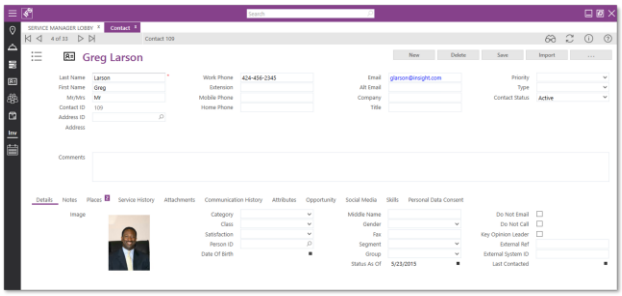
There are certain records that can be created quickly on entities but also can be created in more detail. These records are **address**, **attachment** and **contact.** Examples shown are for **Address**

You can search for and reuse **Addresses**, for example, when a place has multiple addresses associated with it. Addresses can be set up either quick and easy and with less detail on the records themselves or stand-alone in greater detail. To create stand-alone addresses, go to the Admin, Addresses menu. This procedure is used to maintain addresses without having to go to associated records (e.g., task, place, contact, person, request, part need) to access them. You need not set up any records before setting up addresses. If you wish to have the address show up on Bing Maps, you need to fill in the longitude and latitude values.

Similar to Addresses from the **Admin menu, Attachments** from the Admin Menu are more detailed records than the ones created on the entity. You have the ability to edit the file. At a glance you can also see which entity this attachment appears. **Attachments** are files that you can add to most records in IFS FSM both in the smart client and Mobile offerings. Attachments can be files such as service manuals or new attachments created during the service call, or photographs of the product you serviced.

Setup For Core Entities
Contacts

- Contacts typically
  - End-customers
  - Key individuals, e.g., Managers
- Contact Record Contains
  - Name & Address
  - Email
  - Phone Numbers
- Not used to identify Employees
  - These are Person Records



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Contacts identify end-customers and key individuals such as managers, project leaders and supervisors at customer sites. Contacts are generally responsible for products or service contracts. The Contact record contains information such as name and address, email address, and phone numbers. Contact records do not identify employees, who are identified using Person records. However, you can create a Person record for a contact, for example when you want the contact to use a portal application.

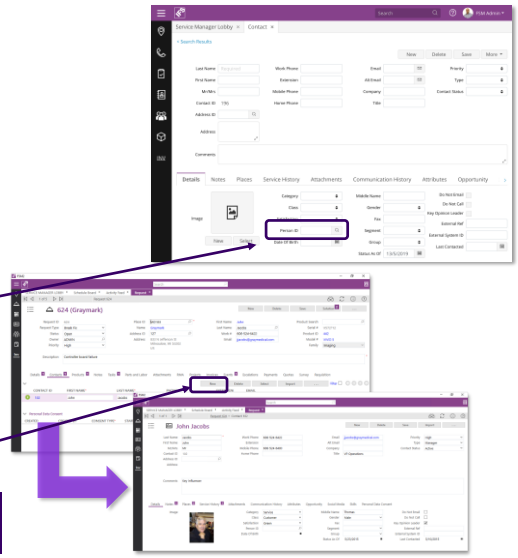
You can create stand alone contact records from the Service, Contact menu item. Or, from the entity, you can create a new record. If the contact already exists in the application, use the **Select** button. An alternate creation of a new record is within the Select button. If you discover the contact you want does not exist, you can click the **New** button (without backing out of the Contact Lookup window) to create a new contact.

Setup For Core Entities
Contacts

Service Menu >> Contacts

- **Contacts** identify end-customers and key individuals such as managers, project leaders and supervisors at customer sites.
- This is distinct from **Person** records which usually identify employees. Contact and Person records can be associated with one another, e.g., to provide access to a portal application, to a customer contact
- Contact records can be created stand-alone or on-the-entity.

TIP: Search for an existing Contact record before creating a new one



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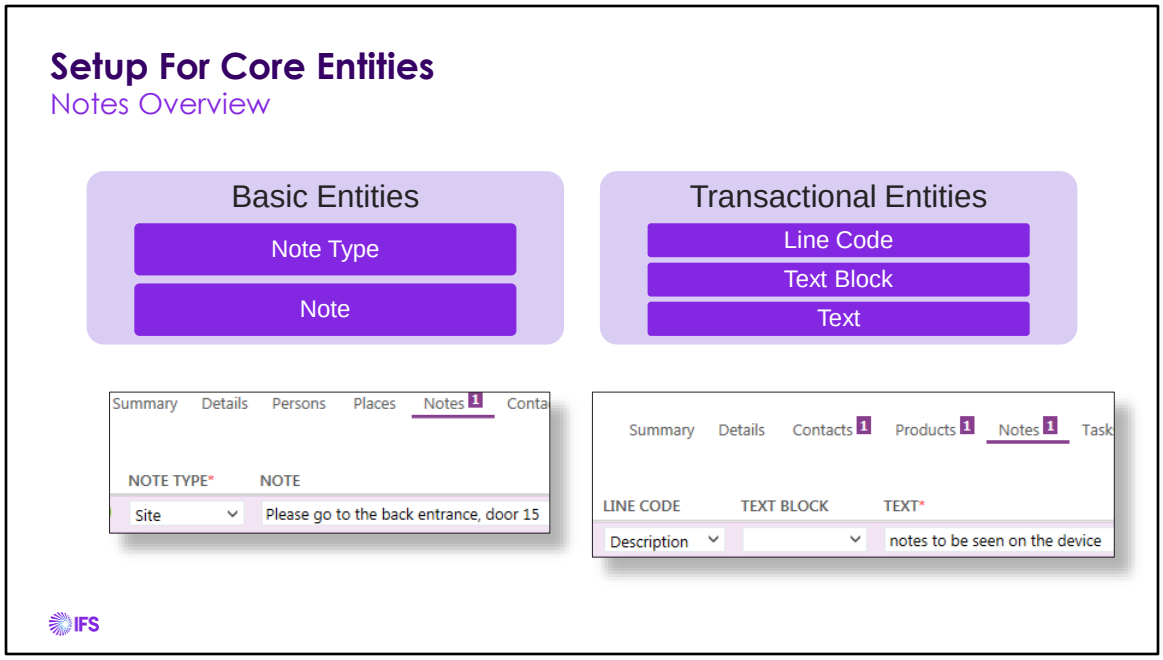
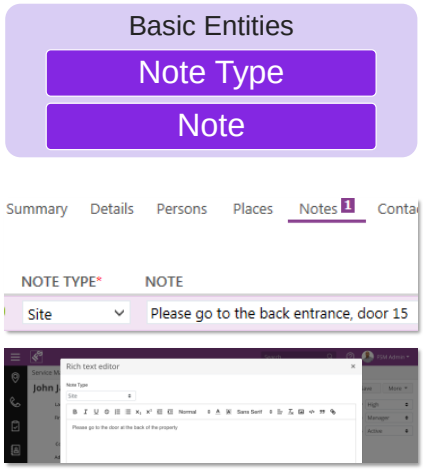


Notes can be added to most core entities in the application. You can use notes to store information related to the record, for example correspondence related to a request or service information for a product.
Users can add additional information to the **basic entities**, e.g., Person, Model, Place, etc. An example for a Place note would be directions to the place. Basic entity notes are internal only notes and typically static information. When the note type has its "Show on UI" option selected, the text of the note appears as a marquee or crawler in the header of the related record. You can hover over the marquee to pause or right-click the marquee to display a menu of options. The marquee setup will be discussed in another course – *IFS FSM Advanced Studio* course.
Users can also add additional information to the **transactional entities**, e.g., Requests, Tasks, Shipment, etc. An example of a Request note would be communication between you and the customer as you resolve their issue. In addition, you can create a block of text that you can use repeatedly. These types of notes can be used for displaying or printing notes.
Text line codes identifies the type of note; can be use to categorize the notes
Text block uses a Text ID field to quickly add pre-formatted text to the text field
Text Note is text that can be formatted using an editor. Formatting is retained when text is pasted into this field.

Setup For Core Entities
Notes Overview



Basic Entities

- Person
- Model
- Place
- Typically, Internal or Static Information
  - Directions related to a place
- NOTE TYPE is selected via drop down
- NOTE is free-text

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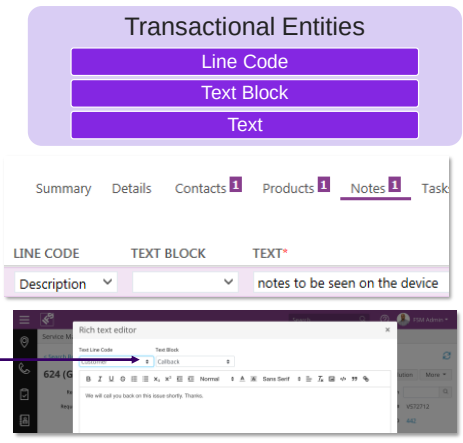
Setup For Core Entities
Notes Overview

Transactional Entities

- Requests
- Tasks
- Shipments

- Record of onetime interaction with customer, related to the issue
  - E.g., Customer reports reoccurrence of previous issue
- LINE CODE is selected via drop down
- TEXT BLOCK is for selecting predefined text blocks
- TEXT is free-text*
  - (can be formatted in external editor)

TIP: Selecting an option from the 'Text Block' field quickly adds the pre-formatted text to the Note



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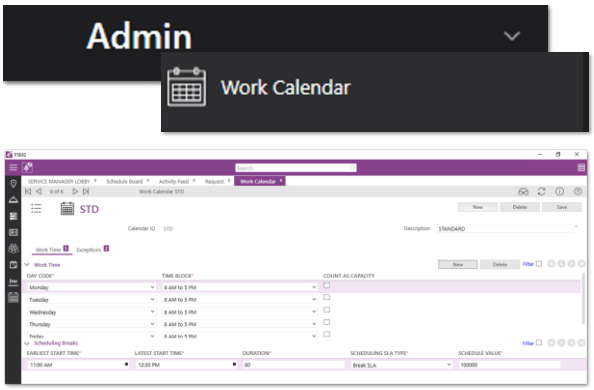
Setup For Core Entities
Work Calendars

- Specify Working Hours
- Breaks
- Exceptions

- Assigned to:
  - Persons
  - Places



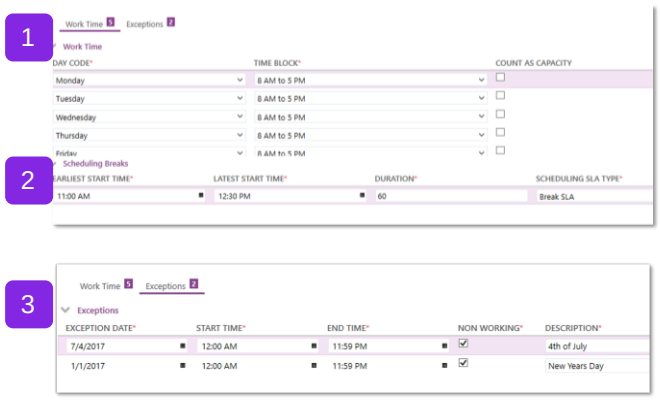
Work calendars (found on the Admin, Work Calendar menu item) are used to specify working hours and exceptions for persons or places. They are used on Schedule Board to assign requests and tasks. You can create multiple calendars and then assign the appropriate calendar to individual places or individual employees. Work calendars **specify hours** to accommodate part-time and split shifts as well as holidays. Work calendars are assigned to each Person and Place record and used for scheduling on the Schedule Board and Repair Board.

Exceptions include when the person is not available to work, such as vacations or training classes. It can specify as working or non-working and can appear on the Schedule Board in a unique color which must be set up using Color Settings under the Admin menu. The "Non Working" option determines whether work assignment can be performed in the exception period. When not selected, the exception appears on the Schedule Board, but work can still be assigned. When selected, work cannot be assigned.

Work calendars consist of **day codes** and **time blocks.** Day codes are an FSM code table. Time blocks are defined on the time_block code table. You can create any time blocks you need but when you specify time blocks on this tab, they cannot overlap.

Setup For Core Entities
Work Calendars

1. Specify Working Hours
   Per Day
2. Schedule Breaks
   Lunch
3. Exceptions
   Holidays



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Setup For Core Entities

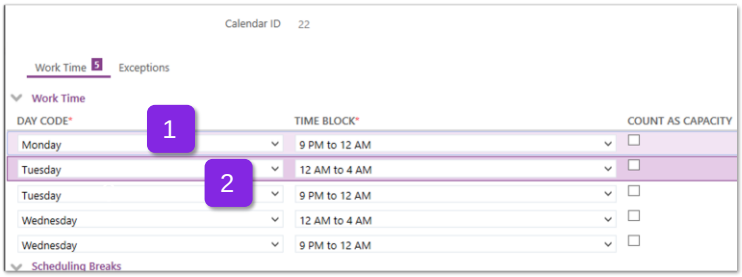
Work Calendars

Overnight Shifts

2 Working Blocks per day are required

1 Up until Midnight

2 Post Midnight



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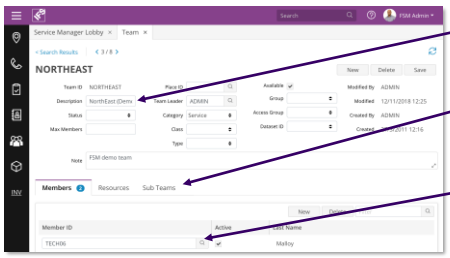
Setup For Core Entities
Teams

Service Menu >> Teams



TIP: Create Teams at levels which match the business organization, e.g., Region, Department etc

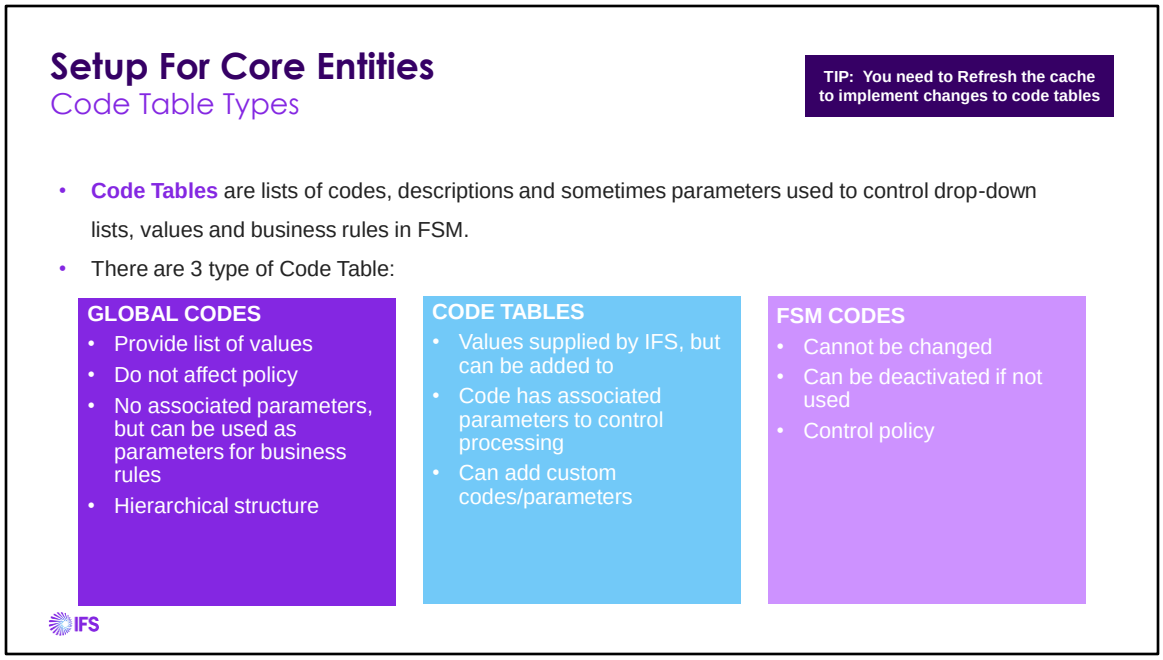
TIP: Sub-Teams can be used to further break down the team structure and assign tasks accordingly

TIP: You can deactivate a Team membership without removing the member from the team (e.g., for temporary reassignment)

Relating Teams & Persons

1. Create Team
2. Create Person
3. Assign Person to Team

Teams used to identify one or more people who compose a group. Because tasks are assigned to teams or team members, a person must be a member of a team before that person can work on a task. The team leader must also be specified as a team member if the team leader can also work on tasks. Therefore, Person records must exist before they can belong to a team. However, teams need to be set up before creation of person records.
Teams can be created by regions (ex., MIDWEST, NORTH, SOUTH) or by departments (ex., RECEIVING, SHIPPING, SALES) – whatever best defines your business.
Max Members allows you to restrict the amount of people you can assign to a team.
Persons assigned to a team can have their team memberships temporarily deactivated without removing them from the team.
For example, you might inactivate a person who is temporarily reassigned to another job function. You can create sub-teams that are subordinate to the specified team. A team can have both members and sub-teams.
Resources are passed to IFS Planning and Scheduling Optimization (PSO) to be able to perform Dynamic Scheduling.
To have work visible on the Schedule Board or Repair Board, you must have teams. In the next slide, we will look at teams on the Schedule Board.



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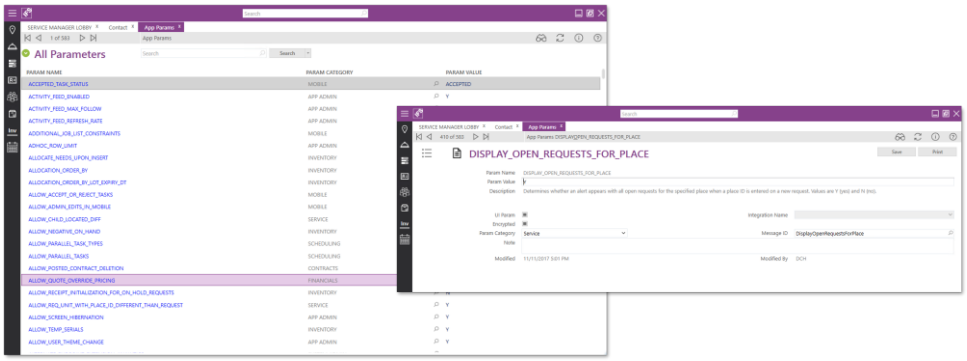
Setup For Core Entities
Application Parameters

- **Application Parameters** control different aspects of how users interact with the system. Many application parameters can be changed, but this should be done with great care and understanding of the implications.



Application parameters control many aspects of how you interact with the user interface. Although many of the application parameters can be changed at any time, do it with caution! Changing some of these parameters after the system has been in operation can adversely affect your system's data. Before making any changes in these fields, be sure that you completely understand how the data will be affected. Note: Changes to the application parameters will not take affect you have refreshed the cache.

There are application parameters that are significant for system administration. These are some of the more important ones.

Client_timeout identifies the number of minutes before the client times out. Value is any positive integer

Logo_image_id_backsplash identifies the image used on the FSM backsplash. Value is any valid image ID as specified in the Image Library of FSM Studio.

Logo_image_id_corner identifies the image used in the upper right-hand corner of all FSM screens.

There are application parameters that are significant for application administration. These are some of the more important ones.

Show_delete_warning determines whether a confirmation appears when attempting to delete a record.

Show_save_warning determines whether a confirmation appears when attempting to save a record.

Show_server_time_only determines whether the FSM client ignores time-zone settings on the client PC and only displays the time on the server. This is important if you have technicians and customers across multiple time zones.

Spell_check_text determines whether automatic spell-checking occurs in FSM. Values are Y (yes) and N (no). Automatic spell-checking dictionaries are available for English, Spanish, French, and German.

Demonstrate how to create detailed Addresses and on the entity Addresses.
Demonstrate how to create detailed Contacts and on the entity Contacts.
Demonstrate how to use Attachments.
Demonstrate Global Codes
- Select Action Status
- Select several others and show that they all have same columns: code, sequence, description, etc.

Demonstrate Code tables (Show that the columns in the code tables vary).
- Select Currency
- Select Text Block, add a Text Block

Demonstrate FSM Code tables (Show that FSM Codes are read-only), but can inactivate them
Select Allow Partials
Show that FSM Codes are read-only
Demonstrate creation of Work Calendars, how they are entered on Persons and Places and how they are used on the Schedule Board.
Demonstrate Notes on a Request, using Text Block from earlier demo step.
Demonstrate Notes on a Person record.
Demonstrate creation of Teams and how they are used on the Schedule Board.

Practice & Learn
Setup For Core Entities

- Go to Admin, Codes, Code Tables to Text Block
  - Add a block of text for a call back when the technician leaves
- Go to Admin, Work Calendar for calendar "STD"
  - Add an exception for one of your country's holidays
  - Make it non-working
- Create a Team
- Create an address from the Admin menu
- Create a contact from the Services menu
- Add an attachment to a Person record

Lesson objectives:

The ability to recognise on-the-entity vs. stand-alone records
An understanding of Work Calendars
An understanding of Notes
An understanding of Teams
An understanding of different Code tables
An understanding of application parameters

2. Core Entities

Core Entities
Learning Outcomes

By the end of this lesson, you should have:

- An understanding of the Person record
- An understanding of the Place record
- An understanding of the Contact record
- An understanding of the Model record
- An understanding of the Product record
- An understanding of the Part record
- An understanding of the Stock record

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Person
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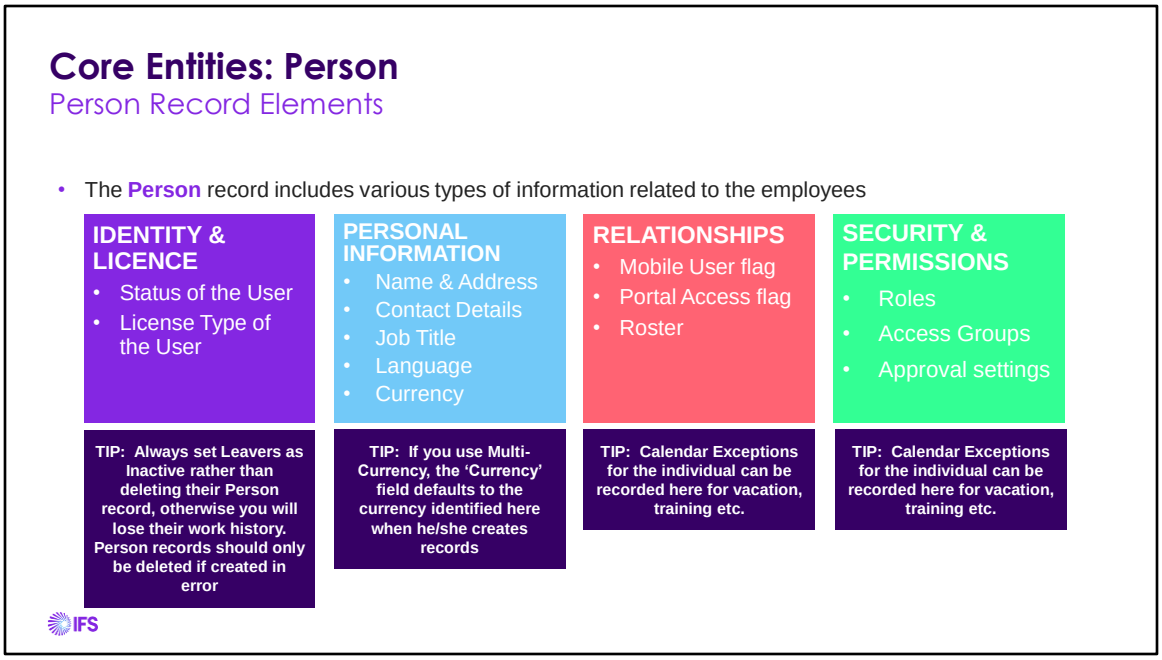
Core Entities: Person
Learning Outcomes

By the end of this lesson, you should have:

- Understand the Person record
- Understand the relationship with Place on the Person record
- Understand Roles

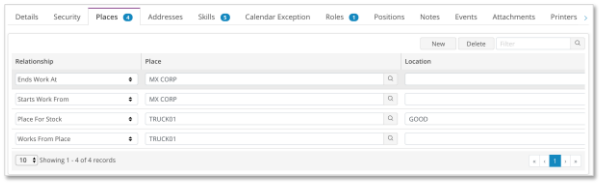


The Places tab defines how the person is related to the specified place.
Works from place is used to identify default places for a person. This is important in Repair Center for the receiver and the shipper as well as the person who creates the RMA.
Starts work from is used to identify the place where the person begins work; used when calculating and optimizing routes for scheduling.
Place for stock is used for the default location of stock for field service representatives or repair personnel. This is also used with the Mobile user to determine where they get their stock from. Mobile must also indicate the location.
Default place for portal access is used to define the place (e.g., customer or internal place) whose information the person can access. This is for any portal and is used in conjunction with the FSM License Type. In our example, if this was a person to access the Customer Portal, the person could access and create requests for Place ID "A100".
Place for portal access is used to define any other place (e.g., customer or internal place) whose information the person can access. This is for any portal and is used in conjunction with the FSM License Type. In our example, if this was a person to access the Customer Portal, the person could also access and create requests for Place ID "A400".

Core Entities: Person
Person-place Relationships

- The **Place** tab within the **Person** record defines how the person relates to the specified place for different business purposes. The most commonly used relationships are:

Person-Place Relationship	Description
Work From Place	Identifies default places; particularly important in Repair Center
Starts Work From / Ends Work At	Where the person begin/finishes work; used in calculating and optimizing routes for scheduling
Place For Stock	Where the field technician collects their stock
(Default) Place For Portal Access	Defines the place whose information that the user can access

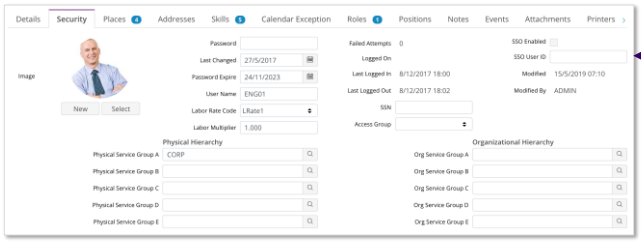


The Places tab defines how the person is related to the specified place.
Works from place is used to identify default places for a person. This is important in Repair Center for the receiver and the shipper as well as the person who creates the RMA.
Starts work from is used to identify the place where the person begins work; used when calculating and optimizing routes for scheduling.
Place for stock is used for the default location of stock for field service representatives or repair personnel. This is also used with the Mobile user to determine where they get their stock from. Mobile must also indicate the location.
Default place for portal access is used to define the place (e.g., customer or internal place) whose information the person can access. This is for any portal and is used in conjunction with the FSM License Type. In our example, if this was a person to access the Customer Portal, the person could access and create requests for Place ID "A100".
Place for portal access is used to define any other place (e.g., customer or internal place) whose information the person can access. This is for any portal and is used in conjunction with the FSM License Type. In our example, if this was a person to access the Customer Portal, the person could also access and create requests for Place ID "A400".

Core Entities: Person
Security Tab

- The **Security** tab within the **Person** record defines how and what the person can access information within FSM

Security Feature	Description
Password	Controls the user's password, which can be reset by an Administrator
Physical / Organizational Hierarchy	Used to group employees, primarily for Mobile and Scheduling
Single Sign On	Enables Windows authentication



TIP: To enable SSO, you must set the SSO Enabled option and add your SSO User ID and SSO Domain.

Of all the tabs on the Person record, the Security tab carries the most weight. Here the **password** resides. If the user has failed to log in after a certain number attempts, the Administrator can unlock the person record by the "Unlock" button on the Person record.

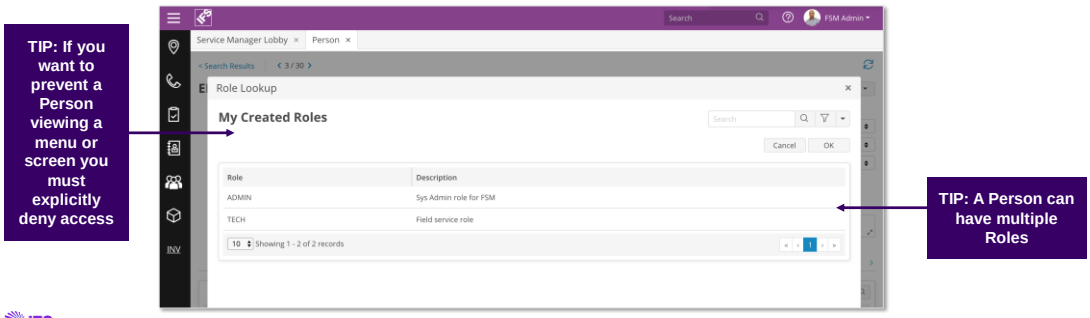
The **hierarchical groups**, Physical Service Groups and Organizational Service Groups, are used to group employees and are used with Mobile and Scheduling though can be used with other functionality. For example, what is my geographic location (Physical Service Group) in relationship to my organization, i.e., Northeast, Midwest, Asia-Pacific. And what is my organizational role (Organizational Service Groups) in relationship to my organization, i.e., Service, Tech Support, Warehouse.

Images of the person, which can be added to the record, are taken from the Studio Image Library. How to add images to the Image Library will be discussed in the *IFS FSM Application Configuration* course.

You can choose to enable **single sign on (SSO)** using Windows authentication; once a person is authenticated that person can log in to FSM with no additional authentication required. FSM supports LDAP and Active Directory Windows authentication when using single sign on. To enable SSO, you must set the SSO Enabled option and add your SSO User ID and SSO Domain.

Core Entities: Person
Roles Tab

- The **Roles** tab within the **Person** record defines what a person can or cannot access within FSM.
- Roles control screens, menus, functions, reports and other features; they are the permissions that allow users to see and access information and screens.



Roles are used to identify the menus, screens and functions that a person cannot access in FSM. Another way of looking at Roles would be by thinking in terms of security. How much is a person allowed to do within the company? Role records are generally identified using codes and description that describe a specific job function.

One or more Role records can be associated with a person record. You can have the most permissive combination applied. Or, use the “Incremental” option on the role without combining the roles will allow restrictions from the first role except for items you specifically enable/disable from the second role.

If you do not want a menu or screen visible to a person, you must explicitly deny access. By default, all menus and screens of the application are accessible.

Log in with the ADMIN person record. Create a copy of the person record.
Demonstrate the significant fields of the Person record: Posting group, License types, Dispatchable, Approvals, Status
Demonstrate the different tabs on the Person record
Demonstrate the different buttons on the Person record
Show the different types of roles. Show how if you are logged in as people with limited menus.

Practice & Learn
Person

- Go the ADMIN, PERSON and search for the person record designated by the instructor
  - COPY the record to a new Person record
- Change the First Name, Last Name to yours.
- Add the "STD" calendar. Make sure the calendar exception appears on your record.
- Add an address to the new person record.
- Add another address by selecting the address you created earlier.
- Add the Team you created earlier to your person record
- Select a Role

By the end of this lesson, you should:

- Understand the Person record
- Understand the relationship with Place on the Person record
- Understand Roles

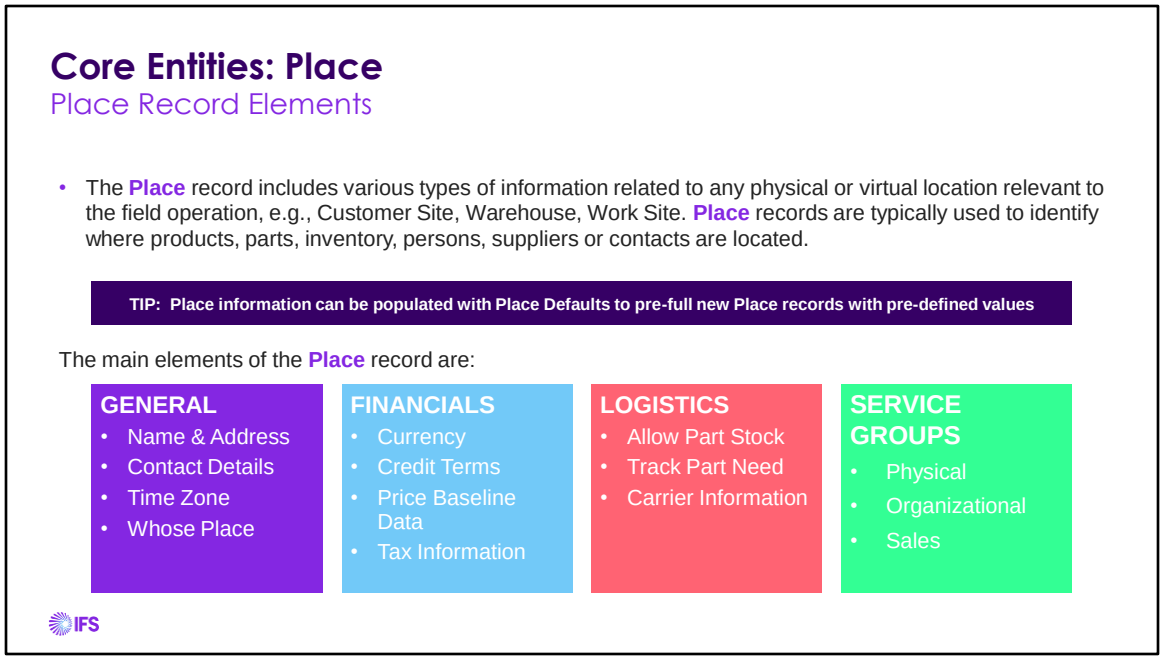

Place
IFS

Core Entities: Place
Learning Outcomes

By the end of this lesson, you should:

- Understand the Place record
- Understand child relationships on the Place record
- Understand the most significant fields

IFS



Places are related to other places for bill to relationships and stock replenishment for example.

Whose Place determines whether the place belongs to your organization or to another organization such as a customer, supplier, third-party repair, and so forth.

Used during the repair process to affect the process where the place to repair is not the place to receive—a place that is not ours is a third-party repair center and a purchase order is created to ship the unit instead of creating a transfer part need.

Allow Products determines whether products are found at this place. Products are generally not found at a billing place, for example.

Billing Place determines whether billing is sent to this place. Billing is not sent to a warehouse, for example. If you attempt to bill a place that is not a billing place, vouchers cannot be posted to invoices and the vouchers are listed with an error status.

Calendar ID determines the hours that the place is open and is used for work assignment

Stock Parts is used to determine whether parts can be stocked at the location.

Global Name is a way to group places together with whom you have a “national,” “regional” or “organizational” relationship.

Places and locations must be set up for shipping, receiving, the place for stock, part dispositions, customer places, and optionally third-party repair.

To store stock, locations and bins must be created on the place record before stock locations and bins can be created. There are two places to setup bins and locations for places. Either on the **place** record itself or through the **Inventory, Admin menu**.

There are several fields on Location that are significant.
Ours indicates who owns the PLACE.
The "Ours" option on the Location indicates whether this LOCATION is owned by your organization.

Usable identifies whether items stored in this bin are always usable, always unusable, usually usable, or usually unusable. This value affects whether certain stock can be received in this bin. Use this option with care otherwise you will not be able to move items to the location you want to use.

Bin Control indicates whether bins are allowed at this location.

Core Entities: Place

Important Fields

Place Field	Description
Whose Place (Main Tab)	Identifies who the place belongs to, e.g., Own Organization, Customer, Supplier etc. Used during repairs to determine where the repair should take place if not the same place as receipt.
Allow Products (General Tab)	Identifies whether Products stored at this Place
Billing Place (Financials Tab)	Identifies Place for sending bills
Calendar ID (General Tab)	Sets the hours that the place is open and used for work
Global Name (Main Tab)	Way to group Places that are related to each other, eg those with a regional / national relationship
Location Tab	Controls locations and bins, used to identify where parts and stock should be stored.

IFS

Places are related to other places for bill to relationships and stock replenishment for example.

Whose Place determines whether the place belongs to your organization or to another organization such as a customer, supplier, third-party repair, and so forth.

Used during the repair process to affect the process where the place to repair is not the place to receive—a place that is not ours is a third-party repair center and a purchase order is created to ship the unit instead of creating a transfer part need.

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Ours indicates who owns the PLACE.
The "Ours" option on the Location indicates whether this LOCATION is owned by your organization.

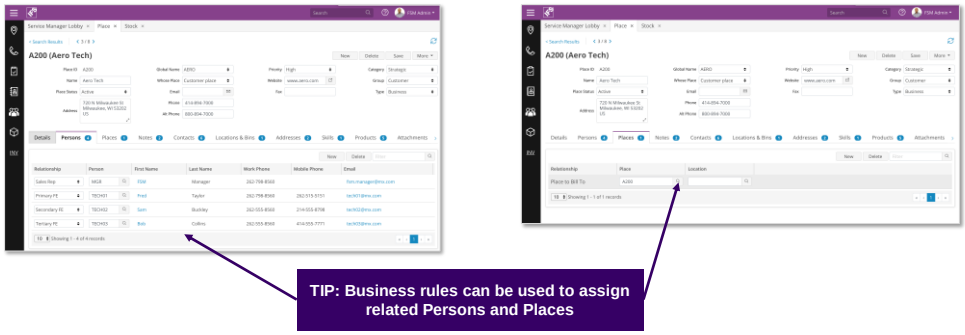
Usable identifies whether items stored in this bin are always usable, always unusable, usually usable, or usually unusable. This value affects whether certain stock can be received in this bin. Use this option with care otherwise you will not be able to move items to the location you want to use.

Bin Control indicates whether bins are allowed at this location.

Core Entities: Place

Place-person And Place-place Relationships

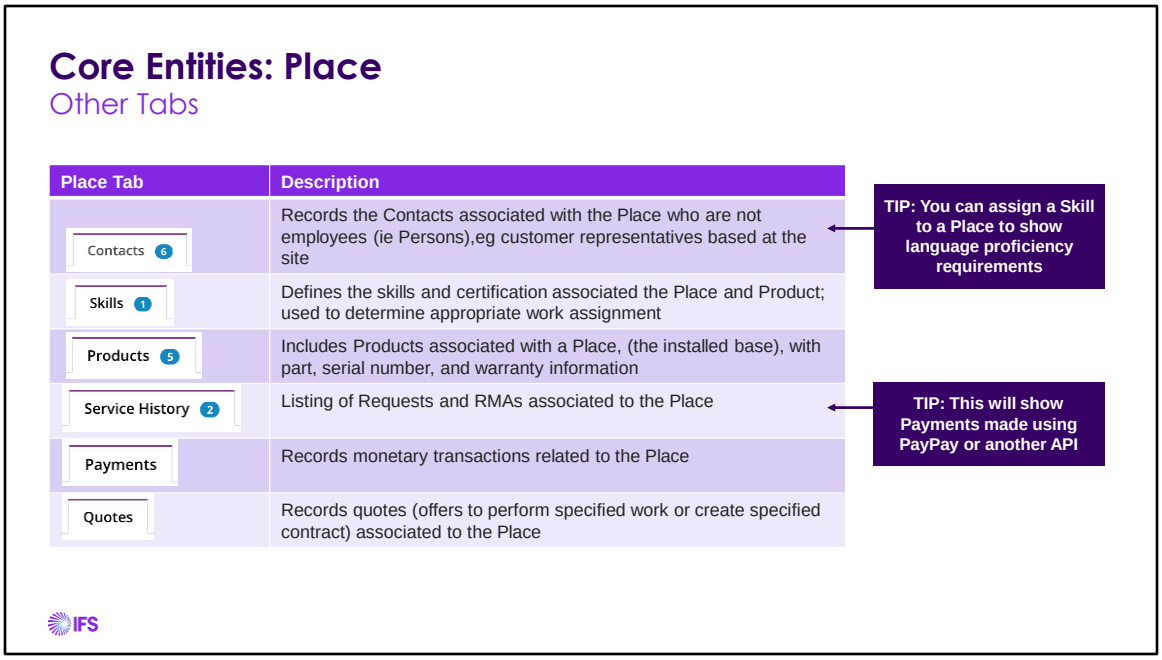
- The **Person** tab within the **Place** record defines how the person relates to the specified place for different business purposes.



On the Place record, the Person tab defines how the person is related to the specified place. Likewise, the Place tab defines how this place is related to the specified place.

The **Person** tab includes associated persons, such as sales representatives or field service representatives. The global code, **person_relationship**, is significant to this tab. Business rules can be used to assign, for example, a primary and secondary technician associated with a place. If the place is a warehouse, the persons associated to the warehouse may be the warehouse manager. However, if the place was a customer, the person records may include the technician primarily responsible for the customer as well as his manager. This would be for escalations purposes. You may specify more than one person for a specific relationship to a place.

The **Place** tab includes associated places, such as warehouses or repair centers.
The global code, **place_relationship**, is significant to this tab. For example, if your place record is a truck that gets replenished from the warehouse, the place relationship should be Place for Stock = the warehouse.



The place record has tabs that are specific to the place record and there are tabs that are generic, such as Notes, Events and Attachments, and used across multiple core entities.
We will discuss those in later lessons.

Skills includes skills and certifications associated with the place and product and is used to determine which person is the most appropriate match during work assignment. For example, a product might require a certain type of certifications where a place might require proficiency in a certain language.

Product includes products associated with a place, sometimes known as the install base or customer assets, with part, serial number, and warranty information. We will discuss products in a later lesson.

Service History includes listing of requests and RMAs that are related to this place.

Payments are the recording of monetary transactions you perform. You can elect to use FSM to process card transactions using either a PayPal API or another API that you implement. This tab includes payments made for this place.

A **quote** is an agreement between you and your customer to perform the specified work or to create a contract at the specified price. This tab includes quotes associated with this place.

Show a customer record (Whose Place = CUST)
Demonstrate the significant fields of the Place record: Whose Place, Allow Products, Stock Parts, Billing Place, Calendar ID
Demonstrate the different tabs on the Place record such as place-person relationship, place-place relationship
Demonstrate the different buttons on the Place record

Practice & Learn
Place

- Go to Services, Place and retrieve places where Whos Place = CUST. Copy the place.
  - Verify there is a work calendar
  - Create a note
  - Add a skill that the customer would require
  - Add your person record as a Primary FE
  - Add a second person as a Primary FE
  - Add a contact to your place
- Copy another place that is a Warehouse.
  - Add locations and bins. Make sure you allow part stock.

By the end of this lesson, you should:

- Understand the Place record
- Understand child relationships on the Place record
- Understand the most significant fields


Model
IFS

Model
Learning Outcomes

By the end of this lesson, students should :

- Understand a Model record
- Understand the information recorded on the Model tabs

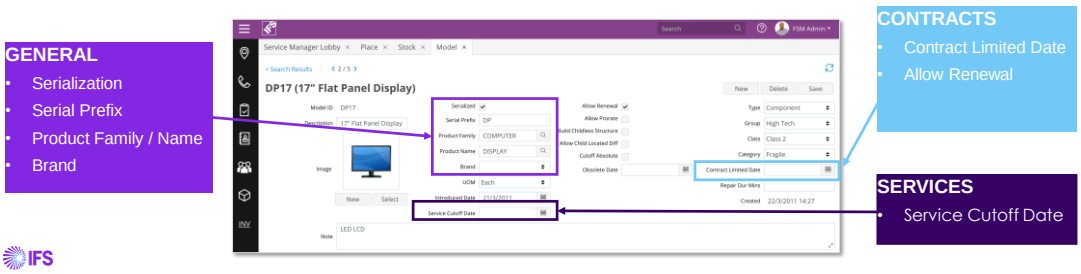
Core Entities: Model

Model Record Elements

Inventory Menu >> Model

- Setting up Model records is optional but can be used to help maintain data integrity and save time/effort in setting up Product records. The **Model** record defines default information for the organization's Products, that can be applied to all products related to the Model, e.g., product family/category.

- The main elements of the **Model** record are:



The Model record is **optional**—you need not set it up. However, models help your organization to maintain data integrity and to save time, effort, and expense when setting up Product records.
Model records are used to define default information for products that your organization services. The Model record describes information that applies to all products of a related model, such as product family and category. Quality codes define common symptoms, problems, and resolutions for the specified model. A model identifies generic characteristics of like items while a product identifies specific characteristics of a particular item.
Even though model records are optional, a model record needs to be created in the following cases: to default details on a product, as a component of a product structure, used on requests, contracts and RMAs.

There are application parameters that are significant to products.
Create_default_parts_from_models to create a corresponding Part record when a Model record is created, set this value to Y (yes). This is especially beneficial when you are using the Part to Product functionality.

A model record can be separated into several areas – General, Contracts and Services.
The **General** area contains fields such as **Serialized**, **Serial Prefix**, **Product Family**, **Product Name** and **Brand**. The "Serialized" field determines whether a serial number must be entered when creating products. Whatever the value is in the "Serial Prefix" field will default to the product upon creation. This is useful if you have a models that always have that prefix for the serials. "Product Family" is used to group similar models together. For example, a product family can be set up for "Printers". "Product Name" is used to further group models within a product family. For example, within the "Printers" product family, you may have one product name called "Laserjet" and another called "Inkjet".
The **Contracts** area contains fields such as **Contract Limited Date** and **Allow Renewal**. If this model has a contract end date, set the "Contract Limited Date" and the contract's end date for that product to be this date.
The **Services** area contains fields such as **Service Cutoff Date** which is used to calculate product contract start and end dates and affects whether contracts can be renewed. It works with the "Contract Limited Date" field.

Core Entities: Model
Other Tabs

Model Tab	Description
Skills	Defines the skills and certification associated the Model; used to determine appropriate work assignment
Descriptions	Provides descriptions that correspond to a specific location, eg see the model description in Person's own language
Parts 1	Identifies Parts that can be used to service Products within this Model
Parts Used	Identifies Parts Usage for Products associated with the Model
Meters	Identifies Meters used to capture usage information for Products of this Model
Bill Of Material	Displays the template BOM for Products associated with the Model
Alias	Lists models that are identical; for information only

IFS

The Model record has tabs that are specific to the model record and there are tabs that are generic, such as Notes, Events and Attachments, and used across multiple core entities. We will discuss those in later lessons.
Skills includes necessary skills and certifications associated with this model. When the product is created from this model, it is used to determine which person is the most appropriate match during work assignment. Skills can be associated to the model for dispatching purposes. You can also consider skills associated with product families (rather than the model itself) when performing work assignments. Product family skills are specified on the Product Skills screen by specifying product family but not product. The skills then appear on the Model screen under the Product Skills tab.
Descriptions includes descriptions that correspond to a specific locale. This is useful if you have employees speaking other languages and they can see the model description in their own language.
Parts includes parts that can be used to service products of this model. This is used with the part-to-product functionality.
Parts Used includes part usage for products associated with this model.
Meters includes meters used to capture usage information for products of this model. Meters will be discussed in another course – *IFS FSM Special Courses.*
Bill of Material includes the template used to create product structures for products based on this model, a parts list for servicing products, creating kits, and component repair. For example, a personal computer might have a bill of materials that includes a power supply, a disk drive, and a motherboard.
Alias includes models that are considered identical to this model. Informational only.

Demonstrate the significant fields of the Model record: Contract limited date, Serial prefix, Serialized, Service cutoff date, Product family/product name
Demonstrate the different tabs on the Model record. Add product family skills.
Demonstrate the different buttons on the Model record

Practice & Learn
Model

- Go to Inventory, Model
  - Create a new model
  - Make it serialized
- Add a product family and a product name
- Add product family skills

By the end of this lesson, students should :

- Understand a Model record
- Understand the information recorded on the Model tabs


Product
IFS

Product
Learning Outcomes

By the end of this lesson, students should :

- Understand a Product record
- Understand a Product warranty
- Understand the information recorded on the Product tabs

Core Entities: Product

Product Record Elements

- The **Product** record includes various types of information related to the products that the organization monitors and services.

TIP: Most Product information can be pre-filled from a Model or Part record. Additional information can also be recorded.

TIP: All Products must be associated with a Place; therefore, the Place record must exist before the Product record can be created

- Important elements of the **Product** record are:

QUANTITY
- Number of items represented by the Product record

SERIAL NUMBER
- Unique identifier for the Product

NUMBER OF RETURNS
- Determines when to scrap the product rather than repair

PART TO PRODUCT
- Indicates whether the Product can become a Part

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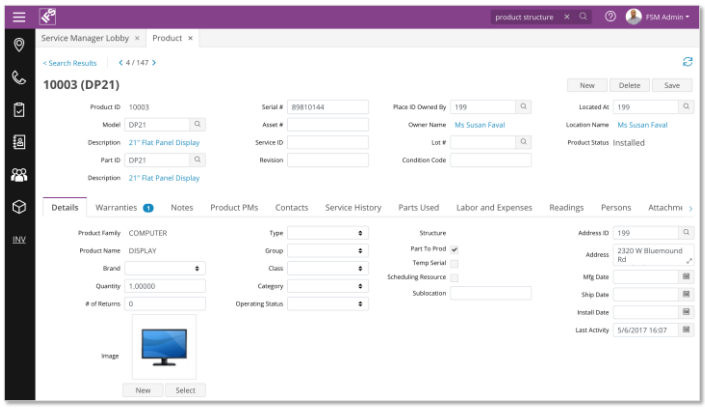
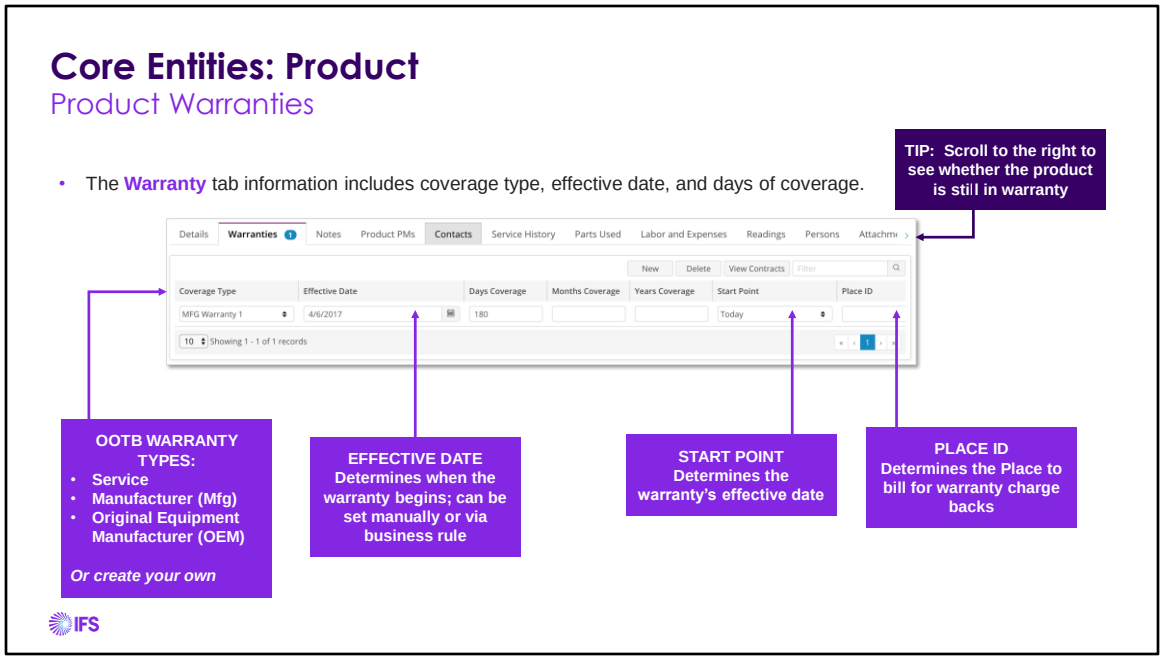
Core Entities: Product

Product Record Elements





Warranty information includes coverage type, effective date, and days of coverage. The value of the end date is calculated and the in-warranty indicator is set based on today's date. You use the in-warranty indicator as a parameter for business rules and pricing rules. It is set on a request unit when the request unit is authorized or received. Warranty records can only exist if a Product record exists.
Three types of warranties are provided out of the box but you may create any warranty type you wish.
Service is your warranty to the customer for the repair of the unit. This is applied upon shipping the repaired unit back to the customer. This is normally a limited time, i.e., 90 days. Business rule **Service Warranty Generation (Process 17)** drives this warranty.
Mfg (manufacturer warranty) is your warranty to your customer. This is applied when the warranty record is created.
OEM (original equipment manufacturer) is the vendor's warranty to you. This is applied when the warranty record is created.

Warranties are set up using the **wty_cov_type** code table.

Effective Date determines when the warranty begins based on the start point. It can be based on manufacturing date, manufacturer's shipping date, or manufacturer's installation date. It can be set manually or by business rule.
Place ID identifies the place to bill for warranty chargebacks.
Start Point determines the warranty effective date.

Core Entities: Product
Other Tabs

Product Tab	Description
Service History	Lists the Requests and RMAs raised during the life of the relevant Product
Parts Used	Lists the Parts used to fulfill Requests, Services and Repairs during the life of the relevant Product
Labor and Expenses	Lists the expenses associated fulfilling Requests, Services and Repairs during the life of the relevant Product
Readings	Provides usage information (related to Meters)
Persons	Lists associated Person records. Business rules can be used to assign preferred technicians for the Product.
Contracts	Lists Contract that include the relevant Product
ECOs	Engineering Change Order – Manages a change to a list of Products

IFS

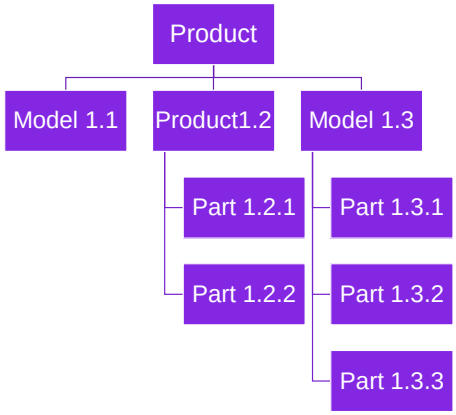
The following tabs provide important information on the Product record:

- **Service History** includes listing of requests and RMAs during the life of the specified product.
- **Parts Used** includes listing of parts used to fulfill requests, service, and repairs during the life of the specified product.
- **Labor and Expenses** includes listing of expenses associated with fulfilling requests, service, and repairs during the life of the specified product.
- **Readings** includes usage information for the specified product. This is associated to meters.
- **Person (Relationships)** includes associated persons, such as sales representatives or field service representatives. The global code, **person_relationship**, is significant to this tab. Business rules can be used to assign, for example, a primary and secondary technician associated with a product. This is useful if the particular product requires a technician with a certain skill level or knowledge even if the technician is not the primary technician at the place the product is located.
- **Contracts** includes contracts on which this product appears.
- **ECOs** (engineering change order) is a record that facilitates the management of making a change to a list of products. You specify templates and a request or RMA is created along with optional tasks. When all requests or RMAs associated with the ECO are complete, the ECO is automatically completed. A request is created for each product unless a return reason is specified, in which case an RMA is created instead.

DUPLICATED FROM LOGISTICS COURSE

Optional Features
Product Structure Overview

Parent	Can include Models and Parts
Always a Product	Reference only, no tracking of Service or Repair



- There are two ways to create a Product Structure:

1. **Bill of Materials**
   - Part or Model screen
2. **Ad Hoc**
   - Product Structure Screen

IFS

A product structure is a hierarchy related to each other as part of a greater product. This structure facilitates the tracking the service or repair of the smaller products that compose a larger product.

Examples:

Network configuration comprising routers, switches, and wiring

Complete workstation comprising a desktop PC, monitor, keyboard, and mouse

Lawn mower made of chassis, engine, wheels, and blade

A product structure can include a large number of products in a deep hierarchy. The parent of a product structure is **always a product**. You can also include models and parts in a product structure as a reference but you **cannot track** service or repair on those items because they are not products.

You can create a product structure one of two ways:

- Create a product based on a model or part that has a bill of materials. An automated product structure is a service bill of material.
- Create an ad-hoc product structure based on existing products

Demonstrate the significant fields of the Product record: Serial number, Number of returns, Part to product, Temporary serial, Warranty dates
Demonstrate the different tabs on the Product record
Demonstrate the different buttons on the Product record

Practice & Learn
Product

- Search for your customer record created earlier
- Add 2 product records from the Model ID created earlier
  - Add a serial ID to one of the products
  - Let the application add a temporary serial to the second product

Student should see a serial number such as ()xxx if it is a temporary serial

By the end of this lesson, students should :

- Understand a Product record
- Understand a Product warranty
- Understand the information recorded on the Product tabs


Part
IFS

Part
Learning Outcomes

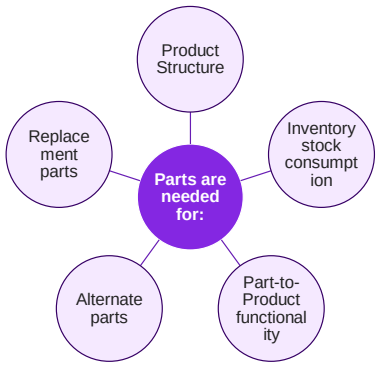
By the end of this lesson, you should:

- Understand a Part record
- Understand information recorded on the Part tabs

Core Entities: Part

Part Record

- The **Part** record identifies a particular item that is sold to a customer or used during service/repair. A **Part** is the smallest unit of inventory, and as such, a number of other features are dependent upon **Part** records:



TIP: Products are sometimes identified using a Part record so they can be tracked when sold.

Part records are used to identify particular items that are sold to customers or used during service or repair. A part is the smallest unit of inventory and can be one item, a sub-assembly, or an assembly. Products are sometimes identified using a Part record so they can be tracked when sold.
A part record needs to be created to be part of a product structure. Used to set up and view the models, parts, and assemblies that comprise a specified product.
A part record needs to be created for inventory Stock records to be consumed during field service or repair center operations.
A part record needs to be created be used with the part-to-product functionality. The part-to-product option determines whether this part can be used as a template for a product record. If you are repairing this part, you must create a product record based on part information.
A part record needs to be created to be an alternate parts which identify parts that can be manually substituted for the specified part.
A part record needs to be created to be a replacement parts which are automatically substituted for the specified part when the specified part is ordered after the effective date of the replacement and stock of the original part is zero.

There are application parameters that are significant to products.
Create_default_models_from_parts automatically creates a corresponding Model record when a Part record is created, if this value to Y (yes). A Model record is required when covering products on a contract. This is beneficial for the Part to Product functionality.

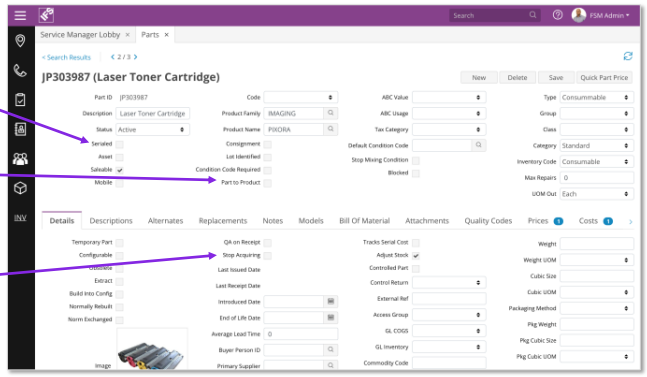
Core Entities: Part
Part Record Elements

- There are many fields associated with a **Part** record.

SERIALED
Indicates whether serial number required for inventory

PART TO PRODUCT
Determines whether the Part can be used a template for a Product record

STOP ACQUIRING
Set this if a part is NLA or has a direct replacement

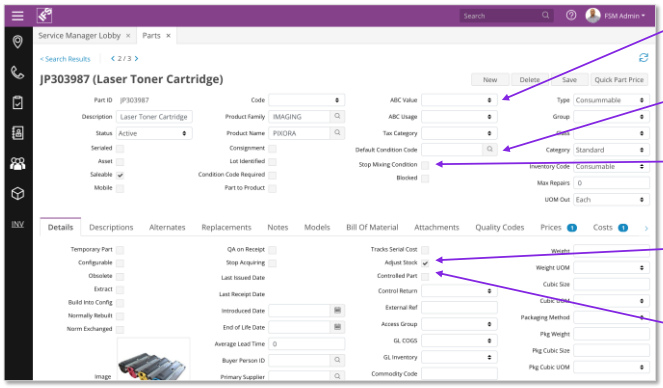


IFS

Most of the part fields and tabs are discussed in either the *IFS FSM Repair Center* course or the *IFS FSM Logistics* course. We will discuss briefly discuss the part record in this course as it pertains to administration.
The part record can be separated into several areas: Handling, Financials and Other. In addition to that, you can quickly copy a part record with the "Copy" button.
Some significant fields in the header:
ABC Usage identifies the A, B, or C rank assigned during ABC analysis based on part usage. You can also manually assign a value for rank based on ABC usage.
ABC Value identifies the A, B, or C rank assigned during ABC analysis based on part cost. You can also manually assign a value for rank based on ABC value.
Part to Product determines whether this part can be used as a template for a product record. If you are repairing this part, you must create a product record based on part information.
Serialed determines whether a serial number must be identified for all inventory movements.
Lot Identified indicates whether this part is assigned a lot number during production. The benefits include more easily complying with regulations and ease in identifying parts by lot, for example when an entire lot may be defective.
Default Condition Code provides the ability to specify a part as NEW, REFURBISHED or BROKEN, etc., meaning that the part can now have a different price and cost per condition. For example, REFURBISHED may have a lower price than a NEW item due to the refurbished item just being repaired.
Stop Mixing Condition determines if different conditions can be in a bin or not.
Some significant fields in the Details section:
Adjust Stock determines whether stock amounts are adjusted when this part is received or used.
Controlled Part determines whether a part disposition is entered when a part is deinstalled.
Extract indicates whether part need records created for this place will be processed by another system. This is determined by the application parameter **part_need_extract**. If the parameter is set to Y, then both the part and place records must be set up for extraction.
Stop Acquiring determines whether purchases orders can no longer be created for this part. You usually set this indicator when the part is obsolete and a replacement part is specified.
Unit of Measure is required to drive which units allow decimal quantity and which do not. This is based on the U_M_OUT code table.

Core Entities: Part
Part Record Elements

- There are many fields associated with a **Part** record.



ABC VALUE/USAGE
Identifies A, B or C rank assigned during ABC analysis

DEFAULT CONDITION
Provides ability to specify condition and thereby associate new price etc

STOP MIXING CONDITION
Determines whether Parts in different conditions can be in a bin

ADJUST STOCK
Determines whether stock levels are adjusted when Part used/received

CONTROLLED PART
Determines whether a Part disposition is entered when a Part is uninstalled

IFS

Most of the part fields and tabs are discussed in either the *IFS FSM Repair Center* course or the *IFS FSM Logistics* course. We will discuss briefly discuss the part record in this course as it pertains to administration.
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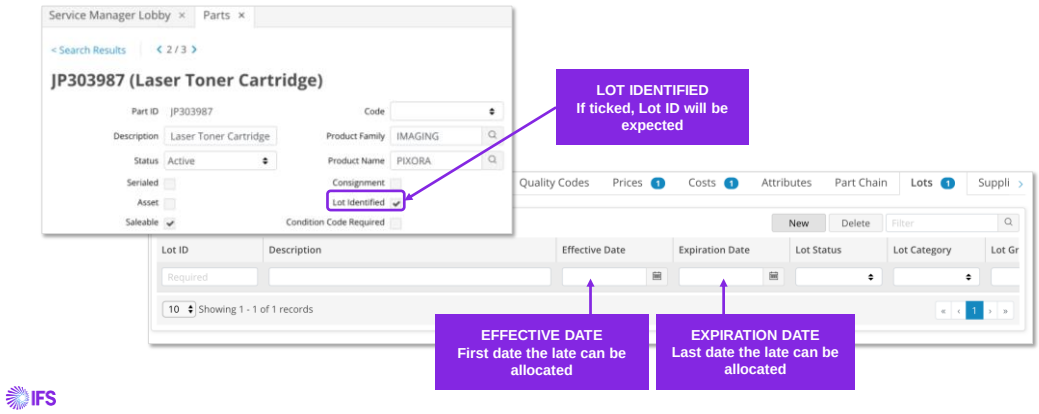
Controlled Part determines whether a part disposition is entered when a part is deinstalled.
Extract indicates whether part need records created for this place will be processed by another system. This is determined by the application parameter **part_need_extract**. If the parameter is set to Y, then both the part and place records must be set up for extraction.
Stop Acquiring determines whether purchases orders can no longer be created for this part. You usually set this indicator when the part is obsolete and a replacement part is specified.
Unit of Measure is required to drive which units allow decimal quantity and which do not. This is based on the U_M_OUT code table.

Core Entities: Part
Lot Tab Record

- A Lot is a grouping of inventory, used to ensure each piece of inventory can be tracked by to the manufacturer's batch from which it originated.



A **lot** is a grouping of inventory. Lot Control is a supply chain concept used to ensure that every piece of inventory can be tracked to its group of origin. Lots are specific batches of a part that was received, is currently stored, or was shipped from your warehouse. Lots are normally assigned a unique number (lot id). Why would you use inventory lots? Lots provide the ability to track a batch of a product/part from manufacturing to current time. You can monitor expiration dates, recall products/parts and have product/part differentiation. Lot information can be manually entered at shipment, receipt or manual adjustment or business rule #133 can be built to default in values if nothing is provided.
On the part record, the **Lot Identified** option signifies if set, expect lot id, if not set, nothing. The **Stock Lot Screen** enables you to search for stock by lot ID .
The following processes consider lots: Part usage, Part disposition, Kitting, Stock count, Stock allocation, Stock movement between locations and bins, Put Away, Picking, Shipping and Receiving.
The **Lot tab** shows all the lots created for that part id. Lots are used in Mobile as well.
Significant fields:
Lot ID identifies the lot for the specified part. When lot information is specified, only the identified lot can be allocated.

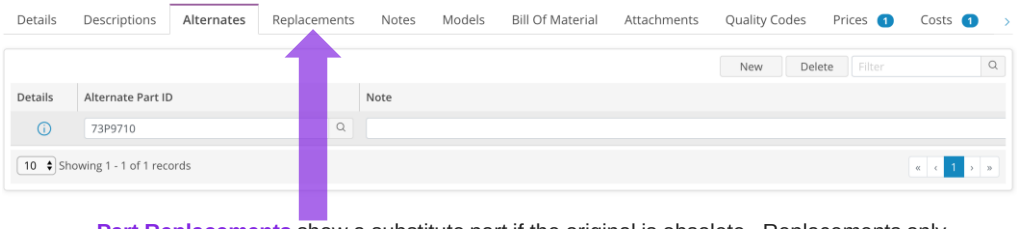
Each lot has an effective date and an expiration date.
Effective Date identifies the first date this lot can be allocated.
Expiration Date identifies the last date this lot can be allocated.

Several app params are significant to lots:
Allocation_order_by_lot_expiry_dt determines whether lots are assigned by ascending order of expiration date (earliest first) or descending order of expiration date (latest first). Values are ASC (ascending) and DSC (descending). Value defaults to ASC upon installation.
Lot_expire_days identifies the default number of days before a lot expires. Value is any positive integer and defaults to 365 upon installation.

Core Entities: Part
Part Alternates & Replacements

- **Part Alternates** indicate parts that can be used interchangeably, e.g., using a capacitor of a higher voltage rating than the original part or a spark plug of a different brand.

TIP: Some Part Alternates are not appropriate, eg battery of larger capacity at the same voltage, but different dimension. Then we have to create an Exception to prevent allocation of the Alternate. Business rules can be used for this.



Part Replacements show a substitute part if the original is obsolete. Replacements only affect Part Need creation, ie replenishment and does not replace the need to change the business process once the original stock has been used.

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Part alternates is the substituting of a part on hand for a part that is not available, for example using a capacitor of a higher voltage rating than the original part or a spark plug of a different brand. The alternate part is functionally equivalent, though it might have a different cost or other differentiating characteristics such as size or color.

At a minimum, part alternates are considered when allocating a part need. If the requested part is not available and alternates are available, the value of the requested part is stored and the alternate appears on a list based on a score specified on the alternate. For example, you might score a 100V capacitor higher than a 250V capacitor, because the 250V capacitor is larger and more expensive, even though both can be used in place of a 50V capacitor. You then select the most appropriate alternate for the unavailable part.

You can choose to allow alternates during **refill** or **replenishment**. When alternates are included, the quantities for the alternates at that stocking location are added to the quantities of the original part and used to determine whether and how much to replenish and refill.

You can specify that alternates can be received on a **purchase order**. For example, you may use separate part numbers for equivalent parts supplied by different vendors and use the score to determine which part to prefer when refilling. These alternates are specified automatically based on score.

Some part alternates are not appropriate. For example, a battery of larger capacity at the same voltage is functionally equivalent, but may not fit in the space available. In this case, an exception is created to prevent allocation of the larger battery for the specified product. Business rules are used to create exceptions in the following situations:

- Receiving for purchase orders and RMAs
- Part need allocation
- Refill and replenishment

We will discuss more about alternates in later lessons

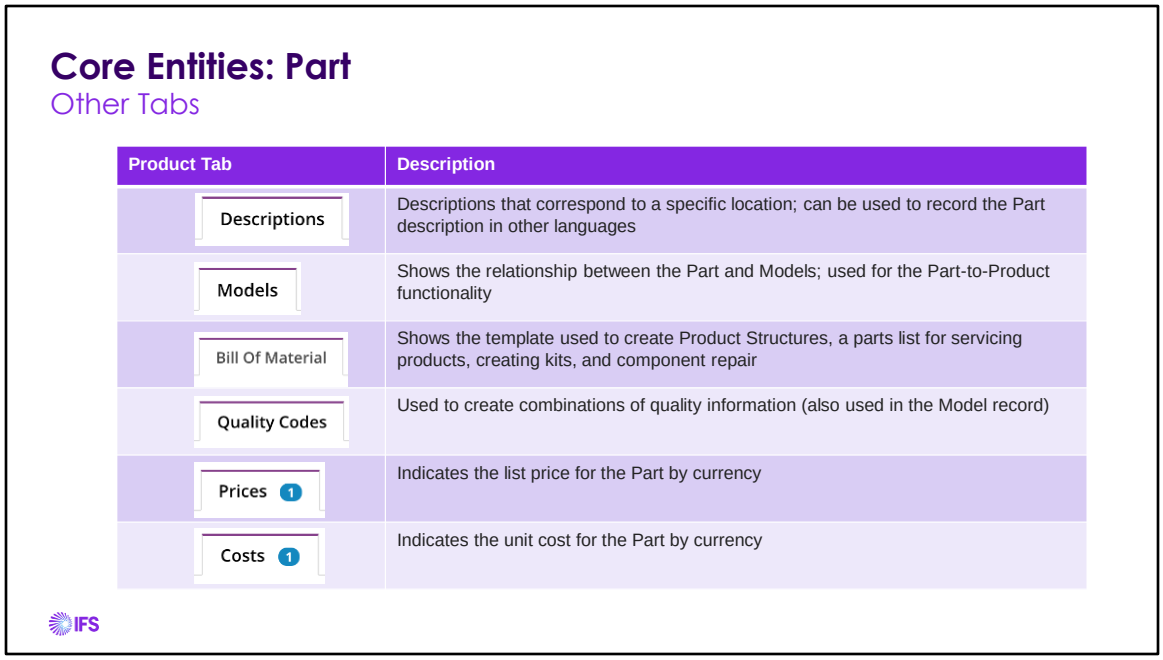
Part replacement is the substituting of a new part for a part that is no longer supplied, for example it is obsolete or the new part is an improved version. When a replacement is specified, the original part is supplied until stock is exhausted, and then the replacement is allocated whenever a part need is created for the original part.

Replacements only affect part need creation. This includes part needs created by replenishment.

If the replacement part is not in stock, it is backordered and you must purchase and receive the replacement part. If you refill the original part, however, purchase orders are created for that original part and not the replacement. You must manage separately the ordering of parts to ensure that you only order the replacement and not the original part. You must also separately inform your staff to specify the replacement part when creating part needs after the stock of the original part is exhausted.

During reallocation, replacements are only considered when filling new part needs that have not yet been allocated.

Part replacement is intended only to automatically substitute a new part when an older part is entered on a part need. You must manage the entry of the new part on product structures, models, bills of materials, kits, and so forth.



The Part record has tabs that are specific to the part record and there are tabs that are generic, such as Notes, Events and Attachments, and used across multiple core entities. We will discuss those in later lessons. Most of these tabs have been discussed in other courses.

Descriptions includes descriptions that correspond to a specific locale. This is useful if you have employees speaking other languages and they can see the part description in their own language.

Models includes relationships between this part and models. This is for the part-to-product functionality.

Bill of Material includes the template used to create product structures for products based on this model, a parts list for servicing products, creating kits, and component repair.

Quality codes are used to create combinations of quality information, symptom, problem, and resolution based on part. We also saw this functionality earlier on the model record.

Prices includes list price for this part by currency. There are three ways to create part prices: the Quick Part Price button on part (simple pricing), Price tab on part (moderate pricing), and the Part Pricing price rule (elaborate pricing) under the Financials menu. The only difference between the three methods is how elaborate is your pricing structure. Part prices are discussed in the *IFS FSM Financials* course.

Costs includes unit cost for this part by currency. There are two ways to create part costs: Cost tab on part (moderate pricing), and the Part Pricing price rule (elaborate pricing) under the Financials menu. The only difference between the three methods is how elaborate is your pricing structure. Part costs are discussed in the *IFS FSM Financials* course.

Demonstrate the significant fields of the Part record: ABC codes, Part to product, Serialed, Adjust stock, Extract, Controlled part, Stop acquiring, Lot identified, Condition Code
Demonstrate the different tabs on the Part record
Demonstrate the different buttons on the Part record

Practice & Learn
Part

Search for the part created from the product previously created

- Add a price
- Add a cost
- Set Lot Identified
- Add a condition code

By the end of this lesson, you should:

- Understand a Part record
- Understand information recorded on the Part tabs


Stock
IFS

Stock
Learning Outcomes

By the end of this lesson, you should:

- Understand a Stock record
- Recognize the features of a Stock record

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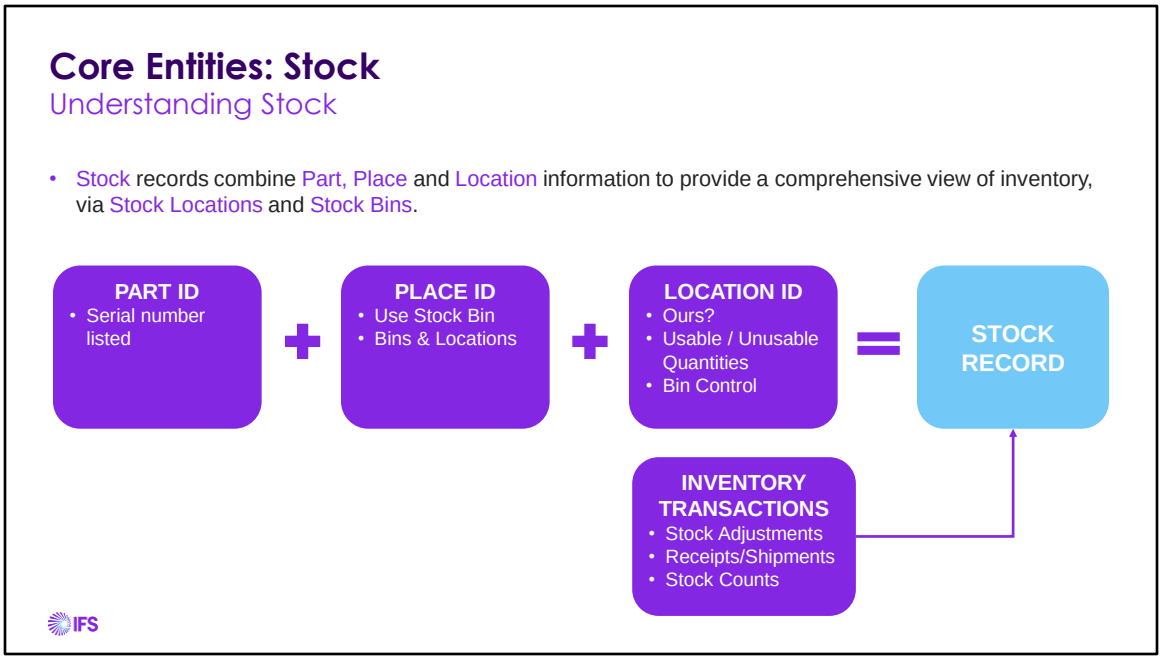


As it was discussed in the previous lesson, part records are critical to inventory. But they are just one key to the creation of stock. Stock is comprised of **part**, **place** and **location**. To create stock locations, you must set up your place records to stock the parts, locations within those places and storage bins within those locations. This lesson will discuss the setup of location and bins to be used to create stock records.

Stock locations are where you keep your parts. Stock can be managed by place, location, and bin. Places and locations must be set up for shipping, receiving, the place for stock, part dispositions, customer places, and optionally third-party repair. To store stock, locations and bins must be created on the place record before stock locations and bins can be created. If not, the default location of LOCATION is used. Stock also has places and locations.

The **Place** fields were discussed in an earlier lesson.

There are two places to setup bins and locations for places. Either on the **place** record itself or through the **Inventory, Admin menu**.

There are several fields on **Location** that are significant.

The "**Ours**" option on Place indicates who owns the PLACE. The "Ours" option on the Location indicates whether this LOCATION is owned by your organization.

Usable identifies whether items stored in this bin are always usable, always unusable, usually usable, or usually unusable. This value affects whether certain stock can be received in this bin. Use this option with care otherwise you will not be able to move items to the location you want to use.

Bin Control indicates whether bins are allowed at this location.

Once you have created the places, parts, locations and bins, now you can create the stock locations and bins to house your inventory. A stock record, for example, might describe where you store faucet assemblies in your warehouse. Or, a stock record might describe where you store machine screws in your service truck. A stock record might also describe the location of a repair unit, because all repairs are tracked within your organization as

stock.
A stock record is made up of three keys: **part ID, place ID, location.**
Once the stock record is created, you can add parts via stock adjustments, receipts or stock counts or you can delete parts via stock adjustments, shipments or stock counts. All this is done through inventory transactions in Repair Center, Service or Logistics.
You can choose to specify a bin ID. If you do not, all stock resides in a default bin named LOCATION, one for usable stock and one for unusable stock.
You can designate a bin to be usually usable or unusable, or always usable or unusable.
If the bin is always usable, for example, only usable items can be stored in that bin.
Usable quantities include parts that can be sold to a customer, for example, parts that are new or have been refurbished. Usable parts are worth their specified standard cost from part pricing rules.
Unusable quantities include parts that are usually not sold to a customer, for example, parts that were removed from service as defective or have been returned but have not yet been inspected or refurbished. Unusable parts are worth their specified defective cost from part pricing rules. Bins can be permanent or they can be temporary.

Core Entities: Stock
Stock Record Elements

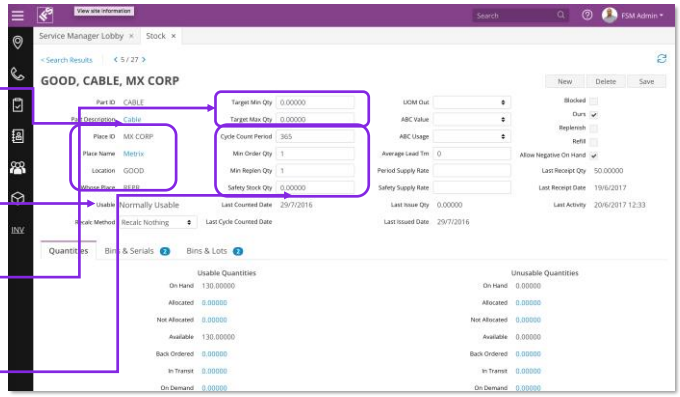
- There are many fields associated with a **Stock** record.

STOCK LOCATION
A number of fields break down the exact location of the stock item

STOCK USEABILITY
Indicates whether the stock is usable or not

TARGET QUANTITIES
Used to determine ordering and replenishment

STOCK COUNTS
Shows frequency and last stock counts



IFS

Stock records have lots of information. They are used to identify where parts are stored and how many are stored there. In addition to the above information, they also identify the target quantities to use when replenishing or refilling to targets. Three indicators identify how stock is handled during automated processes such as replenishment and refill to targets:

When a stock location is **blocked**, no stock can be purchased or replenished regardless of the quantities specified.

When **Replenish** is selected, this stock record is considered in the replenishment process and the appropriate part needs are created to move the stock.

When **Refill** is selected, this stock record is considered in the refill-to-targets process and the appropriate purchase orders are created to purchase additional stock.

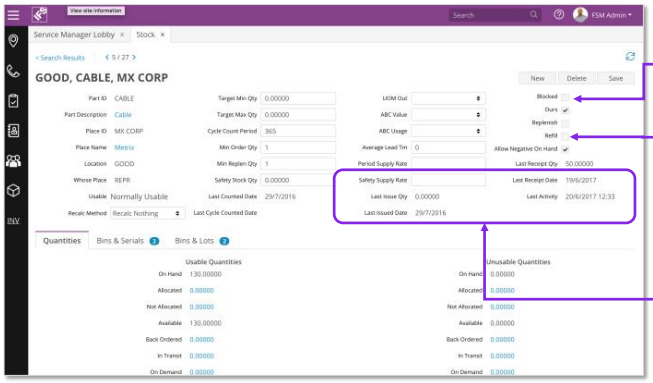
We will discuss this fields in later lessons.

As we discussed previously, the locations and bins that you created on the place record can be used to create the stocking record. As you recall, a location can be normally usable, normally unusable, always usable or always unusable. You are not able to change the usability of the stock. It defaults from the associated location record.

Set **allow_negative_on_hand** to Y (yes) if you want to allow on-hand stock quantities to go negative. This would be if you have “just in time” inventory.

Core Entities: Stock
Stock Record Elements

- There are many fields associated with a **Stock** record.



STOCK BLOCKED
If ticked, no stock can be purchased or replenished

REPLENISH / REFILL
Indicated stock record is in replenishment / refill process and appropriate Part Needs or Purchase Orders are created

STOCK DATES
Shows when stock was last issued, received etc

IFS

Stock records have lots of information. They are used to identify where parts are stored and how many are stored there. In addition to the above information, they also identify the target quantities to use when replenishing or refilling to targets. Three indicators identify how stock is handled during automated processes such as replenishment and refill to targets:
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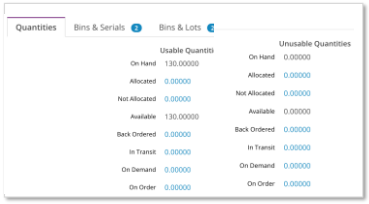
Set **allow_negative_on_hand** to Y (yes) if you want to allow on-hand stock quantities to go negative. This would be if you have “just in time” inventory.

Core Entities: Stock
Quantities

Stock Quantity Label	Description
On Hand	Currently in stock
Allocated	Allocated for shipment but not yet shipped (ie a reservation)
Non-Allocated	Part Needs have been created but not allocated, eg preventative maintenance request
Available	Calculated quantity, based on items in hand but not allocated
Back Ordered	Items that were requested but could not be allocated due to insufficient stock
In Transit	Items that have been shipped but not received in FSM
On Demand	Items order for an internal transfer Part Need
On Order	Items ordered via PO, but not yet received in FSM

TIP: To access Stock records, you need the relevant permissions to access not only Stock records, but also Parts and Places

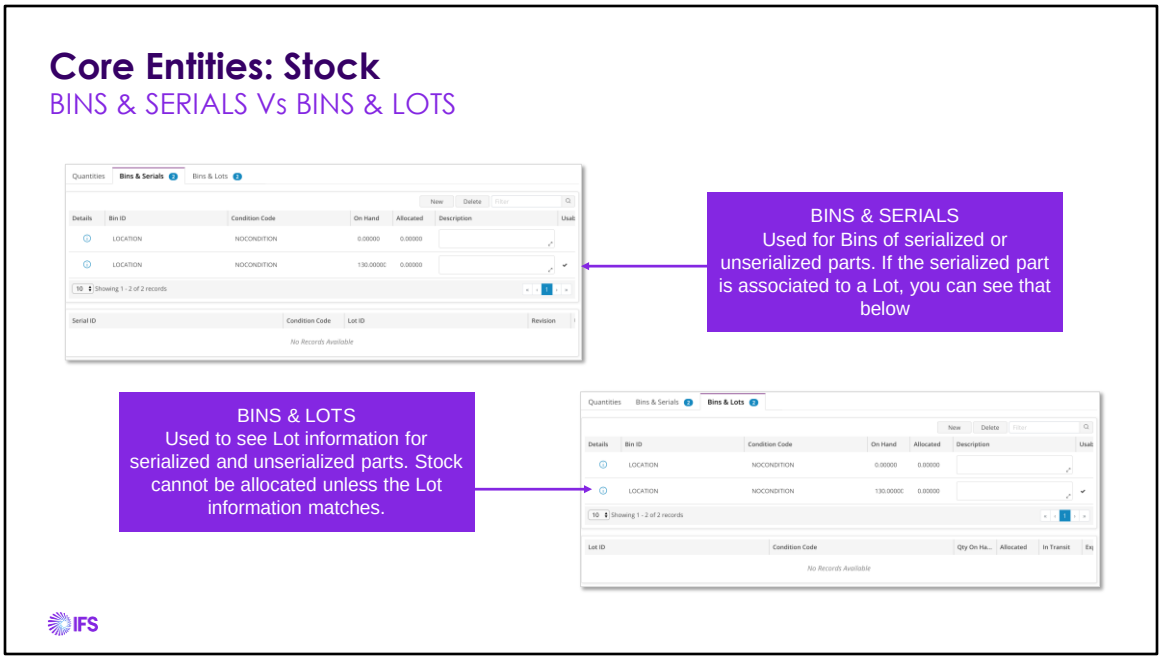


TIP: All changes to In-Transit or On-Hand quantities will cause a Part Transaction record to be created – these help create more accurate stock counts

FSM keeps track of usable and unusable stock quantities for you. The following quantities are available:
On Hand means items that are currently in stock at one of your stocking places.
Allocated means items that are allocated for shipment that are not yet shipped. Allocations can be considered as a reservation for a part that remains on hand until picked and shipped.
Non Allocated means part needs are created but are not allocated. For example, when you create preventative maintenance requests with part needs, the request might be scheduled six months in advance, but you do not want to allocate the part needs until the week of the preventative maintenance. We will discuss non allocated part needs in a later lesson.
Available is a calculated quantity, the number of items that are on hand that are not allocated. These parts can be allocated (reserved).
Back Ordered means items that you attempted to allocate but could not because there was not enough stock available.
In Transit means items that are shipped in-transit but are not received in IFS FSM. In-transit quantities appear for the receiving place.
On Demand means items that are ordered for an internal-transfer part need, for example the part needs created by the replenishment process.
On Order means items that were ordered using a purchase order that are not received in FSM. If the parts have serial numbers, the serial numbers are listed as well.

All changes to in-transit and on-hand quantities cause a part transaction record to be created. These records are used to create more accurate stock counts.

You can use access groups to determine who can see or access stock records. For any particular stock transaction you want to perform, you must have the appropriate access to not only stock records, but to parts and places.

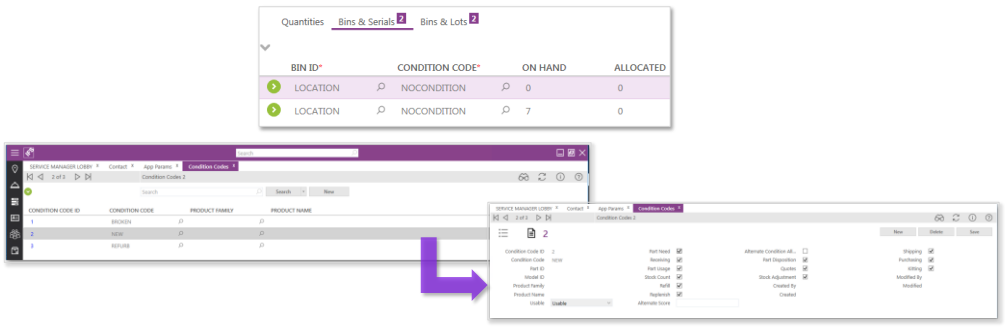


There are two tabs on the Stock record: **Bins & Serials** and **Bins & Lots**.
Bins & Serials used for bins of serialized or unserialized parts. If the part is serialized, you can find the information when the red arrow is opened. If the serialized part is associated to a lot, you can see that information.
Bins & Lots is used to see lot information of serialized or unserialized parts. When using lots, stock cannot be allocated unless the lot information matches.
Very similar to changing the stock from unserialized to serialized (or vice versa), for lots, if you already have existing stock, then you need to do the following:
Reduce Stock to 0
Set Lot Identified on Part
Count or Load Stock with Lots

Stock
Condition Codes On Stock Bin

Stock Bin

Stock Lot



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You can change the condition of parts in inventory. For example, you can change the condition of a serialized part from new to refurbished.
Condition_code is a primary key for STOCK_BIN_TABLE and STOCK_LOT_TABLE.

When part.condition_code_required = N or null then the stock_bin_table.condition_code = NOCONDITION and user will not be able to select a condition code from any table.
If part.condition_code_required = Y then the default condition_code is visible on the screen when creating a receipt/part need/part usage process.
The user can use the CONDITIONCODELOOKUP to show the CONDITION_CODE records available for that part, process, product family and/or product name.
You can associate a condition with a bin. We **do not** recommend mixing parts with different conditions in the same bin, although it is possible.

Show existing stock record.
Show relationship of part, place, location
Point out On Hand, Allocated, Not Allocated, Available, Back Order, In Transit, On Demand, On Order
Point out usable and unusable stock records
Point out Bins & Serials and Bins & Lots tabs
Create new stock record
Point out all quantities are 0

Practice & Learn
Stock

- Go to Inventory, Stock and search for an existing stock record
  - Look at usable and unusable stock
- Go to Inventory, Stock and add a new stock record
  - Search for your part ID created earlier
  - Search for a Warehouse and Location

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Point out to the student that a new stock record will have 0 quantities.

By the end of this lesson, you should:

- Understand a Stock record
- Recognise the features of a Stock record

Agenda – Day 02

01 Introduction

02 Usages & Part Needs

03 Rules

04 Rules continued

05 Using Core Entities Review

06 Review & Wrap-Up

3. Usages And Part Needs

Usages And Part Needs

Learning Outcomes

By the end of this lesson, you should:

- Understand what Usages are
- Recognize Line Codes
- Understand Labor and Expenses
- Understand Part Usage
- Understand Part Needs

IFS

Usages And Part Needs

Part Needs, Part Usage And Labor/Expenses

PART NEEDS
Something needed to deliver the service; a plan to consume a part (future)

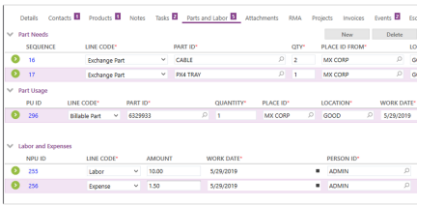
→ **Moves items between locations. Related to Request, Task, RMA or Repair**

PART USAGE
Something that has been consumed in the delivery of a service (historical)

→ **Determines if/how the part is billed to customer**

LABOR & EXPENSE USAGE
Time or other cost that has been used to deliver a service (historical)

→ **Determines if/how the time or expense is billed to customer**



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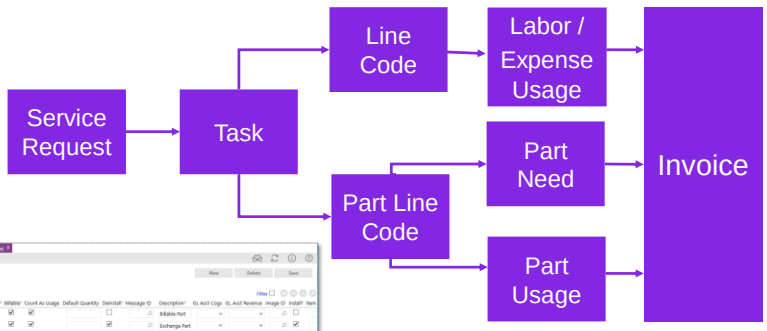
Usages are parts and labor entered on lines, a metaphor for entries in a ledger or on an invoice. A line generally contains a line code, the part or labor, and a quantity.
Part Need is a plan to consume a part. The part may not be in stock at your desired location. For example, you might need to have a part to complete a job but it is not in the service truck. Or, you might have no more parts in a particular stocking location and you need to order more from the central warehouse. It is how FSM moves items between locations. A part need is associated with a request, a task, an RMA, or a repair task. We will discuss part needs in *IFS FSM Logistics* course.

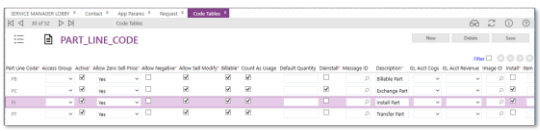
A **part usage** is an indication that a part was used during service. The part line code determines processing information such as how the part is billed. In general, you enter part usage for each part that was used. If the part was obtained using a part need, there is an option to indicate that the part need also indicates part usage. If you use a part need to sell a part, part usage is automatically created when the part is shipped to the customer. If you delete part usage, all related inventory transactions are reversed.

A **non-part usage (labor and expenses)** is usually an indication that time was spent performing the service. The line code determines processing information such as how the time is billed. In general, you enter non-part usage for each time block, for example, travel or labor. You can also enter non-part usage for miscellaneous charges, expenses, and freight. Time used is entered in two ways. First, for time spent specifically on requests, the time is entered as non-part usage on that request. Second, for employees who do not perform work that can be billed on a request, for example your office staff, time is entered using Time and Expenses screens.

Usages And Part Needs
Overview

Admin Menu >> Codes >> Code Tables >>
PART_LINE_CODE





In the next part of this course, we will discuss the process of taking a call as illustrated in the diagram. Typically, when your customer wants a service provided, a request and task are generated. If the technician does not have the part in stock, he will create a part need to transfer the part to him. Once he has received the part to use it, a part usage will be created. He also needs to record his labor and expenses. Once the call is completed, a voucher and invoice may be generated to invoice the customer.

Line codes determines billing. Line codes are essential for usages and part needs. Line Codes (line codes/part line codes) provide default processing information for part needs, part usage, and non-part usage. Each line has a line code associated with it. This is essential to service pricing. Line codes and part line codes are found on Code Tables.

Line codes allow for labor and such expenses as mileage to be entered in four formats: a quantity of 1, whole numbers only, tenths allowed or hundredths allowed.
Part line codes can be set to allow a transfer (value “PT”) or to have a Default Quantity which will prefill when this part line code is selected.

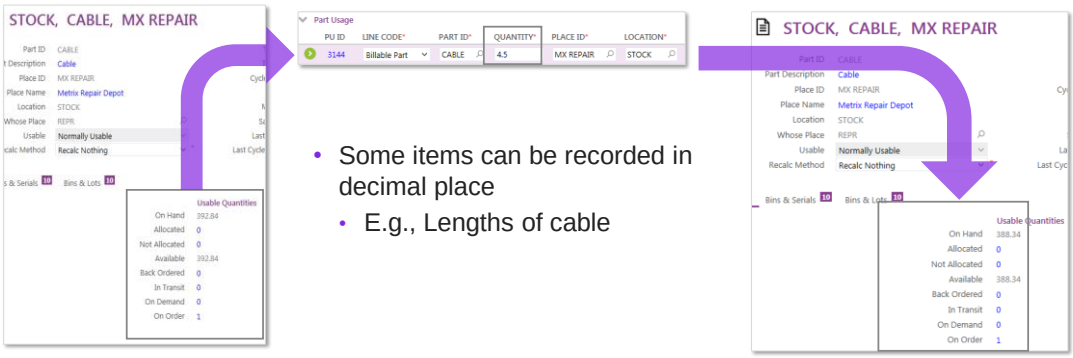
Usages And Part Needs

Decimal Part Quantities

Current Stock Value
Value

Usage

New Stock



- Some items can be recorded in decimal place
  - E.g., Lengths of cable

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You are allowed to enter, stock, receive and ship decimal part quantities. For example, you may stock cable assemblies of different lengths that include 1.5 meter cables.

You can set the quantity format for any unit of measure to allow decimal part quantities. In the example, you can see the stock record prior to the part usage occurring.

Once the part usage has been saved, the stock record has been decremented by that amount.

As we discussed earlier, the unit of measure on the part record drives whether you can use decimals or not. Set the Quantity Format field on the U_M_OUT code table to reflect the decimal quantity.

Go to Code Tables to demonstrate the different part line codes and line codes and u_m_out.
Search for an open Request.
Create a part need.
Create a part usage
Create a labor and expense

Practice & Learn

Usages And Part Needs

- Go to Code Tables to see the different part line codes and line codes.
- Search for an open Request. Go to the Parts and Labor tab.
- Under Labor and Expenses, select a line code requires you to put in whole numbers. Add an amount and Save the record.
- Repeat with a line code that requires you to put in a quantity of 1.
- Under Parts, select a line code and part that requires you to put in a number to the hundredths.
- Review the stock record. Create the usage. Review the stock record again.

By the end of this lesson, you should:

- Understand what Usages are
- Recognise Line Codes
- Understand Labor and Expenses
- Understand Part Usage
- Understand Part Needs

Go to Code Tables to demonstrate the different part line codes and line codes and u_m_out.
Search for an open Request.
Create a part need.
Create a part usage
Create a labor and expense

Practice & Learn

Usages And Part Needs

- Go to Code Tables to see the different part line codes and line codes and u_m_out.
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- Under Labor and Expenses, select a line code requires you to put in whole numbers. Add an amount and Save the record.
- Repeat with a line code that requires you to put in a quantity of 1.
- Under Parts, select a line code and part that requires you to put in a number to the hundredths.
- Review the stock record. Create the usage. Review the stock record again.

3. Core Entities Review

Using Core Entities
Summary

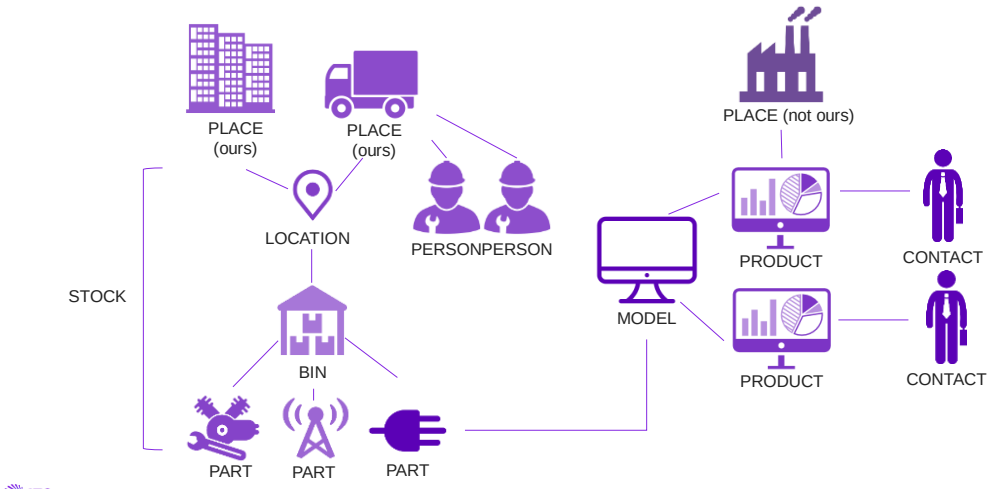
- **Core Entities** are the building blocks of IFS FSM. Together with **Usage** and **Rules** (covered in IFS FSM Core Processes), they provide all the elements required to establish field service processes in FSM.

- For FSM Implementers, it is essential to understand what each Core Entity does within the system, and how it interacts with other Core Entities.

Understanding the relationships between the different Core Entities and what each one does within FSM is fundamental to ensuring an appropriate implementation of FSM.

Using Core Entities

Summary



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Using Core Entities
Review

Place record
Identifies a site where work is performed, or resources (people, stock, equipment) held

Person record
Identifies an individual, usually an employee, who provides service

Model record
Identifies a set of characteristics through which multiple products can be grouped

Product record
Identifies an individual piece of equipment or asset, usually held by a customer

Part record
Identifies a component part, the lowest level of inventory, which is used to provide service to a site or asset

Stock
Identifies the location and quantity and characteristics of a part which is held by the organization to facilitate service

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Using Core Entities

Some Advice On Setting Up & Using Core Entities

Set up Core Entities in the following order:

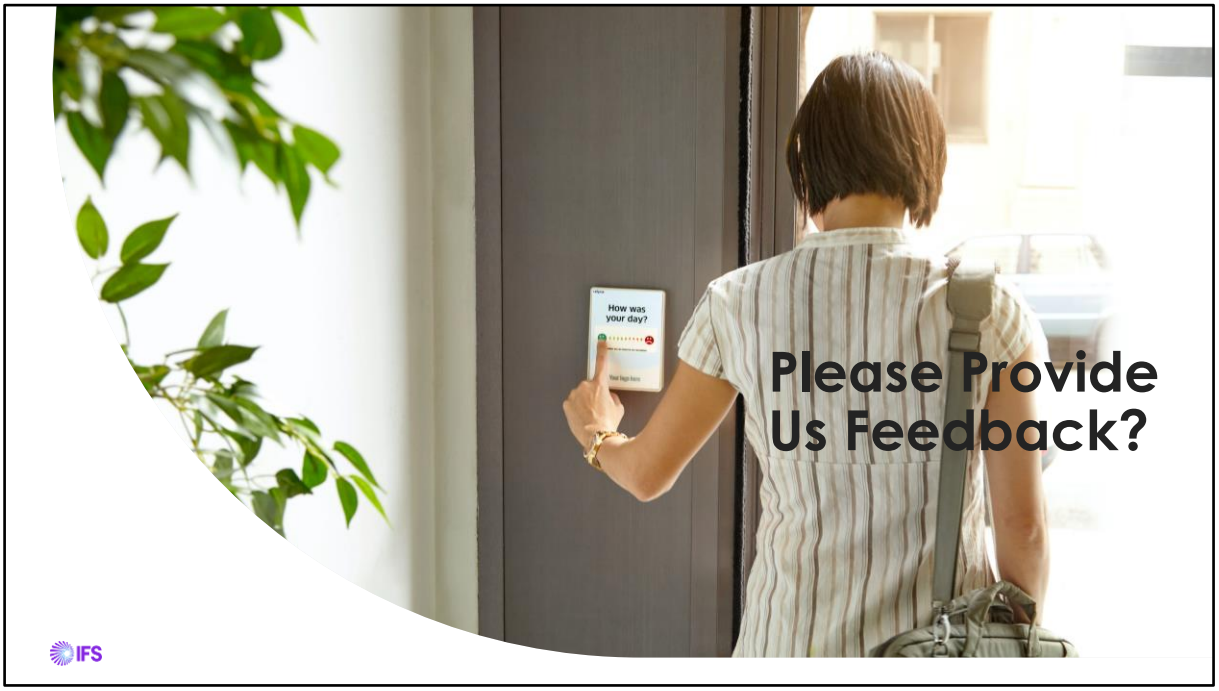
- Place (Service menu)
- Person (Admin menu)
- Work Calendars (Admin menu)
- Part (Inventory menu)
- Model (Inventory menu)
- Stock (Stock menu)
- Contact (Service menu)
- Product (Product menu)

Lesson objectives:

- …
- …


Wrap-up


Questions?


How was your day?
Please Provide Us Feedback?

Thank you!

#MOMENTOFSERVICE