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Manufacturing - Routing task

6 messages

S Munene <munenekamanu@gmail.com> Reply-To: user@ofbiz.apache.org To: user@ofbiz.apache.org 23 June 2025 at 13:04

When capturing routing task in the manufacturing module there is a dropdown for fixedAssetId (only a single fixedAssetId can be captured). The contents of that dropdown is restricted to assets of fixedAssetTypeId GROUP_EQUIPMENT.

- 1. Why is that necessary to restrict to fixedAssetTypeId GROUP_EQUIPMENT and if there is more than one such fixedAsset which one should somebody pick?
- 2. How and where is the information on the fixedAssetId selected used within ofbiz? I have tried to search without success.
- 3. The same routing task form has a submenu fixed assets that allows capture of fixedAssetTypes (now without GROUP_EQUIPMENT restriction) involved in the routing task. Is this a repetition or do they serve different purposes? Do you still include GROUP_EQUIPMENT
- 4. I am trying to come up with a comprehensive configuration that would allow me to workout the true cost of producing a manufactured item that would take into consideration raw materials, fixed assets(depreciation and maintenance) used and labour. could i get a typical 'seed data' and relevant ofbiz services.

Kindly assist

Regards Kamanu

Yashwant Dhakad <yashwant.dhakad@hotwaxsystems.com> Reply-To: user@ofbiz.apache.org To: user@ofbiz.apache.org 23 June 2025 at 15:09

Hi S. Munene.

Thank you for your detailed questions and observations.

Here's a consolidated response based on OFBiz's current data model and core functionality:

In the routing task screen, the fixedAssetId dropdown is restricted to assets of type GROUP_EQUIPMENT. This design ensures the asset is suitable for *production run scheduling*, where the associated calendar (linked via calendarId) helps determine working capacity, holidays, and exception days. This directly influences start and end date calculations during production planning.

When multiple assets of this type exist, the user typically selects a representative or default asset that logically covers the scheduling capacity for the task.

OFBiz also supports *hierarchical grouping of fixed assets*, which provides flexibility to model real-world equipment structures. For example:

<FixedAsset fixedAssetId="DEMO_MACHINE_GROUP"
fixedAssetTypeId="GROUP_EQUIPMENT" fixedAssetName="Demo Machine
Group"/><FixedAsset fixedAssetId="DEMO_MACHINE" fixedAssetName="Demo
Machine" fixedAssetTypeId="PRODUCTION_EQUIPMENT"
parentFixedAssetId="DEMO_MACHINE_GROUP" calendarId="DEMO_CALENDAR"
purchaseCost="50000" purchaseCostUomId="USD"/>

In this setup:

DEMO_MACHINE_GROUP is used in the routing task for scheduling and is tied to the calendar.

DEMO_MACHINE is a production asset grouped under it and can include cost-related attributes such as purchase cost and depreciation.

If your goal is to develop a *comprehensive costing model* that includes raw materials, labor, and equipment usage, you may extend existing OFBiz services accordingly.

Helpful References in OFBiz

Calendar and exception day logic is handled in: TechDataServices.java

Product-level cost estimation (including BOM and resources) can be reviewed via:

 $CostService.groovy \rightarrow calculate Product Costs$

Task-level cost calculations during production run creation can be reviewed in:

ProductionRunServices.java → createProductionRunTaskCosts

This data model and service architecture provide a strong foundation for linking scheduling, resource grouping, and cost calculation within OFBiz's manufacturing module.