Orders and Inventory in FOLIO

Here is a video from June 2021 showing the current interaction between new FOLIO orders and Inventory Instances.

**FOLIO Orders and Inventory**

Order scenarios described in the video:

Assume that all POLs have Inventory Interaction = Create Instance, holdings, items

1. Import an OCLC record to Inventory; create PO and POL in FOLIO Orders app; manually search and link the Instance to the POL; do not make any changes to the bibliographic data in the POL
   a. When the PO is opened
      i. The Instance-POL link is confirmed/finalized
      ii. Holdings and item are created on the existing Instance
2. Order an added copy for a different location; create PO and POL in FOLIO Orders app; manually search and link the Instance to the POL; do not make any changes to the bibliographic data in the POL; assign a different location for the added copy
   a. When the PO is opened
      i. The Instance-POL link is confirmed/finalized
      ii. A new holdings and its item are created on the existing Instance
3. Order an added copy in GOBI, for another different location; place the order in GOBI and use a different location (e.g. Annex)
   a. When the order is sent from GOBI, the PO and POL are created
      b. FOLIO opens the PO, which then
         i. Tries to match the POL to an existing instance in Inventory
         ii. It finds a match, so it
            1. Links the instance to the POL; creates a new holdings and item
            2. The POL’s bibliographic data still shows the (less complete) bibliographic data that came from GOBI, even though the POL is linked to the correct instance
4. Order a new title in GOBI; Instance does not exist in Inventory
   a. When the order is sent from GOBI, the PO and POL are created
   b. FOLIO opens the PO, which then
      i. Tries to match the POL to an existing instance in Inventory
      ii. It does not find a match, so it
         1. Creates a new instance, holdings, and item, using the bibliographic data from the POL
5. Create a PO and POL in FOLIO for a title that does not have an Inventory instance yet
   a. When the PO is opened
      i. FOLIO tries to match the POL to an existing Instance in Inventory
      ii. It does not find a match, so it
         1. Creates a new instance, then adds the holdings and item, using the bibliographic data from the POL
6. Create a PO and POL in FOLIO for a title that has an Inventory instance, but the instance details are edited on the POL before the PO is opened
   a. When the PO is opened
      i. FOLIO tries to match the POL to an existing Instance in Inventory, but it doesn’t match the instance that was originally used to populate the POL
      ii. So it creates a new instance, then adds the holdings and item

**Current POL matching logic**

(All cases assume that the POL has inventory interaction setting of Create Instance (and possibly Holdings and possibly Items))

- If a specific Instance is selected during POL creation:
  - And the bibliographic details in the POL are not changed, the opened POL will be linked to that Instance.
  - And the ) details in the POL are changed, the opened POL will be linked to a newly-created Instance.
- If a specific Instance is not selected during POL creation, the opened POL will try to link to an existing Instance based on the Product ID and Product ID type
  - If the POL’s Product ID matches an Instance’s Resource Identifier, the opened POL will link to that Instance
  - Need to test: If the product ID has type of Invalid ISBN or Invalid ISSN, will the POL still link to it? If yes, add a bug so that it can be corrected, and so that the Resource Identifier Type is taken into account
  - If the POL does not have a Product ID, a new Instance will be created. The POL does not try to match on title or other data elements.
  - If the POL’s Product ID matches to multiple Instances, then we think that the POL links to the first matching Instance that it finds. This logic needs to be confirmed.
- If a POL matches to an Instance, the POL cannot be relinked to a different Instance, unless the POL is "unopened" first.

**To do's (Dennis Bridges)**

- Check whether the POL match takes invalid Resource identifiers into account or not; may need to refine the matching logic
- The matching logic does not take the validity of resource identifiers into account. A match will be based on the presence of an identifier only.
- Confirm what happens when the POL matches to multiple instances
A match will be made against the first matching instance returned from the Inventory API based on the product ID search.

Does the POL need to take the Instance's Resource type into account? (for example, so that a POL for a physical resource does not link to an Instance for an electronic resource.)

This will need further discussion in the Acquisitions SIG.