FiDo v2.0 – User Guide

FIDO - FIBER DOCUMENTATION WEB APPLICATION.

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Introduction:

What Is FiDo?

FiDo is a solution to a problem. We needed a way to document every element of our Fiber Optic network on campus. FiDo can be used to document, test, and keep this information up to date. All from one centralized location.

How Does FiDo Work?

Fido is built on Bootstrap framework. This means it uses HTML5, CSS3, and jQuery. All of the logic is done server-side using PHP. MySQL is responsible for a relational database that holds all of our data.

What Elements Can FiDo Document?

FiDo is made to document the following items "Out-of-the-Box":

- Buildings (Top Level Parent)
- Levels ↳(Child to Buildings)
- Locations ↳(Child to Levels)
- Storage Units ↳(Child to Locations)
- Cabinets ↳(Child to Storage Units)
- Panels ↳(Child to Cabinets)
- Ports ↳(Child to Panels)
- Strands ↳(Child to Ports)
- Jumpers ↳(Child to Ports)

What's new in version 2.0 (this release)?

Pretty much everything.

- FiDo has been entirely restructured.
  - The whole framework was exchanged from foundation to bootstrap.
- The database has changed since the last version.
  - New tables and/or modified existing tables.
- The "Guided CRUD" section is entirely new.

The Guided C.R.U.D. Module:

C.R.U.D. is an acronym for Create Read Update Delete.

One of the primary purposes of FiDo is to allow this kind of management of Fiber Optic Resources. This section will go through each of these options and how to accomplish record creation, reading, updating, and deletion for each element.

The elements we will be working with are outlined in the Getting Started section but here they are again since this section deals with them directly:

- Buildings (Top Level Parent)
- Levels ∟(Child to Buildings)
- Locations ∟(Child to Levels)
- Storage Units ∟(Child to Locations)
- Cabinets ∟(Child to Storage Units)
- Panels ∟(Child to Cabinets)
- Ports ∟(Child to Panels)
- Strands ∟(Child to Ports)
- Jumpers ∟(Child to Ports)

In the following sections each of the aforementioned elements will be addressed in detail. The modularity provided by having all of these distinct elements is further enhanced by the use of a relational database on the backend. Every effort has been made to reflect this parent-child relationship in the frontend/UI for ease of organization.

What You'll Need:

- Fido can be found at http://www.fido.netel.isu.edu
- Infrastructure Maps can be found on Box.
  - https://isu.app.box.com/files
  - These maps show fiber locations, storage units, and cabinets on each level of each building.
  - Navigate to "*Root* > *SDNetel-share* > *Building Infrastructure*" and select a building. Much of the initial data for FiDo comes from these maps. (These maps will be directly integrated into the Web Application in the next release of FiDo.

Data Entry from Infrastructure Maps:

From the maps you can enter:

- Buildings
- Locations
- Storage Units
- Cabinets

Getting Started:

Open FiDo and These Maps:

1. Open FiDo to the "Guided CRUD" page.
    a. Click "Get Started".
2. In ISU Box:
    a. Navigate to Root
        i. Navigate to SDNetel-share
            1. Navigate to Building Infrastructure
                a. Navigate to <building name>.
    b. Open the “Cabinet Locations” folder and go through each map in order to add the necessary details following the steps outlined below:

Data Entry Steps (for each map):

These steps will help you enter records in FiDo based on the information in the infrastructure maps on box.

1. Verify building details
2. Edit building details
3. Verify the location exists
4. Add a Location
5. Verify the storage unit exists
6. Add a storage unit
7. Verify the cabinet exists
8. Add a cabinet

Verify Building Details:

This step is mainly for verifying the number of levels but feel free to update any incorrect building information.

1. Take a map (It is recommended to work from level 0 up.)
2. Click on the “Add Location” button
3. In the form that appears, select the appropriate building.
4. Verify that the correct number of levels are shown in the dropdown box.
5. If the number of levels shown is NOT correct proceed to: Edit Building Details.
6. If the number of levels is correct you may proceed to: Verify the Location Exists.

Edit building details:

1. Navigate to the “Browse Database” page.
2. Find the building in the list
3. Click the update button.
4. Adjust the details
5. Click update record

Verify a location exists:

The easiest way to do this is to try to add a Storage Unit to the Location in question. If the location already exists in the provided dropdown you can continue to Verify the Storage Unit Exists. If it does not already exist you can Add a Location.

Add a Location:

6. Click the Location button to display the “Add Location” form.
7. Select the building.
8. Select the level where this location exists.
    a. 0 is always the lowest possible level in the building.
9. Type a description of this location.
    a. Specific Room Numbers (“Rose Dining room”)
    b. Specific Room Names (“Room 242A”)
    c. Hallway + Nearest Room Number (“Hallway Near Room 242B”)
    d. Cardinal Directions (“West Stairwell”)
10. Click Submit.

Verify a storage unit exists:

The easiest way to do this is to try to add a Storage Unit to the Location in question. If the location already exists in the provided dropdown you can continue to Verify a Cabinet Exists. If it does not already exist you can Add a Storage Unit.

Add a storage unit:

1. Click the Storage Unit button to display the “Add Storage Unit” form.
2. Select the building.
3. Select the level where this location exists.
    a. 0 is always the lowest possible level in the building.
4.]
5.
6. Select the Location where this Storage Unit exists.
7. Select a Storage Unit type.
    a. Wallmount
    b. Rack
8. Using the guide, enter the appropriate “Storage Unit Label”.
    a. **xxx-yy-zz**
    b. **xxx** = The three digit parent building number (001-999)
    c. **yy** = The two digit parent level / floor number (00-99)
    d. **zz** = An arbitrary enumeration value for each individual storage unit on a floor (01-99)

Verify a cabinet exists:

The easiest way to do this is to try to use the “Manage Cabinet Contents” form. If the cabinet already exists in the provided dropdown boxes you can continue to Verify a Panel Exists. If it does not already exist you can Add a Cabinet.

Add a cabinet:

1. Click the Cabinet button to display the “Add Cabinet” form.
2. Enter the building name.
3. Enter the building number.
4. Enter the number of levels in this building.
5. (optional) Enter the building notes.
6. Click Submit.

Verify a panel exists:

The easiest way to do this is to use the “Manage Cabinet Contents” form. Select the Building, Level, Location, Storage Unit, and Cabinet from the dropdowns provided. The next screen will show all panels in the cabinet. If the panel already exists you can continue to Verify the Port Exists. If it does not already exist you can Add a Panel.

Add a panel:

1. Click the Manage Cabinet Contents button to display the “Manage Cabinet Contents” form.
2. Select the parent building, level, location, storage unit, and cabinet where you want to create this panel.
    a. At this point a page will be loaded with a visual representation of the cabinet.
3. Click the “Add Panel Here” button on the slot where you would like to add a panel.
4. Select a panel type (Usually ST, SC, LC, or MTRJ).
5. Enter a port capacity (Usually 4, 6, or 12).
6. Click Submit.

Using the Manage Cabinet Contents Page

The following elements (Panels, Ports, Strands, and Jumpers) can be managed from the "Manage Cabinet Contents" page.

Getting Started:

1. Navigate to the "Guided CRUD" page.
2. Click on the "Get Started" button.
3. Click on the "Manage Cabinet Contents" button.
4. Fill out the dropdown boxes that appear with the full path to the cabinet you are wanting to manage.
    a. The full path is the parent building, level, location, storage unit, etcetera.

Panel Management:

Use the “Manage Cabinet Contents” screen to confirm that this element is NOT already in the cabinet. If you can’t find it in the cabinet, go ahead and add it by following the steps below:

Create:

- Create a panel by clicking the “Add Panel Here” button on the slot where you desire to add a panel.
- Add a panel type and port capacity.
- Click Submit.

Read:

You can view the panels of a cabinet by using the “Manage Cabinet Contents” page.

Update:

Panels cannot be updated at this time. They must be deleted and created. This will be remedied shortly.

Delete:

Delete a panel by clicking on the “Delete” button on the panel in question. Be aware that this will delete any child elements from the panel including ports, strands, and jumpers.

Port Management:

At the moment ports are created when panels are created. This is due to the fact that panels come in standardized port sizes.

Strand Management:

Use the “Manage Cabinet Contents” screen to confirm that this element is NOT already in the cabinet. If you can’t find it in the cabinet, go ahead and add it by following the steps below:

Jumper Management:

Use the “Manage Cabinet Contents” screen to confirm that this element is NOT already in the cabinet. If you can’t find it in the cabinet, go ahead and add it by following the steps below: