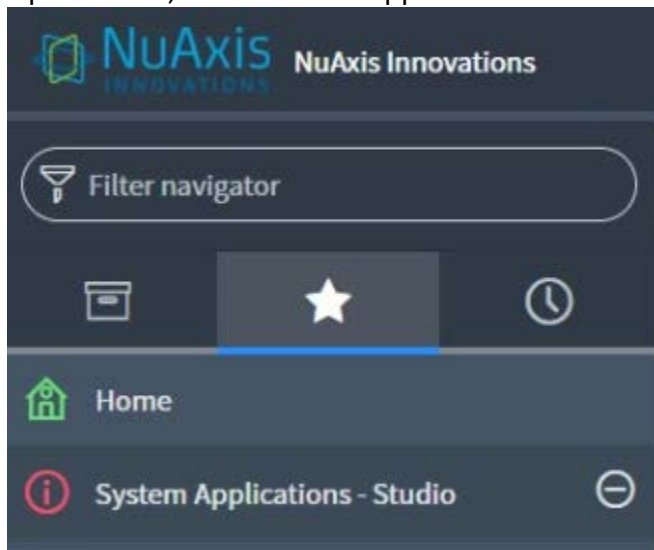


This application is from the ServiceNow Knowledge18 CreatorCon Session CCB0793: Flow Designer Enabling Low-Code Solutions: Mobile Inventory Scanner

"Developing a Mobile Phone application for your company's "Yearly Physical Inventory" can turn a nightmare of spreadsheets into a dream. Utilizing the power of Kingston's Flow Designer and the native Mobile UI, any level of Admin / Developer can build a barcode scanning and gps tagging powerhouse of automation."

Below you will find the steps (with screenshots) required to fully build this scoped application yourself.

1. Open Studio, and create an application called "Physical Inventory"



Create Application



Start from scratch

Create an empty application.

Start with a blank slate when building workflow, activity or API based apps and components.

Create

Create Application

Using Application Creator, you can create ServiceNow applications in a matter of seconds.

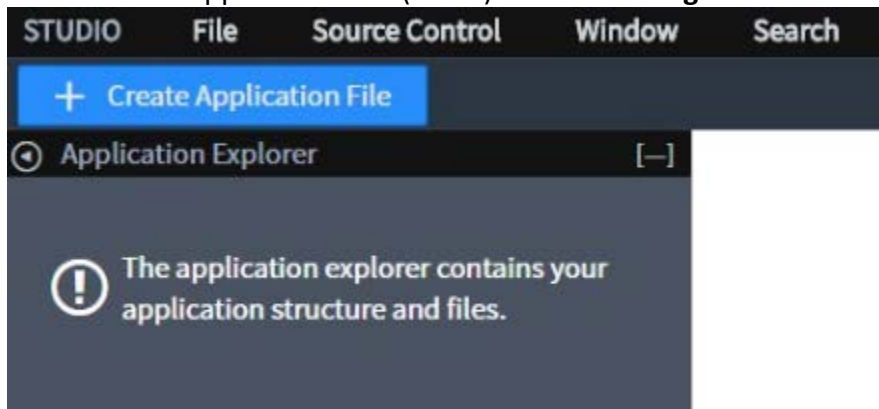
* Name

* Scope

Back

Create

2. Create a new Application File. (Table) called **Scan Log**



Create Application File



Data Model (4)

Forms & UI (16)

Server Development (9)

Client Development (6)

Access Control (2)

Properties (3)

Navigation (4)

Notifications (3)

Service Portal (7)

Content Management (16)

Service Catalog (10)

Reporting (6)

Inbound Integrations (6)

Data Model

Table

Table Column

Many to Many Definition


Relationship

Table

sys_db_object

Tables available to store instance data. Each table stores a collection of records. Each row corresponds to a single record, and each column corresponds to a field. Applications use tables and records to manage data and processes.

Create

 **Table**

New record

Submit
Cancel

A table is a collection of records in the database. Each record corresponds to a row in a table, and each field on a record corresponds to a column on that table. Applications use tables and records to manage data and processes. [More Info](#)

* Label

* Name

Extends table

Application

Create module ☒

Create mobile module ☒

Add module to menu

New menu name

Columns
Controls
Application Access

Extensible ☐

Live feed ☐

Use auto-numbering to define a sequential identifying code made up of a prefix, a base number and a padding value to ensure a consistent format

Auto-number ☒

Prefix

Number

Number of digits

Security Rules (ACLs) are required if anyone other than an administrator needs to work with this table. Creating default security rules will grant full access to this table to anyone with the user role you specify.

* Create access controls ☒

* User role

3. Create 5 new fields on this table.

- a. **Asset** (Reference to the **alm_hardware** table)

Asset	Reference	Hardware
-------	-----------	----------

- b. **Location** (Reference to the **cmn_location** table)

Location	Reference	Location
----------	-----------	----------

- c. **Comments** (String 4000 max)

Comments	String	4000
----------	--------	------

- d. **GeoLocation** (String 255 max)

GeoLocation	String	255
-------------	--------	-----

- e. **Map Link** (URL)

Map Link	URL
----------	-----

4. Update 3 Dictionary Attributes

- a. **Asset** (**Enable barcode scanner**) = true

Dictionary Attribute
true

Attribute
Value

Dictionary entry
Asset

b. GeoLocation (**Enable current location input helper**) = true

Dictionary Attribute
true

Attribute

Dictionary entry

Value

c. Map Link (Click **Advanced**, Check **Calculated Box**)

Enter this in Calculation Area ('http://maps.google.com/maps?q=' + current.geolocation

Dictionary Entry
Map Link [Advanced view]

Alters the behavior of a field or functionality that depends on the field. [More Info](#)

Attributes

Choice List Specification **Calculated Value**

Determines whether the value of the field is calculated from other values.

Calculated ☒

Calculation

1 'http://maps.google.com/maps?q=' + current.geolocation

5. Create a Mobile Client Script

a. Name: **Submit Popup**

b. Table: **Scan Log**

c. Type: **On Submit**

d. Script:

function onSubmit()

{


alert ("You have successfully submitted this record. You will now be re-directed to a new page to scan the next computer.");

Name	<input type="text" value="Submit Popup"/>	Application	<input type="text" value="Physical Inventory"/>
Table	<input type="text" value="Scan Log [x_144919_physical_sca..."/>	Active	<input checked="" type="checkbox"/>
UI Type	<input type="text" value="Mobile / Service Portal"/>	Inherited	<input type="checkbox"/>
Type	<input type="text" value="onSubmit"/>	Global	<input checked="" type="checkbox"/>

Description

Messages

Script



```

1  function onSubmit() {
2
3      alert("You have successfully submitted this record. You will now be re-directed to a new page to scan the next
4      computer.");
5  }
            
```

6. Create a Mobile UI Action

- Name: **Submit**
- Action Name: **save**
- Table: **Scan Log**
- Form Button: **Checked**
- Condition: **current.canWrite()**
- Script:


```

current.update();
action.setRedirectURL("./x_177640_physical_scan.do?sys_id=-1"); (change to your scope)
            
```

<
☰

UI Action - Mobile
New record

Name

Application

Physical Inventory

Action name

Order

Table

Scan Log [x_144919_physical_sca... ▼

Color

List button

☐

Active

☒

Form button

☒

Navigate back on completion

☐

Form more item

☐

Show For

Any ▼

Condition

Hide When Disabled

☐

Script

1

current.update();

2

action.setRedirectURL("./x_177640_physical_scan.do?sys_id=-1");

7. Create Desktop and Mobile Navigator Menu Entries

- a. **New Inventory Scan** (Mobile Only)
form/x_177640_physical_scan/-1

<

≡

Module
New Inventory Scan

Name

New Inventory Scan

Order

10

Application menu

Physical Inventory

🔍

ℹ️

Table

Scan Log [x_144919_physical_scan ▼

Filter

Add Filter Condition

Add "OR" Clause

Path

form/x_144919_physical_scan/-1

Path Relative To Root

☐

- b. **Inventory Scan Logs** (Both)
Rename the one titled (**Scan Logs**)

≡

Module
Scan Logs

Name

Inventory Scan Logs

Order

Application menu

Physical Inventory

🔍

ℹ️

Table

Scan Log [x_144919_physical_sca... ▼

Filter

Add Filter Condition

Add "OR" Clause

-- choose field -- ▼

-- oper --

-- value --

c. **Scanned Assets - This Year (Both)**
alm_hardware / Checked In on this Year.

Module

New record

Title

Scanned Assets - This Year

Application menu

Physical Inventory

Q

i

Order

200

Visibility

Link Type

Select the type of link for the module or select separator to create a horizontal line. The fields below change depending on your selection.

Link type

List of Records

* Table

Hardware [alm_hardware]

View name

scanner

Filter

Add Filter Condition

Add "OR" Clause

Checked in

▼

on

▼

This year

▼

d. **Un-Scanned Assets - This Year (Both)**

alm_hardware / Checked In not on this Year or Checked in is Empty.

Module
Scanned Assets - This Year

Title

Un-Scanned Assets - This Year

Application

Physical Inventory

Application menu

Physical Inventory

Order

300

Hint

Display name

Scanned Assets - This Year

Visibility

Link Type

Select the type of link for the module or select separator to create a horizontal line. The fields below change depending on your selection.

Link type

List of Records

* Table

Hardware [alm_hardware]

View name

scanner

Filter

Add Filter Condition

Add "OR" Clause

Checked in

not on

This year

or

Checked in

is empty

8. Create New Flow Designer named **(Update Asset Record)**

Flow Designer

Flows

Actions

Flow Executions

Help

+ New

All

Flow Properties

* Flow Name

Update Asset Record

Protection

-- None --

Application

Physical Inventory

Description

Describe your flow

Cancel

Submit

a. Trigger – New Record Created on the Scan Log Tabel

TRIGGER

now [Scan Log] Created

Trigger: Created

* Table: Scan Log [x_144919_physical_scan_log]

Condition: + Add filters

Delete Cancel Done

b. Action – Update 3 Fields on a Record on the alm_hardware table.

- Checked In = Trigger's - Scan - Created
- Location = Trigger's - Scan – Location
- Work Notes = Asset (ScanAsset) Was Scanned By (ScanCreatedBy) on (ScanCreated) It was found at the following GPS Location (ScanGeoLocation) It had these comments (ScanComments) Please see the related list below for previous scan logs.

ACTION

1 **now** Update [Asset] Record

Action: Update Record

* Record: Trigger → Scan Log Record → Asset ×

* Table: Hardware [alm_hardware]

* Fields:

- Checked in: Trigger → Scan Log Record → Created ×
- Location: Trigger → Scan Log Record → Location ×
- Work notes: Asset Trigger → Scan Log Record → Asset → Display name × was scanned by Trigger → Scan Log Record → Created by × on Trigger → Scan Log Record → Created × . It was found at the following GPS location Trigger → Scan Log Record → GeoLocation × . Comments: Trigger → Scan Log Record → Comments × . Please also see the related list below for previous scan logs

+ Add Field Value

Delete Cancel Done

9. Save and Activate the Flow.

Executions Save Activate

Activate this flow and make the trigger live

Executions Activate

10. Create a Related list with a view named (scanned).

Create Application File



Filter Results	(1)
Data Model	(4)
Forms & UI	(16)
Server Development	(9)
Client Development	(6)
Access Control	(2)
Properties	(3)
Navigation	(4)
Notifications	(3)
Service Portal	(7)
Content Management	(16)
Service Catalog	(10)
Reporting	(6)

Filter Results

Related List Forms & UI

Related List

sys_ui_related_list

Related lists display records in another table that have a relationship to the current record. Users can view and modify information in related lists using standard list controls.

Next

Create Application File



Other Tables

- Asset CI Hardware State Mapping [alm_hardware_state_mapping]
- Display Hardware [cmdb_ci_display_hardware]
- Facility Hardware [cmdb_ci_facility_hardware]
- Firewall Hardware [cmdb_ci_firewall_network]
- Hardware [alm_hardware]**
- Hardware [cmdb_ci_hardware]
- Hardware Catalog [pc_hardware_cat_item]
- Hardware Model [cmdb_hardware_product_model]
- Hardware Type [cmdb_ci_compute_template]
- Hub Hardware [cmdb_ci_hub_network]

Back Create

alm hardware
Related List

Configuring related lists on Hardware form

i The 'Default view' is in the **Global** application, but **Physical Inventory** is the current application. To edit this related list:

- [Edit this view](#) in Global
- [Create a view](#) in Physical Inventory
- [Create a relationship](#) on this view in Physical Inventory

Available

.NET Application->Asset
A10 Load Balancer->Asset
Accessory->Asset
ACE->Asset
ACL EP->Asset
Active Directory Domain Controller->Asset
Active Directory Domain to Domain Controllers Endp
Active Directory Forest Endpoint->Asset
Active Directory Service->Asset
ActiveMatrix Business Works Process->Asset
ActiveMatrix Business Works->Asset
AD Domain->Asset
AD Forest->Asset
AD Service inc->Asset
Advanced Queue Endpoint->Asset
Advanced Queue Queue->Asset
Agility End Point->Asset

Selected

Asset->Parent
Expense Line->Asset

Cancel Save

View name: Default view

Create New View

View name: scanner

Cancel OK

alm hardware
Related List
scanner
Related List

Configuring related lists on Hardware form

Available

.NET Application->Asset
A10 Load Balancer->Asset
Accessory->Asset
ACE->Asset
ACL EP->Asset
Active Directory Domain Controller->Asset
Active Directory Domain to Domain Controllers Endp
Active Directory Forest Endpoint->Asset
Active Directory Service->Asset
ActiveMatrix Business Works Process->Asset
ActiveMatrix Business Works->Asset
AD Domain->Asset
AD Forest->Asset
AD Service inc->Asset
Advanced Queue Endpoint->Asset
Advanced Queue Queue->Asset
Agility End Point->Asset

Selected

Asset->Parent
Expense Line->Asset
Scan Log->Asset

> <

Cancel Save

View name:

Hardware
P1000412 - Apple MacBook Pro 17" [Scanner view]

Activities: 2

System

Work notes • 2018-05-05 23:22:29

Asset P1000412 - Apple MacBook Pro 17" was scanned by admin on 2018-05-06 03:22:21 . It was found at the following GPS location 39.717536681741706,-105.11874402831909 . Comments: Broken Keyboard . Please also see the related list below for previous scan logs.

Casey Barela

Field changes • 2017-03-25 04:13:40

Assigned to State In use

Update Delete

Related Links

[Calculate Depreciation](#)

[Delete Asset Only](#)

Assets (3) Expense Lines (1) Scan Logs (1)

Scan Logs New Go to Number Search

Asset = P1000412 - Apple MacBook Pro 17"

Number	Comments	GeoLocation	Location
SCAN0001015	Broken Keyboard	39.717536681741706,-105.11874402831909	101 Broadway East, Seattle, WA

(Final result from the executed flow showing work notes and new related list)

You have now built this application and can use it in your instance.

Please contact casey.barela@nuaxis.com with any questions.