

i2Vision

Einstein Vision Object Detection manager app

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- 02 App Features
- 03 Architecture and User Interface
- 04 Post Install Setting Guides
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i2Vision App Introduction

01 Application Overview



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i2Vision Application Overview

Application is specified to boost operation of Einstein Vision Object Detection.

As Einstein Vision is separate product that works only with API calls, i2Vision is powered to make Einstein Vision's Object Detection functionality more user friendly.



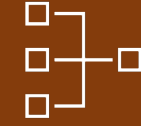
Securely store and leverage
multi user Einstein Platform
license keys



Run object detection process
against Salesforce stored image
and store result data



Create and manage datasets
primarily from app within
Salesforce Lightning Platform



With global open Apex methods and
flow or process builder
invocable components easily
integrate with no-code approach



Create and manage models to
train or retrain with tuning



Flag false results and create/run
reports and dashboards with source
data of detection items

App Features

- 01 Einstein Vision Asset Management
- 02 System Integration Features

Einstein Vision's Object Detection function is one of products of Einstein Platform.
Einstein Platform itself is API-based product. For using its features you need .pem based key to all APIs.
With i2Vision manage license easily.

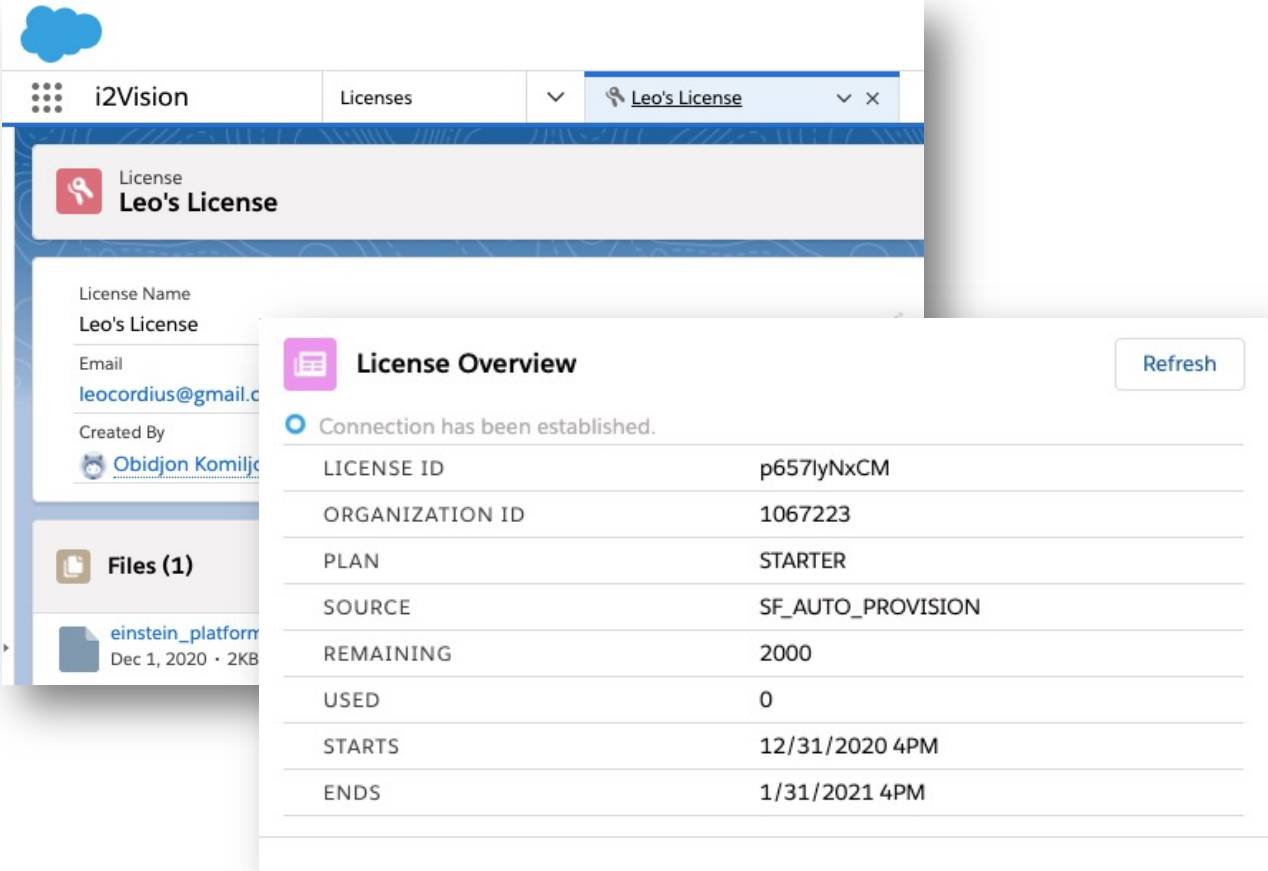


License Management

- Create license records and upload downloaded .pem file and perform Einstein Vision operations
- Ability to create multiple license records, so enable multi-user license management
- Monitor in live mode license information



Upload Einstein Platform .pem key and use all Einstein Vision Object Detection features



The screenshot displays the i2Vision application interface. The top navigation bar shows 'i2Vision' and 'Licenses'. A dropdown menu is open, showing 'Leo's License'. The main content area displays the details for 'Leo's License', including the License Name, Email (leocordius@gmail.com), and Created By (Obidjon Komiljon). Below this, there is a 'Files (1)' section showing a file named 'einstein_platform.pem' uploaded on Dec 1, 2020, with a size of 2KB.

A 'License Overview' modal is open, showing the following details:

License Overview	
Connection has been established.	
LICENSE ID	p657lyNxCM
ORGANIZATION ID	1067223
PLAN	STARTER
SOURCE	SF_AUTO_PROVISION
REMAINING	2000
USED	0
STARTS	12/31/2020 4PM
ENDS	1/31/2021 4PM

Einstein Vision Object Detection based dataset must be uploaded to Einstein Platform via API.
Salesforce Platform stored files need to have public URL so Einstein Platform can load them.
With i2Vision no need to handle that complex scenario, just upload dataset with button click or with pre-built actions.



Dataset management

Create new dataset, or link existing Einstein Vision dataset to manage from Salesforce Platform, or create feedback dataset set retrain existing model

Upload zip dataset file and create dataset in Einstein Vision primarily from Salesforce Platform

Check dataset labels information

Upload Einstein Vision Object Detection dataset to Salesforce Lightning Platform and operate with Salesforce

New Dataset

- ☒ General Dataset
General (original) dataset record type to manage dataset and zip file from and within Salesforce.
- ☐ EV Linked Dataset
Dataset report type for managing datasets primarily from Einstein Vision.
- ☐ Feedback Dataset
Dataset record type for managing feedback dataset for retraining.

Files (1)

 **alpine**
Jan 14, 2021 • 10.1MB • zip

[View All](#)

Dataset Name

Alpine Dataset

Type

image-detection

License

Record Type

General Dataset

DatasetId

1,245,898

Available

☒

Status ⓘ

SUCCEEDED

Label Summary

Id	Name	# of Examples
0	Alpine - Bran Cer...	31
1	Alpine - Corn Fla...	30
2	Alpine - Oat Cereal	32

Einstein Vision linked data

Einstein Vision Object Detection models have several arguments such as algorithms and epochs. Also you need to link dataset while training and retraining. With i2Vision you can easily train, retrain, monitor model metrics.

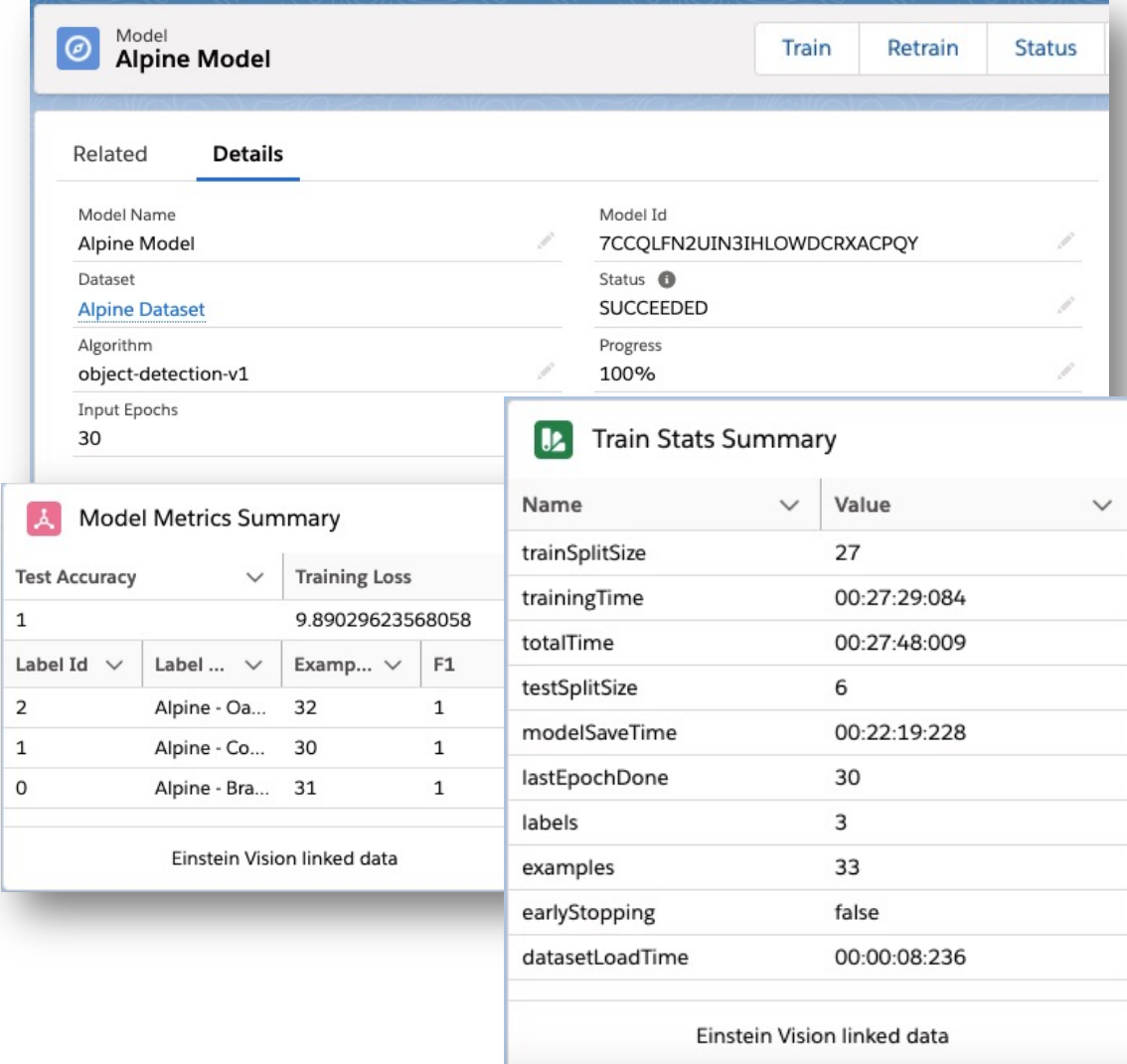


Model management

Train, or retrain models with parameter values, such as algorithm type and epochs

Monitor model's training status in real time

Check and review model training metrics



The screenshot displays the 'Alpine Model' management interface. At the top, there are buttons for 'Train', 'Retrain', and 'Status'. Below these, the 'Details' tab is active, showing model information:

Model Name	Model Id
Alpine Model	7CCQLFN2UIN3IHLOWDCRXACPQY

Dataset	Status
Alpine Dataset	SUCCEEDED

Algorithm	Progress
object-detection-v1	100%

Input Epochs
30

Two summary popups are overlaid on the interface:

Model Metrics Summary

Test Accuracy		Training Loss	
1		9.89029623568058	

Label Id	Label ...	Examp...	F1
2	Alpine - Oa...	32	1
1	Alpine - Co...	30	1
0	Alpine - Bra...	31	1

Einstein Vision linked data

Train Stats Summary

Name	Value
trainSplitSize	27
trainingTime	00:27:29:084
totalTime	00:27:48:009
testSplitSize	6
modelSaveTime	00:22:19:228
lastEpochDone	30
labels	3
examples	33
earlyStopping	false
datasetLoadTime	00:00:08:236

Einstein Vision linked data

Einstein Vision's Object Detection API takes file or target images public URL.
Salesforce's internal stored image must be processed before so Einstein Platform can load it to run detection process against it.
With i2Vision press Detect button or include prebuilt detect actions and automate workflow.

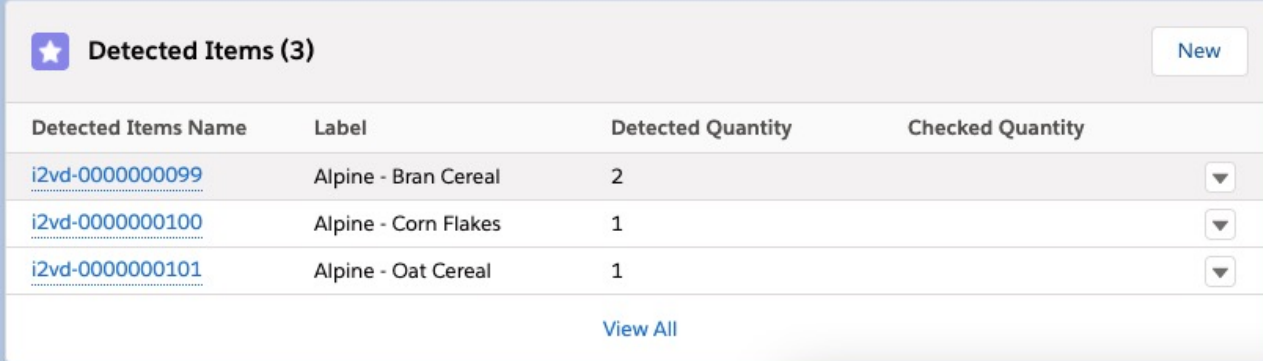
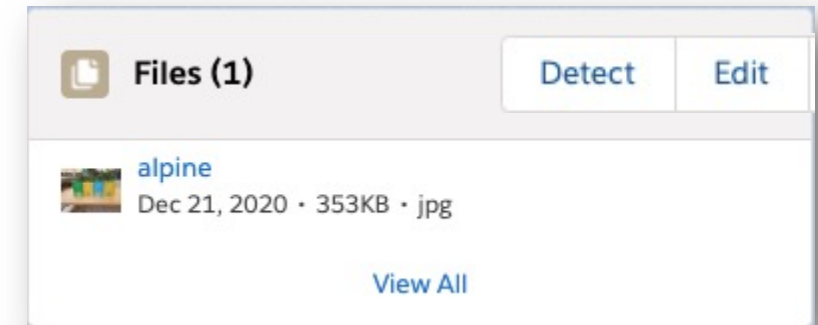


Prediction and detection management

Run prediction against stored images in Salesforce Platform

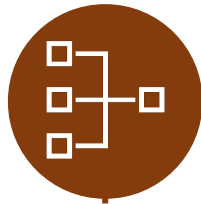
Store prediction results as detected items and reuse records in automation scenarios or run report and dashboards with them

In case of false results update checked quantity field and retrain model if needed



★ Detected Items (3) New			
Detected Items Name	Label	Detected Quantity	Checked Quantity
i2vd-0000000099	Alpine - Bran Cereal	2	
i2vd-0000000100	Alpine - Corn Flakes	1	
i2vd-0000000101	Alpine - Oat Cereal	1	
View All			

Modern app build approach must include no-code features so even end-users without special knowledge can leverage AI related functions and implement automations easily.
i2Vision includes several pre-build invocable actions that can be included in Flows and Process Builder.

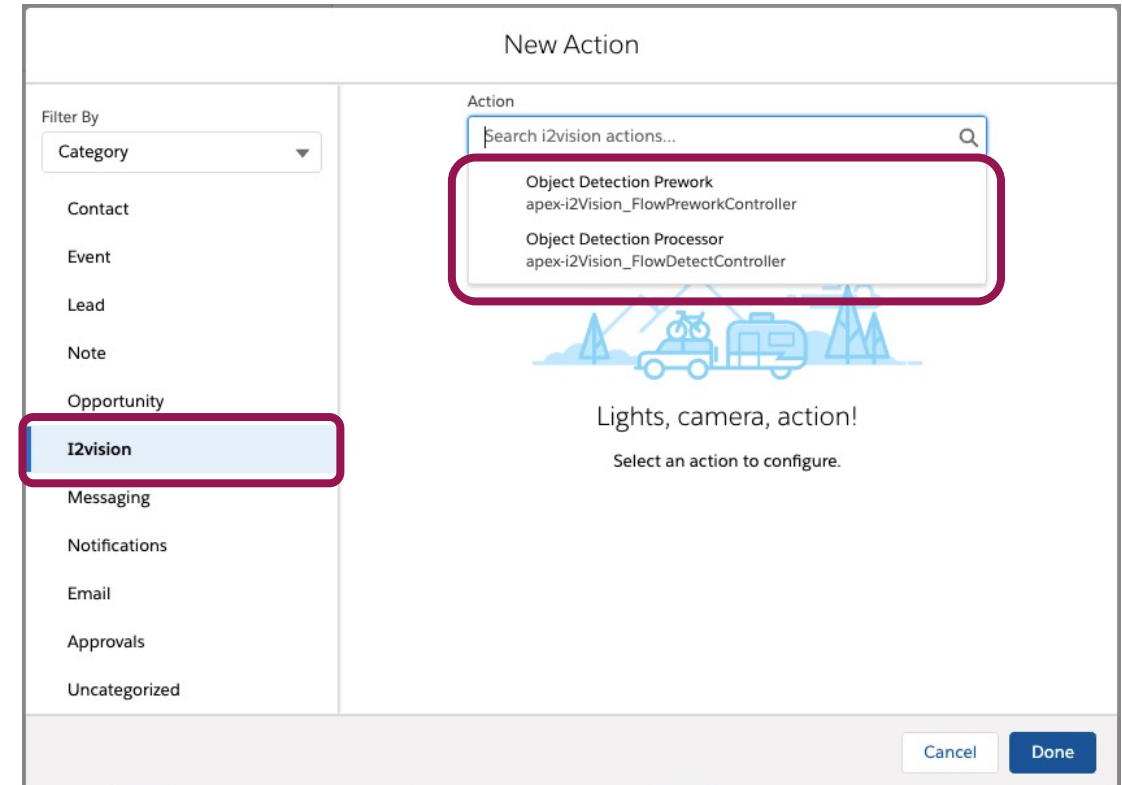


No-code and code system integration

Integrate to system and automate operations with no-code approach with Flow and Process Builder invocable actions

Call global open classes to integrate with Apex code and complete more complex scenarios

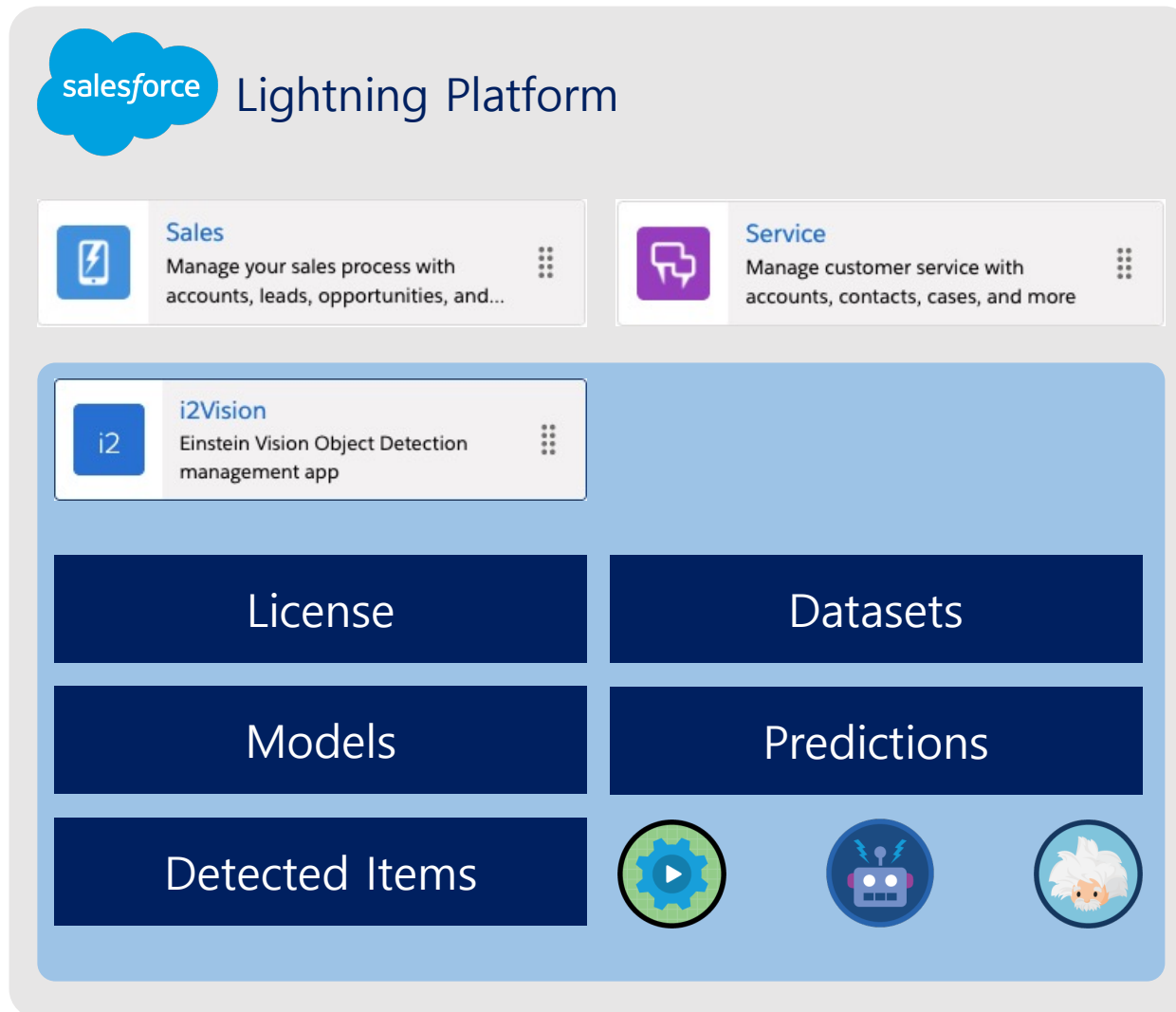
Create triggers, record triggered flows or processes against detected items or prediction records itself and reference values from Einstein Vision



Architecture & User Interface

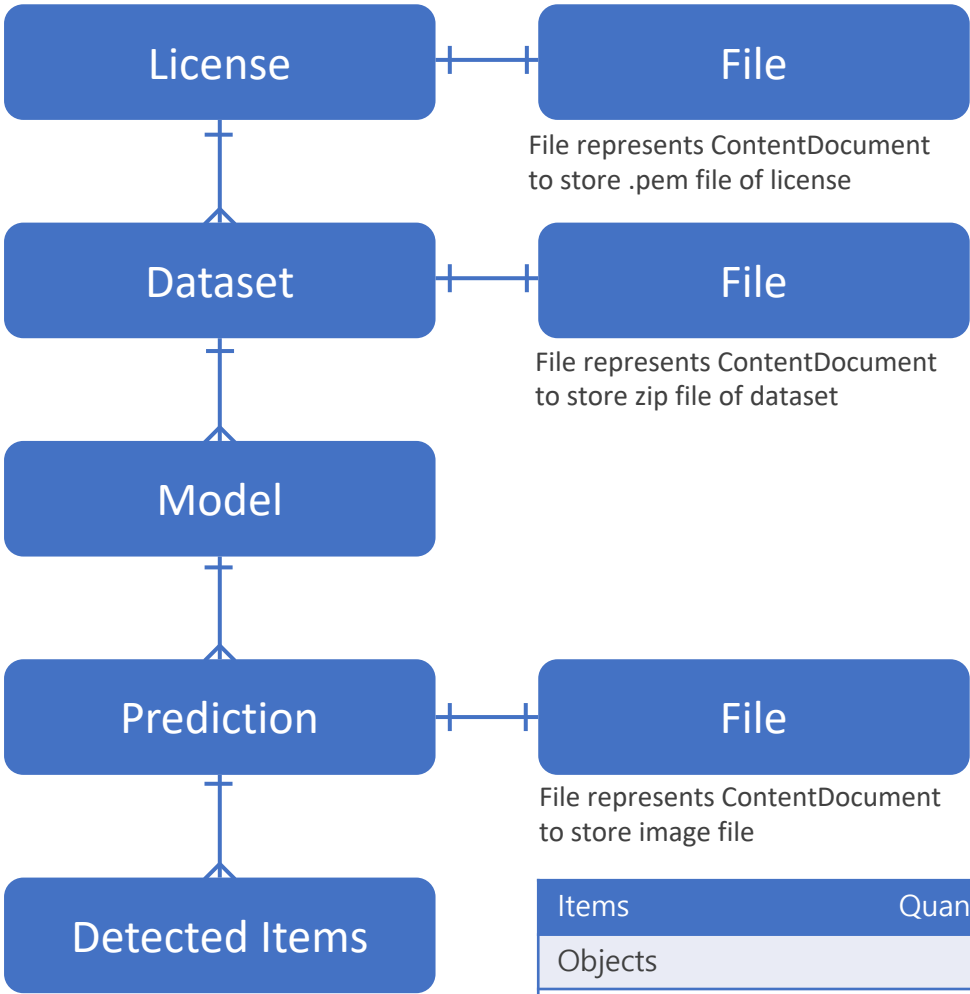
- 01 Big View Architecture
- 02 Class and Object Summary
- 03 User Interface

i2Vision, as ISV app can be installed to extend previous functionality and can be integrated with other apps, such as Sales, Service or any other custom apps.



The main point, from the beginning of development and design, was to implement an app that is simple as possible.

Entity Relationship Diagram is presented in simple form represent conceptual sites,not technical overall specifications.



License	
Email	
License Name	
Created By	
Last Modified By	
Owner	

Detected Item	
Checked Quantity	
Detected Items Name	
Detected Quantity	
EV Rightness	
EV Rightness in number	
Label	
MD	
Prediction	
Created By	
Last Modified By	

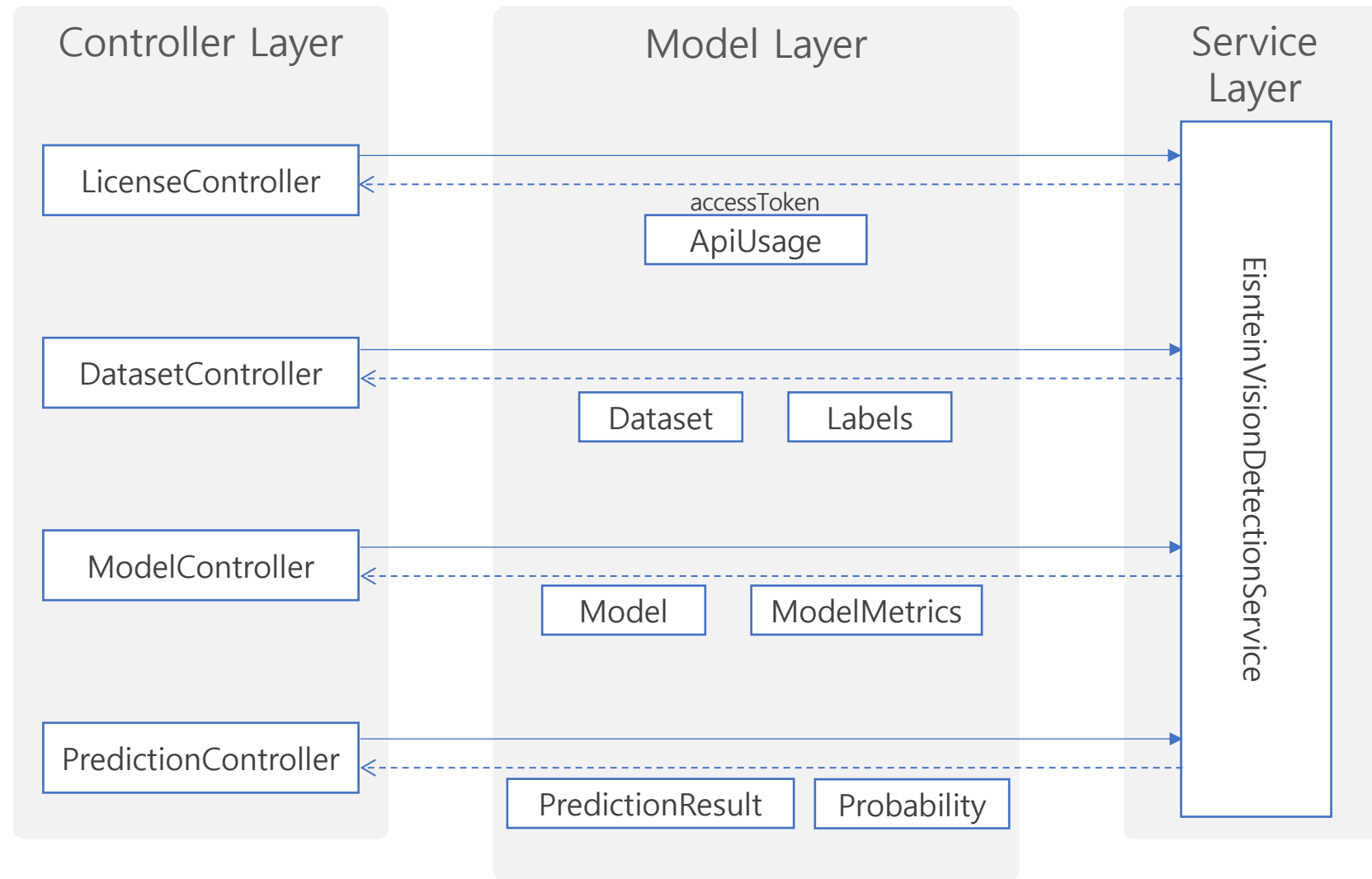
Prediction	
Custom Variable Name	
Custom Variable Value	
EV Right Count	
EV Rightness	
Image URL	
LicenseId	
LinkedEntityId	
MD	
Model	
ModelId	
Prediction Name	
Prediction Response	
Prediction Time	
Create By	
Last Modified By	

Dataset	
Available	
DatasetId	
DatasetName	
Labels	
License	
MD	
Model	
Model Id	
Number of Duplicates	
Path	
Record Type	
Status	
Total Examples	
Type	
Owner	
Created By	
Last Modified By	

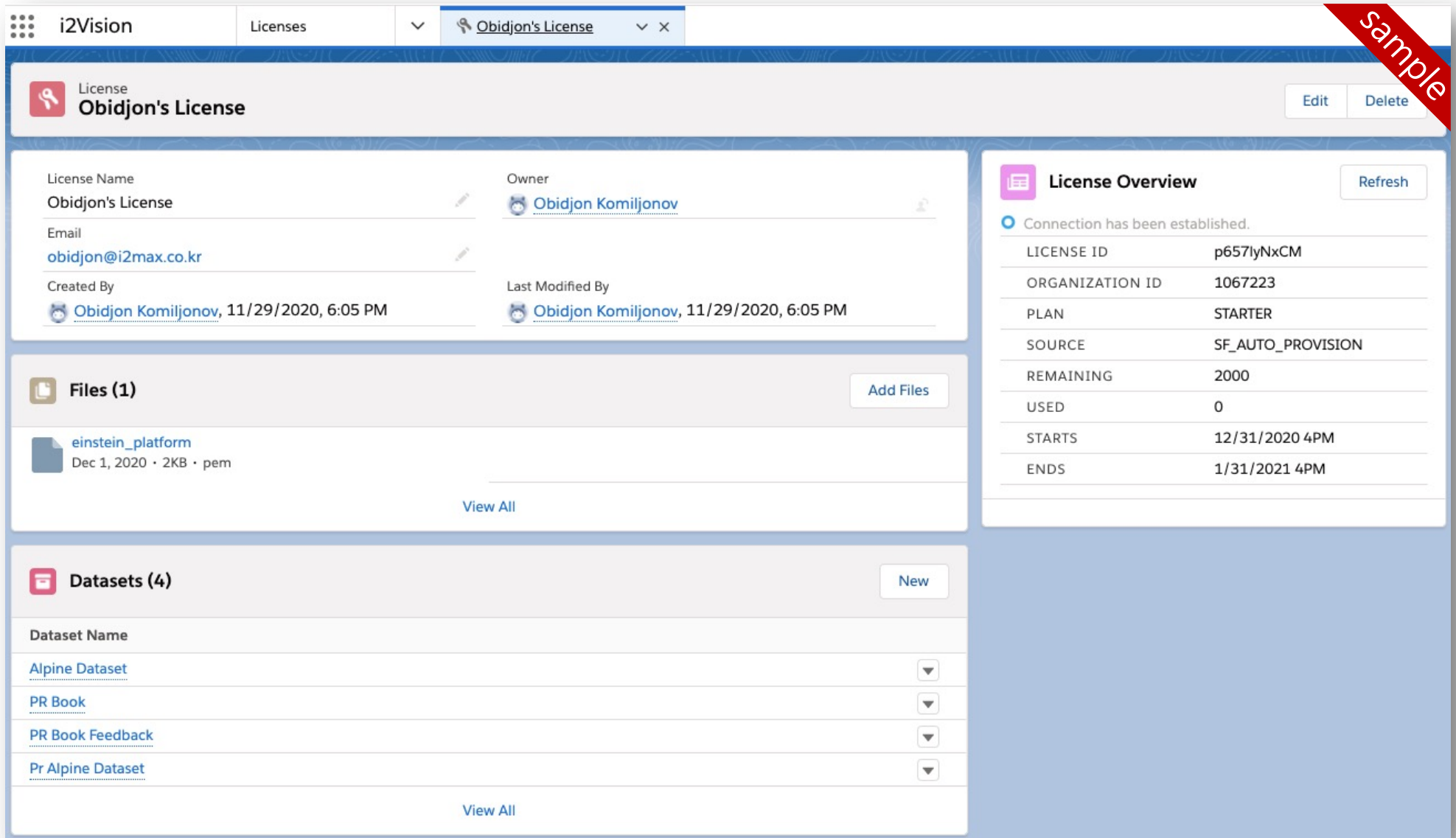
Model	
Algorithm	
MD	
Dataset	
Epochs	
Input Epochs	
License Id	
Model Id	
Model Name	
Progress	
Queue Position	
Status	
Train Params	
Train Stats	
Created By	
Last Modified By	

Items	Quantity
Objects	5
Custom Fields	40
All Fields	57

Flow between classes is presented in simple form represent conceptual sites, not technical overall specifications.



License Management user interface



i2Vision | Licenses | Obidjon's License

License Overview [Refresh](#)

Connection has been established.

LICENSE ID	p657lyNxCM
ORGANIZATION ID	1067223
PLAN	STARTER
SOURCE	SF_AUTO_PROVISION
REMAINING	2000
USED	0
STARTS	12/31/2020 4PM
ENDS	1/31/2021 4PM

Obidjon's License [Edit](#) [Delete](#)

License Name: Obidjon's License

Email: obidjon@i2max.co.kr

Created By: Obidjon Komiljonov, 11/29/2020, 6:05 PM

Owner: Obidjon Komiljonov

Last Modified By: Obidjon Komiljonov, 11/29/2020, 6:05 PM

Files (1) [Add Files](#)

einstein_platform
Dec 1, 2020 · 2KB · pem

[View All](#)

Datasets (4) [New](#)

Dataset Name	
Alpine Dataset	▼
PR Book	▼
PR Book Feedback	▼
Pr Alpine Dataset	▼

[View All](#)

sample

Dataset Management user interface

i2Vision

Datasets

Alpine Dataset

Dataset
Alpine Dataset

Upload
Refresh
Edit

Dataset Name
Alpine Dataset

Type
image-detection

License
[Obidjon's License](#)

Owner
 Obidjon Komiljonov

Record Type
General Dataset

DatasetId
1,245,898

Available
☒

Status
SUCCEEDED

Path
https://i2vision-dev-ed--c.documentforce.com/sfc/dist/version/download/?oid=00D4x0000022POI&ids=0684x000000xJSM&d=%2Fa%2F4x000000k9wm%2FL16TUi2n9_cj5gr5fUsXlp1l3l_V1bZyka5gl5AaNr4&asPdf=false

Labels
{
 "labels": [
 {
 "numExamples": 31,
 "name": "Alpine - Bran Cereal",
 "id": 0,
 "datasetId": 1245898
 },
 {
 "numExamples": 30,
 "name": "Alpine - Corn Flakes",
 "id": 1,
 "datasetId": 1245898
 },
 {
 "numExamples": 32,
 "name": "Alpine - Oat Cereal",
 "id": 2,
 "datasetId": 1245898
 }
]
}

Total Examples
33

Number of Duplicates
0

Files (1)

alpine
Jan 14, 2021 · 10.1MB · zip

View All

Models (1)

Alpine Model

View All

Label Summary

Id	Name	# of Examples
0	Alpine - Bran Cereal	31
1	Alpine - Corn Flakes	30
2	Alpine - Oat Cereal	32

Einstein Vision linked data

> System Information

sample

Model Management user interface

i2VisionModelsAlpine Model

ModelAlpine Model

TrainRetrainStatus

RelatedDetails

Model NameAlpine Model

DatasetAlpine Dataset

Algorithmobject-detection-v1

Input Epochs30

Model Id7CCQLFN2UIN3IHLOWDCRXACPQY

StatusSUCCEEDED

Progress100%

Epochs30

Queue Position1

Train Params{"withGlobalDatasetId":null,"withFeedback":null,"trainSplitRatio":null}

Train Stats{"trainSplitSize":27,"trainingTime":"00:27:29:084","totalTime":"00:27:48:009","testSplitSize":6,"modelSaveTime":"00:22:19:228","lastEpochDone":30,"labels":3,"examples":33,"earlyStopping":false,"datasetLoadTime":"00:00:08:236"}

> System Information

Model Metrics Summary

Test AccuracyTraining Loss

19.89029623568058

Label Id	Label N...	Examples	F1
2	Alpine - Oat ...	32	1
1	Alpine - Cor...	30	1
0	Alpine - Bran...	31	1

Einstein Vision linked data

Train Stats Summary

NameValue

trainSplitSize	27
trainingTime	00:27:29:084
totalTime	00:27:48:009
testSplitSize	6
modelSaveTime	00:22:19:228
lastEpochDone	30
labels	3
examples	33
earlyStopping	false
datasetLoadTime	00:00:08:236

Einstein Vision linked data

sample

Prediction user interface


i2Vision

Predictions

i2vp-0000000029


Prediction
i2vp-0000000029

Detect
Edit

Prediction Name
i2vp-0000000029

Model
[Alpine Model](#)

Custom Variable Name

Custom Variable Value

Image URL
https://i2vision-dev-ed--c.documentforce.com/sfc/dist/version/download/?oid=00D4x0000022POI&ids=0684x000000xUsn&d=%2Fa%2F4x000000kA3j%2FWqdAp0at2WCu3Q0KC_Uhm1zW3zZBGywxFapv1Bd1Wjg&asPdf=false

Prediction Time
12/21/2020, 10:24 PM

Prediction Response
[{"probability":0.9962763,"label":"Alpine - Corn Flakes","boundingBox":{"minY":174,"minX":761,"maxY":592,"maxX":1114}}, {"probability":0.98471963,"label":"Alpine - Oat Cereal","boundingBox":{"minY":211,"minX":489,"maxY":659,"maxX":802}}, {"probability":0.9836938,"label":"Alpine - Oat Cereal","boundingBox":{"minY":196,"minX":216,"maxY":652,"maxX":511}}]

EV Rightness
☒

System Information

Created By
 [Obidjon Komiljonov](#), 12/21/2020, 10:23 PM

Last Modified By
 [Obidjon Komiljonov](#), 12/21/2020, 10:24 PM


Files (1)


Picture8 (1)
Dec 21, 2020 · 1.6MB · png

View All


Detected Items (2)

New

Detected Items Name	Label	Detected Quantity	Checked Quantity
i2vd-0000000102	Alpine - Corn Flakes	1	
i2vd-0000000103	Alpine - Oat Cereal	2	

View All

sample

Post Install Setting Guides

- 01 Permission sets
- 02 Record Type and Page Layout Assignment



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Permission sets

There are main 2 permission sets, one for admin and one for user with their perspectives.

- i2Vision Administrator Permission set consists all permissions regarding Einstein Vision asset management and related Apex classes etc.
- i2Vision User Permission set consists only prediction related asset management and related Apex classes.

To assign i2vision permission sets, navigate to **Setup** and **Permissions sets**.
Find i2vision permission sets and assign to users by their needs.

Permission Sets

On this page you can create, view, and manage permission sets.

In addition, you can use the SalesforceA mobile app to assign permission sets to a user. Download SalesforceA from the App Store or Google Play: [iOS](#) | [Android](#)

All Permission Sets ▼ [Edit](#) | [Delete](#) | [Create New View](#)

New



☐	Action	Permission Set Label ↑	Description
☐	Clone	i2Vision Administrator	i2Vision App's administrator permission set that has all essential permissions for objects, apex and etc.
☐	Clone	i2Vision User	i2Vision App's general user permission set that has all essential permissions for objects, apex and etc.

Record Type and Page Layout Assignment

Einstein Vision's dataset types are different by their functionality and characteristics. There are 3 main types of object detection datasets in i2vision, so you need to assign by their type.

To assign Dataset page layouts to record types, navigate to **Setup** and **Object Manager**. Then, find **i2vision Dataset** object and select **Page Layouts**. Then, click to **Page Layout Assignment** and assign as screen below:

[illegible]

After assignment is complete, press **Save**.

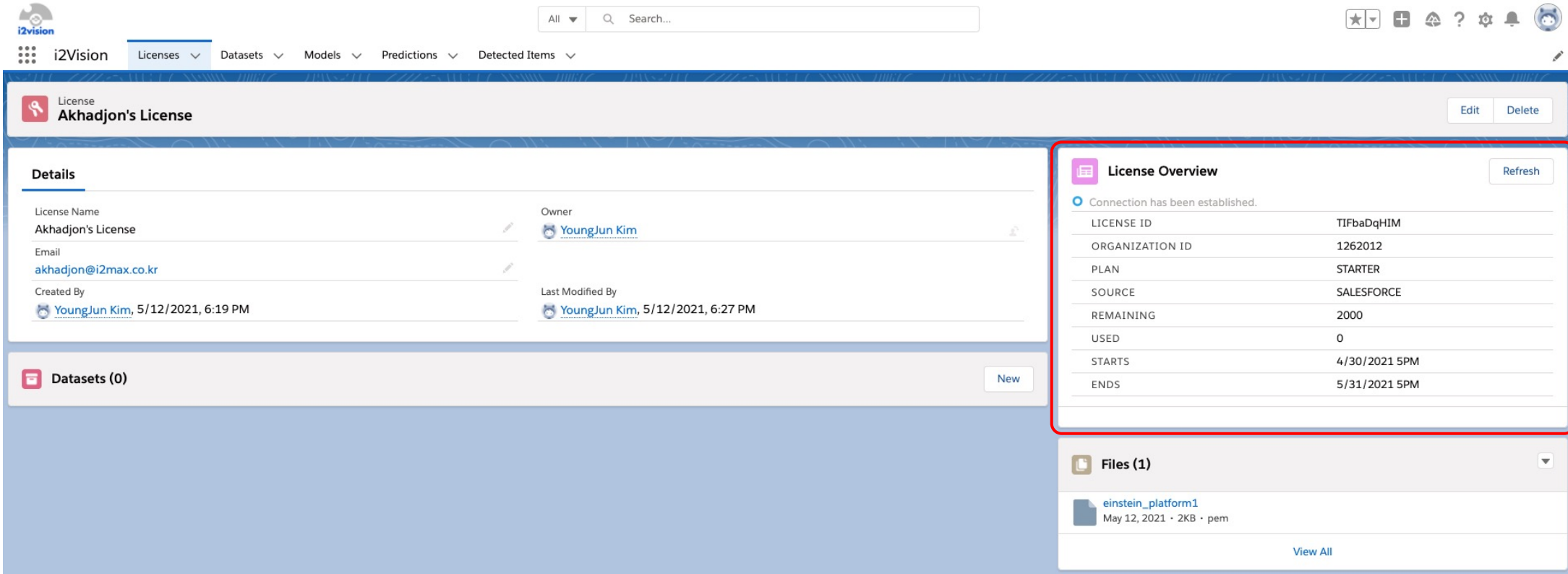
User Manual

- 01 License Management
- 02 Dataset Uploading
- 03 Dataset Status
- 04 Model Creation
- 05 Model Training
- 06 Model Status
- 07 Object Detection
- 08 Detection Management
- 09 Model Retraining

At first, you need to register your Einstein Vision license.

For how to get one refer to next link: <https://metamind.readme.io/docs/set-up-auth>

1. Go to **i2vision App**.
2. Select **License** tab and create new one. Input only license related **email**.
3. Upload your .pem key to Related Files.
4. Press **Refresh** button in **License Overview** component.
 - * If state gives error, please refresh page as File is uploaded via async process.
5. You need to be able to check License Status and check connection establishment message as below:



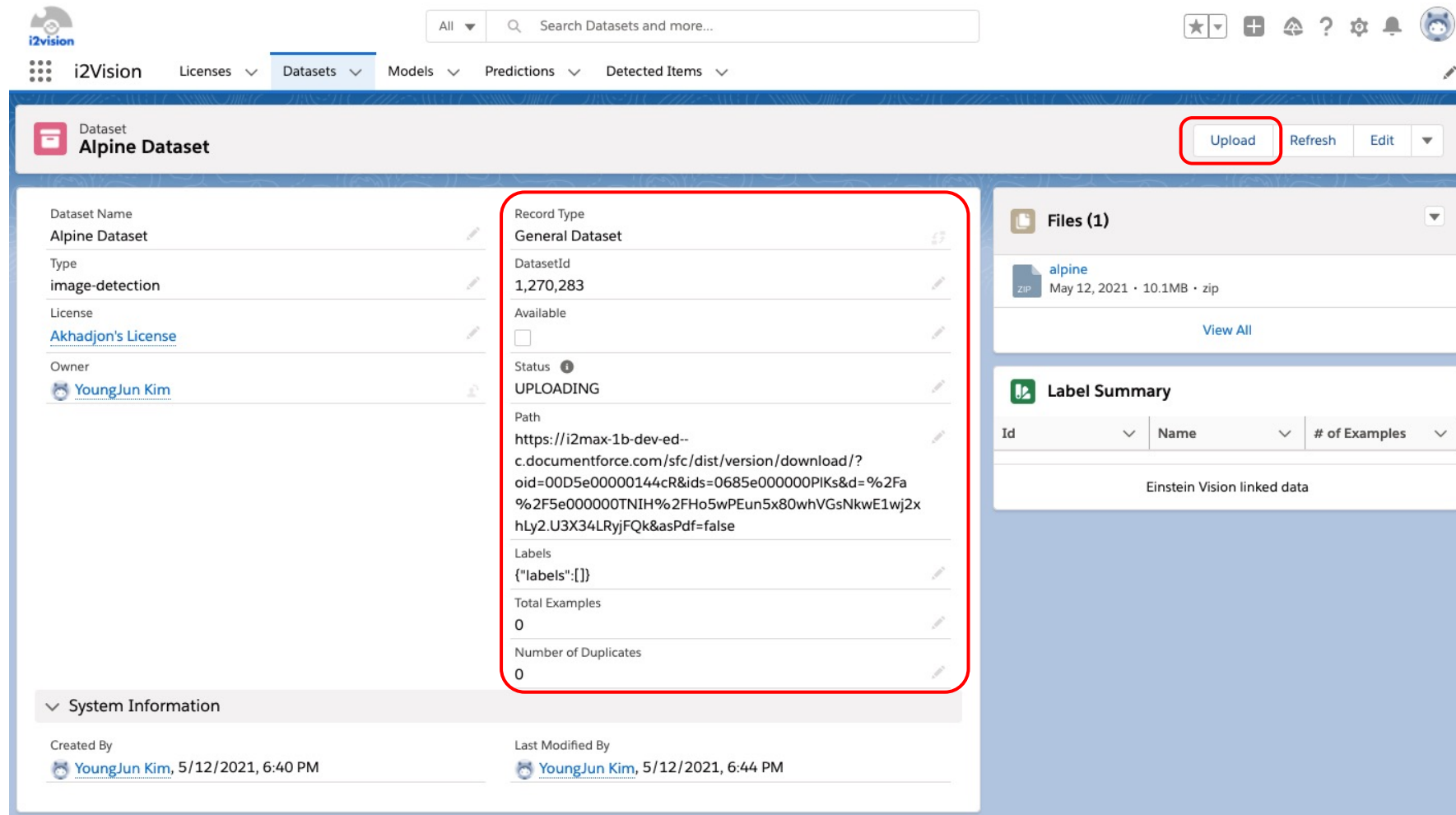
The screenshot displays the i2vision app interface. The top navigation bar includes the i2vision logo, a search bar, and various icons. The main menu shows 'Licenses', 'Datasets', 'Models', 'Predictions', and 'Detected Items'. The 'Licenses' section is active, showing 'Akhadjon's License' with details and a 'License Overview' component. The 'License Overview' component is highlighted with a red box and contains a 'Refresh' button and a table of license details.

License Overview	
Connection has been established.	
LICENSE ID	TIFbaDqHIM
ORGANIZATION ID	1262012
PLAN	STARTER
SOURCE	SALESFORCE
REMAINING	2000
USED	0
STARTS	4/30/2021 5PM
ENDS	5/31/2021 5PM

Below the 'License Overview' component, there is a 'Files (1)' section showing a file named 'einstein_platform1' with a size of 2KB and a type of 'pem'.

To upload dataset to Einstein Vision server you need to create General Dataset.

1. Go to **i2vision App**.
2. Select **Dataset** tab and create new **General Dataset** type record. Input only name and select type, and related license.
3. Upload your zip file dataset to **Related Files** section.
4. Press **Upload** button and check populated information on the right side of **Details** pane.



The screenshot displays the i2vision app interface for managing datasets. The top navigation bar includes the i2vision logo, a search bar, and a menu with options: i2Vision, Licenses, Datasets (selected), Models, Predictions, and Detected Items. The main content area is titled 'Dataset Alpine Dataset' and features an 'Upload' button (highlighted with a red box) along with 'Refresh' and 'Edit' options. The 'Details' pane on the right (also highlighted with a red box) provides information about the dataset record:

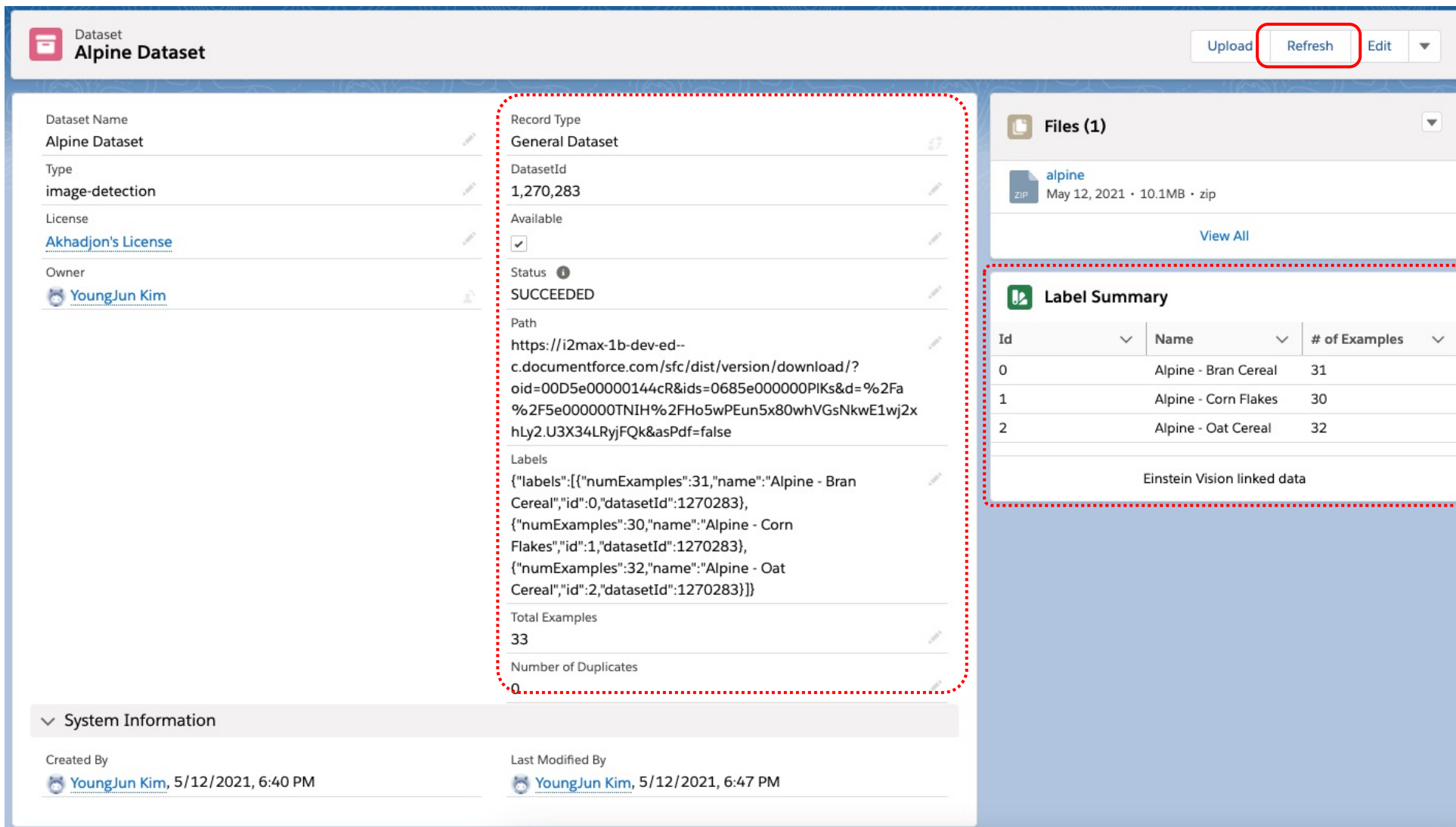
- Record Type:** General Dataset
- DatasetId:** 1,270,283
- Available:** ☐
- Status:** UPLOADING
- Path:** https://i2max-1b-dev-ed--c.documentforce.com/sfc/dist/version/download/?oid=00D5e00000144cR&ids=0685e000000PIKs&d=%2Fa%2F5e000000TNIH%2FHo5wPEun5x80whVGsNkwE1wj2xhLy2.U3X34LRyjFQk&asPdf=false
- Labels:** {"labels":[]}
- Total Examples:** 0
- Number of Duplicates:** 0

Below the details pane, the 'Files (1)' section shows a file named 'alpine' (May 12, 2021, 10.1MB, zip) with a 'View All' link. The 'Label Summary' section is currently empty, displaying 'Einstein Vision linked data'.

System Information

Created By	Last Modified By
YoungJun Kim, 5/12/2021, 6:40 PM	YoungJun Kim, 5/12/2021, 6:44 PM

After uploading dataset to Einstien Vision platfor you need to check state of dataset uploading.
To achieve that just press **Refresh** button.



The screenshot shows the 'Alpine Dataset' status page in Einstein Vision. The 'Refresh' button in the top right is highlighted with a red box. The central area displays dataset details, with a red dashed box highlighting the 'Record Type', 'DatasetId', 'Available', 'Status', 'Path', 'Labels', 'Total Examples', and 'Number of Duplicates' fields. The 'Status' field shows 'SUCCEEDED'. The 'Files (1)' section on the right shows a single file 'alpine.zip' (10.1MB) uploaded on May 12, 2021. The 'Label Summary' table on the right lists three labels: 'Alpine - Bran Cereal' (31 examples), 'Alpine - Corn Flakes' (30 examples), and 'Alpine - Oat Cereal' (32 examples). The 'System Information' section at the bottom shows the dataset was created by YoungJun Kim on 5/12/2021 at 6:40 PM and last modified by the same user at 6:47 PM.

Dataset Alpine Dataset

Upload Refresh Edit

Dataset Details:

- Dataset Name: Alpine Dataset
- Type: image-detection
- License: Akhadjon's License
- Owner: YoungJun Kim

Record Type: General Dataset

DatasetId: 1,270,283

Available: ☒

Status: **SUCCEEDED**

Path: https://i2max-1b-dev-ed--c.documentforce.com/sfc/dist/version/download/?oid=00D5e00000144cR&ids=0685e000000PIKs&d=%2Fa%2F5e000000TNIH%2FH05wPEun5x80whVGsNkwE1wj2xhLy2.U3X34LRyjFQk&asPdf=false

Labels: [{"numExamples":31,"name":"Alpine - Bran Cereal","id":0,"datasetId":1270283}, {"numExamples":30,"name":"Alpine - Corn Flakes","id":1,"datasetId":1270283}, {"numExamples":32,"name":"Alpine - Oat Cereal","id":2,"datasetId":1270283}]

Total Examples: 33

Number of Duplicates: 0

Files (1)

alpine.zip May 12, 2021 · 10.1MB · zip

[View All](#)

Label Summary

Id	Name	# of Examples
0	Alpine - Bran Cereal	31
1	Alpine - Corn Flakes	30
2	Alpine - Oat Cereal	32

Einstein Vision linked data

System Information

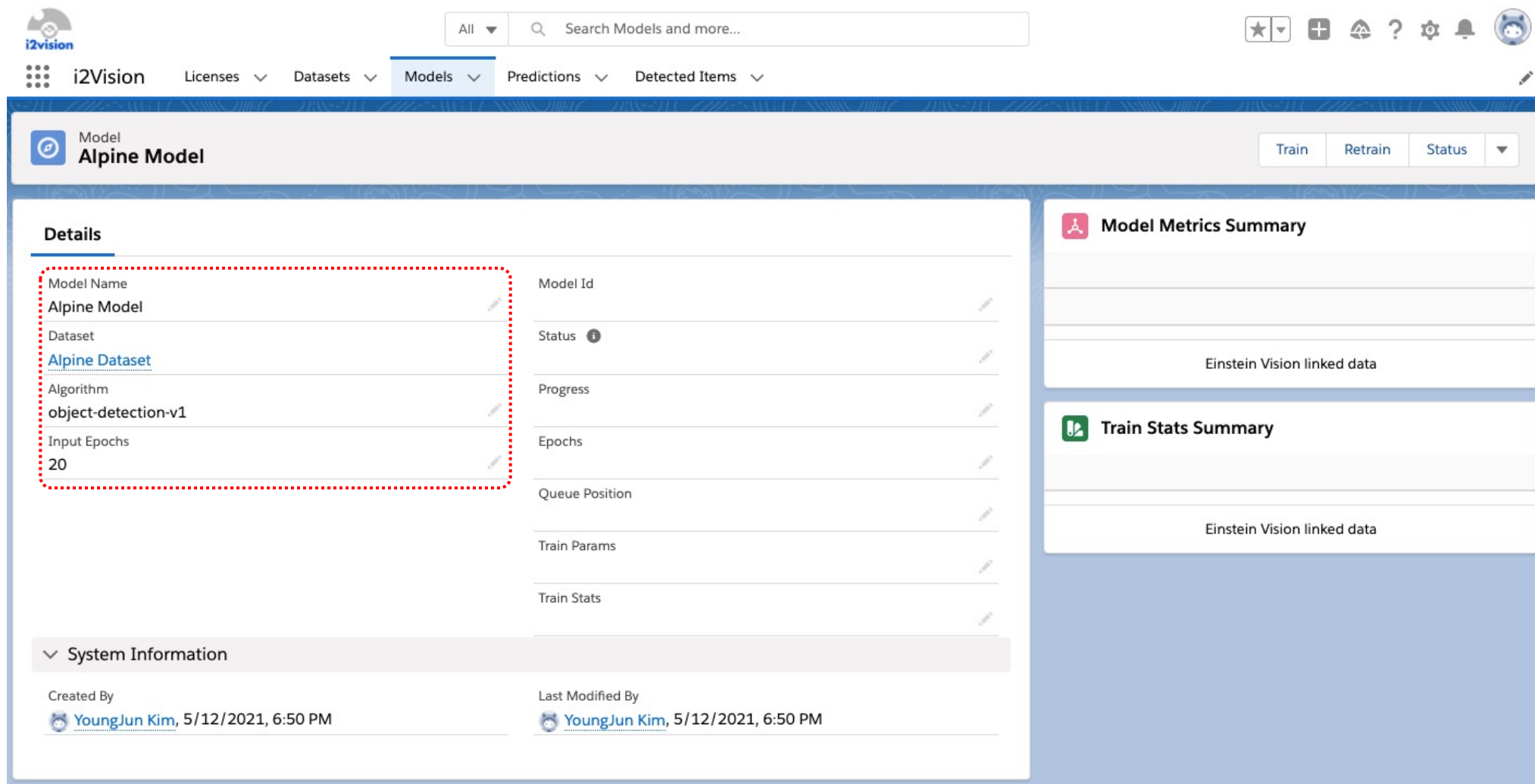
Created By: YoungJun Kim, 5/12/2021, 6:40 PM

Last Modified By: YoungJun Kim, 5/12/2021, 6:47 PM

Model Creation

Based on dataset you need to create and train model so you can proceed object detection.

1. Go to **i2vision App**.
2. Select **Model** tab and create new **Model** record. Input only name and select base **Dataset**, and related type.



The screenshot displays the i2vision app interface. At the top, there is a navigation bar with the i2vision logo, a search bar labeled "Search Models and more...", and several utility icons. Below the navigation bar, a menu bar shows "i2Vision", "Licenses", "Datasets", "Models" (which is highlighted), "Predictions", and "Detected Items".

The main content area is titled "Model" and "Alpine Model". It features a "Details" tab and a "System Information" section. The "Details" section is divided into two columns. The left column contains the following fields:

- Model Name: Alpine Model
- Dataset: [Alpine Dataset](#)
- Algorithm: object-detection-v1
- Input Epochs: 20

The right column contains the following fields:

- Model Id
- Status:
- Progress
- Epochs
- Queue Position
- Train Params
- Train Stats

The "System Information" section at the bottom shows:

- Created By: [YoungJun Kim](#), 5/12/2021, 6:50 PM
- Last Modified By: [YoungJun Kim](#), 5/12/2021, 6:50 PM

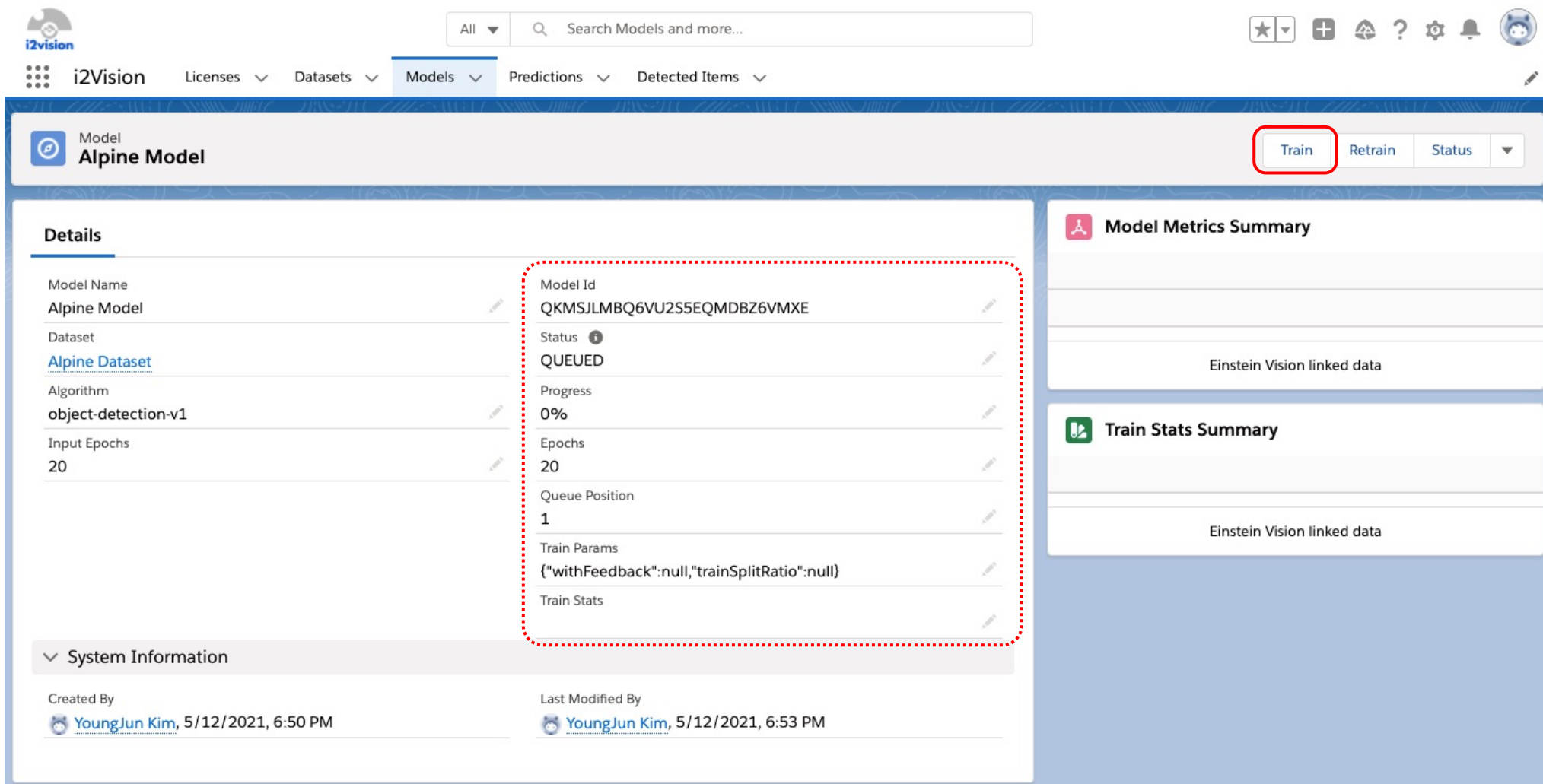
On the right side of the interface, there are two summary cards:

- Model Metrics Summary**: Shows "Einstein Vision linked data".
- Train Stats Summary**: Shows "Einstein Vision linked data".

To process object detection you need to train model.

1. After creation of model record, press **Train** button

On the right side of Details pane some information will be generated to monitor training status.



The screenshot shows the i2Vision web interface for managing models. The top navigation bar includes the i2Vision logo, a search bar, and various utility icons. The main navigation menu has tabs for i2Vision, Licenses, Datasets, Models (selected), Predictions, and Detected Items. The 'Alpine Model' details page is displayed, featuring a 'Train' button highlighted with a red box. The 'Details' pane on the left shows model configuration, while the right pane displays training metrics and statistics.

Model Training Interface Details:

- Model Name:** Alpine Model
- Dataset:** [Alpine Dataset](#)
- Algorithm:** object-detection-v1
- Input Epochs:** 20
- Model Id:** QKMSJLMBQ6VU2S5EQMDBZ6VMXE
- Status:** QUEUED
- Progress:** 0%
- Epochs:** 20
- Queue Position:** 1
- Train Params:** {"withFeedback":null,"trainSplitRatio":null}
- Train Stats:**
- System Information:**
 - Created By:** [YoungJun Kim](#), 5/12/2021, 6:50 PM
 - Last Modified By:** [YoungJun Kim](#), 5/12/2021, 6:53 PM

Model Metrics Summary
Einstein Vision linked data

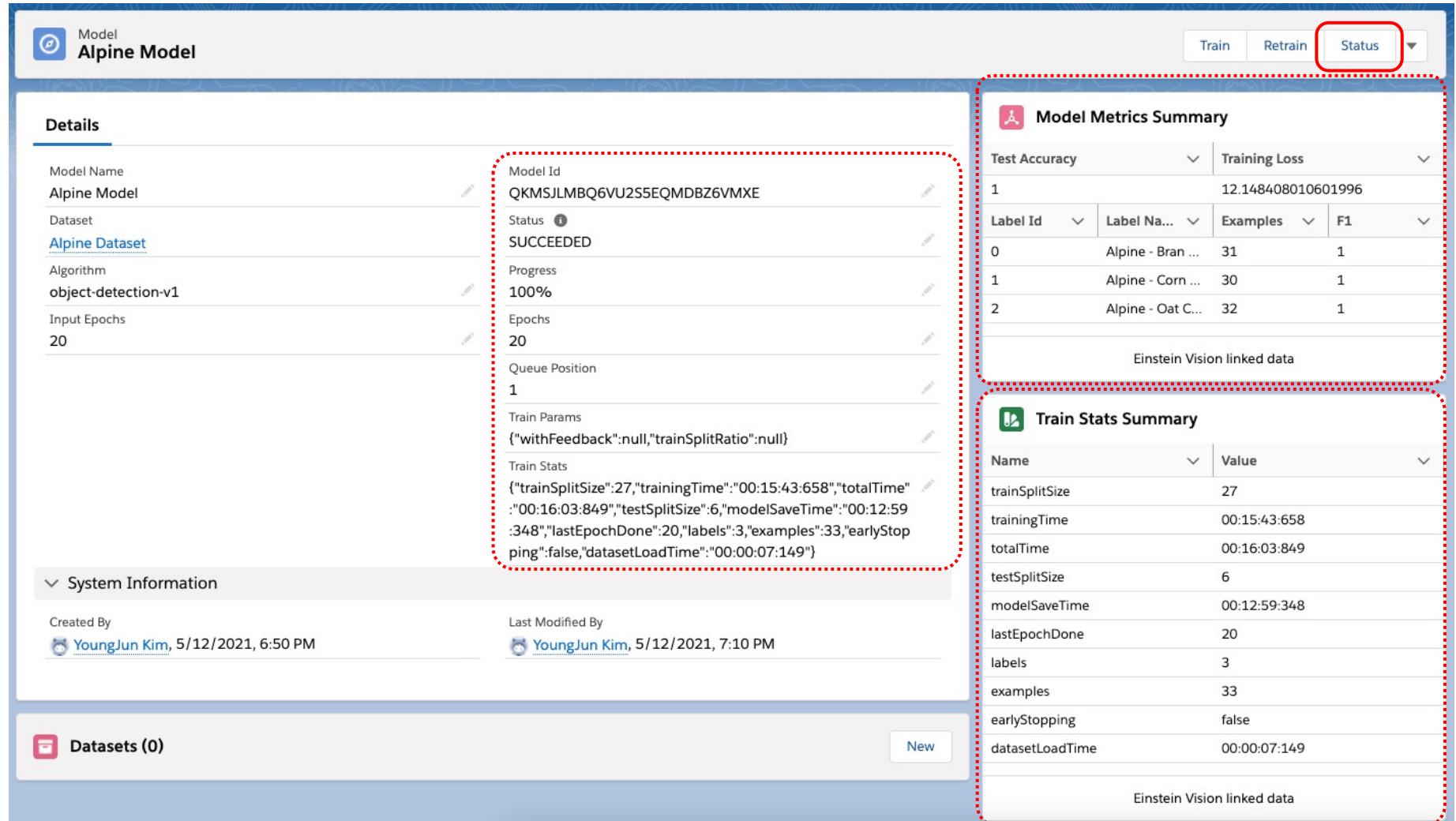
Train Stats Summary
Einstein Vision linked data

To monitor model training training and retraining status you need to retrieve status information from Einstein Vision Platform.

1. After training of model record, press **Status** button

On the right side of Details pane some information will be generated to monitor training status.

You can use model only when status is SUCCEEDED and progress is 100%.



The screenshot displays the 'Model Status' page for an 'Alpine Model'. The interface is divided into several sections:

- Model Header:** Shows 'Model Alpine Model' with buttons for 'Train', 'Retrain', and 'Status' (highlighted with a red box).
- Details Pane:**
 - Model Name:** Alpine Model
 - Dataset:** [Alpine Dataset](#)
 - Algorithm:** object-detection-v1
 - Input Epochs:** 20
 - Model Id:** QKMSJLMBQ6VU2S5EQMDBZ6VMXE
 - Status:** SUCCEEDED (with an information icon)
 - Progress:** 100%
 - Epochs:** 20
 - Queue Position:** 1
 - Train Params:** {"withFeedback":null,"trainSplitRatio":null}
 - Train Stats:** {"trainSplitSize":27,"trainingTime":"00:15:43:658","totalTime":"00:16:03:849","testSplitSize":6,"modelSaveTime":"00:12:59:348","lastEpochDone":20,"labels":3,"examples":33,"earlyStopping":false,"datasetLoadTime":"00:00:07:149"}
- System Information:**
 - Created By:** [YoungJun Kim](#), 5/12/2021, 6:50 PM
 - Last Modified By:** [YoungJun Kim](#), 5/12/2021, 7:10 PM
- Datasets (0):** A section at the bottom with a 'New' button.

On the right side, there are two summary panels:

- Model Metrics Summary:**

Test Accuracy		Training Loss	
1		12.148408010601996	
Label Id	Label Na...	Examples	F1
0	Alpine - Bran ...	31	1
1	Alpine - Corn ...	30	1
2	Alpine - Oat C...	32	1

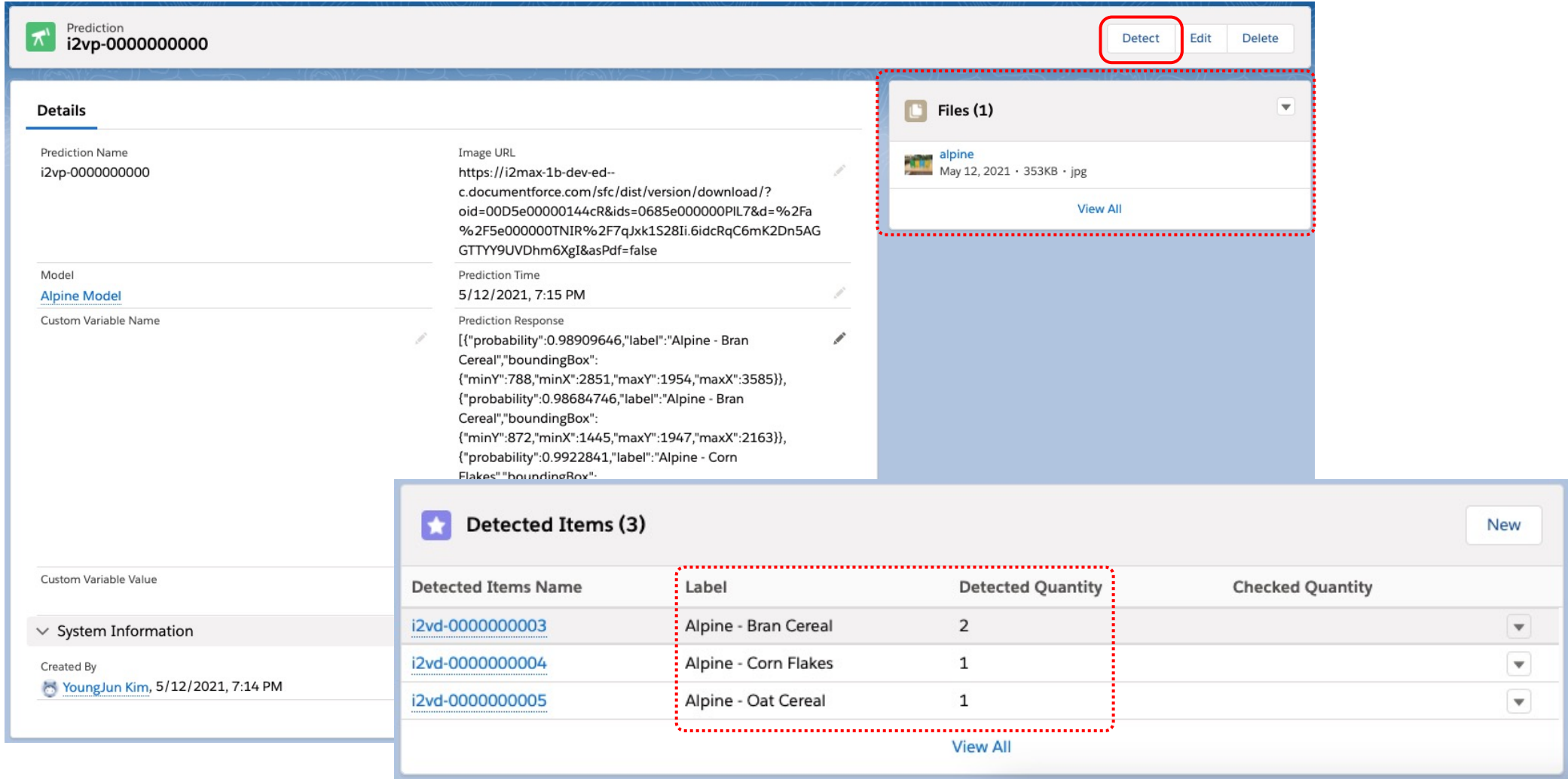
Einstein Vision linked data
- Train Stats Summary:**

Name	Value
trainSplitSize	27
trainingTime	00:15:43:658
totalTime	00:16:03:849
testSplitSize	6
modelSaveTime	00:12:59:348
lastEpochDone	20
labels	3
examples	33
earlyStopping	false
datasetLoadTime	00:00:07:149

Einstein Vision linked data

To proceed object detection you need to create prediction record.

1. Go to **Prediction** tab and create new record. Select base **Model**.
2. Then upload image file to **Related Files** section.
3. Press **Detection** button and check **Detected Items** related list.



The screenshot displays the i2max Prediction interface. At the top, there's a header bar with a green icon, the text "Prediction i2vp-0000000000", and buttons for "Detect", "Edit", and "Delete". The "Detect" button is highlighted with a red box.

The main content area is divided into two sections. The left section, titled "Details", shows the following information:

- Prediction Name: i2vp-0000000000
- Image URL: <https://i2max-1b-dev-ed--c.documentforce.com/sfc/dist/version/download/?oid=00D5e00000144cR&ids=0685e000000PIL7&d=%2Fa%2F5e000000TNIR%2F7qJxk1S28Ii.6idcRqC6mK2Dn5AGGTTY9UVDhm6XgI&asPdf=false>
- Model: [Alpine Model](#)
- Prediction Time: 5/12/2021, 7:15 PM
- Custom Variable Name: [empty]
- Prediction Response: [{"probability":0.98909646,"label":"Alpine - Bran Cereal","boundingBox":{"minY":788,"minX":2851,"maxY":1954,"maxX":3585}}, {"probability":0.98684746,"label":"Alpine - Bran Cereal","boundingBox":{"minY":872,"minX":1445,"maxY":1947,"maxX":2163}}, {"probability":0.9922841,"label":"Alpine - Corn Flakes","boundingBox":{}}

The right section, titled "Files (1)", shows a list of files:

- alpine (May 12, 2021 · 353KB · jpg)

A "View All" link is present below the file list.

Below the "Files" section, there's a "Detected Items (3)" section. It features a table with the following data:

Detected Items Name	Label	Detected Quantity	Checked Quantity
i2vd-0000000003	Alpine - Bran Cereal	2	
i2vd-0000000004	Alpine - Corn Flakes	1	
i2vd-0000000005	Alpine - Oat Cereal	1	

A "View All" link is located at the bottom of the "Detected Items" section.

At the bottom left, there's a "System Information" section showing the user "YoungJun Kim" and the creation time "5/12/2021, 7:14 PM".

If model detects objects wrong, you can manually input checked quantity and system will deselect EV Rightness checkbox.

 Prediction
i2vp-0000000000

[Alpine Model](#)

Custom Variable Name

5/12/2021, 7:15 PM

Prediction Response

```
[{"probability":0.98909646,"label":"Alpine - Bran Cereal","boundingBox":{"minY":788,"minX":2851,"maxY":1954,"maxX":3585}}, {"probability":0.98684746,"label":"Alpine - Bran Cereal","boundingBox":{"minY":872,"minX":1445,"maxY":1947,"maxX":2163}}, {"probability":0.9922841,"label":"Alpine - Corn Flakes","boundingBox":{"minY":920,"minX":795,"maxY":1909,"maxX":1467}}, {"probability":0.9955051,"label":"Alpine - Oat Cereal","boundingBox":{"minY":815,"minX":2167,"maxY":1947,"maxX":2890}}]
```

Custom Variable Value

EV Rightness
☐

System Information

Created By
 [YoungJun Kim](#), 5/12/2021, 7:14 PM

Last Modified By
 [YoungJun Kim](#), 5/12/2021, 7:17 PM

 **Detected Items (3)**

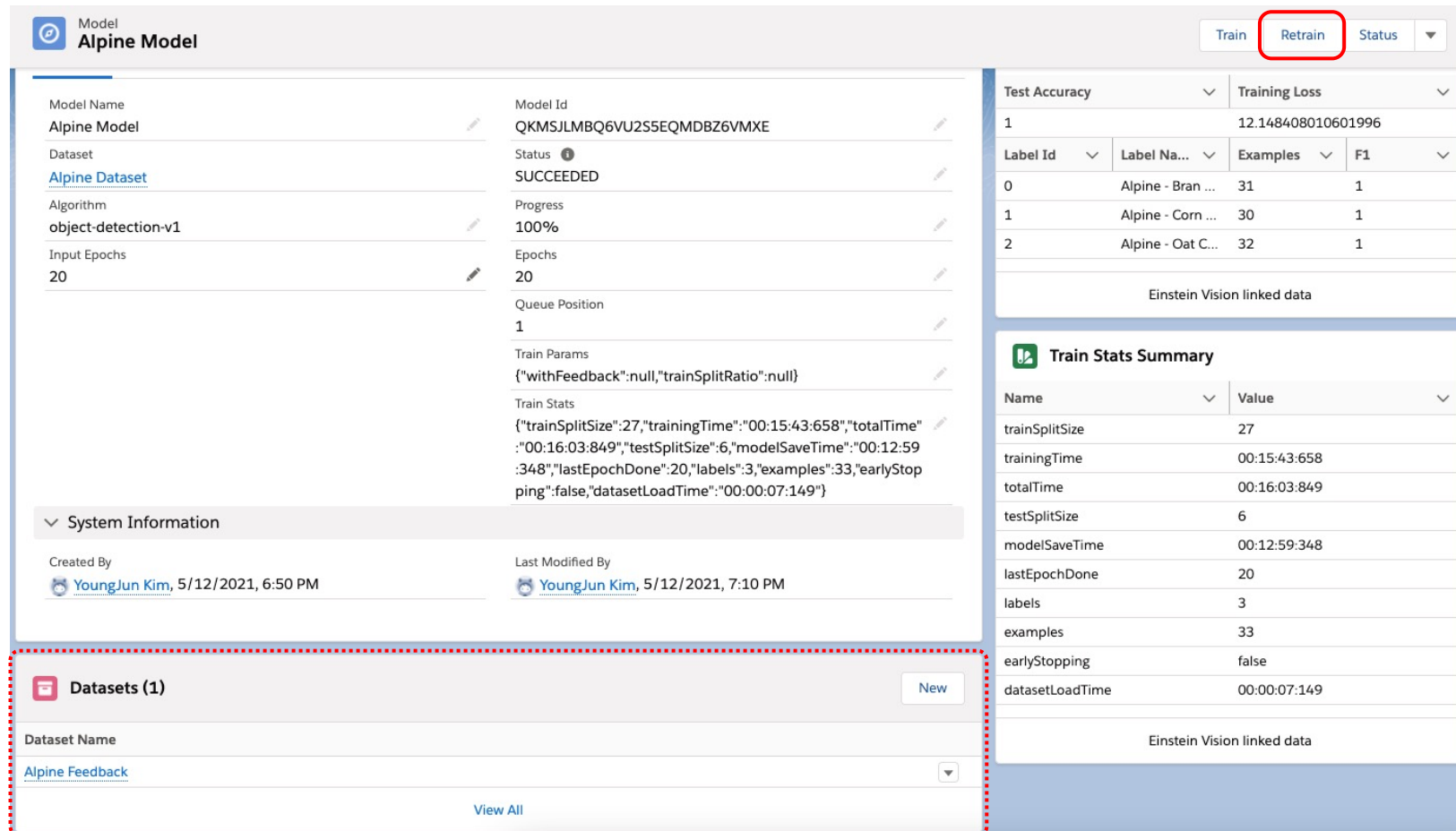
New

Detected Items Name	Label	Detected Quantity	Checked Quantity	
i2vd-0000000003	Alpine - Bran Cereal	2	1	
i2vd-0000000004	Alpine - Corn Flakes	1		
i2vd-0000000005	Alpine - Oat Cereal	1		

[View All](#)

There are moments, when you need to add new items to existing dataset or tune up model accuracy. In these use cases, you can retrain existing model. For that you need to create **Feedback Dataset**.

1. Go to **Model** that you want to retrain.
2. On the **Related List** section create new **Dataset** with **Feedback Dataset** type.
3. Then press **Retrain** button on the Model record.



The screenshot displays the 'Alpine Model' configuration page. At the top right, there are buttons for 'Train', 'Retrain' (highlighted with a red box), and 'Status'. The main content area is divided into several sections:

- Model Details:** Includes fields for Model Name (Alpine Model), Dataset (Alpine Dataset), Algorithm (object-detection-v1), Input Epochs (20), Model Id (QKMSJLMBQ6VU2S5EQMDBZ6VMXE), Status (SUCCEEDED), Progress (100%), Epochs (20), Queue Position (1), Train Params, and Train Stats.
- System Information:** Shows 'Created By' (YoungJun Kim, 5/12/2021, 6:50 PM) and 'Last Modified By' (YoungJun Kim, 5/12/2021, 7:10 PM).
- Datasets (1):** A section at the bottom, outlined with a red dashed box, showing a list of datasets. It includes a 'Dataset Name' field with 'Alpine Feedback' selected and a 'View All' link.
- Test Accuracy and Training Loss:** A table showing performance metrics for different labels.
- Train Stats Summary:** A table providing a detailed overview of the training process, including split sizes, times, and other parameters.

Label Id	Label Na...	Examples	F1
0	Alpine - Bran ...	31	1
1	Alpine - Corn ...	30	1
2	Alpine - Oat C...	32	1

Label Id	Label Na...	Examples	F1
0	Alpine - Bran ...	31	1
1	Alpine - Corn ...	30	1
2	Alpine - Oat C...	32	1

Name	Value
trainSplitSize	27
trainingTime	00:15:43:658
totalTime	00:16:03:849
testSplitSize	6
modelSaveTime	00:12:59:348
lastEpochDone	20
labels	3
examples	33
earlyStopping	false
datasetLoadTime	00:00:07:149

Thank you.

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