

Module 05, Part 2 — Generative Extraction in IXP: Practical Exercise Steps

Building, evaluating, and consuming a Generative Extraction project in IXP.

Building the Generative Extraction Project

Building a Generative Extraction project follows the same **Build** → **Measure** → **Publish** lifecycle as Modern DU projects, but uses generative AI prompts instead of annotated ML training.

Step 1: Create a New Generative Extraction Project

1. Log into **cloud.uipath.com** and navigate to the **Generative Extraction** service
2. Click **New Project** — choose **Blank Project** or a **Template**
3. Give the project a name (e.g., *Paystubs Extraction*) and description
4. Projects can only be created by an **IXP Service Admin**

Step 2: Upload Sample Documents

- Upload a representative sample of documents covering all layout variations
- Supported formats: **PDF, PNG, JPG/JPEG, TIF/TIFF**
- You can filter documents by annotated/unannotated status and search by document name
- No minimum number of documents required to start — predictions appear immediately

Step 3: Define the Extraction Schema (Taxonomy)

1. Go to **Manage Taxonomy**
2. Write a **project-level instruction** — describe the document type and industry context
3. Click **New Field Group** — give it a name and instruction (e.g., "Employee Information")
4. Add individual **Fields** within each group — specify name, data type, and instruction
5. For hierarchical data, use > in field group names (e.g., *Paystub > Deductions*)

♦ TIP

Configure your extraction schema upfront before reviewing predictions — this allows you to immediately assess AI-generated output across all your fields.

Step 4: Review and Validate Predictions

1. Once schema is defined, the AI immediately generates predictions for all uploaded documents
2. Review each document — check if predictions are correct
3. Modify prompt instructions and observe the impact on prediction quality
4. **Accept** correct predictions or **correct** wrong ones to build ground truth

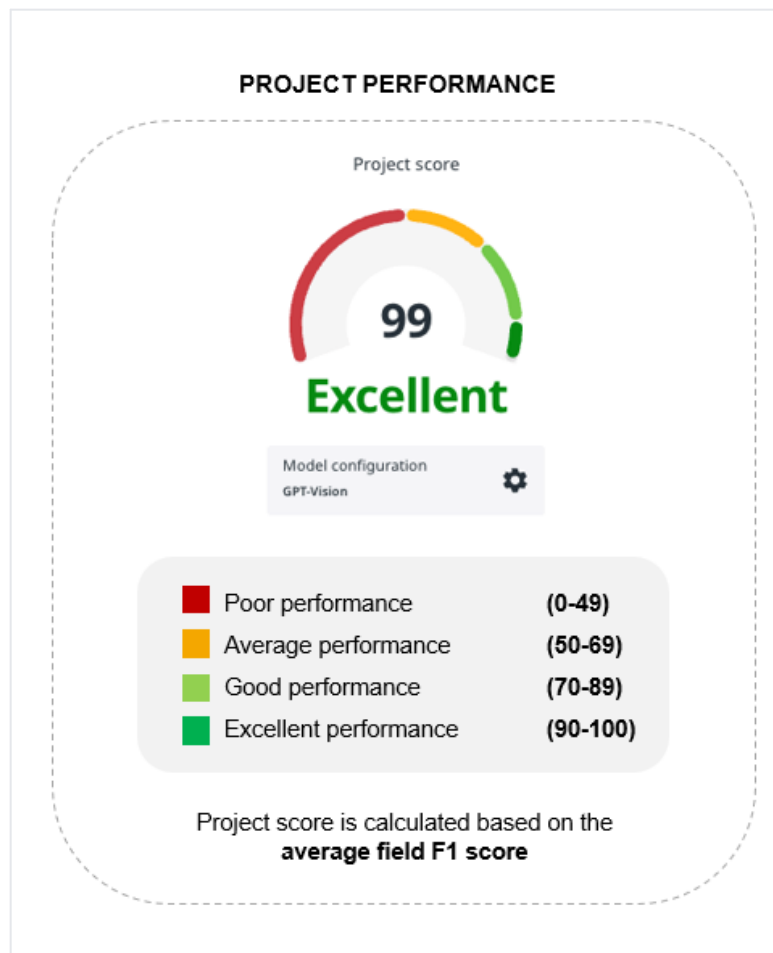
- Validated documents become the basis for performance evaluation in the Measure phase

Evaluating the Project (Measure Phase)

The **Measure** phase evaluates how well your model is performing before you deploy it to production. It uses your validated annotations as the ground truth.

Key Performance Metrics

- **Project Score** — overall model performance across all fields
- **Precision** — of all values the model extracted, how many were correct
- **Recall** — of all values that should have been extracted, how many did the model find
- **F1 Score** — harmonic mean of precision and recall; best single measure of performance
- **Per-field performance** — identify which specific fields need improvement



Project score — calculated based on the average field F1 score

Comparing Model Versions

Every time you change the extraction schema or validate more documents, Generative Extraction creates a new model version. In the Measure phase you can:

- Compare model versions side by side
- See field-level performance differences between versions
- Identify which fields need more annotation or better prompt instructions
- Decide which version is best suited for production deployment

Version 120

Latest available

Build

Measure

Publish

Project score

79

Good

Avg. doc error rate

0.22%

Field performance

Measure tab — project summary with version selection and high-level metrics

How to Improve Performance

- Refine field instructions — be more specific about expected format and edge cases
- Add more validated annotation examples (few-shot)
- Review low-scoring fields and adjust prompt wording
- Ensure the project-level instruction accurately describes the document type
- Annotate more diverse document samples to cover edge cases

Version 120

Latest available

Project score

79

Good

Avg. doc error rate

0.22%

Version details

Field performance

Show differences in scores from: Previous version (119)

Search

Columns (8)

Collapse all rows

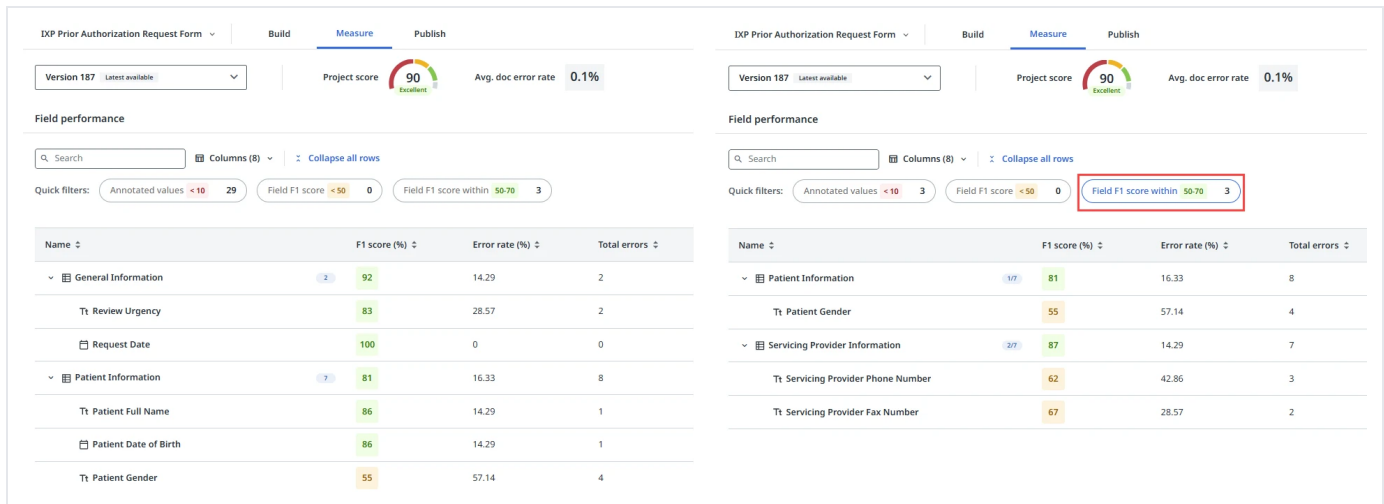
Quick filters:

Annotated values <10 0

Field F1 score <50 3

Field F1 score within 50-70 2

Field performance table — precision, recall and F1 score per field



Quick filter — narrow down fields to identify underperforming areas

◆ TIP

Performance Benchmarks: There is no universal threshold — align targets with business requirements. For high-stakes use cases (legal, financial), aim for **90%+** F1. For lower-stakes automation with human-in-the-loop, **75–80%** may be acceptable.

Consuming the Generative Extraction Project in Studio

Once your model meets performance criteria, publish it and integrate it into a UiPath Studio workflow.

Step 1: Publish the Model

1. Go to the **Publish** tab in your Generative Extraction project
2. Select the **model version** to deploy (based on your Measure results)
3. Add **deployment tags** to identify the version (e.g., *v1.0-production*)
4. Click **Publish** — the model becomes available as an API endpoint
5. Copy the **project ID / endpoint details** for use in Studio
6. To roll back, simply publish a previous model version

Step 2: Integrate in Studio Workflow

1. Install `UiPath.DocumentUnderstanding.Activities` package in Studio
2. Add a **Document Understanding Scope** activity and connect to your Generative Extraction project
3. Add **Extract Document Data** — pass the file path of each document
4. Access extracted fields from the returned `DocumentData` object
5. Add **Present Validation Station** for human-in-the-loop review if confidence is below threshold
6. Export validated results to Excel, database, or downstream system

Supported Document Limits

Parameter	Limit
Maximum document length	150 pages (use DU with RAG for longer documents)
Supported file formats	PDF, PNG, JPG/JPEG, TIF/TIFF
AI infrastructure	Specialized UiPath models + Azure OpenAI LLMs (data residency maintained per region)