

It takes just days to build a data app!

Gramex is a low-code platform to build and productionize custom Data/Al solutions that need to be scalable and flexible to address your organization's dynamic needs.



Gramex is meant for organizations and developers who want to build scalable and production-ready custom data applications. Built upon open technologies like Python, JavaScript, and HTML/CSS, it provides developers with hundreds of ready-to-use components available as RESTful microservices, each consumable through a few lines of configuration. Developers can further develop and host their own custom business logic seamlessly using Gramex and can also integrate/embed in Tableau and PowerBI.

Key Benefits

> 200+ pre-built components from data to deploy

 These ready-made components expose data, models, visuals, narratives, storage, and more as configurable REST APIs.

Zero Learning Curve

- Gramex uses UI-driven configurations. Setup Gramex and get started in building your application within minutes.
- Built on popular open standards like Python, JavaScript, HTML, CSS



Leads to an 80% reduction in coding effort

Key Features

At the core of Gramex is its flexibility and ease of building custom data applications. It comes pre-bundled with several features like:



- Narratives (storytelling capabilities)
- Modular REST APIs

•

- Embed as you want
- One-click deployment to Docker, Azure, AWS

Automate Your Story Narration from Data

With Gramex, you can create memorable data stories by weaving actionable insights together. Automate data narratives in simple English (or any other language).

Gramex can also embed output into your default toolkit. For example, you can embed <u>maps</u> <u>in Excel</u> and render <u>Dashboards in PowerPoint</u> -- allowing users to edit the output with no new skills or tools.

Glawe X

Gramex shrinks the development cost by a factor of up to 25x without losing flexibility.



Platform Overview



Gramex helps you build DATA/AI Solutions in a day!

Setting up the platform takes less than 10 minutes, and the platform snugly fits in with your other infrastructure to provide you value right from the word go.

It's Like Any Python Library

pip install gramex is all it takes to use the Gramex libraries -- just like any popular Python library like Pandas, Scikit-learn, or Matplotlib.

Python developers will feel at home creating applications. Configurations are written in YAML. Customizations can be written in Python.

Glawe<mark>></mark>

Light footprint

Gramex itself has a light footprint, and a simple 2-core/8GB RAM/20GB HDD is sufficient to cater to an active user base of up to 200 concurrent users with an average latency of ~250ms per request.

Ability to handle Voluminous Data

Gramex comes with the power to handle TBs of data effortlessly out of the box with its inbuilt and configurable powerful multi-level caching mechanism. This can be scaled easily to manage PBs.

Connectors for Numerous Data Sources

Gramex seamlessly works with your existing systems. It has **connectors** numerous data sources readily available. You can connect to every relational database (Oracle, MySQL, PostgreSQL, etc.) and most NoSQL databases. You can also connect to other data sources like Excel, CSV, XML, Hadoop, RDF. Gramex also has connectors for Facebook, Twitter, Google, SAP, etc. We are continuously adding connectors for additional data sources.

APIs for Integration

- Owing to it being a microservices-based platform, Gramex has almost everything available as a REST API.
- FormHandler lets you access data from single or multiple data sources that can be cached for faster throughput.
- DriveHandler allows you to enable the file uploading feature for your application, which can then be managed using the FormHandler.
- CaptureHandler enables you to take a snapshot of pages.
- With MLHandler, you can easily expose machine learning models through your application. You can enable your users to build (train/re-train) their own models or use pre-existing models out of the box.
- There are more than 70+ such APIs available.

Consumption

Gramex comes with an in-built rich UI Factory that helps developers build simple to complex dashboards and reporting interfaces with a few click-and-configure steps. Since Gramex components are microservices, they can be **embedded** in other systems like Tableau, Power BI, Qlik, Microstrategy, and more. A simple way to embed a Gramex dashboard in another Product Application UI is shown below:



What can I create using Gramex?

Gramex can be used to build a wide range of applications. A few examples are applications where you want to <u>extract narratives-based Insights</u> from your metadata/data, <u>create</u> <u>dynamic dashboards</u> using rule-based alerts, Geospatial Applications (e.g. population detection), text classifiers, etc.

Platform Architecure

Gramex has been built on top of standardized Python libraries with extensibility and flexibility in mind. Accordingly, the architecture of the platform is built entirely as microservices exposed as REST APIs. You have APIs to connect with data sources, visualizations, and libraries like R. All of this is exposed for consumption into your own applications using REST APIs.

Gramex connectors can connect to multiple data sources like files (XLSX, CSV, XML, etc.) and to most relational databases. It also has inbuilt connectors for sourcing data from Azure, SAP, FB, Twitter, and Google, to name just a few.

Robust caching and data transformation capabilities support this data connectivity through various processing elements like workflow engines, rule engines, schedulers, etc. This is ably supported by multiple authentication types (like Google, AD, ADFS, OAuth, LDAP) and role-based authorization & access control mechanisms, and out-of-the-box support for logging.

Glawex

Apart from in-built ML Models that can be exposed using the MLHandler API, Gramex also has integrations built for commonly used libraries like R, Scikit, Pandas, PyTorch to name a few. You can conveniently build your own ML model using Gramex and deploy it elsewhere. You can also seamlessly integrate a model built elsewhere with an application created using Gramex.

With Gramex UI Factory, any citizen developer can build interfaces for their applications by setting a few basic parameters for the UI controls and configuring the look and feel for the application they desire.

Gramex also comes with a rich visualization library of D3 & Vega Charts that can be integrated with your data application, again with just a few configuration parameters. Interfaces to all these components and libraries are available as REST APIs.





Grame><





Want to know more?

Watch walkthrough videos of our low-code platform by our CEO, S. Anand Try the Gramex IDE (Google login required) Read the Gramex documentation

Copyright © Gramener Inc. All Rights Reserved.