

The Uno Platform

On Your Premise

Why Low-Code App Platform?

- Quick to Start
 - Browser based development
 - Lean setup
- Quick to Build
 - Visual UI Designer
 - Ready-to-use (off-the-shelf) features
- Quick to Deploy
 - Ready-to-use deployment options
 - Cloud, On-Prem
- Quick to Scale
 - Auto-scale on Cloud

- Low on Cost
 - Reduced tools and technologies
 - Reduced infra
- Low on Skill Requirements
 - Shorter learning curve
 - Thinned tech-stack
- High Security & Compliance
 - Out-of-box compliance to standards
- High Customization
 - Full power of coding enables customization beyond limits

Why On-Premise?

- Complete control on development and hosting environments
- Sense of ownership
- Cost-effective
- High degree of security and compliance
- Distributed development
- Flexible Integrations
- Assured availability
- Improved end-user performance
- Reduced network dependency

The Uno Platform - On Premise

The Uno Platform - On Premise

- The Uno Platform (https://theunoplatform.com)
 - A cloud-hosted Low-Code Application Development Platform
 - Enables creation and hosting of Enterprise-grade web and mobile applications
 - Truly browser based development environment
 - Browser-based deployment management
 - Auto-scalable

- It is now available in <u>On-Premise</u> flavor as well
 - Create **standalone** applications
 - Gain complete control on hosting
 - Fully portable

Flavours of The Uno Platform - On Premise

All-in-One

- The platform and the prerequisites bundled together
- Doesn't require any other software download or setup
- Download, unzip and START using the platform
- Excellent for quick starters
- Very good for production deployments

Get Started with All-in-One

Light

- Very light platform download bundle
- Plugin to existing prerequisites
- Each prerequisite is available separately for download
- Requires a little bit of configuration and setup
- **Good for Pro users**, who require deeper customization choices

Get Started with Light

The Uno Platform - On Premise All-in-One

Get Started with All-in-One Setup

- Download the zipped bundle
 - Windows 64-bit: <u>https://drive.google.com/file/d/1IK7Z7288l1st X7Wphcdnirld2a</u> <u>5yYad/view?usp=drive link</u>
 - Ubuntu & Mac OS: To be available soon
- Unzip the bundle in a folder of your choice
- You will find the following folders and files
 - o mongodb The MongoDB database
 - nginx The Nginx reverse proxy server
 - o nodejs The Node.js JavsScript runtime environment
 - platform The server-side app of The Uno Platform
 - scripts Utilities to manage the platform
 - webui The client-side app of The Uno Platform
 - START.bat To start the platform
 - STOP.bat to stop the platform
 - The_Uno_Platform.bat To manage other platform processes
 - app_config.json Configuration/Setting about the applications and the platform

- mongodb =
- nginx
- nodejs 🚞
- platform
- scripts
- webui
- app_config.json
- START.bat
- STOP.bat
- The Uno Platform.bat

Start or Stop the Platform

- To Launch/Start the platform, run
 - o START.bat
- Access the platform via a web browser
 - https://localhost
 - o OR https://localhost/uno-apps
- To Stop the platform, run
 - STOP.bat

- For more knowledge of Platform features, refer to these YouTube videos -
 - https://www.youtube.com/playlist?list=PL0Co2DuqsJfKSTjkklAW8k0UvKH7AtXkU

Re-Launch Applications

- Ensure new applications also get launched on subsequent (re)start of the platform
 - Add an entry for each application in the "app_config.json" file

Backup & Restore

Advanced Options - Backup Application Data

- In the "app_config.json" file, for the given application, ensure "dump"->"disabled" is set to false
- Start the platform by running the following command
 - START.bat
- Or launch the MongoDB server by running the following command
 - o The Uno Platform.bat MONGO.START
- To dump out the application data, Run the following command
 - The_Uno_Platform.bat DUMP
- It creates a folder with given "<app_id>" as name inside "mongodb"->"dump" folder
- It also creates a file in the dump folder with following name
 - < <app_id>_app_def.json

Advanced Options - Backup Application Files

- The files created or uploaded in an app are stored in the following folder
 - "platform" -> "_uploads" -> "<app_id>"
- Create a copy of this sub-folder (<app_id>) to backup application files

Advanced Options - Restore Application Data

- In the "app_config.json" file, for the given application, ensure "dump"->"disabled" is set to false
- Ensure the app dump folder with name "<app_id>" and the file named <app_id>_app_def.json are kept inside "mongodb"->"dump" folder
- Start the platform by running the following command
 START.bat
- Or launch the MongoDB server by running the following command
 - The_Uno_Platform.bat MONGO.START
- To restore the application data, Run the following command
 - The_Uno_Platform.bat RESTORE

Advanced Options - Restore Application Files

- The files created or uploaded in an app are stored in the following folder
 - "platform" -> "_uploads" -> "<app_id>"
- Copy the backed up sub-folder (<app_id>) containing application files in to this folder
 - "platform" -> "_uploads"

Manage Other Services

Advanced Options - Manage MongoDB

- A local MongoDB database is present in "mongodb" folder
- The MongoDB process is started or stopped with the Platform's start or stop.
- You can also independently start or stop the MongoDB process
- Start the MongoDB server by running the following command
 - The_Uno_Platform.bat MONGO.START
- To stop the MongoDB server, run the following command
 - The_Uno_Platform.bat MONGO.STOP

Advanced Options - Manage Nginx

- A local Nginx Reverse Proxy Server is present in "nginx" folder
- The Nginx process is started or stopped with the Platform's start or stop.
- You can also independently start or stop the Nginx process
- Start the Nginx process by running the following command
 - The_Uno_Platform.bat NGINX.START
- This also launches the client-side of The Uno Platform that is placed in "webui" folder
- To stop the Nginx process, run the following command
 - The_Uno_Platform.bat NGINX.STOP

Advanced Options - Manage Platform Server-side

- A server-side part of The Uno Platform is present in "platform" folder
- The server-side process is started or stopped with the overall Platform's start or stop.
- You can also independently start or stop the server-side process
- Start the server-side process by running the following command
 - The_Uno_Platform.bat PLATFORM.START
- To stop the server-side process, run the following command
 - The_Uno_Platform.bat PLATFORM.STOP

HTTPS and Port Management

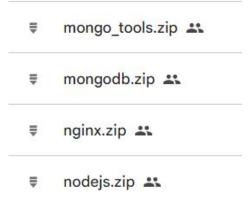
Advanced Options - SSL Certificate for HTTPS

- Currently using a self-signed SSL certificate
- Certificate files are placed in the following folder
 - "nginx" -> "ssl"
- To map the server to a registered domain and enable HTTPS
 - Generate SSL certificates for the given domain and the server
 - o replace the certificate files in above "ssl" folder
 - Modify the server configuration in **nginx.conf** file present in "**nginx**" -> "**conf**"

The Uno Platform - On Premise Light

Prerequisites

- The following applications are required for smooth execution and usage of The Uno Platform
 - MongoDB The database
 - Nginx The proxy-server
 - Node.js The runtime environment for the server-side application of the platform
 - MongoDB tools to perform data management operations like dump, export, restore, import etc.
- If you are looking for the installables of above prerequisites, you can find them here
 - https://drive.google.com/drive/folders/12Apu4UwjazGqx4pBix
 0Ww3Hmm3X0|Wsx?usp=drive_link



Get Started with Light Setup

- Download the zipped bundle
 - Windows 64-bit:
 https://drive.google.com/file/d/10ltVQrYK1ou-Un49DKWyMjFiolFyOq i/view?usp=drive link
 - Ubuntu & Mac OS: To be available soon
- Unzip the bundle in a folder of your choice
- You will find the following folders and files
 - TUP_START.bat To start the platform
 - TUP_STOP.bat to stop the platform
 - The_Uno_Platform.bat To manage other platform processes
 - tup The Platform content (<u>described here</u>)



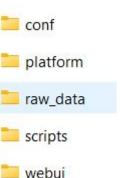
The_Uno_Platform.bat





The Platform Content - "tup" folder

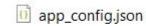
- You will find the following folders inside the "tup" subfolder
 - conf Files and folders about the application configurations/settings (described here).
 - o platform The server-side app of The Uno Platform
 - raw_data Base data of the primary application (uno_apps) for the platform setup
 - scripts Utilities to manage the platform
 - o webui The client-side app of The Uno Platform

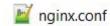


The Platform Content - "conf" folder

- You will find the following files and folders inside the "tup" subfolder
 - app_config.json The custom application related configurations for data restore and dumping. Also includes the platform related configurations for various integrations prerequisite systems/environment. <u>More details can be found here</u>
 - nginx.conf The platform related configuration file for NGINX. Add the following entry in the **http** section of the default configuration of the NGINX setup
 - include "[[Absolute Path to tup -> conf ->
 nginx.conf]]"
 - ssl Stores the ssl certificates for localhost. To be used by NGINX proxy server







The Application Configuration conf/app_config.json

The App Configurations - Custom Applications

- apps: An Array of config for each custom application hosted on the platform
 - o **app_id**: The (unique) ID of the custom application
 - dump: MongoDB links to fetch the master data or create a copy of the application definition and raw data
 - **app_uri**: MongoDB connection URI to fetch the raw data
 - app_def_uri: MongoDB connection URI to fetch the application definition object
 - **disabled**: A boolean (true/false) value to ignore or consider during dump action of the platform
 - restore: MongoDB links to restore the master data or ingest the application definition and raw data
 - **app_uri**: MongoDB connection URI to restore the raw data
 - app_def_uri: MongoDB connection URI to restore the application definition object
 - **disabled**: A boolean (true/false) value to ignore or consider during restore action of the platform

The App Configurations - MongoDB

- mongodb: Config for the MongoDB database integration
 - url: MongoDB connection URL for the backend application. If specified, it is assumed that MongoDB start/stop will be managed by user. If url not specified, the path -> bin shall be specified
 - o **path**: Various folder paths related to MongoDB and data management
 - **bin**: Absolute path to the bin folder of MongoDB local installation
 - **data**: Absolute path to the data folder for MongoDB local installation
 - tools_bin: Absolute path to the bin folder of MongoDB tools for dump, restore, import, export related mongo actions
 - **dump**: Absolute path to a folder that contains the application raw data and application definitions
 - o **port**: The port on which MongoDB process shall run.

```
"mongodb": {
    "url": "",
    "path": {
        "bin": "C:\\R
        "tools_bin":
        "data": "C:\\
        "dump": "C:\\
},
    "port": "27017"
},
```

The App Configurations - Nginx, NodeJS, Platform

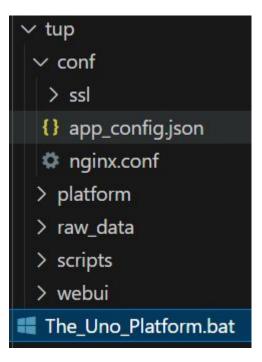
- **nginx**: Config for the Nginx proxy-server integration
 - o **path**: Absolute path to the Nginx local installation
- nodejs: Config for the Node.js integration
 - o **path**: Absolute path to the Node.js local installation
- platform: Config for the server-side application of the platform
 - port: The port on which server-side application shall run. If it is different from 9898, a corresponding update is required in conf/nginx.conf file
 - remoteUpload: A boolean (true/false) value to perform or ignore transfer of uploaded files to remote location (AWS or Azure). If true, it will use the app-level remote location configuration

```
"nginx": {
         "path": "C:\\tup
},
"nodejs": {
         "path": "C:\\tup
},
"platform": {
         "port": "9898",
         "remoteUpload":
}
```

Setup, Start, Stop The Platform

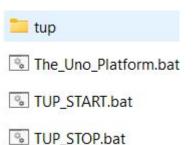
Setup the Platform

- Ensure all integration are in place
- Ensure the content of tup -> raw_data copied over to the folder mapped to mongodb -> path -> dump inside app_config.json
- To perform the platform setup, run
 - The_Uno_Platform.bat SETUP



Start or Stop the Platform

- Ensure all integration are in place
- Ensure initial setup is performed
- To Launch/Start the platform, run
 - TUP_START.bat
- Access the platform via a web browser
 - https://localhost
 - OR https://localhost/uno-apps
- To Stop the platform, run
 - TUP_STOP.bat



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Re-Launch Applications

- Ensure new applications also get launched on subsequent (re)start of the platform
 - Add an entry for each application in the "app_config.json" file

Backup & Restore

Advanced Options - Backup Application Data

- In the "app_config.json" file, for the given application, ensure "dump"->"disabled" is set to false
- Ensure that app specific MongoDB URLs are accessible
- To dump out the application data, Run the following command
 - The_Uno_Platform.bat DUMP
- It creates a folder with given "<app_id>" as name inside
 "mongodb ->path -> dump" folder
- It also creates a file in the dump folder with following name
 - o <app_id>_app_def.json

Advanced Options - Backup Application Files

- The files created or uploaded in an app are stored in the following folder
 - "platform" -> "_uploads" -> "<app_id>"
- Create a copy of this sub-folder (<app_id>) to backup application files

Advanced Options - Restore Application Data

- In the "app_config.json" file, for the given application, ensure "dump"->"disabled" is set to false
- Ensure the app dump folder with name "<app_id>" and the file named <app_id>_app_def.json are kept inside "mongodb -> path -> dump" folder
- Ensure the MongoDB process specified for the platform is accessible
- To restore the application data, Run the following command
 - The_Uno_Platform.bat RESTORE

Advanced Options - Restore Application Files

- The files created or uploaded in an app are stored in the following folder
 - "platform" -> "_uploads" -> "<app_id>"
- Copy the backed up sub-folder (<app_id>) containing application files in to this folder
 - "platform" -> "_uploads"

Manage Other Services

Advanced Options - Manage MongoDB

- If MongoDB paths are configured appropriately, you can start or stop the local MongoDB process
- Start the MongoDB server by running the following command
 - The_Uno_Platform.bat MONGO.START
- To stop the MongoDB server, run the following command
 - The_Uno_Platform.bat MONGO.STOP

Advanced Options - Manage Nginx

- If Nginx paths are configured appropriately, you can also start or stop the Nginx process
- Start the Nginx process by running the following command
 - The_Uno_Platform.bat NGINX.START
- This also launches the client-side application of The Uno Platform that is placed in "tup -> webui" folder
- To stop the Nginx process, run the following command
 - The_Uno_Platform.bat NGINX.STOP

Advanced Options - Manage Platform Server-side

- A server-side part of The Uno Platform is present in "tup -> platform" folder
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HTTPS and Port Management

Advanced Options - SSL Certificate for HTTPS

- Currently using a self-signed SSL certificate
- Certificate files are placed in the following folder
 - "tup -> conf -> ssl"
- To map the server to a registered domain and enable HTTPS
 - Generate SSL certificates for the given domain and the server
 - o replace the certificate files in above "ssl" folder
 - Modify the server configuration in nginx.conf file present in "tup -> conf" folder

Queries & Feedback

Queries & Feedback

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