



Decisyon App Composer

# Technology Overview

# Introduction

Decisyon App Composer (DAC) is a visual app development platform offering end-to-end built-in functionality for developing and deploying any Industrial IoT application. DAC's intuitive and simple drag & drop development environment allows everyone – from hardcore programmers to business analysts – to rapidly build IoT solutions that consume and analyze real-time data, visualize and analyze that data, support fact-based decision making via a unique collaborative space and execute on those decisions.

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## System Description

DAC provides a unified, highly collaborative platform for building IoT solutions that can:

1. Connect data, people, processes and sensor/device at any level of your organization in real- or near-time.
2. Free up information from the applications and data sources that hold scattered data throughout a company and the web – without having to re-architect the IT infrastructure.
3. Assemble, visualize, analyze and plan around that information in a collaborative workflow that matches how organizations really work, not how other vendors' applications work.
4. Make a decision and execute it back into underlying systems directly within the same environment.
5. Change workflows with speed and agility, so you can easily adapt to changing market conditions and seize new business opportunities.

DAC offers collaboration and the execution of business processes. It provides a collaborative portal that integrates structured, semi-structured and unstructured data from devices and sensors. It also offers transactional functionality and connects everything for the organization's internal players and external partners.

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## DAC's Key Differentiators

- Easily construct powerful apps from end to end – all the way from data to action; deploy out-of-the-box functionality such as data aggregation, visualization, analysis, rule-based decisions and execution of those decisions
- No knowledge of coding is required, so you can build pages in just hours, rather than weeks
- All data types required to manage a full business process can be ingested and operated on: IoT data, enterprise data, unstructured data, social analytics
- Open architecture enables you to leverage external services that complement robust native functionality
- Unique collaboration portal allows global access and analysis of real-time data

# DAC Components

## DAC has three components:

Design Studio (DS), DAC Runtime (RT), and Metadata (DAC-MD).

## DAC Design Studio (DS):

DAC Design Studio is a powerful and feature-rich environment for the development, configuration and administration of data-intensive IoT business applications.

Written in Java, it is a standalone application that inherits the portability and independence of platform and technology. Simple and intuitive in design, DS enables easy extraction of insight from data via high-level ROLAP widgets and tools and development of rich user interfaces by using modern front-end frameworks and development methodologies. DS provides the access management (authorization) capabilities necessary to publish and distribute information to users based on their functional roles.

## DAC Runtime (RT):

DAC-RT, the runtime component, offers sophisticated functions to end users for visualizing and interacting with presentation objects. Additionally, it allows for full navigation and customization of app pages, BI, reports and overall applications. All the analysis generated on the DAC platform is fully navigable: users can leverage drilling, pivoting, slice-and-dice and sorting functions. They can also reorganize any data view with simple drag-and-drop moves or by clicking on toolbar icons to obtain visualizations that meet their needs. Reports developed on the DAC platform can be exported in the most popular formats such as Adobe PDF or Microsoft Excel. This enables data and analyses to be easily shared across organizations.

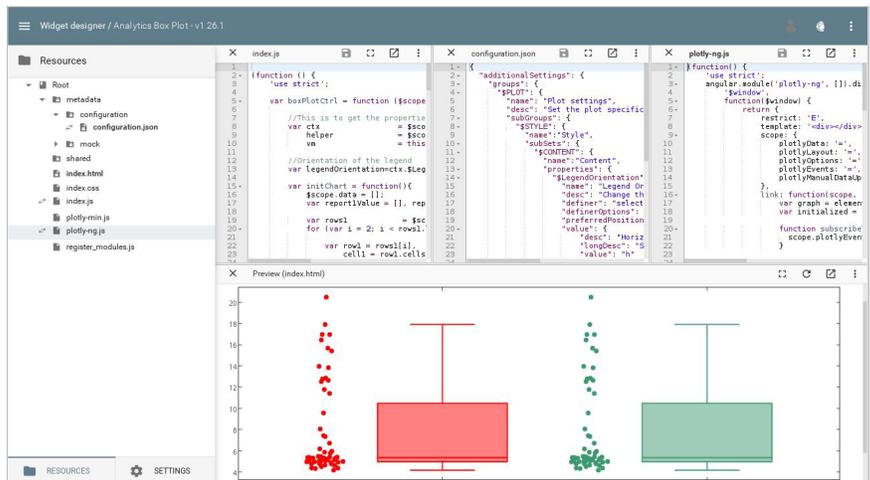
## DAC Metadata (DAC-MD):

DAC Metadata is a schema that stores the design information and system configuration of the application. DAC interacts with the database that contains the configuration proprietary tables (Metadata) and reads all the information needed for the platform to create pages and operate dynamically.

## Platform Extensions

DAC's platform extensions further expand the capabilities of the main components:

- **SDK (Software Development Kit)** allows you to create Java code snippets using DAC objects. With a few lines of code, you can create programs that allow you to use DAC objects such as reports, notifications, alerts, etc. that can be pushed to DAC-RT. This makes this new functionality immediately available on the web without the need for manual deployments.
- **Widget Designer** is a powerful online development environment that provides a feature-rich toolset to build complex applications with sophisticated user interfaces and data connectors to access diverse data sources. The development environment is based on AngularJS and can be extended with any third party services and front-end libraries.



# DAC Technology Stack

DAC has a microservices pluggable architecture with an extensive scalability and superior performance under heavy load. It is written in Java, HTML 5, CSS 3 and can run on any SQL database. It has built-in data connectors to all major business systems and offers REST API endpoints.

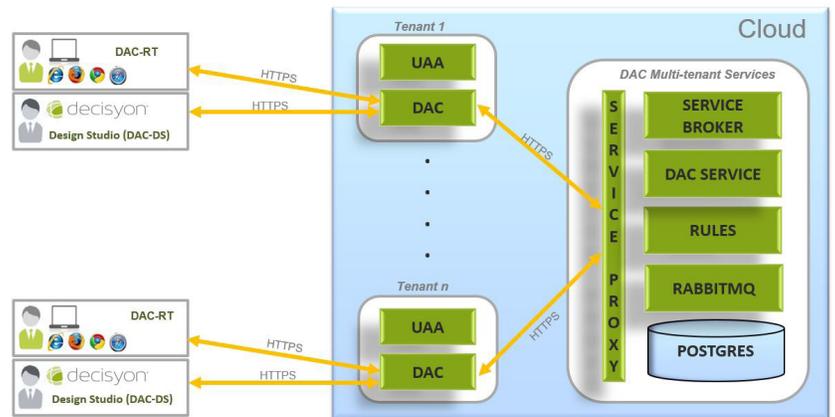
You can deploy DAC on different cloud services. You may choose to host your solutions on nearly any public or virtual private cloud (VPC), including AWS, Predix or on premises in your own data center.

## DAC on Predix Architecture

DAC is the only app development tool natively integrated within Predix architecture. It works as an enabling layer that empowers everyone to leverage Predix and Decisyon native services, accelerating time to develop & deploy and achieve the desired business outcomes. It offers a high degree of flexibility in developing IIoT solutions for both Predix developers and business users without requiring coding. Applications built with DAC are readily deployed into the Predix cloud with a single click. DAC's seamless integration will help accelerate the time to develop and deploy apps without going through long, error prone and laborious SDLC. As a result, you can concentrate effort solely on building solutions rapidly instead of spending time coding/debugging/testing/releasing cycles.

DAC allows direct binding with Predix credentials, UAA, Time Series and Asset data. Moreover, DAC has direct access to all the Predix Web components in order to create a final app that is compliant with Predix UX standards.

DAC's unified framework leverages Predix and native micro-services, allowing the end user to share knowledge and collaborate around real-time data to arrive at faster and smarter decisions. Predix developers who desire further customization have the power to customize the code in key areas.



### There are many advantages to using DAC to accelerate Predix development:

- Provides an intuitive Visual App Dev Environment: simply drag & drop, test and deploy
- Empowers everyone to leverage Predix power to build IIoT solutions
- Contains end-to-end, out-of-the-box functionality for big data & analytics
- Offers catalog of native and Predix microservices and widgets
- Features built-in Data Orchestration, BI, Analytics, Rules Engine, Collaboration, Decision & Action
- Ingests real-time structured and unstructured data and runs on all major SQL databases
- Already in production in over 200 clients in numerous industries such as Aviation, Renewable Energy, Transportation, Manufacturing, Pharma, Retail, Healthcare, Supply Chain

## ABOUT DECISION

Decisyon, Inc. provides enterprises and global brands a Visual App Development environment with built-in services to design, develop and deploy end-to-end IIoT solutions without coding. Founded in 2005, Decisyon software is currently used in over 200 companies globally, including the pharmaceutical, financial services, banking, media, fashion, manufacturing, retail, transportation, telecommunications and automotive industries. Headquartered in San Francisco, CA, the company markets its software solutions in the United States and Europe through partners and direct sales.

## CORPORATE HQ

795 Folsom Street, 1st Floor  
San Francisco, CA 94107  
1-844-329-3972