TEC | Technology Evaluation Centers

PRODUCT REVIEW

THE PATH TO DIGITAL PROCESS AUTOMATION

AURAQUANTIC

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AuraQuantic—The Path to Digital Process Automation

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About This Report

While some business practices may come and go as new trends in business management emerge, the ability to effectively deploy, manage, and execute business processes remains an integral part of every organization's business strategy.

As practices of business process management (BPM) rapidly evolve, software solutions that enable these practices evolve alongside them. Many organizations that have been adopting BPM practices to streamline their business processes are now looking to increase the efficiency of other stages of process management, such as process automation, optimization, and analysis, as well as to enhance the adoption of new low-code process-based development applications that simplify management of the entire development lifecycle.

As these platforms gain momentum, both simple and complex processes and business operations can be developed and delivered more effectively and intelligently. This is particularly relevant given that the increase in complexity of more robust enterprise applications, such as enterprise resource planning (ERP) and business management solutions, requires these new process-based platforms to enable optimal business process handling and to guide digital transformation efforts to a path of success.

This report provides a comprehensive review of one of these solutions. AuraQuantic is a solution specifically developed for the provision of process- or data-centric applications and process automation.

The report is structured in the following manner:

- A general discussion of the technical and business impact of these new types of enterprise software solutions and their increasing importance for the future of digital transformation efforts and business operations.
- A description of AuraQuantic's new release—the solution's technology and business value:
    - Functional, architectural, and business perspectives
    - Key capabilities for big data management and analysis
    - Role in tactical and strategic decision-making within digital transformation and process optimization efforts
- A real-world success story of a company using AuraQuantic to optimize their business processes
- Analyst observations and commentary

Introduction

The effective management and execution of business processes remains a crucial objective at the forefront of every organization. Over the past 5 to 10 years, business process management (BPM) practices and software solutions have evolved drastically with the addition of new technologies such as advanced analytics and artificial intelligence (AI) to ehance the BPM capabilities available to organizations.

AuraQuantic is a BPM solution with a new digital process automation platform to help organizations streamline and automate business processes and attain higher levels of process management efficiency. Its key elements include process automation, optimization, analysis, and the adoption of new low-code process-based development applications to simplify the entire application development lifecycle.

The following report reviews the capabilities and benefits offered by AuraQuantic's digital process automation platform. The report is intended not only to educate readers about AuraQuantic's offering for improving business processes and operations but also to present relevant factors to decision makers for consideration when evaluating such solutions for their organizations.

The Importance of Digital Process Automation for the Modern Organization

Many organizations today are looking to software-based systems as part of their digital transformation efforts to ensure optimal execution of business processes.

This digital transformation phenomenon is one that touches many aspects of an organization. Its effects range from business activities, processes, and models to complete corporate ecosystems and all their associated assets—customer management, sales automation, digital content generation, and more.

A key aspect of the adoption of a succesful digital transformation effort concerns the adoption of a succesful digital process automation strategy to produce reliable, simplified, and automated processess—resulting in optimal levels of operation.

As business processes and associated workflows evolve at an unprecedented pace, traditional business process management (BPM) practices and tools are being replaced by new lightweight low-code application platform options to address both current and new business process execution challenges.

The adoption of software devoted to improving business processes, thereby enabling business operation and execution achieves three primary goals:

- It addresses business complexity and ever-changing business operations in an environment that requires the continuous review, modification, and improvement of business processes to keep pace with changes to the specific type of business and to the business world in general.
- It addresses the need for extensive collaboration, flexibility, and mobility, prompting businesses to look for an agile and adaptive approach to process execution practices to help accelerate response times.
- It addresses the need for increased process interaction efficiency, enabling improved relations with customers, partners, associates, and users in general and ensuring effective communication, information sharing, and collaboration between the company and these parties.

One of these types of software solutions is essentially a new breed of solutions called digital process automation solutions or platforms.

Evolved from business process management platforms, digital process automation (DPA) solutions combine a series of technologies such as machine learning, artificial intelligence, mobile, and cloud, among others to perform automation tasks in order to optimize business process execution.

These platforms exploit new technologies and apply a combination of process management and process automation features to deliver organizational benefits. Their main features and benefits are as follows:

- **Universal access** from any device—PC, tablet, and smartphone—and from any place at any time. Native mobility enables not only solution access but also seamless operation on any type of device.
- **Simpler interfaces** and considerations for ease of use enable users to work on an application that is easy to interpret and operate and that adapts to the daily corporate operations.
- **Flexible deployments** enable the solution to be rapidly put to work. Cloud options facilitate the adoption of DPA software offerings by many organizations with subscription-based models or on-demand services, simultaneously reducing companies' capital investment in information technology (IT).

- **Time savings** resulting from task automation, due to the faster rate of completion of tasks and to less time devoted to workflow maintenance and task updating.
- **Increased productiviy** as a consequence of automating previously manual or repetitive tasks, allowing users to turn their focus to other, more important activities.
- **Cost savings** due to fewer human and system resources and hence reduced operational and maintenance costs.
- **Improved customer service** due to the effective digital automation of tasks, freeing up customer service and support agents to attend to those complex issues that really require their attention.

Additionally, the succesful deployment of a digital process automation solution can potentially reduce the loss and exposure of information and documents by ensuring automated and secure document management.

Specific Capabilities of Digital Process Automation Solutions

Today, an increasing number of software providers are adapting to a new business and software market reality in the wake of ongoing digital transformation that places demands for a new generation of software solutions such as DPA solutions, with capabilities for automating and optimizing tasks and business processes.

Organizations of all types, forms, and sizes can garner significant benefits from these solutions. As an example, consider a retailer that can provide automated self-service capabilities for its online and brick-and-mortar store customers, or a logistics company that can use these solutions to perform automatic billing.

These new process automation and management solutions have the potential to ensure continuous improvement and innovation for many organizations, regardless of whether the needs of these establishments continuously evolve along with today's rapidly evolving business environment.

Current DPA solutions are now required to be equiped with the neccesary capabilities to achieve the following:

- Improve business process efficiency and reduce risks.
- Make use of analytics to measure and monitor progress, performance, and efficiency continuously.
- Work on top of reusable concepts and share a common language digestible between companies and stakeholders (business and IT) to enhance consistency, repeatability, and transferability.
- Continuously audit and review customer needs to ensure compliance and transparency.
- Help create a self-enabled team that knows how your company works to reduce dependency on costly external solution experts and promote sustainability.
- Increase technology integration to bridge the communication gap between business users and IT, imparting a more autonomous impact on their own processes without IT's constant involvement.

Overall, new DPA solutions have the potential to help organizations better organize and digitize processes in a way that allows businesses to quickly shift goals if needed to accommodate new or changing prorities.

Key Considerations for the Successful Adoption of a DPA Solution

Based on the experience of Technology Evaluation Centers (TEC) with organizations aspiring to gain excellence in the management, execution, and automation of business processes, four main guidelines have emerged to assist those companies in the process of evaluating or adopting a DPA solution and increase their chances for a successful adoption and implementation of a DPA software solution:

1. **Having a clear business case.** Having a well-defined business case that justifies the need for a new DPA initiative can be instrumental for getting the go-ahead from the main stakeholders and business decision makers. A good business case will also serve as a decent starting point for the development of a coherent DPA roadmap.
2. **Getting executive support.** Getting senior executives to support the project is a major impetus for your undertaking. Get them to include this initiative on their project list—the higher your initiative is on that list, the more priority it will receive.

3. **Undertaking a DPA initiative, not a project.** Executing business process management is a continuous journey, so consider your DPA to be a sustained initiative and not time-limited project. Digital process automation should be seen as an instrument for helping an organization learn how to achieve improvements at an operational level by analyzing new and existing processes and then taking steps to improve them. This entire process can lead to the continuous improvement and discovery of best practices, and thereby enhance operational efficiency and encourage compliance with the tactical and strategic goals of an organization.
4. **Developing a good roadmap.** Developing a clear and comprehensive roadmap can provide an effective guide to going through all the steps of the DPA initiative. An organization's roadmap will guide people on the tasks that need to be undertaken and on the specific goals that need to be met in order to set the DPA initiative in motion. This can be particularly useful for complex DPA efforts, and an understandable roadmap will certainly allow for successfully meeting systematic plans and milestones.

Making digital process automation an agile initiative can also help avoid having pure or complete IT-led paths, which may be incongruent and conflict with the needs and goals of the business.

While the success of any DPA initiative deployment cannot be guaranteed, having the proper set of measures in place will indeed increase the likelihood that your organization can implement the right strategy to achieve high levels of operational efficiency and performance improvement.

AuraQuantic: Digital Process Automation for a New Generation of Businesses

Under a complex yet exciting era of fast business and technology evolution of the software industry, companies such as AuraQuantic aim to become the tip of the spear when it comes to business process automation and novel management, enabling organizations to achieve higher levels of business efficiency.

So, we follow suit with a solution review of AuraQuantic's digital process automation platform capabilities and how this solution could be a serious candidate to consider for business users' next implementation project.

About AuraQuantic

AuraQuantic was founded in 2002 by engineer and PhD Juan J. Trilles, under the name AuraPortal. The company was originally set up to function as a traditional business process management (BPM) solution provider, with a special aim to help companies become more agile and efficient by improving and simplifying their business processes.

After nearly 20 years in the market and a continuously evolving path, the company has just changed its name to AuraQuantic and has become a modern provider of digital process and automation solutions. With a current capital of approximately 25 million Euros and with more than 100 employees composed by a mix of experienced executives and expert technical savvy engineers, AuraQuantic today is a company expanding globally with a vast partner network and presence in more than 50 countries.

Some current stats from AuraQuantic include more than 9.5 million users and more than 1,000, 000 deployments of its software offerings (figure 1).

Enjoying a close and healthy strategic partnership with Microsoft, AuraQuantic has also made strategic alliances with pwc, BDO, and novotec, among others.

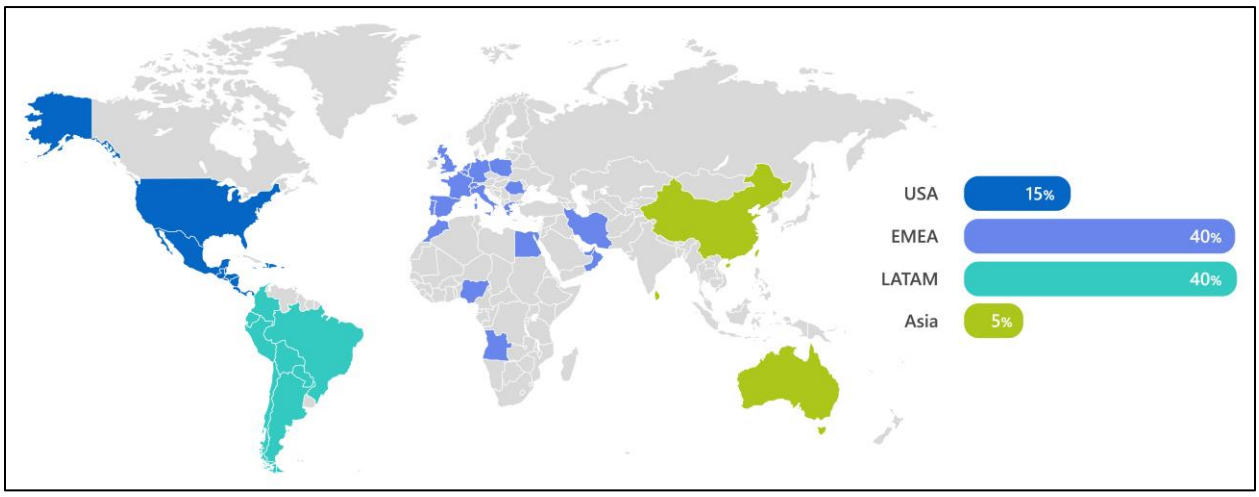

Figure 1. Geographical distribution of AuraQuantic's customer base

About AuraQuantic's Digital Process Automation Platform: General Structure

The AuraQuantic Digital Process Automation Platform is a full-fledge digital process solution that has been developed to provide easy design and execution and automation of business operation processes.

Evolving continuously and incorporating key sets of capabilities—ranging from process automation to artificial intelligence (AI)—the platform now aims to offer a complete low-code platform for the development of intelligent enterprise soutions.

Built on a solid BPM background, the platform offers solutions for remote work, low-code application development, and process automation and management. It offers the following modules:

- **AuraQuantic Core.** Incorporates a comprehensive set of functional features to address the remote-work needs of an organization, providing extensive web-based business process and automation capabilities as well as a low-code application development platform.
- **Advanced Data Management.** Adds functionality to the AuraQuantic Core for maximizing data performance and managing information records and business rules, and for enabling content publication in digital format with extensive document management features.
- **Advanced Analytics.** Extends the AuraQuantic Core features to provide optimal data processing and analysis capabilities of all information, entered manually or automatically generated, providing capabilities for easily generating reports and monitoring performance via advanced dashboards.
- **External Collaboration.** Handles and manages communication between employees and external parties such as customers, suppliers, and other external agents via a flexible, reliable, and powerful workflow system.
- **Connectivity.** Contains all the necessary tools to connect to external applications through Web Services (REST, SOAP), Adapters, etc. It also incorporates a plethora of prebuilt connectors including UiPath, SAP, .NET Assembly, SharePoint Online, and many more.

All modules are centrally managed to provide cohesion between modules and within the platform and for collaborating on a complete platform for the automation and development of business process applications.

AuraQuantic can be proud of itself for becoming a solid and mature platform, and a serious contender in any initiative that aims to improve and reach efficient and effective business operations.

AuraQuantic: Core Functional Elements

Having now defined both the company AuraQuantic and its namesake solution, we can now proceed with a more comprehensive review of some of the most important functional and business capabilities and values that the company's digital process automation solution provides for users and organizations.

From a functional perspective, let's look at the six main features under which AuraQuantic formed its core offering:

Process Automation	**Dynamic Case Management**	**Analytics and Smart Decision**
Business Rules and Data	**Artificial Intelligence**	**Connectivity**

Process Automation

AuraQuantic's approach to process automation is to include the full business process development and its proper automation right into a single and simple core application.

Starting from its modeler, which enables an "all visual" approach to drag and drop each process-step object (from tasks and events to gateways) within a diagram, to the setting of attributes for these obejcts, the full development process, once completed, aims to provide the neccesary capabilities for the automated execution of processes with compliance to BPMN 2.0 operational flows.

The offering has an inclusive development cycle that considers capabilities for the creation of "smart forms" as an integrated portion of the full process automation stage.

Dynamic Case Management

Although not new, case management disciplines have been implemented with different degrees of success.

As the discipline of managing a full set of processes that together make up a case, case management, when built and deployed properly can increase an organization's capabilities for effectively managing multiple actions made by multiple people across an organiation.

AuraQuantic includes a series of capabilities that enables users to manage and track the history of the case in a holistic way by including all the records and documents related to it, even if these processes have variations and exceptions, thereby orchestrating all the elements (apps, data, files, etc.) to support a case.

Analytics and Smart Decision

Modern digital process automation solutions exhibit a key capability for performing analysis of the efficiency of process execution and overall performance.

AuraQuantic includes a wide range of capabilities for performing optimal process execution, including reporting, BI-related tools (figure 2) such as dashboarding, impact identification, business activity monitoring (BAM), workload distribution, and other analytics capabilities.

Here are a couple of key elements to consider in this regard:

- AuraQuantic's statistical simulation and threshold capability allows users to gather relevant information to detect bottlenecks to be corrected in order to ensure proper process execution. The feature also enables users to incorporate simulation in order to better prevent problems, avoid risks, and optimize operational execution.
- The system's workload distribution analysis capabilities allow for improving overall process efficiency by analyzing how workloads are being managed and enabling re-distribution, if neccesary.

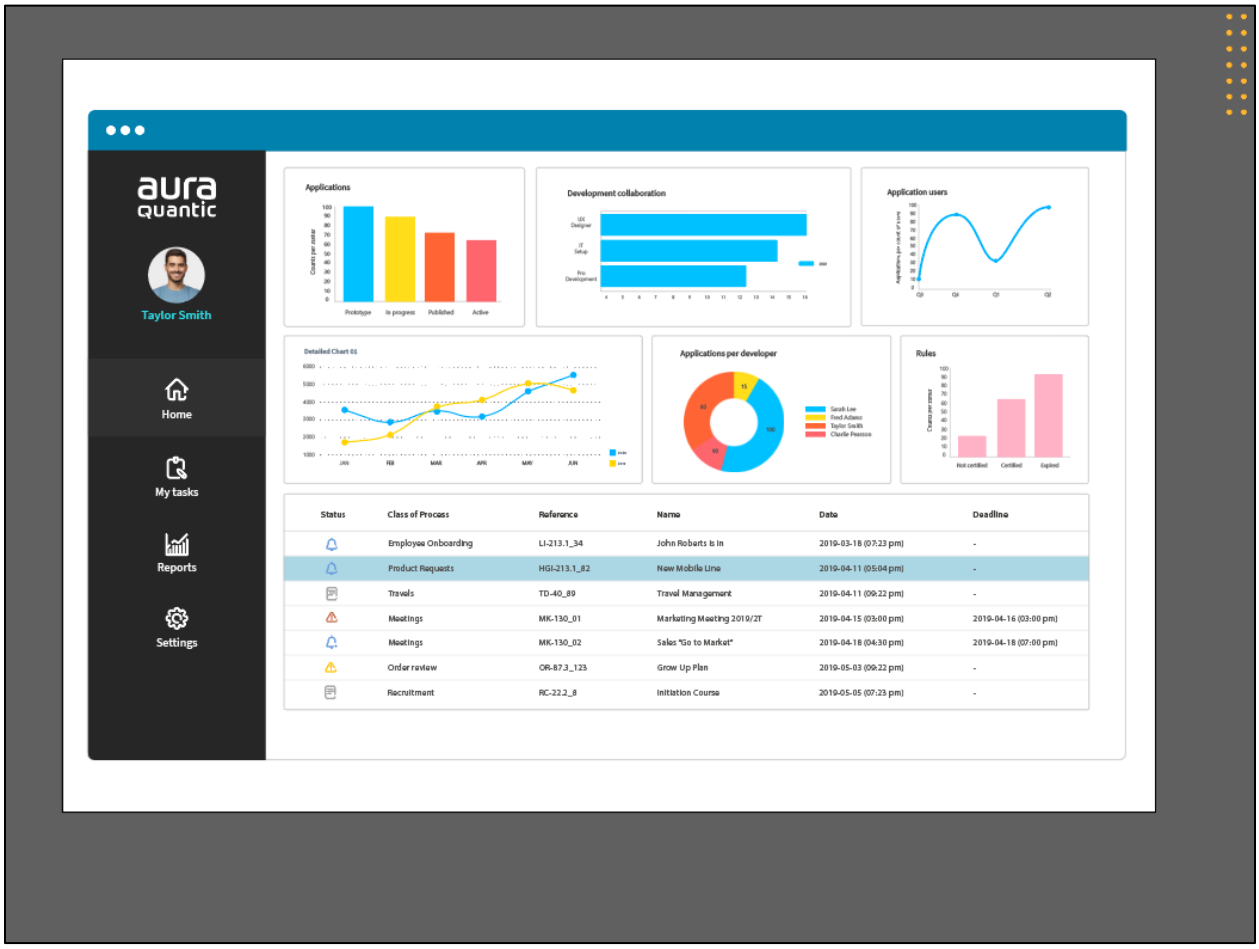

Figure 2. AuraQuantic's dashboard screencap (courtesy of AuraQuantic)

Business Rules and Data

Another of AuraQuantic's software assets is the solution's built-in business rule and data engine, allowing users to apply the full set of an organization's regulations and procedures within the platform and set and/or modify business rules, which will be automatically reflected seamlessly within running processsess.

Business rules in AuraQuantic are interestingly classified according to the format they deliver their outcome (figure 3):

- Assignment

Store variables with assigned values.

- Textual

Contain rich text with unlimited storage or use.

- Inference

Provide results that comply with an unlimited number of variables and combinations.

- Calculation

Store simple or complex equations for any variable.

With this categorization, AuraQuantic makes it easy for users to set most, if not all, the types of business rules within the platform.

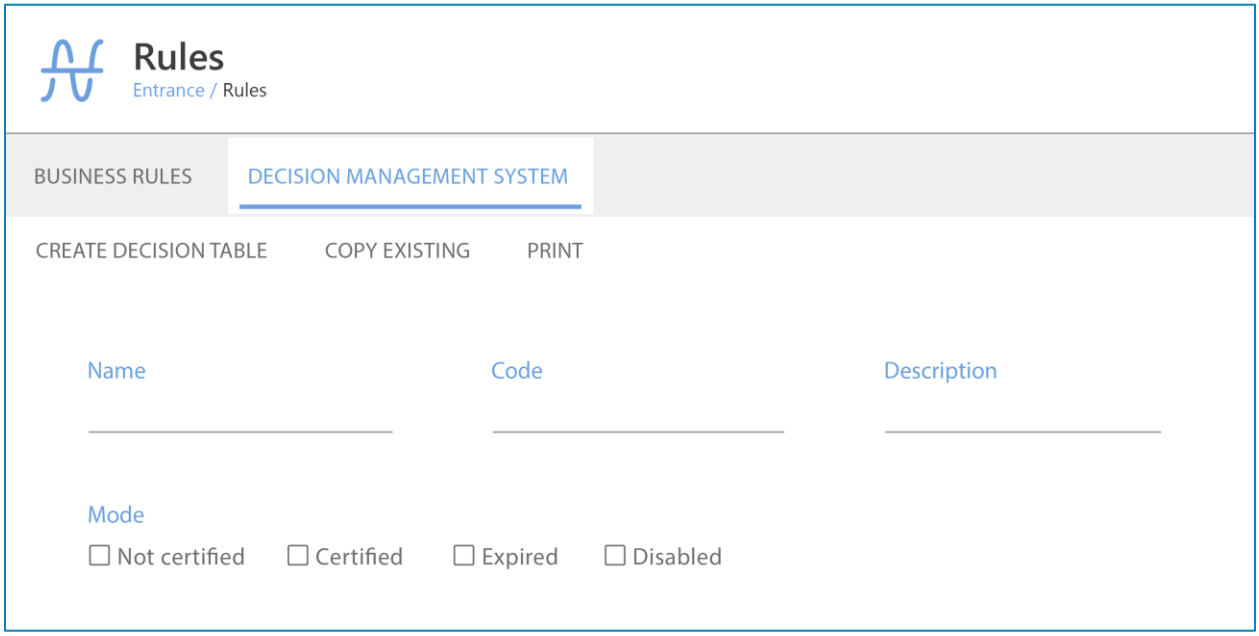

Figure 3. AuraQuantic's business rule definition (courtesy of AuraQuantic)

Artificial Intelligence

Artificial Intelligence, or AI, has now become a key enabler for more and more features in every enterprise software offering. The technology enables innovative software solutions to apply advanced analysis techniques to not only traditional structured data but also other semi- or multistructured data such as images, voice, and others in order to analyze patterns, make predictions, and even automate actions.

Due to its strong partnetrship with Microsoft, AuraQuantic takes advantage of Microsoft Azure's AI services to incorporate and offer ready-to-use services in order to provide advanced analytics services

for a wide range of functions (figure 4), including workflow optimization, correlation between process variables, and the inclusion of facial signatures within forms.

In this analyst's view, this is an excellent result from an effective technology partnership.

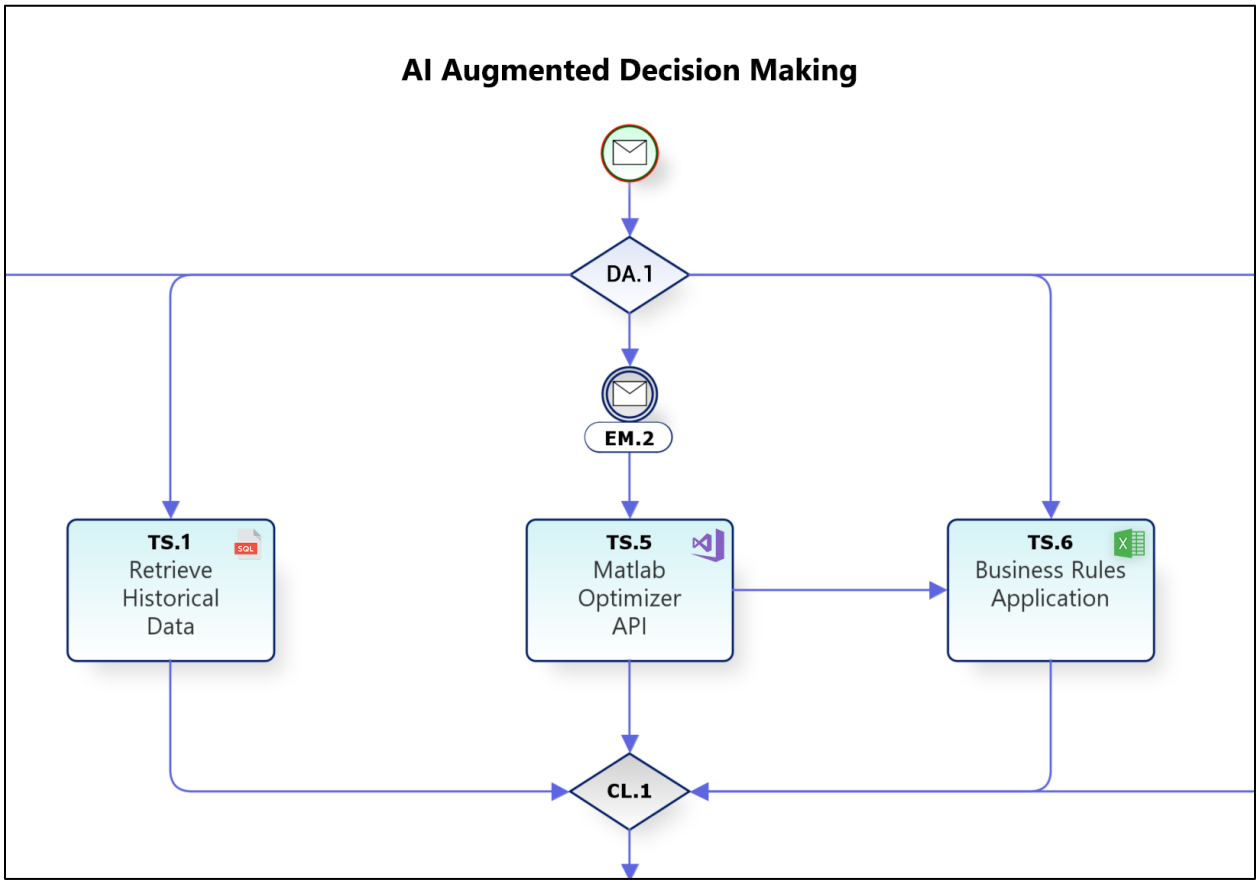

Figure 4. AuraQuantic's AI augmented decision modeler screencap (courtesy of AuraQuantic)

Connectivity

An important requirement for having an effective digital process automation practice is the ability to easily and effectively create a connected environment where systems can at the lower end share and at the higher end interact among themselves in favor of process efficiency.

AuraQuantic has worked hard to foster external partnerships and establish internal development strategies to provide their users with a wide set of third-party integration and connection capabilities. Some of the partnerships include integration with robotic process automation providers such as UiPath and Blue Prism, with blockchain systems, and with a plethora of third-party systems including those from Salesforce, Sage, Microsoft Dynamics, Tableau, and many others.

Of course, AuraQuantic offers tight integration with Microsoft Office, especially in the context of Office 365 (figure 5).

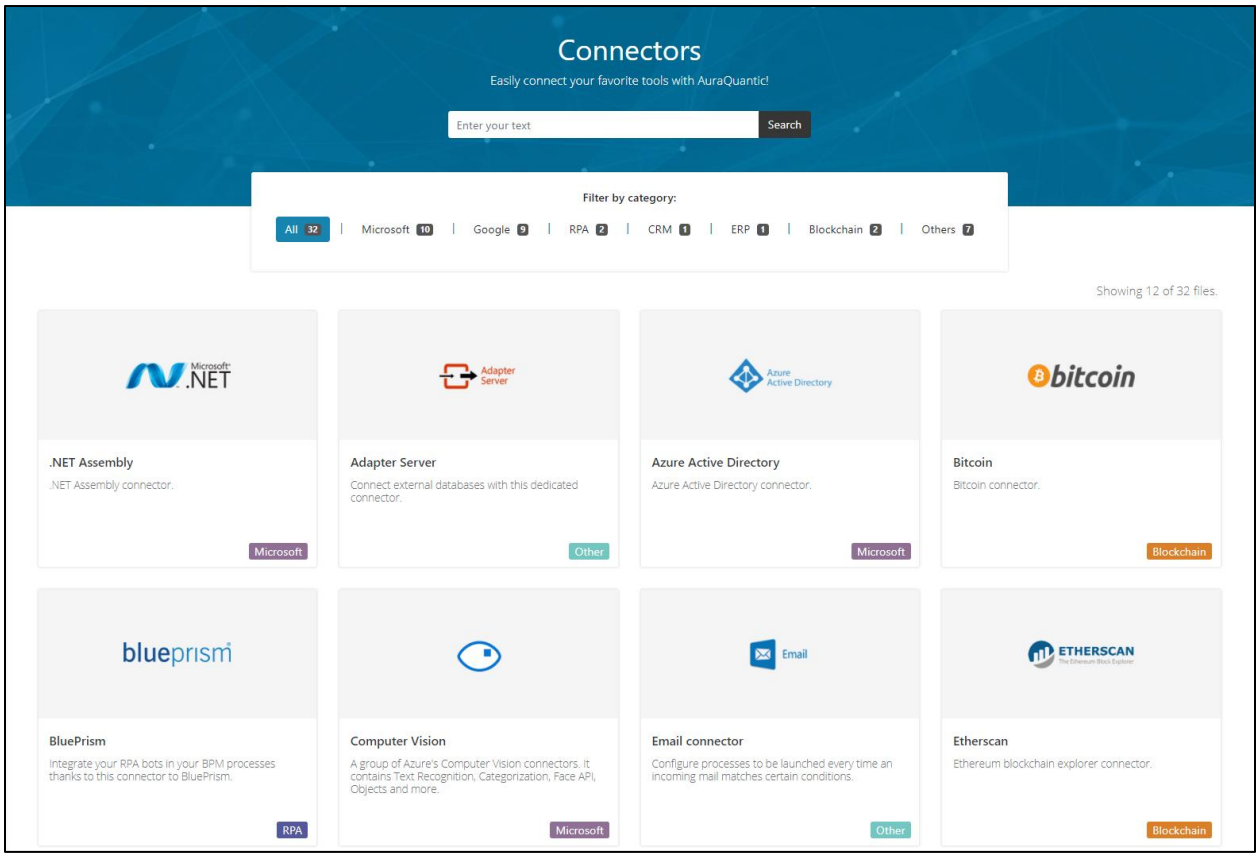

Figure 5. AuraQuantic's connector/adapter marketplace (courtesy of AuraQuantic)

AuraQuantic: More Value Added

In addition to the set of core capabilities offered by AuraQuantic, the company's digital process automation platform offers a number of extremely relevant features to keep in mind when evaluating a digital process automation solution. And while we cannot mention all of these features in this report, listed below are a couple that can have a great impact on increasing chances of success when deploying automation and more effective process management practices.

User Interface (UI)

The system's interface delights users by giving them a tailored experience. AuraQuantic's UI equips workers with the tools they need to be efficient, in the language they choose, and in the interface they desire. The platform enables users to configure appropriate user interfaces for customers, staff,

suppliers, and partners—as a responsive web app or device-native mobile app. The intuitive drag-and-drop form builder makes it incredibly quick and simple to configure elegant apps using reusable widgets and screen elements.

Document Management

AuraQuantic's ability to manage all digital process documentation plays a relevant role as an enabler to an effective and efficient digital process automation initiative. Some of the most relevant capabilities AuraQuantic adds to its arsenal for document management include the following:

- Seamless integration with existing systems.
- Document capture in a wide number of formats from many sources.
- Reduction or even elimination of manual data entries.
- A robust set of template-based and automation tools to easily format documents, establish roles and permissions, as well as configure automatic backups and versions, including integration with processes for documents and files to automatically appear when needed.
- A simple yet important way to provide users with digital signature capabilities, including diverse options such as certified Signature, guaranteed Signature, and PDF Signatures.

Low-Code Application Development: An Ultimate Capability

In recent years, the adoption of so-called low-code platforms has been increasing steadily within many organizations. These software tools enable organizations, with the use of very little or even no code at all, to develop and deploy full-fledge applications.

Perhaps the crown jewel of AuraQuantic is the company's DPA platform offering capabilities for the development of process-oriented applications via a low-code application platform.

AuraQuantic has understood that new low-code solutions can enable many organizations, especially those with a unique and complex set of business requirements, to deploy applications that fit their unique requirement set while using less investment in human and material resources.

AuraQuantic's low-code capabilities afford users these substantial benefits:

- **Ability to scale applications**—as the platform allows users to start with simple applications and then increase their features and complexity as needed.
- **System flexibility**—as applications already developed can be modified easily and versioned effectively, so that all configurations, components, and data sets can easily be reused.
- **Availability of a visual development environment (VDE)**—that enables creation of interfaces and applications in a visual manner so that users have a set of visual tools to drag and drop objects as well as a configuration back end to define other aspects.
- **Seamless adaptability to mobile devices**—allowing the design and implementation of user interfaces and seamless functionality that adapts to different types of mobile devices.
- **Built-in security**—that is implemented in all layers of the low-code platform to reduce or even eliminate the possibility of having vulnerabilities regardless of the number or type of application that is developed.

Having a complete set of low-code features is for AuraQuantic a fine way to ensure users have an extensive digital process automation platform.

With this feature set, AuraQuantic can position itself in a privileged spot among other enterprise digital process automation solutions—offering expanded capabilities across the wide business process management (BPM) functionality spectrum (figure 6).

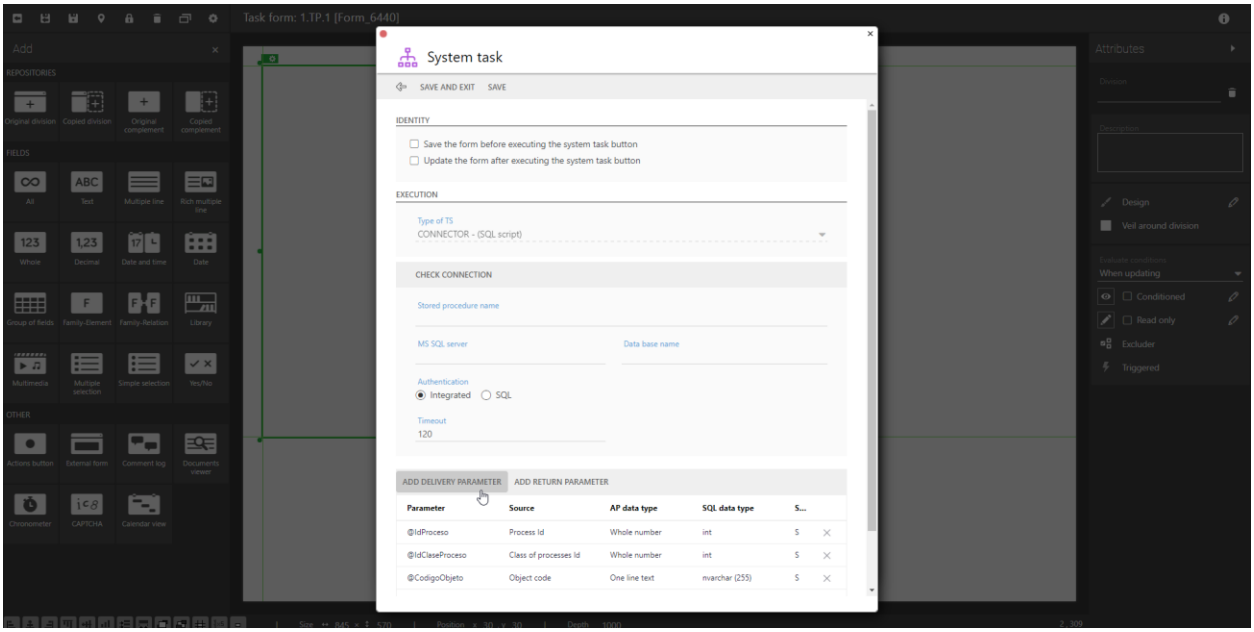

Figure 6. AuraQuantic's code editors (courtesy of AuraQuantic)

The Deep Dive: An AuraQuantic Success Story

To showcase the relevance and value of the AuraQuantic digital process automation platform to an organization, TEC asked AuraQuantic to provide a summary of a real-life customer success story. The example provided illustrates some of the many potential benefits of the AuraQuantic digital business process platform, as well as the importance AuraQuantic ascribes to providing its customers with enterprise business digital process automation capabilities.

More information about this success story can be found on the company's website.

Company

NEM Solutions (Nuevas Estrategias de Mantenimiento, SL)

Industry

Technology

Products and services

Mobility, energy, advanced analysis, big data, asset lifecycle excellence, analysis prediction, digitization, operation and maintenance, product improvement, maintenance and extension of wheel and track life, predictive maintenance, and management of wind turbines.

Business requirements

- Standardize and automate processes, reports, and key performance indicators (KPIs)
- Improve quality and excellence in project management
- Centralize information originating from different sources

Technology

Through the collaboration between AuraQuantic and its partner Eutik, NEM Solutions deployed the AuraQuantic digital process automation platform.

Solution and features deployed

- Automate and centralize all customer and supplier information
- Automate the majority of the processes from different areas and functions (project planning, reporting services, sales management, and others)
- Manage and coordinate all data records on employees and accounts (clients, suppliers, agents, products, projects)

Benefits

- 85% of the operations automated, 100% traceability to facilitate auditing requirements
- Reports and notifications in real time
- Guaranteed compliance with all rules and regulations

AuraQuantic and a New Era of Process Automation

This review of AuraQuantic's digital process automation (DPA) system denotes that the company currently provides not only a set of technology features but also a set of tools within a a single platform for optimizing an organization's process automation practices.

AuraQuantic's digital process automation platform appears to be designed to be business compliant by nature and to be embedded within the corporate software infrastructure. The company AuraQuantic offers a platform that is acccesible and available at anytime and from anywhere.

The platform enables collaboration and the efficient and effective execution of process automation. This can be particularly useful for organizations looking for ways to achieve the levels of adoption, business integration, ease of use, and compliance needed to realize the full business potential of digital process infrastructures.

By smoothly blending state-of-the-art technology with an effective business approach, AuraQuantic aims to deliver significant benefits to an organization—increasing operational efficiency, lowering operational costs, or even minimizing downtimes.

About the Author

Jorge García is TEC's Principal Analyst, Business Intelligence (BI) and Data Management. He has more than 20 years of experience in all phases of application development, database and data warehouse (DWH) design, as well as 9 years in project management, covering best practices and new technologies in the BI/DWH space.

Prior to joining TEC, García was a senior project manager and senior analyst developing BI, DWH, and data integration applications with Oracle, SAP Business Objects, and data integration. He has also worked on projects related to the implementation of BI solutions for the private sector, including the banking and services sectors. He has had the opportunity to work with some of the most important BI and DWH tools on the market.

García is a member of the Boulder BI Brain Trust.

About Technology Evaluation Centers

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