agora

AGORA SOFTWARE

[No-Code Workflows Automation + Natural Language] in Action: Collaboration between IoT, Applications, and Users

www.agora-software.com

210429

NO CODE + NATURAL LANGUAGE FOR A COLLABORATIVE INFORMATION SYSTEM

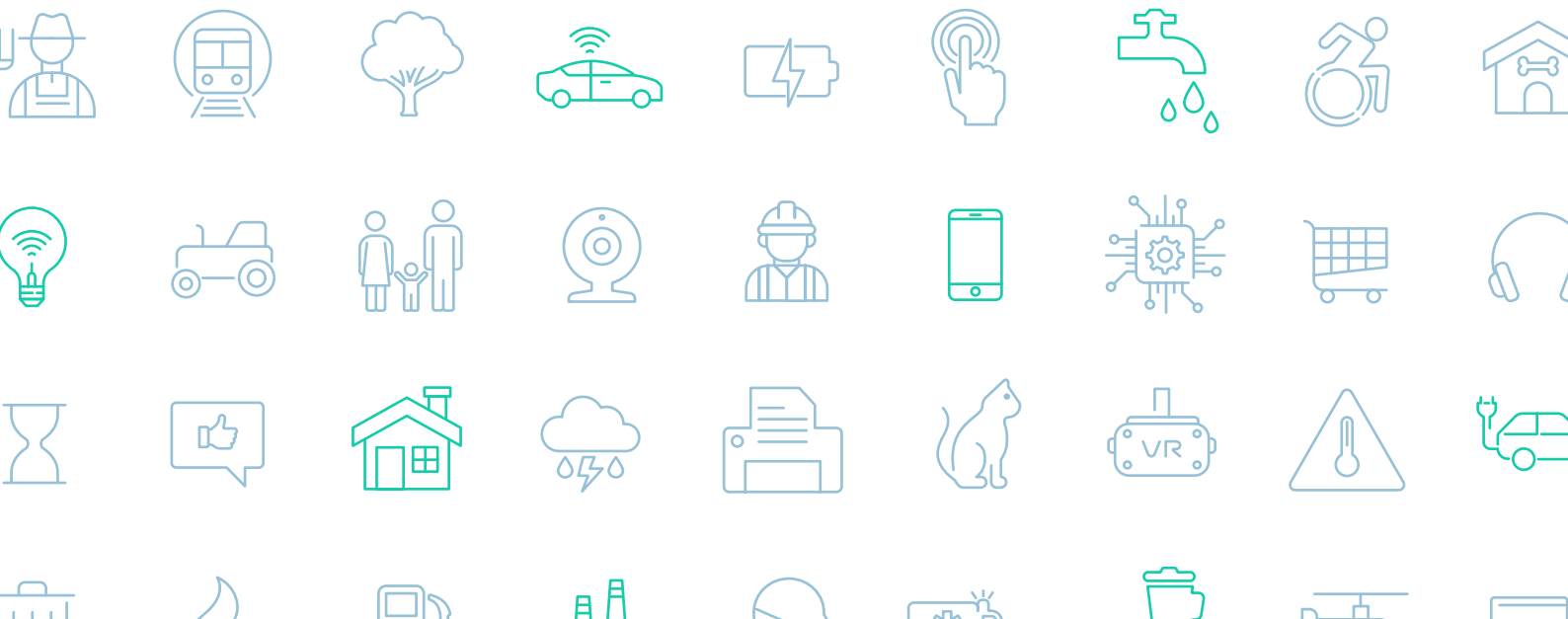
To ALIGN interactions between connected equipments, applications, and users, Agora chooses the NATURAL LANGUAGE:

- Therefore, interoperability is done at the semantic level. It allows to naturally complete requests ("what is the temperature?" and commands ("start the sprinkler system"): the interoperability is done at the semantic level;
- Its flexible syntax allows similar intentions in various ways, avoiding all users, humans, objects or applications, to have to express themselves the same way in other words, communicate as they wish;
- Intuitive and perennial, it allows projects to profit from technological advances all while preserving its current architecture;
- It allows for direct interactions with the users straight from their daily tools.

To ANIMATE the interactions between connected equipments, applications, and users, Agora chooses the NO-CODE approach:

- Simple, it allows business expert (who are not software developers) to define and maintain their automated workflows;
- Intuitive, it is mastered quickly avoiding long training sessions;
- Automatic workflows all while supporting multiple applications.

The alliance [no-code + natural language] enables Information System alignment to the fast evolving requirement of the business.



SEAMLESSLY
MODERNIZE

Innovate, modernize business processes and enrich the Information System does not require enterprises to start from scratch.

Setting up an information system represents a significant amount of work: choice of solution, technical integration, settings, training of support teams and users, implementation of business processes, etc.

On the other hand, advances in technology (IoT, 5G, I.A.) and changing needs and constraints (competition, regulations, etc.) are pushing companies to innovate: new products, new methods, new services.

The tension between a well-established structure and necessary evolutions presents a major challenge for project managers:

- How to maintain technological mastery while encouraging new uses?
- How to avoid the complexity inherent in heterogeneous environments?
- How to reduce project implementation turnaround?
- How to minimize risks of all kinds?
- How to ensure the scalability of new tools?
- How to minimize costs along the projects lifecycles?

The multiplication of IoT projects, the acceleration of digital transformation and, the increasing diversity of usage require teamwork.

Deploying various projects, completing them with the current business applications, using the communication services already in place for the users, allows multiple usage and functionality while making the most of the existing infrastructure.

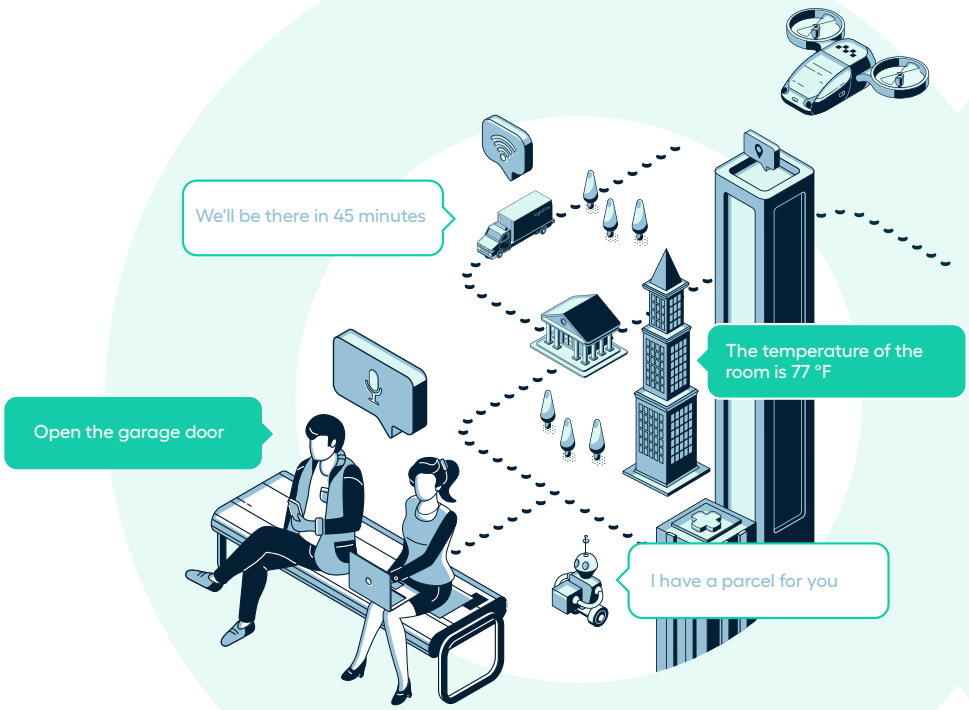
Their is a need to combine, integrate, encourage the collaboration between entities that were not designed to do so.

In a fast, simple and perennial manner.

WITH AGORA, MACHINES AND APPLICATIONS DO THEIR BEST TO SERVE YOU

Available from the cloud, on-premise, or even in hybrid mode (edge), Agora Software is a platform of platforms that allows you to:

- Connect objects and machines, applications, web services and users to interact using a common language;
- Communicate with the users in their language and with tools of their choice: SMS, collaborative applications (MS Teams, Slack, Google ...), social media (WhatsApp, Facebook Messenger, Line ...);
- Combine ("no-code") connected objects, applications, web services and, users to realize the most various workflows.



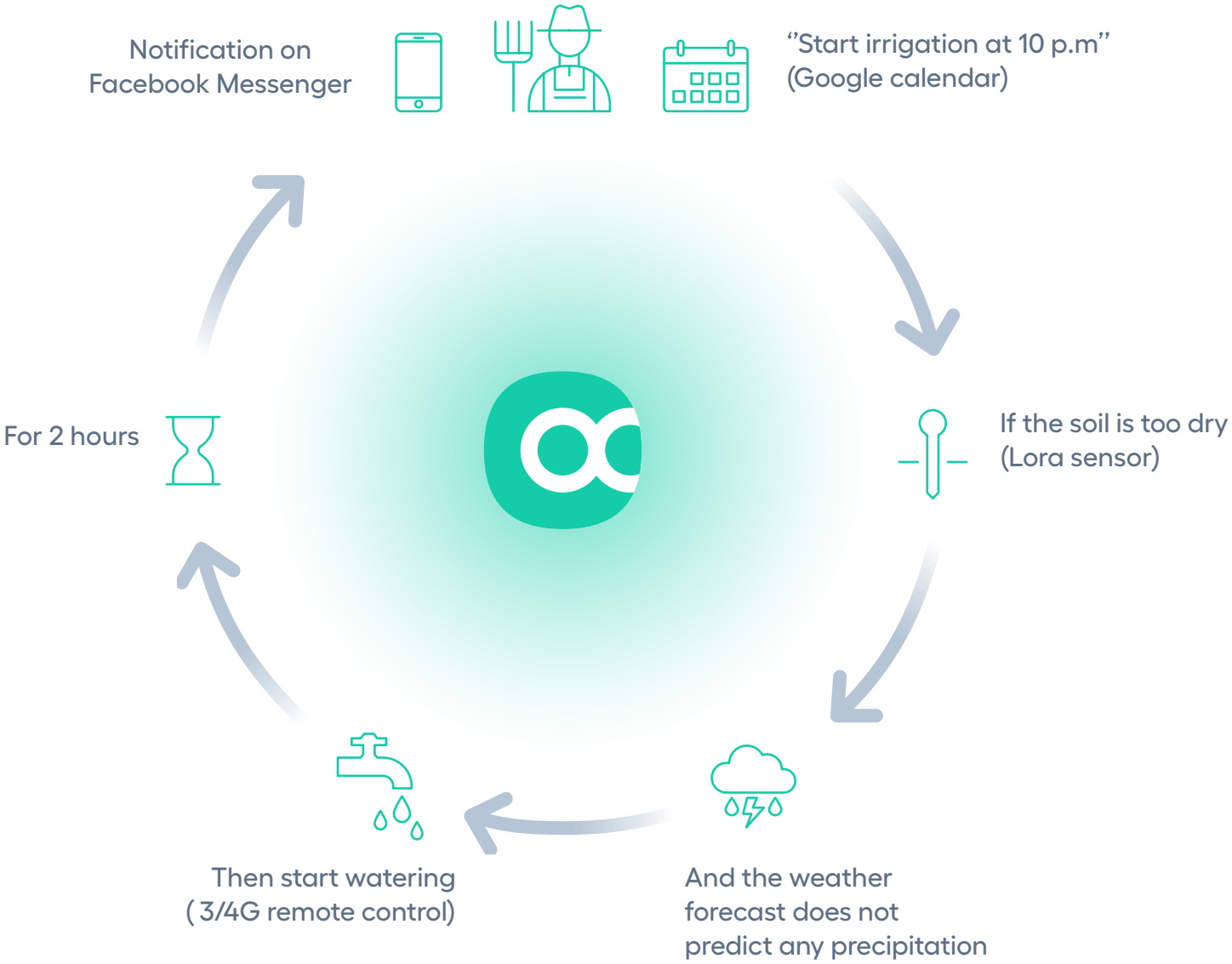
CONTINUOUS ALIGNMENT

WITH THE NEEDS OF OPERATIONAL TEAMS

USE CASE
AGRICULTURE

COMBINE INFORMATION SENSORS, ACTUATORS AND SOCIAL MEDIA FOR A

SEAMLESS SCENARIO



AGRICULTURE:
SMART IRRIGATION

More than ever, the handling of water is critical.

The challenges of controlled irrigation are not lacking:

- In agricultural exploitation, the annual cost of water consumption can represent up to 200€ per acre;
- Excess or lack of water impacts the quantity and the quality of the crops;
- Water is often scarce or even a common good that requires rigorous management;
- Reel cannon, pivot-boom, ramp-reel, full coverage, drip: there are many watering techniques. Their effectiveness strongly depends on the nature of the soil, the type of crop, and the conditions of use.

Farmers need a simple and practical solution to apply the best policies and adapt to the concrete circumstances they encounter.

Elements to collaborate:

- Calendar (Google, Outlook ...) to plan the watering cycles;
- Connected humidity sensor (eg over Lora or SIGFOX networks);
- Solenoid valve to control the watering (connected for example by 3G / 4G);
- Website providing local weather forecasts;
- Social networks (Facebook, Messenger, SMS, Whatsapp ...) to communicate with the farmer.

Other example in agriculture:

- Hydro / aquaponic farm;
- Livestock management;
- Silage control;
- Management of methanation units.

USE CASE
INDUSTRY

INDUSTRY:
PREDICTIVE MAINTENANCE

Predictive maintenance requires close collaboration between connected devices, applications and users.

Predictive maintenance of industrial equipment has become accessible: precise and inexpensive sensors, connected machines, applications capable of deducing the state of health from raw data.

The stakes are high for the business: optimizing the uptime of the production line, extending the life of expensive equipment, increasing the quality and predictability.

Studies indicate that predictive maintenance allows an average reduction of nearly 30% in the cost of maintenance and 40% in the rate of equipment downtime.

However, there remains an important element to address: that of communication and dynamic collaboration between the various technical and human components concerned through maintenance and production.

Elements to collaborate with:

Sensors of all kinds:

- Physical data (temperature - noise - vibration - motor torque, etc.);
- Duty cycle.

Applications to anticipate faults and plan operations:

- Analysis of raw data and anticipation of breakdowns;
- Management of spare parts stock;
- Machine use schedule;
- Team calendar.

Stakeholders who are mobilized:

- Support and maintenance office;
- Repair team;
- Production team;
- Partners (builders, craftsmen ...).

Other example in the industry:

- Production management;
- Supply chain.

USE CASE

PUBLIC INFRASTRUCTURE

PUBLIC INFRASTRUCTURE:
WATER DISTRIBUTION AND MANAGEMENT

From its withdrawal to its distribution, including treatments to make it drinkable, water is the subject of a large number of operations.

Distributing water is an activity that faces many challenges. The frequency and length of drought episodes are growing, increasing the risk of shortages in some areas. The quality of the water resource (presence of micro-organisms, chemical substances, or industrial waste) must be rigorously controlled. In Europe, the average leak rate reaches considerable levels, ranging from 20% to 40% depending on the country.

New services should be offered to maximize the efficiency and quality of the offer, such as:

- Information and alerts on water quality, works, and outages, etc;
- Optimized irrigation;
- Interactions with the public on social networks;
- Taking into account the calendars of teams and professional clients.

Elements to collaborate:

- Connected water meters for remote reading of consumption;
- Miscellaneous data sensors (pressure, flow, physico-chemical characteristics, etc.);
- Control systems for pumping and water treatment stations;
- Irrigation control systems (on behalf of farmers);
- Taking into account of third-party information: weather forecast, pollution episodes, etc;
- Service production, support and maintenance teams;
- Customers: individuals, industry, farmers, SMEs, etc.

Other examples for infrastructures:

- Energy (pipeline, pylons, etc);
- Transport (railway stations, airports, highways, etc);
- Waterways, reservoirs, etc.

USE CASE
BUILDING

BUILDINGS:

ENERGY TRANSITION

Ecological awareness and expenditure control are the driving forces behind the energy transition of buildings.

The tertiary buildings sector (offices, educational and health establishments, sports and cultural facilities, etc.) represents 17% of the french energy consumption, behind transport (32%), residential (29%) and, industry (19%). Out of a total of 10 billion square feet, 30% are under the responsibility of the cities (school, public libraries, museums, stadiums, etc.).

The law has defined a severe objective of reducing energy consumption: -40% in 2030, then -50% in 2040 and, -60% in 2050, which is very ambitious in view of the diversity of the real estate heritage. The main areas for improvement relate to the following points:

- The building envelope (insulation, carpentry, solar protection, etc.);
- The installation of high-performance equipment (heating, hot water, lighting, etc.);
- Optimization of operations (monitoring and active management of equipment, etc.);
- Sparing use of energy (automatic switching off of lighting and HVAC, etc.).

Elements to collaborate:

- Connected energy meters;
- Physical data sensors: temperature, humidity, CO2, smoke, etc;
- Intrusion, presence detectors, etc;
- Heating and air conditioning systems;
- Ventilation systems;
- Timetable for the use of the premises (public holidays, opening hours, etc.);
- Security teams (guard, fire brigade, police, etc.);
- Management, support and maintenance teams.

Other examples in buildings:

- Lighting, Air conditioning, Access, Security ...;
- Interactions with occupants and visitors (public, customers, residents, etc.);
- Measurement of indoor pollution and communication to the public.

USE CASE
CITIES

CITIES :
AIR QUALITY

Air quality is a major public health issue: in France, nearly 50,000 deaths per year are attributed to fine particles alone.

Pollutants species in the atmosphere can be distinguished into two categories:

- Primary pollutants from sources pollution (road traffic, industries, heating, agriculture, etc.): sulfur and nitrogen oxides, volatile organic compounds (VOCs), fine particles, metals (lead, mercury, cadmium, etc.);
- Secondary pollutants (chemical reactions of gases with each other): secondary particles, ozone, nitrogen dioxide ...

Air quality measurement services are sometimes available. In some cases, they are precise enough to provide a short-term status and forecast within a few tens of meters.

It is necessary to enrich this information with other sources and simply communicate this information to the various audiences concerned.

Elements to collaborate:

Air quality measurement systems;

Website presenting this information either in detailed form or condensed into a quality index that is easier to use for non-specialists;

Other sources of information related to quality air: road and port traffic, weather forecast, pollen concentration ...

People concerned by this information, either in notification (alert on crossing of threshold, daily bulletin ...) or in real time interrogation (preparation of a sports or family outing):

- Hospitals and clinics;
- Sports clubs;
- Schools;
- People with chronic respiratory failure.

Other examples in territories:

- Vehicle counting;
- Public equipment (energy, lighting, parking, public gardens, etc.).

TOGETHER
WE GO FURTHER !

Organizations (companies, cities, etc.) get many benefits from simple and intuitive collaboration between connected objects and machines, applications, web services, and users. Agora Software combines [natural language + no-code mode] to offer its users many advantages.

Maximize the impact of digital projects

Collaboration between new constituents and those already in place avoids silos and allows the pooling of resources.

Obtain complete traceability

The log of transactions in natural language (verbatim) gives a direct, easy-to-access image of the uses within the project.

Facilitate user adoption

Users can participate in their everyday language, in using their existing communication tools.

Accelerate and minimize the risks of digital projects

Reusing existing infrastructure offers an incremental approach that limits technical risks and simplifies implementation.

Simplify the definition of business workflows

Automated processes are defined and maintained by the professional expert teams they serve and who are the true specialists.

Reduce the total cost of ownership (TCO)

Decoupling between system components minimizes direct costs (capex and opex) as well as indirect costs (early dismantling, change management, etc.).

AGORA SOFTWARE'S MISSION IS TO BRING CONNECTED MACHINES, APPLICATIONS, WEB SERVICES AND USERS TOGETHER.

SIMPLY.

www.agora-software.com

© Agora Software 2021, Tous droits réservés

contact@agora-software.com

www.linkedin.com/company/agora-software