

ENTERPRISE A2019

# WELCOME TO PROCESS AUTOMATION MADE BRILLIANT FOR EVERYONE

Learn Why Anything Else is Legacy<sup>a</sup>





# INTRODUCING AUTOMATION ANYWHERE ENTERPRISE A2019

Architected from the ground up to deliver the first-ever purely web-based user experience, Enterprise A2019—the latest release of Automation Anywhere’s flagship digital workforce platform—also offers businesses a choice between on-premise versus Cloud deployment. It is the first platform that provides RPA-as-a-Service as a turnkey automation solution for businesses of all sizes.



## **Instant-On Ease of Use— for Every User**

Enterprise A2019 provides a highly intuitive, instant-on user experience for all users, from the tech savvy business user and specialist RPA developer to the IT manager responsible for enterprise-wide RPA deployment and adoption.

Cloud as a delivery option means near-infinite scalability, enabling your digital workforce to grow as your automations—and your company—grows. Enterprise A2019 is fully certified for hosting on the world’s largest, most advanced cloud platforms including Amazon AWS, Microsoft Azure, Google Cloud, IBM Cloud and more.



## **Cloud-generation RPA for Infinite Scalability**



## **Powerful AI Accessible to All**

From unattended and cognitive automation to attended bots that introduce human-bot collaboration for the first time ever, Enterprise A2019 is infused with artificial intelligence skills and capabilities throughout. AI skills are drag-drop easy to use, enabling users of all skills levels to incorporate intelligence in their process automation.

Enterprise A2019 is a transformative leap forward in automation technology. It is designed to help knowledge workers of all types, across the globe and across industries, to be more efficient, more productive, and, therefore, more satisfied. Enterprise A2019 democratizes the workplace.

This eBook provides a detailed look at Automation Anywhere Enterprise A2019’s essential features and shows how those features provide unprecedented capabilities in robotic process automation. Enjoy!



# ENTERPRISE A2019 IS THE FOUNDATION OF THE MODERN DIGITAL PORTFOLIO

Automation Anywhere's digital workforce portfolio facilitates all aspects of an organization's automation lifecycle. Enterprise A2019 forms the RPA foundation, where both attended and unattended bots are created, managed, and easily enhanced by pluggable programming code and AI technologies.

Cognitive automation and analytics, both business and operational, form the next level of the portfolio architecture, further enabling bots to bring intelligence and insight to an organization's data.

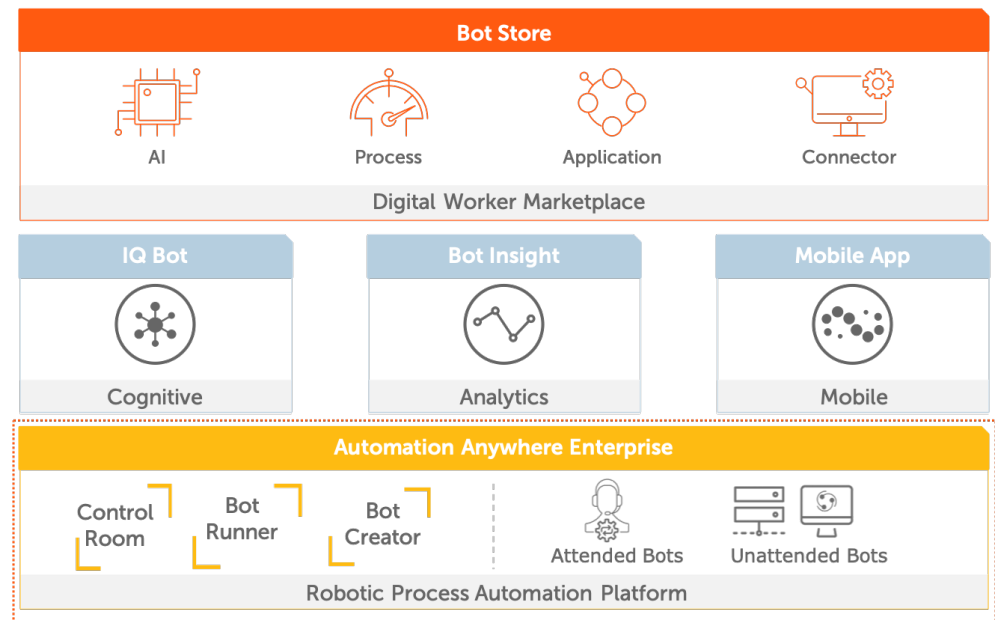
The RPA Mobile App provides managers with anywhere/anytime access and control of their bots and an ROI dashboard to reflect their performance.

Topping off the portfolio is Bot Store, an "app store" concept pioneered by Automation Anywhere. Bot Store offers downloadable, pre-built bots and digital workers. Digital workers are fully formed worker personas that automate an entire function, for example, an AP Clerk.

These pre-built bots and digital workers augment automation adoption, speeding time-to-market and time-to-productivity with plug-and-play processes.

Artificial Intelligence (AI) is infused throughout all of the elements of the digital workforce portfolio. From AISense for intelligent surface automation for applications such as Citrix to intelligent, self-learning add-in skills such as ML, NLP, and more.

Enterprise A2019 is at the heart of any end-to-end automation solution. Let's learn more.

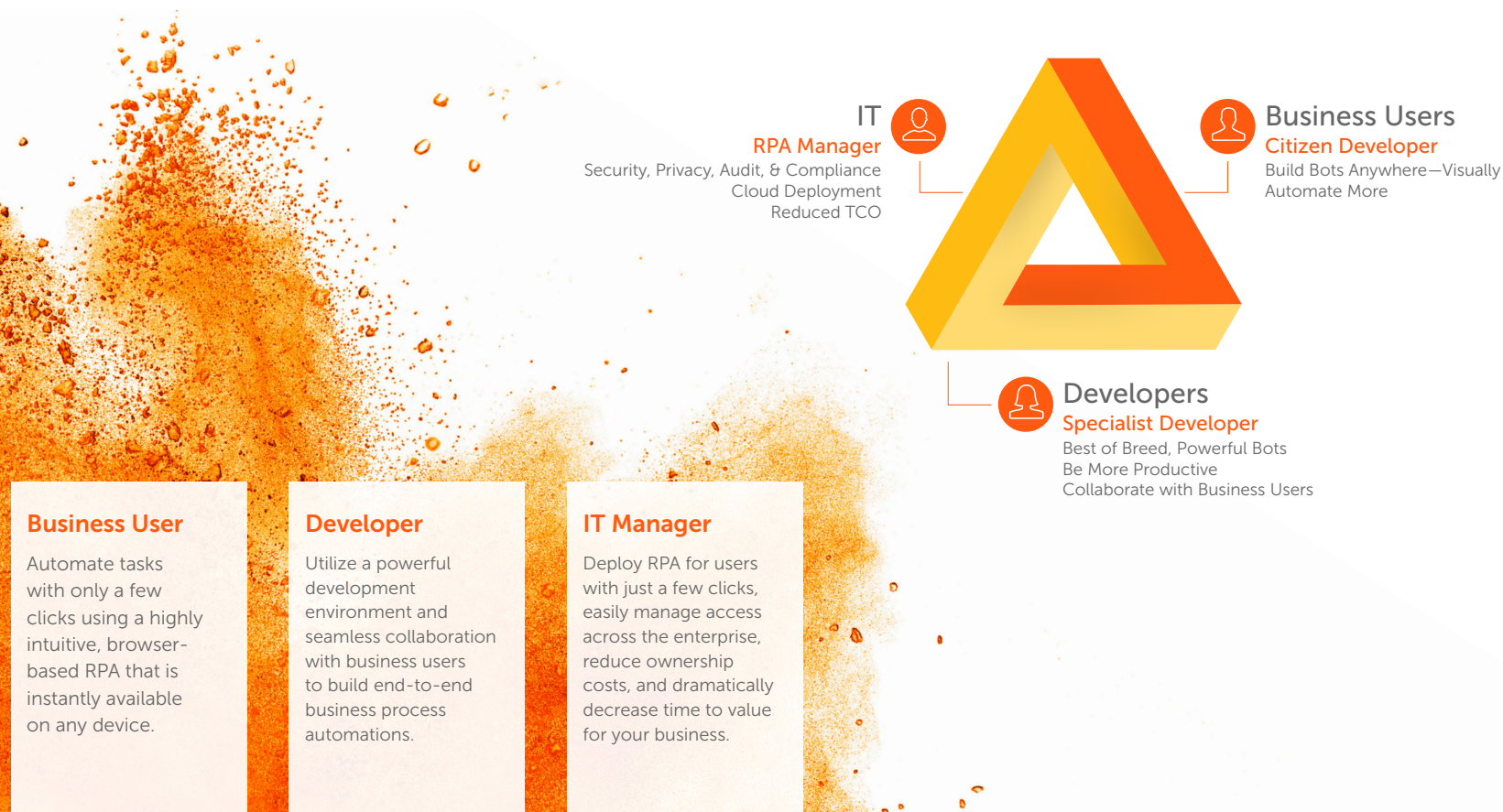




# BUILDING AN INTELLIGENT DIGITAL WORKPLACE

Automation Anywhere Enterprise is the cornerstone of the intelligent digital workforce. It is designed to meet the needs of end-users at every level, from the accounting clerk to the CFO, or from the RPA developer to the CIO. And in every function—whether it's business, IT, or developers—Enterprise A2019 makes building automations better and faster than ever.

Enterprise A2019 is based on a new, human-centric design philosophy that focuses on the user experience to make automation development easier. Here's how Enterprise A2019 can work for you:





# A HIGHLY INTUITIVE EXPERIENCE FOR THE BUSINESS USER

## Automation is instant-on ease of use.

Business users, who leverage productivity apps such as Excel, CRM, SAP, and similar tools, are considered “citizen developers.” For them, usability is extremely important, but so are potent tools that can enhance their bot-building efficacy.

Enterprise A2019 builds upon Automation Anywhere products’ well-known usability. Customers—regardless of their technical expertise—are consistently able to get up to speed more quickly and create more powerful bots than many other RPA systems on the market.

Let’s take a tour.



### Business Users

#### Citizen Developer

Build Bots Anywhere—Visually  
Automate More



# ENTERPRISE A2019 IS INSTANT-ON EASE OF USE

**It's as simple as log in, click, and automate.**

Business users will quickly be at ease with the new web-based interface. Its intuitive design and familiar actions—like drag and drop—enable faster, more streamlined bot development.

The screenshot displays the TryCatch.bot web interface. On the left, a sidebar lists various actions like Application, Boolean, Browser, Clipboard, Comment, CSV/TXT, Database, Data Table, Datetime, Delay, Dictionary, Email, Error handler, Excel, ExcelMS, File, Folder, Ftp/Sftp, If, JavaScript, Simulate keystrokes, List, Log To File, Loop, Message box, Mouse, Number, PDF, Prompt, and Variables. The main workspace is divided into three views: Flow, List, and Dual. The Flow view shows a sequence of steps: Start, Message box, Prompt, Step, Error handler, File Open, Excel, Loop, Message box, and End. The List view shows a list of steps: Start, Message box, Prompt, Step, Error handler, File Open, Excel, Loop, Message box, and End. The Dual view shows a list of steps: Start, Message box, Prompt, Step, Error handler, File Open, Excel, Loop, Message box, and End. The interface includes a 'Run' button, a 'Debugger' button, and a 'Save' button. Annotations point to various features: 'Modern web interface' points to the sidebar; 'Easy drag/drop commands' points to the action list; 'Group modules into easy flows' points to the Flow view; 'Flow view for business users' points to the Flow view; 'See List, Flow, or Dual views' points to the view tabs; 'Access and run bots from the cloud (optional)' points to the 'Run' button; and 'New data types for advanced users' points to the 'Variables' section.

Modern web interface

Easy drag/drop commands

Group modules into easy flows

Flow view for business users

See List, Flow, or Dual views

Access and run bots from the cloud (optional)

New data types for advanced users

“

(A2019 is) very useful for analysts and less technical users who like the convenience, even myself, as I constantly switch between list and flow mode. It's very beneficial.

”

—Excel User at Health Services Company



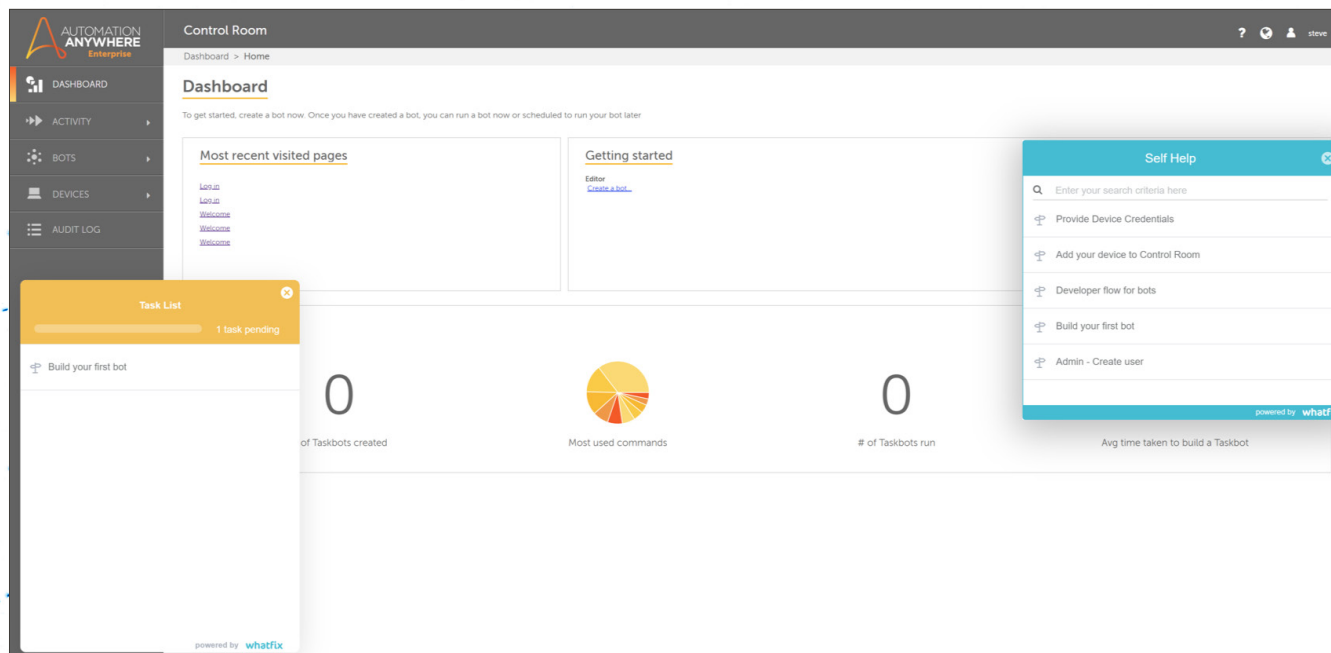
# IN-PRODUCT LEARNING FOR USERS AT EVERY LEVEL

## Get help at every step of your bot creation journey.

If you're new to RPA or just want to learn more about Enterprise A2019, there's a multi-layer learning and support system that provides step-by-step guidance to help you build your first bot in no time.

New users can follow a learning journey, where, with minimal to no formal training, they can create sophisticated bots, thanks to the flow-based learning tools.

In-product learning is a huge help to organizations for onboarding their new bot creators and getting them up to speed very quickly.





# UNIVERSAL RECORDER SIMPLIFIES CAPTURING PROCESSES

Recording keystrokes is at the heart of the RPA function. With Enterprise A2019, we've unified all recording features into the Universal Recorder.

The new Universal Recorder functions at the core of the bot-creation environment where it simplifies the process, capturing data from many systems, such as Windows, Web, SaaS, Citrix, SAP, and Oracle. It does so by pulling Actions directly into the bot where they can be further refined using the Workbench.





# EXPANDED EXCEL COMMANDS & CROSS-PLATFORM SUPPORT

Financial functions represent a large portion of all automated processes, and for several reasons: financial accuracy, cost-control, and regulatory compliance. Microsoft Excel is probably the most automated financial tool, especially among business users.

Enterprise A2019 further enhances Excel automation. For example, Enterprise A2019 now includes an extended set of commands. This means that you can simply select an Excel function within Enterprise A2019 instead of having to open Excel and record the command from within the app. These commands are huge time savers.

Enterprise A2019 provides new variable types for supporting tables to work with Excel data, for more powerful data movement options even if the apps are on different operating systems (e.g., Windows and Linux). This means that your bots can return different values, such as dollar amounts, exchange rates, etc., to make your automated transactions even more efficient

**Fast Fact:** The Automation Anywhere Bot Store has had over 10,000 bots downloaded for Microsoft products.



**In many cases, Excel does not need  
to be installed for bots to work.**



# PLUGGABLE ARCHITECTURE MAKES FOR EASY EXTENSIBILITY

Automation Anywhere products include a rich list of commands. Enterprise A2019 makes it easy to expand that command list, thanks to its pluggable architecture. This design makes it effortless to add commands to your automation system. For example, you can add Excel or Google Sheets commands to your Action list, as shown here.

An added benefit: the systems don't have to be rebuilt when commands are added.

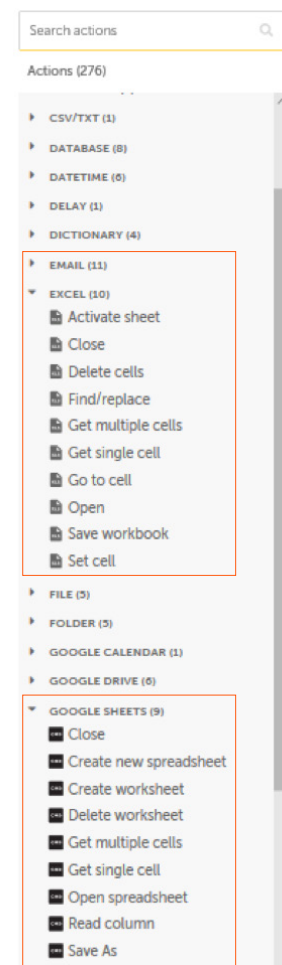
“

I really like the different command packages. It makes it very simple and fast to incorporate new capabilities. It's easy to push out different packages.

”

—Technology association member

Commonly used Excel commands can be easily plugged into A2019's Action list



G-Suite customer can plug in commonly used Sheets commands into A2019's Action list.



# BUILD BOTS ANYWHERE

**Business users want flexibility. Enterprise A2019 delivers.**

With Enterprise A2019, Bot Creator is delivered via the web, working with common browsers such as Google Chrome, Firefox, and Internet Explorer. You can also create bots on your favorite device—build bots on Windows, Mac, Linux, and even iPad. All you need is an internet connection.

**Benefit:**

Deployment is instant, because no local installation is required on the user's machine. This substantially reduces the cost of maintenance, and therefore the cost of ownership, in the long run.





# ENTERPRISE A2019 BRINGS POWER TO THE DEVELOPER

Automation developers are RPA specialists with fairly universal needs. While ease of use is very important, the ability to build and manage powerful, best-of-breed bots to enable massive productivity gains is a top priority.

To do that, it's very important for developers to understand how the business user will leverage the system.

Enterprise A2019 delivers on these developer priorities and more, by providing an environment that enables seamless collaboration to make bot creation, deployment, and end-to-end process management simple.

## **Benefit:**

Discover new automation use cases and crowd-source advanced automation capabilities, anywhere.



**Developers**

**Specialist Developer**

Best of Breed, Powerful Bots

Be More Productive

Collaborate with Business Users



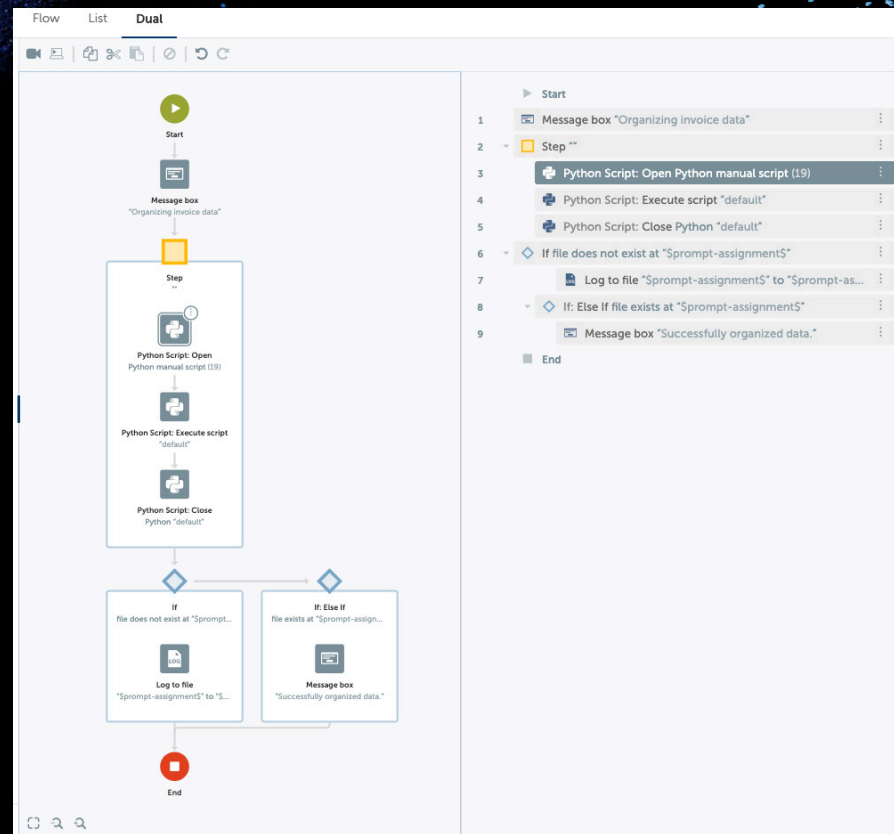
# COLLABORATION-FRIENDLY INTERFACE

Enterprise A2019 is designed to facilitate developers' productivity and efficacy. The new and more powerful developer user interface makes bot creation and management easier, while at the same time fosters collaboration with business users.

## Collaborate with Flow and List views:

For developers, understanding the needs of their organization's business users is critical to the building of powerful and easy-to-use bots. Toward this end, Enterprise A2019 offers multiple views to facilitate collaboration:

- The Flow view option is a simple, Visio-like flowchart view of bots—it's great for business users to visualize how the bot is built.
- The List view shows the same bot as in the Flow view, but in code format, which is great for bot optimization.
- The Dual view allows you to see the Flow and List views side by side, so there's no additional work to maintain two versions of bots.



# FEATURES FOR SPECIALIST DEVELOPERS

Enterprise A2019 is designed with extensibility in mind. This means that users can add in features to supercharge their bots with Python, variables, or other tools.

## **Powerful bot code management**

Enterprise A2019 provides robust tools to help developers manage their bot code. These include step-through debugging tools that let developers review their bots line by line during execution. Developers can also keep track of different bot versions using color-coded views to visually see changes between versions. And finally, the tools enable bot code to be merged from multiple versions, bringing together the best code from multiple versions into one best version.

## **In-line scripting without linking for advanced bot creation**

Developers can build even more powerful bots by easily adding in code. This includes the ability to embed external files or in-line sections of code; both quickly accomplished in the Bot Creator. Third-party libraries, such as open source code, AI libraries, and more, are also easily added.

In addition, Enterprise A2019 provides native support for inline scripting languages, including Python, VBScript, and JavaScript. Simple data passing between scripts and bots is also enabled. There's no need for complex dev tools or DLL and API linking.

## **Advanced variable types**

Enterprise A2019 adds multi-dimensional arrays for reading Excel worksheets, including new variable types to support CSV files. This can be further enhanced with inline scripting with Python, VBScript, JavaScript, and others.



## Infuse bots with AI/ML capabilities

Technologies such as artificial intelligence (AI), machine learning (ML), and natural language processing (NLP) can supercharge bots. For example, call center chat bots can be trained to understand a customer's tone and escalate to a live agent if they detect that a customer is unhappy. Inline scripting enables developers to incorporate these additional capabilities.

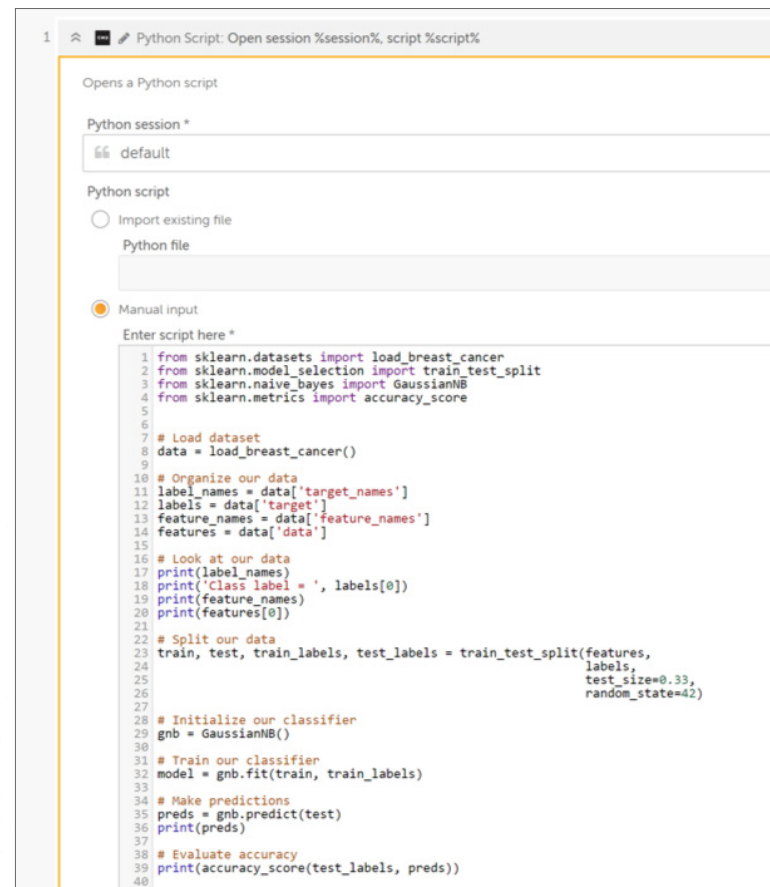
## Cross-platform scripting

Enterprise A2019's multi-platform support means that cross-platform languages such as Python are supported across both Windows and Linux without any modification to the bots.

## Rich variable passing

Enterprise A2019 lets you add variables to your bots to enable the return of different values for your applications. For example, you can pass bot variables into methods or functions as simple parameters, such as currency or interest rates. Moreover, these variables can be set to hold the function's return values.

All of this can be done without the need for cross-language mapping, making it simpler than ever to create variable-enabled bots.



```
1 Python Script: Open session %session%, script %script%

Opens a Python script

Python session *
default

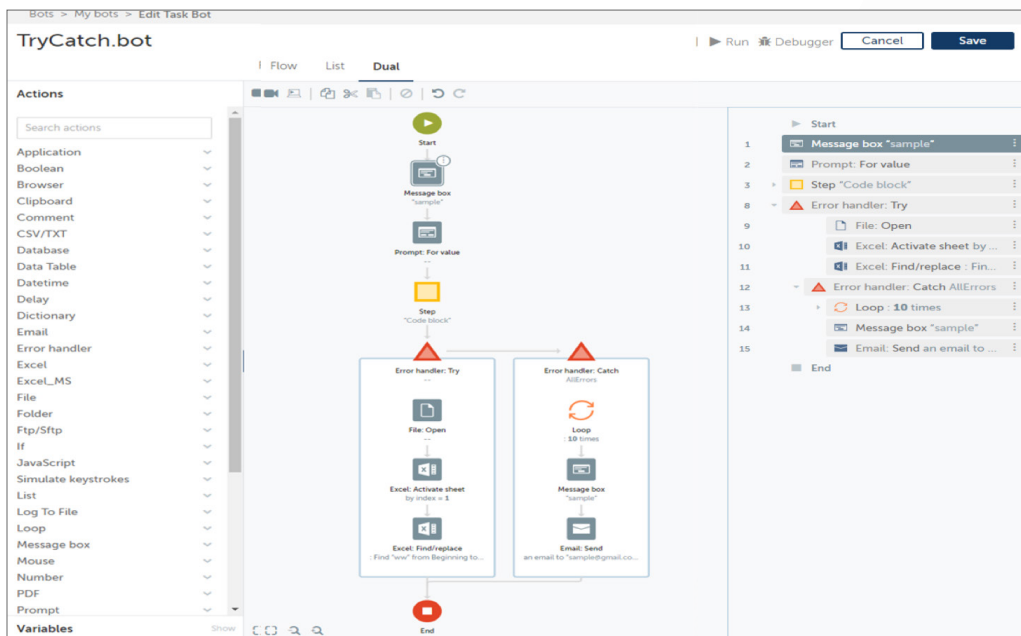
Python script
☐ Import existing file
Python file


☒ Manual input
Enter script here *
1 from sklearn.datasets import load_breast_cancer
2 from sklearn.model_selection import train_test_split
3 from sklearn.naive_bayes import GaussianNB
4 from sklearn.metrics import accuracy_score
5
6 # Load dataset
7 data = load_breast_cancer()
8
9 # Organize our data
10 label_names = data['target_names']
11 labels = data['target']
12 feature_names = data['feature_names']
13 features = data['data']
14
15 # Look at our data
16 print(label_names)
17 print('Class label = ', labels[0])
18 print(feature_names)
19 print(features[0])
20
21 # Split our data
22 train, test, train_labels, test_labels = train_test_split(features,
23                                                         labels,
24                                                         test_size=0.33,
25                                                         random_state=42)
26
27 # Initialize our classifier
28 gnb = GaussianNB()
29
30 # Train our classifier
31 model = gnb.fit(train, train_labels)
32
33 # Make predictions
34 preds = gnb.predict(test)
35 print(preds)
36
37 # Evaluate accuracy
38 print(accuracy_score(test_labels, preds))
39
40
```

# COLLABORATE WITH BUSINESS USERS

Great bots begin with great collaboration, and Enterprise A2019 enables this via Views. The business user can start with the Flow view to graphically develop bots. They can then hand it off to the developer, who will enhance the bots with advanced tools to create complete end-to-end automation processes. The feedback loop ensures that the bot has been created in a way that works best for everyone.

## Enterprise A2019 optimizes process automation at every level



### Benefit:

Cross-user collaboration results in more powerful and complete bots.

### Business User

- Tech-savvy non-professional developers can easily design automations
- Simple bots are created visually
- Allow focus on process not code
- Enables sophisticated bot creation

### Developer/Advanced Developer

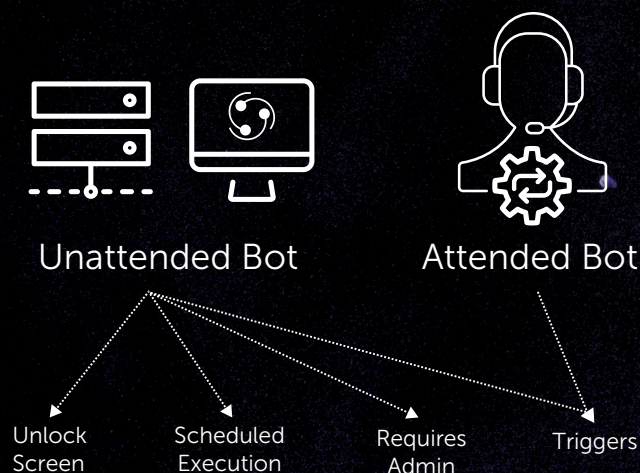
- Leverages Dual view for collaboration
- Offers powerful scripting; "bring your own code"
- Create custom commands
- Facilitates complex processes



# ATTENDED BOT WITHOUT ADMINISTRATOR ACCESS

Attended automation enables human/bot collaboration to solve any front-office workflow challenge.

Unattended bots work in the background, without human intervention. Attended bots allow for complex processes to be automated through inputs from a human decision maker. Enterprise A2019's design enables attended bots to operate entirely within the user context, that is, admin rights are automated. The benefit is the bot can run without the human having to input their credentials each time.



# EXPANDED TRIGGERS FOR ATTENDED BOTS

For attended bots, a trigger is an event or condition that kicks off an automated task. Enterprise A2019 boasts a broader trigger list than ever before, allowing you to create the most powerful attended bots possible. Here are some examples from the growing list:

- Window Close
- Window Minimize
- Unhide from Tray
- File/Folder Deleted
- New Emails
- New Email w/ Attachment

- Window Open
- Window Resize
- Hotkeys
- File/Folder Modified
- New Email w/ Subject Match

- Window Maximize
- Hide Win to Tray
- File/Folder Create
- File/Folder Renamed
- New Email from Sender



# ENTERPRISE A2019 FOR IT MANAGERS

Automation creates different requirements for an organization's IT staff. They are interested in security, reduced TCO, infrastructure maintenance for the automation engine, and technologies such as cloud, AI, analytics, and more. They also want flexibility in the product platform, including support for end users' preferred devices. Plus, they need scalability that's fast and easy, and without limitations. Enterprise A2019 meets all of these requirements.

## **Benefit:**

IT can easily manage RPA across the entire enterprise from a web-based control center.





# LOWER TCO: EXPAND YOUR DIGITAL WORKFORCE WITHOUT EXPANDING IT OVERHEAD

IT managers are challenged to do more with less, to lower the total cost of ownership (TCO) of IT.

As the industry's first purely web-based and cloud-enabled RPA platform, Enterprise A2019 brings a number of advantages, including lower maintenance requirements and cost as well as greater flexibility.

The cloud represents huge opportunities to lower capex costs, and thus lower TCO, especially when combined with automation.

Enterprise A2019's web-based browser removes the need for local installation and maintenance of software. And Enterprise A2019 is OS-agnostic, offering platform freedom on either Linux or Windows. For infrastructure, Enterprise A2019 can be run on-prem, on a private cloud, or run on a public cloud, such as Azure, AWS, IBM, Google Cloud, and more.

The cloud-based design provides further benefit of a zero-footprint, low-maintenance environment that scales quickly and nearly infinitely while being extremely cost-effective.

## **Enterprise A2019 means lower TCO**

- Hosted cloud solution requires zero maintenance
- Browser-based UI makes deployment fast and easy
- No local installation required
- Runs in Linux and Windows
- Package architecture: delivers new commands without upgrades
- Move capex costs to opex
- Mitigate overprovisioned and underutilized IT expenditures

## **Benefit:**

Deployment is flexible, letting users deliver RPA on-premises or via any cloud, all just by logging in.

# TCO REDUCTIONS ACROSS THE BOARD

Enterprise A2019's architecture lowers total cost of ownership (TCO) at every stage of the operation. From deployment all the way through scaling, Enterprise A2019 is quick to implement and optimize for organizations of any size.

	Deploy	Operate & Optimize	Scale
Server	Supported on Linux; database	AD integration, APIs for Control Room & bots	Containerization for better horizontal scaling and HA/DR
Client	Zero footprint, device optimized runtime environment	Efficient use of client via WLM, centralized auto updates	Containerized, multiple bots per device. Linux support. Bot farm.
IT Staff	Streamlined deployment (100% browser-based), instant license provisioning (cloud)	Central security policies, exception management, secure bot life management, OTA upgrade (cloud)	Massive deployments with minimum IT staff; support team reduction
Training & Ramp-up	In-product learning	Syslog integration (Splunk), leverage existing talent for Bot development (Python, VB)	Higher bot velocity; mobile app; extensible via custom commands; localized UI for global deployments

“

We were able to use the Enterprise APIs to build visual representation of scheduled jobs... also incorporate local holiday calendar.

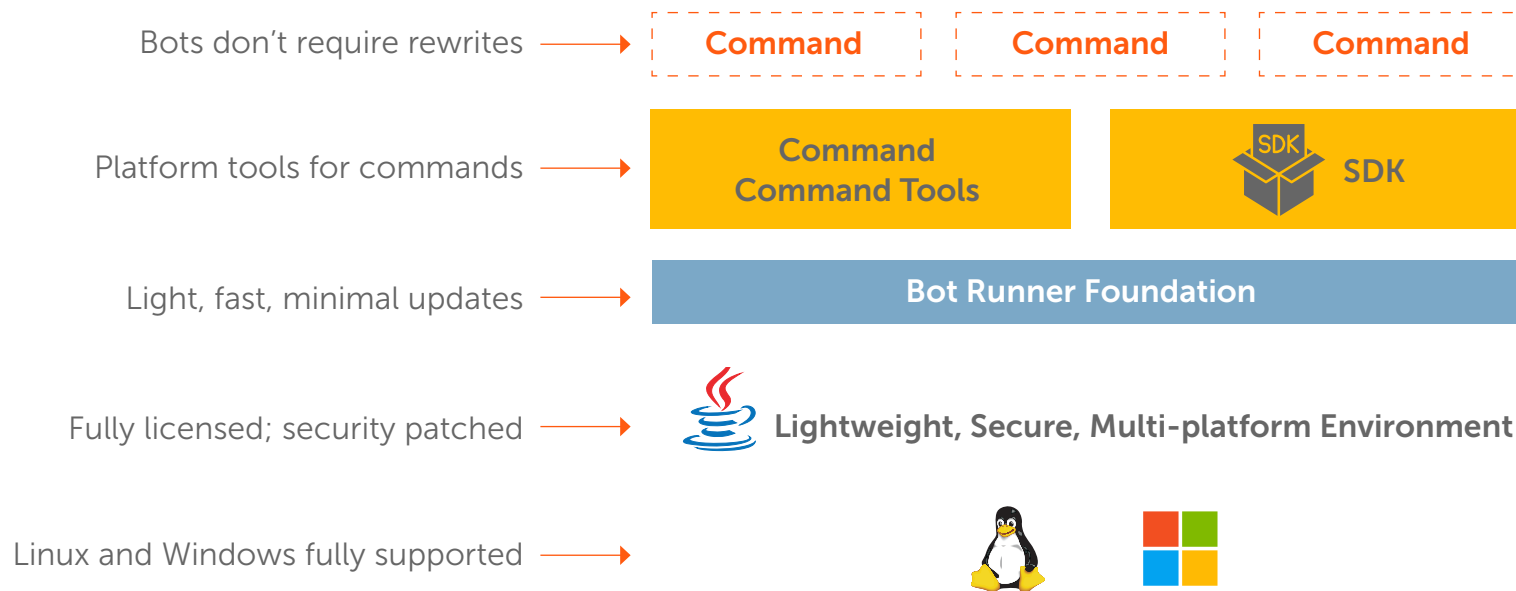
”

— IT infrastructure company



# ENTERPRISE A2019'S LINUX SUPPORT IS AN AUTOMATION GAME-CHANGER

Enterprise A2019 supports Linux Standard Base\*, which provides multi-platform flexibility for IT departments who wish to use Linux or Windows operating systems.

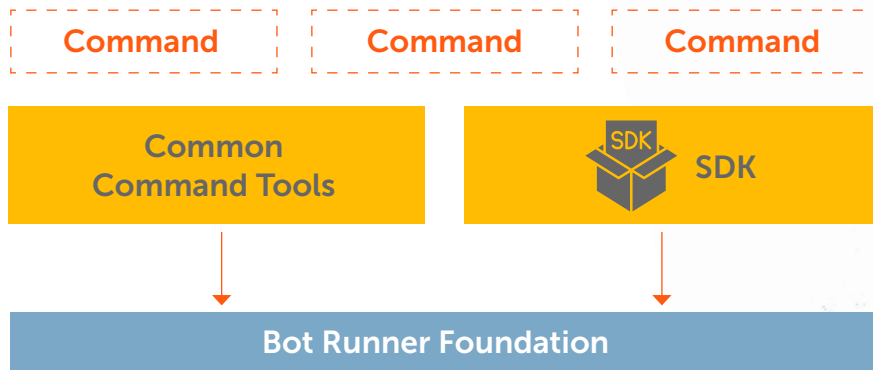


\*Note that Standard Base includes all modern distributions.

# PLUGGABLE ARCHITECTURE REDUCES TCO

Enterprise A2019's plug-in architecture makes it easy for the business user to add in commands from their favorite applications, like Excel or Google Sheets. However, the architecture also benefits the IT manager at every step of the system's lifecycle:

- Install: attended bots require no installation and unattended bots install with zero configuration required
- Deploy: roll out new bot capabilities without any product updates/installs
- Maintain: minimal Bot Runner foundation only requires updates for critical/security issues
- Scale: virtualization-friendly, high-density bots with excellent performance





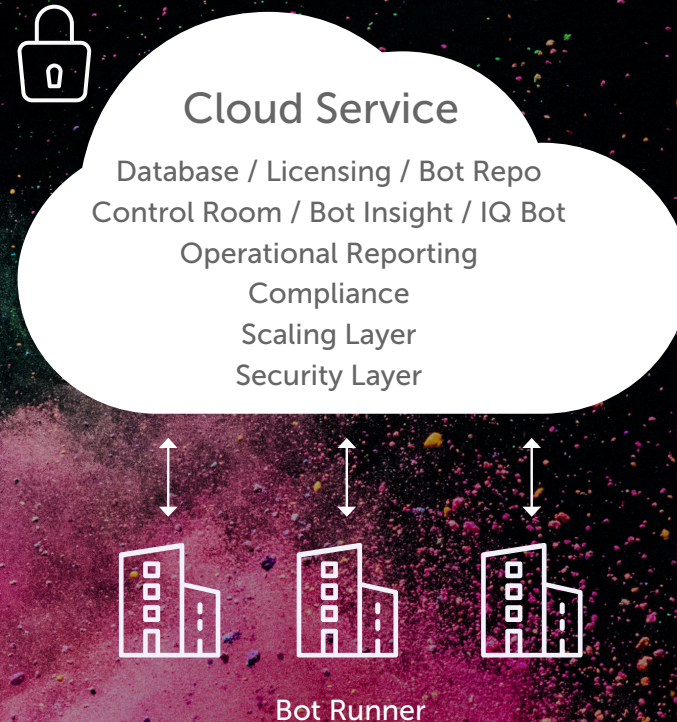
# PRIVACY AND SECURITY— TOP PRIORITIES

Privacy is critical for IT managers, especially in heavily regulated industries such as banking and finance, healthcare, and life sciences. That's why we've designed Enterprise A2109 to be the most secure automation system in the industry.

## ENTERPRISE A2019: PRIVACY-FIRST CLOUD

Enterprise A2019 is designed as a privacy-oriented cloud service. For example, personally identifiable information (PII) stays within the Bot Runner foundation and never goes to the cloud unless you tell it to. And Enterprise A2019 only keeps operational data, such as schedules, which further protects privacy.

**This approach virtually ensures privacy compliance for regulations such as GDPR.**





# ENTERPRISE-CLASS SECURITY AND ENCRYPTION

Enterprise A2019 utilizes industry-standard security features, including AES 256-bit encryption for data at rest and TLS/1.2 for network/data in motion, as well as Kerberos-based Active Directory (AD) authentication. Its microservices architecture leverages the latest in web-scale security methods, keeping bots, data, and users secure.

Enterprise A2019 meets the most stringent regulatory requirements, including: SOC2 environment, PCI, GLBA, GDPR, FISMA, and OWASP.

## Security, Compliance, and Governance

### Roles-based Access Control

- Logical segregation of duties for Bot Runner/Bot Creator
- Least privilege access across user, role, device, app, and ops levels

### End to End Encryption

- Native credential vault
- FIPS-compliant
- AES-256 for data-at-rest
- TLS/1.2 for data-in-motion

### Security Integrations

- SAML 2.0
- Kerberos-Windows login
- CyberArk certified integration

### Secure Operations

- Veracode level 5
- Automation timeout
- Stealth mode automation
- Disable mouse/keyboard

### Audit Completeness

- User, bot, Bot Runner, and Admin level audit
- Development lifecycle audit
- Change management





# SUMMARY

Automation Anywhere Enterprise A2019 is a quantum leap forward in digital workforce and automation design technology.

With a human-centered design philosophy, Enterprise A2019 has been architected from the ground up to provide a highly intuitive, instant-on user experience for users of all levels, from the citizen developer to the RPA specialist developer to the IT manager responsible for enterprise-wide RPA deployment and management.

Its cloud-based architecture gives A2019 unprecedented scalability and extensibility, so it can easily grow as the organization grows. And with built-in intelligent automation for every process, AI is made easily available for any RPA user.

Enterprise A2019's purely web-based automation development environment is the first of its kind. It is highly intuitive and does away with the need for extensive training with a step-by-step in-product learning system. It takes ease of use beyond the simple drag-n-drop and ensures that better usability delivers an enhanced, delightful experience for all users—tech savvy business user, specialist developer, and the IT manager—alike.

An install-free, web-based bot creator is combined with Cloud-enabled deployment, bringing infinite scale and the well-established cost benefits of the public cloud to automation. Scaling RPA from a single bot to hundreds and thousands of bots—securely and efficiently—is only a few clicks away for every IT manager. All this with enterprise-class audit compliance, governance, and control results in substantial reduction in total cost of ownership (TCO).

To learn more about Automation Anywhere Enterprise A2019, go to [www.automationanywhere.com](http://www.automationanywhere.com)





AUTOMATION<sup>®</sup>  
**ANYWHERE**

**Go be great.**