Introducing Watson Machine Learning Server 1.0

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Today, we are very happy to announce the general availability of IBM Watson Machine Learning Server! Watson Machine Learning Server (WML Server) is a new, single-node server that is joining the IBM Watson Studio family of products.

This release coincides with the release of Watson Studio Desktop 1.0 (a new perpetual license version of Watson Studio Desktop available with SPSS Modeler Gold). By combining the ease of use of Watson Studio Desktop's tools for exploring data and training machine learning models with the ease of deployment and scaling of WML Server, we provide an approachable, end-to-end, data science solution.

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Why do you need a ML server?

At this point in 2019, the proliferation of AI tools is fully upon us. These tools assist data professionals to make it easier for them to rapidly explore data, train models, and share results with stakeholders. These tools could come from open source, such as Jupyter notebooks, or from vendors like IBM, which offers Watson Studio as an integrated data science development environment, offering open source and proprietary tooling like Modeler flows and AutoAI.

Tools can accelerate ML development by increasing the productivity of individual contributors as well as reduce friction around collaboration. However, once analysis is complete and models have been trained, teams need a solution for managing models
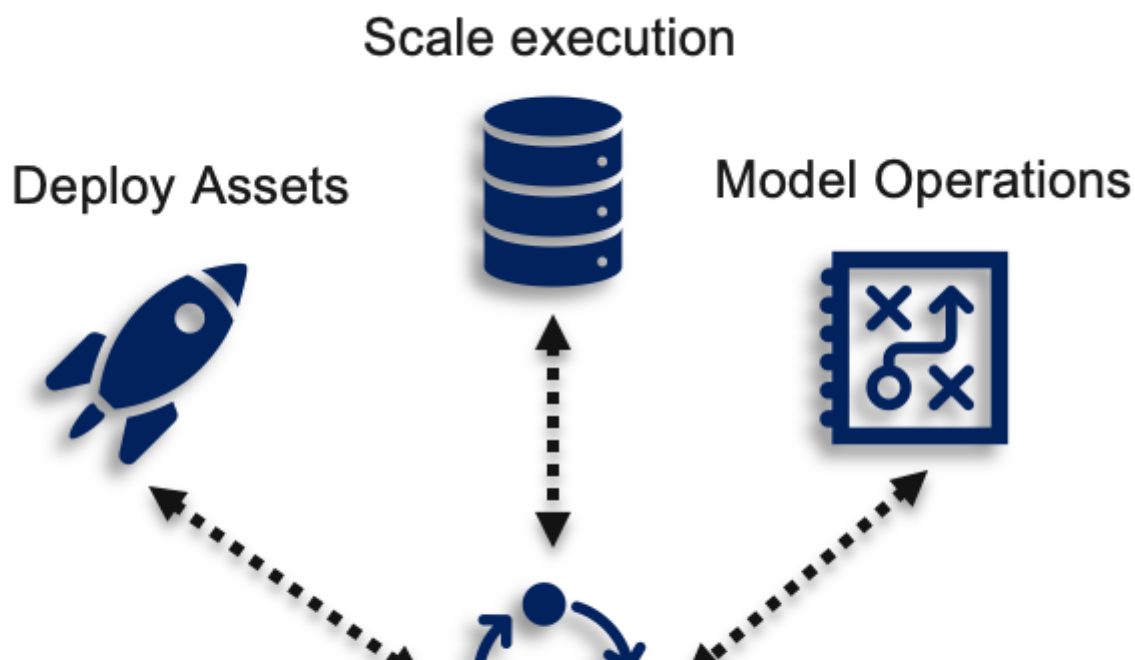
over time and deploying them for integration into production processes. At IBM, we've seen this stage of the AI lifecycle particularly challenging for many teams, which is why we are thrilled to release WML Server.
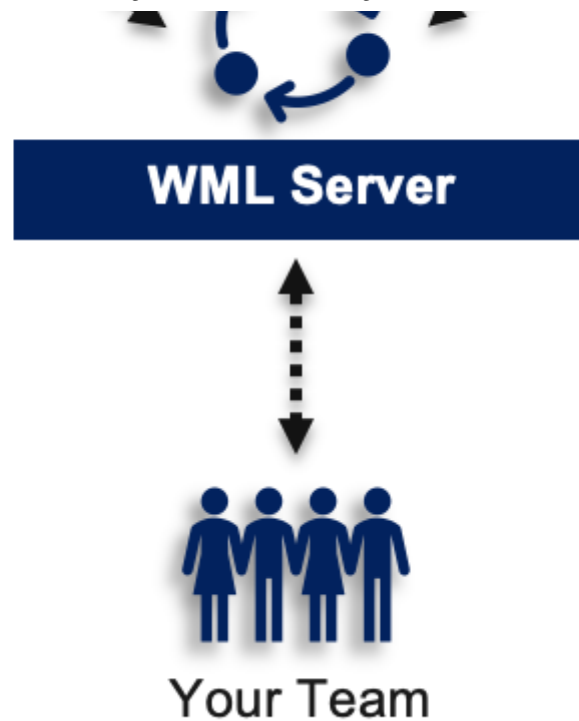
Benefits of using WML Server:

- **Fast time to value —** simple installation and administration makes it a snap to set up your data science environment and move models from the lab to production

- **Improve productivity —**teams that use SPSS Modeler and open source ML frameworks can use their tool of choice to create and deploy models

- **Maintain business impact —**utilize a complete ML framework for training, deploying, and maintaining model performance even after deployment

- **Derisk your data science projects —** stop tracking models on spreadsheets! Maintain model versions, meta data, and deployment history with WML Server's artifact repository

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What does WML Server do?

WML Server enables your team to scale and deploy AI projects

Deploys analytical assets created in the tool of your choice — Manage deployments in Watson Studio Desktop or using the WML Server APIs

Pushes compute to the data for lightweight scaling — Offload compute workloads from Watson Studio Desktop to seamlessly scale SPSS Modeler execution for model building

Serves as data science repository and framework for model operations — Consistent API and UI with WML Local and Cloud for creating and managing models and configuring deployments

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WML Server features in detail

In this section, I will review the primary features in more detail, but first, see it in action!

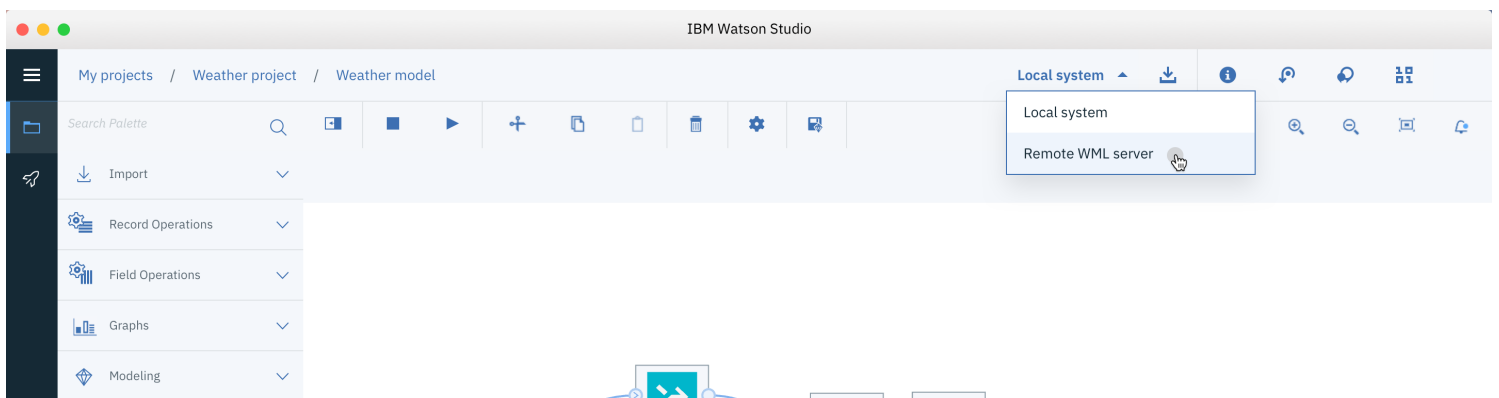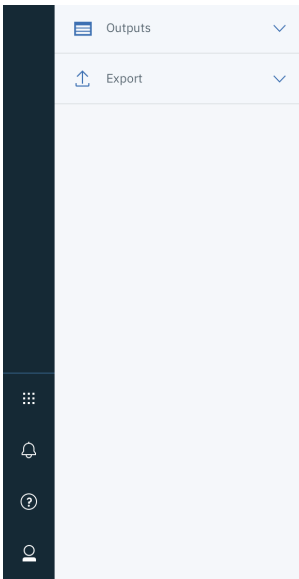Introduction to Watson Machine Learning Server for Open ...

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Scaling Modeler Flows

Modeler flows in Watson Studio Desktop are an incredibly powerful tool that make it possible for anyone with knowledge of data to explore data and train predictive models. The most recent release of this tool added many new features that were prioritized by popular demand from our users. Check out Doug Stauber's blog post describing these exciting new features in detail.

One new feature of Modeler flows is the ability to offload the execution of the flow to a WML Server. Prior to this release, all execution for Watson Studio Desktop happened in your local machine. With this enhancement, users can now scale their execution to work with larger data sets and to free up resources from their personal workstation.
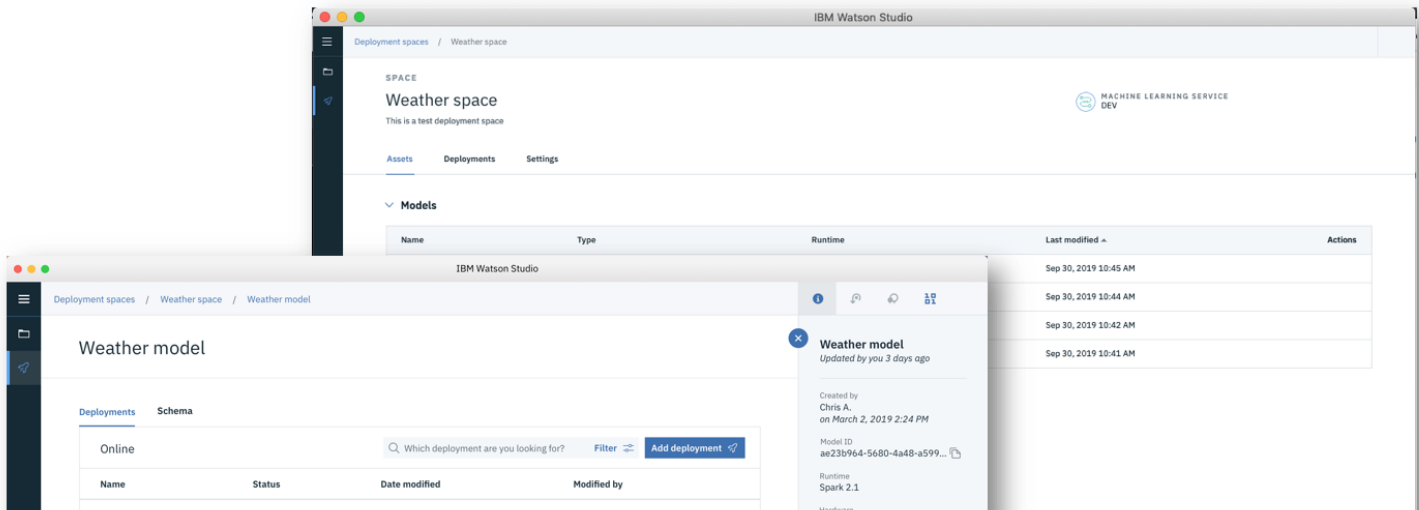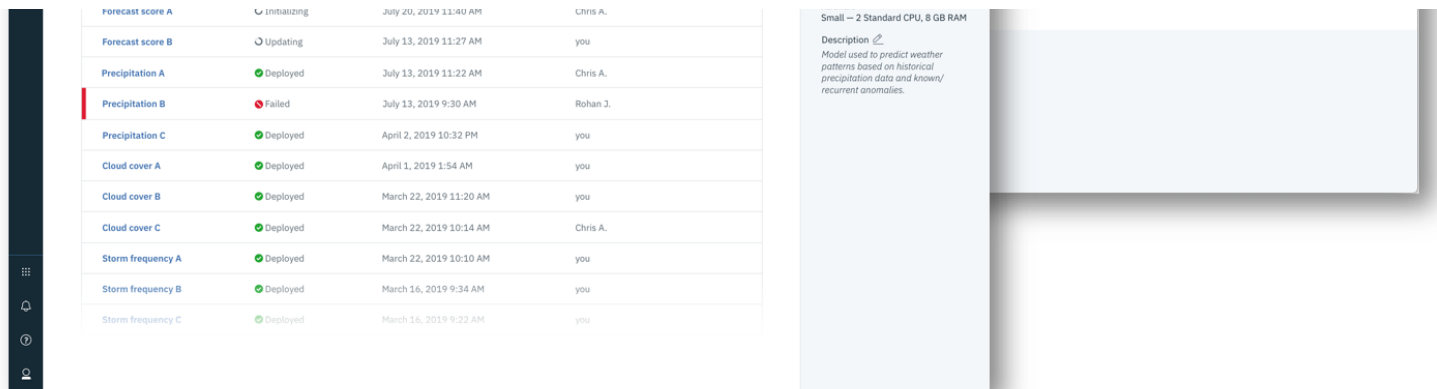
Quickly change the runtime location of a Modeler flow to WML Server

Deploying and Managing Models

Integrating WML Server with your data science development tools creates a lightweight solution to easily take projects from discovery to production. Models generated in a number of different frameworks can be deployed from the Watson Studio Desktop UI or programmatically using APIs as well as the Python client.
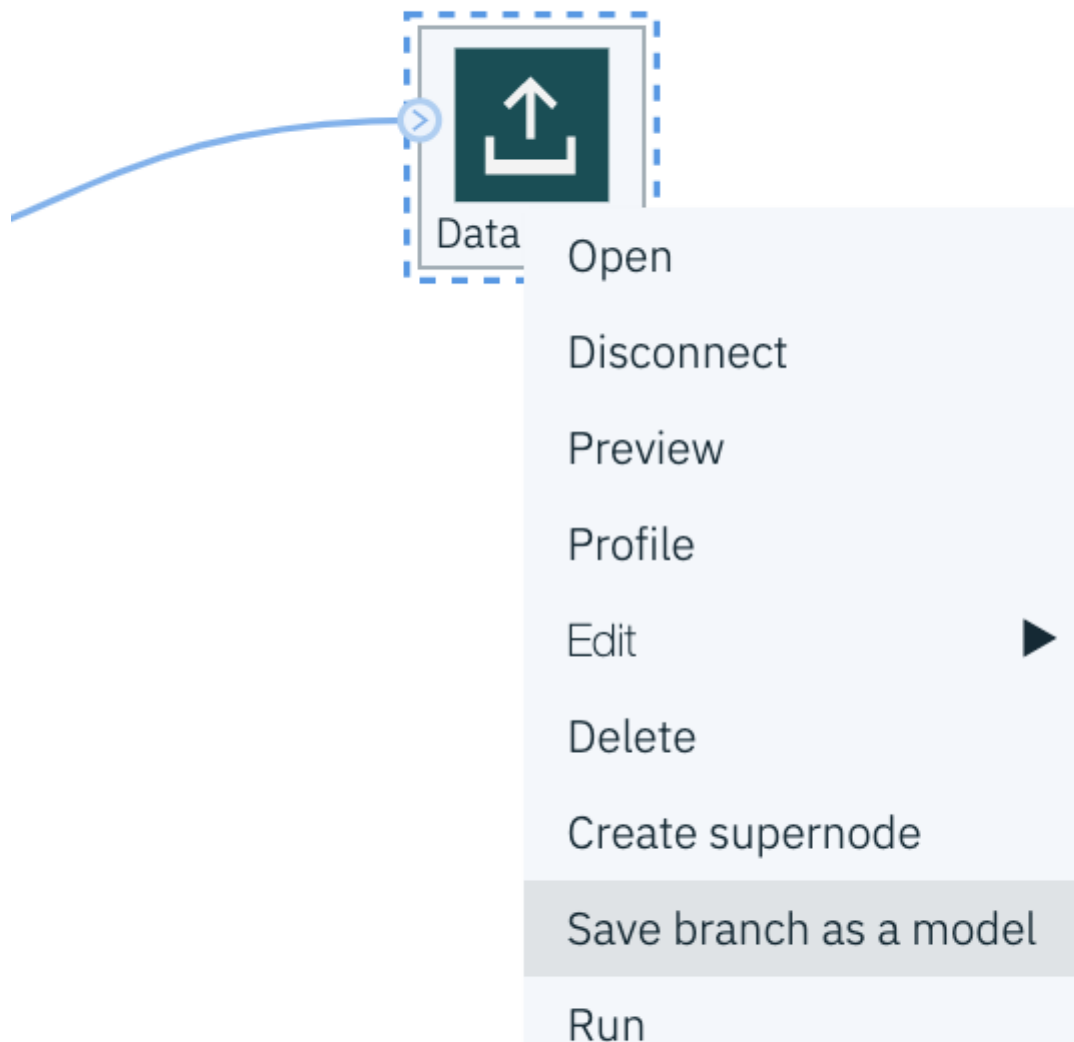
To assist with the management of models, WML Server utilizes `Deployment Spaces` which were first introduced in Watson Machine Learning 2.0. Deployment spaces are associated with Projects in Watson Studio and enable a seamless promotion flow. This flow starts with the creation of analytical assets in a Project and when it is ready for prime-time, it can be promoted to a Deployment space where deployments can be configured.

Create, configure and manage model deployments from the Watson Studio Desktop UI

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Saving models directly from a Modeler flow

SPSS Deployment: From inside a Modeler flow, an entire branch or a specific model can be selected and promoted to WML Server, where it is registered as a model asset that can be deployed.

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Which WML is right for you?

Watson Machine Learning is now available in four different offerings from IBM. In this section, I will summarize these options to help you understand which is right for your use cases and team:

- **Watson Machine Learning Server —** Lightweight machine learning server with simple installation on a single server and integration with Watson Studio Desktop for end-to-end data science. It is also designed to help you deploy your open source models from Jupyter notebooks or other tools with manageability and visibility.

- **Watson Machine Learning on IBM Public Cloud —** The fastest way to move models from experimentations on your desktop or in your lab to deployments for production workloads. Runs in a *fully managed* IBM Cloud™ environment.

- **Watson Machine Learning Local —** All the benefits of Watson Machine Learning in the IBM Cloud, now deployed behind your firewall or in the public cloud of your choice.

- **Cloud Pak for Data —** A one of a kind, pre-integrated set of data and AI services delivered within an open and extensive cloud native platform, learn more here.

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Get started today

Experience Watson Studio Desktop today with a free trial and get ready to explore the new features as they are released! Register for a free 30 day trial now.

If you are ready to learn more about WML Server and speak with an expert from IBM, let us know here.

Additional resources to checkout!

- Learn more about Watson Machine Learning

- Read Doug's blog announcing Watson Studio Desktop updates

- You can also explore six reasons to upgrade your data science with this free eBook — get it here.

- Take a look at the documentation for WML Server

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