



# Docker Workload Automation

## Scheduling and Orchestration of Heterogenous Docker-Based IT Landscape

### Does your container-based DevOps process seamlessly integrate with your legacy systems?

Providing end-to-end scheduling and orchestration for container based DevOps processes and legacy systems is still in its early stages. The absence of seamless integrations, that allow a centralized management of all job-specific environments, variables and scripts for containers and legacy systems disables the progress of Docker containers and micro-service architectures.

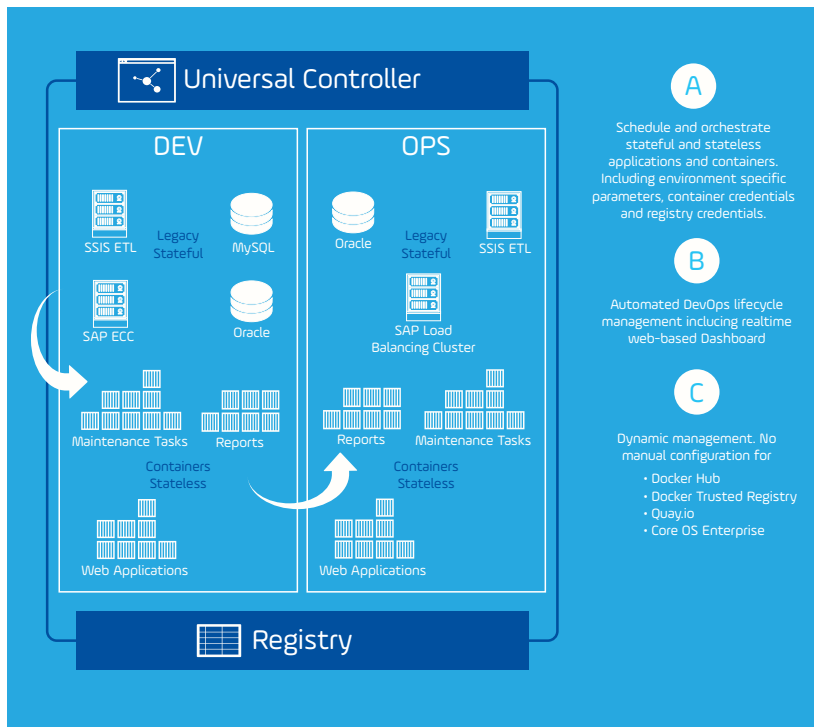
Enterprises facing the challenge to seamlessly integrate containerbased processes with existing business

processes and legacy systems. Stonebranch scheduling solutions solve these complex multi-platform scheduling challenges and enable end-to-end scheduling and orchestration for container-based environments, legacy systems and applications without the need to re-design your existing business process logic.

**Universal Controller - for end-to-end process management without manual configurations.**

### Advantages at a Glance

- Easy deployment
- Central management and control of all processes (containers and legacy systems/applications)
- Realtime dashboard for end-to-end visibility
- Highly secure and audit-proof
- Lifecycle management for easy transferring tested processes/ applications from Dev to Ops without manual configurations



## Solution Highlights

- Centrally maintain credentials for all used registries (Docker Hub, Docker Trusted Registry, Quay.io, etc.) and application connections e.g. Container, SAP and Database connections, script credentials, etc.
- Web-based monitoring and control of the entire process consisting of container and legacy application
- Integrated lifecycle management “bundle & promote” allows automatic promotion of new packages and applications
- Realtime dashboard providing an end-to-end view on the business process consisting of container based and legacy applications
- Central script library for file transfer, database calls and shell scripts – no need to store scripts in a container image
- Platform Independence Supports all major platforms including Windows, Unix, Linux, Mac OSX and Unix.
- Regulatory Compliance Achieve PCI DSS, HIPAA, SOX and GLBA compliance requirements.
- Microservices scheduling - support for HTTP, SOAP, REST, JMS and IBM WebSphereMQ (Message Queue)

## Scheduling and Orchestration of Heterogenous Docker-Based IT Landscape

The Stonebranch DevOps concept of centrally managing all jobspecific environment variables and scripts for containers and legacy systems enables an ideal DevOps approach without any environment-specific settings when deploying.

The web-based GUI provides an end-to-end view on your entire business processes consisting your containerbased and legacy applications and enables cross functional team interactions between architects, developers, testers, and operators. Each team will get the views and access rights for the information they require.

Once a business process has been tested, the integrated lifecycle management system “**bundle & promote**” allows each team to package all configuration items and automatically promote

these packages to the Ops landscape at a defined date and time without any manual configuration.

All job specific environment parameters, credentials and scripts for containers and legacy systems are managed centrally. According a **successful execution** of new package/application the **container is removed automatically** and processing continues with the next task in the workflow. By removing the container automatically after a successfully execution of the applications all used resources are freed again.business challenges is possible.

A Universal Task consist of configurable Web-form and an underlying Universal Template. The Web-form contains all required input and connections parameters to automatically run the container based on the selected image.

The screenshot displays the configuration interface for a task named "Job C - weekly\_database\_maintenance". The task is configured to run a weekly database maintenance script from a python container. The configuration includes details for the agent, credentials, environment, database type, registry, and image. A yellow dashed box highlights the "database name" and "database port" fields.

**General**

- Task Name: Job C - weekly\_database\_maintenance
- Version: 2
- Task Description: runs a weekly database maintenance script from a python container
- Member of Business Services: MS\_SIS\_ETL
- Hold on Start:
- Virtual Resource Priority: 10
- Hold Resources on Failure:
- Further Info's:

**db\_maintenance Details**

- Agent: \${docker\_LX\_AGNT}
- Agent Variable:
- Credentials: CRED\_docker\_LX
- Credentials Variable:
- environment: Development
- database credentials: SOLSERVER\_001
- Database Type: SQLSERVER
- registry credentials: docker\_hub\_001
- image version: latest
- Remove Container:
- Agent Cluster: dynamic resource cluster
- Agent Cluster Variable:
- Cluster Broadcast:
- database name: DB\_ETL\_001
- database port: 1433
- registry: Docker Hub - public
- image: db001\_we\_maintenance
- Container Name: weekly\_database\_maintenance