

PopUp Mainframe Solution Overview

Revolutionizing Mainframe Training



In the IBM Mainframe community, studies reveal an overwhelming reliance on the platform to support critical business systems – including a strong desire to leverage the latest z/OS and IFL processors.

However, recent market research data* also highlights that mainframe change is hard to do efficiently.

- Nearly all respondents experienced challenges in dev and test when using the mainframe
- Nearly 9 out of 10 have concerns over the availability of mainframe environments
- 8 out of 10 think that staffing and tooling limitations are hindering the business

In short, **bottlenecks are hampering business**.

Mainframe Training Needs to Change

In a resource-conscious mainframe environment, the vital **training and onboarding function** is often one of the first to be impacted by resource bottlenecks.

Training platforms are often a headache to set up, cost a fortune to keep running, and are tough to defend when budgets or machine resources are tight.

It often means no ready access to trainees to their own z/OS environment, no pre-configured environment to support skills development, and often a limited, compromised approach to training programs.

Finally: Flexible, Fast Mainframe Training

The root of the issue is availability. So, imagine being able to push a button to fire up a z/OS instance, pre-configured with apps, data, and tools, to provide every trainee with their own mainframe training sandbox.

That's the PopUp Mainframe advantage.

An instantly available mainframe environment to accelerate urgent development, testing, training, and administrative activities, PopUp Mainframe is functionally equivalent to z/OS, runs under **Linux on Z**, **LinuxOne**, or **x86** servers running in the cloud or data centre, and can be configured to include your choice of tooling, apps, and data for a tailored, flexible, and highly productive mainframe training experience.

Take the FastTrack to Training Success

And when the training task gets tricky and mistakes are made? Imagine being able to turn back time and restore a previous version of your instantly available PopUp environment in seconds... that's what the

PopUp Mainframe FastTrack option offers. FastTrack provides a guaranteed way to reset to the last working version of your PopUp environment, no matter how badly it's broken. With FastTrack, you can take a snapshot of your entire PopUp instance, anytime, then rollback your environment to one of your previous snapshots, on-demand. Current changes are not lost either, so you can jump back and forth between snapshots and the latest changes, without worrying about losing work.

The Fastrack Export feature enables rapid, predictable replication of approved z/OS environments, meaning **in-house onboarding teams, or 3rd party training organizations**, can offer a fully flexible, tailored training program for all their mainframe courseware. Instantly available pre-configured environments for each exercise removes the headache of administration and setup and enables students to repeat key tasks or consume the courseware on-demand at their own pace.

Easy and Efficient

The PopUp Mainframe FastTrack facility includes a range of simple commands for export, branching, and reset, plus a dedicated user interface (below) for a simple, centralised administration.

A screenshot of the PopUp Mainframe FastTrack interface. The top navigation bar includes 'Dashboard', 'Branches', 'Snapshots', 'Logs', and 'Settings'. The main area is titled 'FastTrack' and shows 'System Status' with a 'Running' status, 'Branch main', 'Last IPL 2 mins ago', and 'Storage 2.4 GB / 10 GB'. Below this is a table titled 'Branches & Snapshots' with columns: Branch, Snapshots, Storage, Purpose, Last Snapshot, and Status. It lists three branches: 'main' (5 snapshots, 1.2 GB, Production, 2 hrs ago, active), 'develop' (8 snapshots, 850 MB, Development, 1 day ago, inactive), and 'feature x' (3 snapshots, 450 MB, Feature work, 3 days ago, inactive). To the right is a 'Actions' panel with buttons for 'Start' and 'Stop', 'Create Snapshot' (with dropdowns for 'Select Branch' (Main) and 'Select Snapshot' (Snapshot 1)), and a 'Switch' button.

Each duplicated instance uses advanced compression techniques to limit storage and latency. As a general guide, FastTrack will compress to around 15% of original size, and 12% of transfer time.

Note, duplication under the IFL (Linux Z) is significantly faster thanks to the underlying environment.

* - 2025 PopUp Mainframe Market Survey, conducted by Vanson Bourne. For more information, see www.popup-mainframe.com

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PopUp Mainframe Solution Overview – Technical Capabilities

PopUp Mainframe

PopUp Mainframe provides mainframe teams with an immediately available, fully functioning mainframe environment. The product behaves the same as physical z/OS mainframe environments, and supports all mainframe subsystem applications, data stores, and 3rd party development tools, enabling teams to accelerate crucial tasks to support business change.

PopUp instances can come pre-configured with various popular mainframe tools, providing a quick-start environment offering an instantaneous, dedicated virtual z/OS training environment to everyone who needs it.

PopUp includes pre-installed data masking options (across Db2, QSAM, VSAM, IMS) to ensure training activities comply with data privacy governance.

PopUp Mainframe provides 100% functional equivalence with the mainframe. It runs on the same codebase as a z16/17 mainframe and behaves just like a standard z/OS LPAR environment, supporting all sub-systems (CICS, Db2, IMS, JCL etc.). Fundamentally, anything you can do on the mainframe for non-production activities, you are able to do in PopUp Mainframe.

PopUp Mainframe integrates with leading mainframe DevOps tools—including BMC, IBM and open-source options—to streamline and accelerate modern mainframe application development. Use PopUp Mainframe as a central part of your DevOps and application development mainframe training programs.

The FastTrack Option

FastTrack saves a continuous history

of data and configuration changes to enable self-service snapshot and restore, and export of PopUp instances to other staff, or machines.

Share and revert to baseline configurations flexibly and simply. Time saved in avoiding rework and configurations is a huge potential productivity benefit for many typical mainframe delivery scenarios.

There are two product editions - **PopUp Mainframe Z Edition** for LinuxONE / IFL, and **PopUp Mainframe X Edition** for x86/Cloud.

Accelerating Onboarding Efficiency

The PopUp Mainframe FastTrack Option offers a ground-breaking capability to accelerate the necessary activities to provide virtual mainframe environments, whenever needed, running the right versions of the right software, to as many staff who need it.

For 3rd party or in-house training leaders, whether you are focussing training on a new subsystem release, rolling out new facilities across several application versions, providing pre-configured scenarios as a training activity for new hires, FastTrack enables an almost instant switch to a complete, ready-made virtual environment to accelerate the task at hand in a consistent, scalable manner.

By enabling replication and resetting of pre-configured environments, FastTrack enables consistency, flexibility and resource efficiency across all aspects of training and onboarding, while greatly reducing the administrative effort of configuring and managing training environments. (And the same facility is hugely valuable for in DevTest and SysAdmin functions, too).

Product Specifications:

- OS: z/OS 2.4 or later
- Platform: IBM Linux on Z (IFL, ZVM, KVM or LinuxONE), or x86/Cloud environments
- Subsystem Support: ANY subsystem which runs on z/OS is supported

3rd Party Technologies Included:

- IBM Test Accelerator for Z (TAZ) V1
- Open-source tools: Galasa, IMON, Showzos
- IBM Build and Deploy automation tools - DBB and Wazi Deploy (Option)
- BMC AMI Dev X tools (Option)
- Mainframe Data Masking Technology (Option)

Product Features Included:

- Sample application with fully automated build and deployment pipelines – to help jumpstart your Z automation journey
- GitSync tool to enable easy import of all Z code into Git, along with version history
- DASD volume creation and other tools to optimize/streamline management of your PopUp Mainframe product
- Data Migration utility to simplify transfer of data between the physical mainframe and the PopUp Mainframe product
- Mainframe masking plugin for Perforce Delphix, enabling masking capabilities for all mainframe file types, including fixed length files, variable length files, and IMS databases (Option)
- Easily Snapshot, Refresh, and Export PopUp Mainframe instances (Option)
- Streamline administration using pre-installed Ansible playbooks

Note: PopUp Mainframe instances can run concurrently on LinuxONE / IFL. Please discuss precise requirements with us for optimal configuration.