

## IBM Unveils IBM Automation Control for z/OS (IACz)



**Advanced automation functionality designed for single zEnterprise system sites to increase value, improve availability and efficiency for daily operations, and reduce costs**

Sites using a single IBM zEnterprise system are at last getting an IBM advanced middleware product aimed specifically at addressing their needs for simplicity, advanced automation capability and affordability. With the introduction of IBM Automation Control for z/OS (IACz), IBM is expanding automation middleware for zEnterprise into a family of upgradeable products that leaves the one size fits all approach of the past behind.

IBM and other ISV's have, until now, built middleware products targeted at solving the most problematic and costly challenges encountered by the largest and most complex (multi-system) zEnterprise environments. It was in this space that vendor expertise was most needed to respond to the rapidly changing needs of zEnterprise systems within the ecosystem of enterprise server networks and Cloud computing.

Single System (Monoplex) sites are now falling behind as they struggle to keep pace with the rapid pace of technology change.

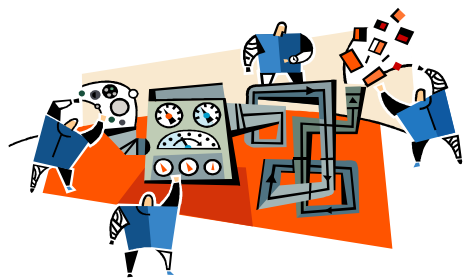
IBM Automation Control for z/OS was built specifically with the needs of the network connected Monoplex zEnterprise site in mind.

### About the Author:

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The portfolio of IBM middleware products containing advanced functionality for mainframes has evolved over time and contains impressive functionality for managing multisystem SysPlexes, and for providing extremely high levels of availability.

As products build out to handle more and more complex tasks, they tend to contain far more functionality than is needed by the typical Monoplex location. Further, they carry resource consumption and price points to match. Monoplex users often find that products are overly complex for their needs and too weighty and pricey to be practical.



The result is that in-house written code and homegrown scripts have remained the preferred approach for most Monoplex locations. This translates to continued dependency on human resources for ongoing maintenance of those scripts to provide needed functional updates.

This approach worked well for many years, but a number of new factors are now driving reconsideration of alternatives.

Automation drives multiple benefits that are well recognized. Removing dependence on specific human run operations provides not only a reduction in human errors and thus fewer outages, but also reduces costs as automated operations replace labor intensive manual interventions.

Custom written scripts automated specific functions that in the past did not change much over time. As the I/T landscape becomes more complex and moves toward Cloud computing, I/T must be able to react more quickly in support of daily business operations. It is difficult, expensive, and potentially risky to depend on manual modification of scripts to keep pace.

The often discussed “graying” of the pool of mainframe skilled resources who write/maintain homegrown scripts raises additional concerns about ongoing viability.

Heightened needs for higher levels of availability for continuous operations with no (planned or unplanned) outages, new requirements for ease of use for first time zEnterprise users, demand for fast deployment of business driven application enhancements, and focus on optimized financial economics for human and I/T resources has all served to motivate IBM to develop new capabilities designed specifically for the Monoplex zEnterprise user.

IBM Automation Control for z/OS delivers IBM’s policy-driven automation approach to Monoplex sites and removes the need and dependency on those manually written automation scripts.



As it turns out, IBM is well suited to the task. The benchmark for ease of use and policy-driven automated system functionality for decades was the IBM i-Series (evolved from the IBM System/3x, then IBM AS/400) - the most successful server in I/T history.

IBM Automation Control for z/OS (IACz) similarly enables new zEnterprise users and those with constrained systems programmer and support resources to use advanced automation capabilities.

For IACz, IBM capitalized on their broad knowledge base of systems automation users to select those automation functions that are most commonly needed by single zEnterprise users. They have artfully broken out a subset of the rich functionality found within current System z products and built a new product targeted at single system site requirements.

IACz provides an encapsulation of IBM expertise into a preconfigured but customizable policy-driven automation solution that supports provisioning, operations, higher availability, and backup/recovery.

Applause for IBM for creating a standalone product that embeds all functionality under the covers of a single new one time charge product license.

## Automation Control Highlights



IACz offers a powerful and flexible set of functions to monitor, control, and fully automate IBM system z application environments. Powerful and flexible automation policies help reduce complexity, implementation time, coding, and support efforts. Using these policies, one is able to start, stop, monitor, and recover z/OS applications as well as UNIX applications and resources.

IACz provides new tailorable, goal-driven, and policy-based technology to eliminate most common needs for manual scripts and to reduce dependencies on system programming and operations human resources. By removing these dependencies, I/T is able to support the newly emerging complex and fast changing Cloud infrastructures in a timely and expert manner.

Users can use pre-defined values or overrule the defaults with their own values as desired. Systems react faster, more efficiently, and without human error.

Tailorable installation processes enable users to be up and running in half the

time required for the more complex Systems Automation products. IACz will improve the efficiency of operations and the availability of critical systems and applications, while reducing the effort required for configuration, customization, operations, administration, and application management.

New capabilities that include autodiscovery and self-healing systems operations provide I/T with the modernized System z solutions and tools they need and expect to support today's user demands.

IBM is also providing capabilities that capitalize on their extended family of systems management products to enhance IACz value.

Integration of IACz with IBM (Tivoli) OMEGMON (monitoring) and IBM Tivoli Workload Scheduler provides a higher degree of automation for problem identification, escalation and resolution before problems become outages.

Users win because they can now start with IACz to get at the subset of needed policy-based automation functionality with a simplified deployment and affordable cost of operations, and then expand capability as needed.

## Is Automation Control for you?

The question most people should be asking is why automation control would not be of interest to them? Given that at least some level of automation is desirable, justified and some would say necessary in the increasingly complex and fast changing I/T environments of today, IACz provides a

fundamental and cost-effective capability that is essential to any modern server environment. The audience that is most likely to adopt this product quickly includes:

- 1) New first time zEnterprise users.
- 2) Managers of Monoplex remote sites within large enterprises that likely have other larger multi-zEnterprise (Sysplexed and/or GDPS enabled) sites.
- 3) Experienced mainframe z/OS users who find that a single zEnterprise meets their capacity needs but who have concerns about the viability, availability, and cost of using z/OS skilled resources to maintain scripts and the ongoing sustainability and capability of their current automation implementations.

## Why the time is right for such an automation control solution



zEnterprise is no longer a server technology considered only by traditional mainframe users and only for complex applications.

Because zEnterprise provides the fastest engine speed, scalability, economics, mixed workload performance, advanced workload balancing, big data management, and transaction throughput required for cloud and web-connected application workloads, it is becoming a popular choice vs. large scale-out physical server implementations,

especially when workload demand is expected to be uneven and unpredictable.

As a result, over the last year, zEnterprise has become one of the fastest growing server platforms in the world. The number of “first time” users of zEnterprise is rising rapidly, and with high user satisfaction.



First in the enterprise zEnterprise installations are growing rapidly both within traditional geographical markets and global growth markets.

Of note is IBM’s report that over 50% of the new first time zEnterprise users in the past year are using z/OS as the chosen operating environment. (not just Linux on zEnterprise Integrated Facility for Linux or “IFL” processors)

These first time users want to gain from the advanced features of a z/OS environment and have come to expect that they will be provided with out-of-the-box, but customizable implementations, that get them up and running quickly using vendor determined defaults that reflect best practices across the user base.

This is especially important when setting up automation which will govern how the system responds to a variety of operational conditions. Users additionally

require ability to support different types of activities without having to manually make changes to their systems environment, and without needing to grow staff.

Automation control enables optimized governance that is policy driven while it frees up systems programmers to address those unique issues that require human intervention.

## Return on Investment (ROI) for use of Automation Control

As with any acquisition, return on investment (ROI) must be considered when making an automation software purchase decision.

WinterGreen Research finds that the ROI case for IACz is more line of sight than for many products because IACz delivers ROI in ways that are easily defined and dollarized.

### ***WinterGreen Research – ROI Modeling Expertise and Tools***

**WinterGreen Research can quickly build a customized and interactive online modeling tool for ROI that is initially primed with industry analyst data, and allows users to create their own scenarios by editing data values using sliders.**

**The ROI tool can interactively show summary graphs of before/after dollarized costs to demonstrate and visibly highlight which cost factors have the most significant impact on ROI.**

<http://www.wintergreenroi.com>

ROI is derived from reductions in costs, from avoidances of costs, or through enablement of functionalities that are required to support business initiatives for competitiveness and viability and to grow revenues/profits. Dollarization of ROI from business enablement and revenue/profit growth is difficult to gain agreement to, but is extremely valuable to an organization's future success. These are often treated as added benefits beyond the basic ROI case.

### Cost Reductions Savings

In most I/T implementations, the most significant cost reductions come from reductions in labor costs – those skilled human resources who develop, test, deploy, operationally manage, and maintain the constantly changing systems and applications environments

For existing single zEnterprise sites, immediate labor savings can be realized from reductions in resources that currently maintain in-house written automation scripts.

For people who may have considered IBM's full System Automation product but rejected it because of complexity and cost to implement, the new customizable installation capabilities built into IACz dramatically reduce installation time and the need for skilled resources. This makes support for setup of high availability and application policies used by automation control affordable and more easily justified.



### Sample Cost Reductions

50% reduction in maintenance time spent on in-house written automation code/scripts

Time and Labor needed for system setup is reduced by the intuitive and easy-to-use configuration assistant.

80% reduction in effort to setup high availability (HA) policies used by automation

70% reduction in time required to

### Cost Avoidance Benefits

As previously discussed, use of automation enables many types of disruption avoidance in daily operations. IACz has self-healing capabilities that reduce the need for humans to perform problem determination and resolution tasks and reduce turnaround time for resolution

Savings are driven by removing the cost of humans to manually determine the cause of failures and to fix problems. The ripple costs associated with lost productivity impact on business users and operations when service outages occur are also avoided.

Policy based automation eliminates a large percentage of the human errors that cause outages and disruptions to operations and availability.

Because automation control takes advantage of the IBM knowledge of best practices, system resources are used efficiently, and the need for over-provisioning of resources (human and computer) in order to insure achievement of high availability objectives is also removed. Policy based rules maximize the efficiency and availability of systems, enabling higher utilization rates of existing resources. This can represent significant TCA as well as TCO and ROI improvements.

As a side benefit, use of automation frees up staff to focus on new business initiatives for revenue and profit growth.

Software Acquisition cost is often a barrier to use of a new software product. IBM has adopted a new licensing approach with IACz that eliminates the need for users to license additional prerequisite MLC products that contain functions not otherwise needed.. This licensing and packaging approach represents avoidance not only of potentially significant monthly license charge (MLC) expense, but also removes the overhead of underlying system hardware resources consumed and labor resources for product installation and support.



### Cost Avoidance Examples

- Outage avoidance saves costs associated with:
  - Problem determination
  - Problem resolution
  - User productivity impact
  - Business impact
- Policy based automation
  - Avoids need for resource over provisioning
  - Improves existing system resource utilization
  - Frees up staff to work on higher priority tasks
- IACz packaging removes prerequisite products.

### **New Technology Benefits**

IACz provides Autodiscovery technology that simplifies configuration of automation in support of changing systems and application management configurations. Autodiscovery delivers a fast and efficient process for discovery and optimization of new And changing applications and systems topology as it is implemented in support of business changes, thereby removing dependence on humans to make needed changes as environments change.

Use of auto discovery eliminates need for manual creation of automation rules into the policy database which is labor and time consuming and is prone to human error. The result is ability to react faster to changing business requirements.

## Summary Conclusions

With the introduction of IACz, IBM is turning their attention to the needs of the single zEnterprise system user while bringing a new approach to mainframe middleware delivery. Single system sites may now enjoy the automation and high availability attributes benefits previously only accessible to and affordable for larger installations.

IACz brings modern capabilities such as smart configuration assistance, autodiscovery, pre-defined but customizable policy-driven and goal-driven implementations which will provide optimized efficiency and high availability for critical systems and applications.

This type of solution will provide a dramatic improvement in human resource labor costs, and WGR expects to see a short ROI of less than 12 months for most buyers.



## About WinterGreen Research

The principals of WinterGreen Research have been involved in analysis and forecasting of international business opportunities in telecommunications and advanced computer technology markets for over 30 years. Founded in 1985, WinterGreen Research provides strategic market assessments of the internet, software, hardware, telecommunications, security, nanotechnology, healthcare, energy, and pharmaceutical industries.

Industry studies focus on opportunities that will expand existing markets and develop new major ones. The studies assess new product and service positioning strategies, new and evolving technologies and technological impacts on products, services, and markets. Leading market participants are always profiled and their marketing strategies, acquisitions, and strategic alliances are discussed.

Market forecast numbers include both unit and revenue estimates. Studies also feature in-depth company profiles of market participants.

Complete brochures, which list the table of contents and the list of tables and figures, are available on our website.

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