



## NATURAL FOR ZIIP™

### Lower mainframe total cost of ownership

Lower the Total Cost of Ownership (TCO) of operating your mainframe by taking advantage of IBM's specialty processors with Natural for zIIP<sup>TM</sup>. By moving Natural workload from IBM General Purpose Processor (GPP) to less expensive IBM® zIIP<sup>TM</sup> processors for execution, Natural for zIIP provides you a low-cost alternative to increasing capacity on your existing GPPs when you reach your z/OS capacity limit.

# Take advantage of specialty processors from IBM®

The IBM® System z® mainframe's legendary reliability, speed and security has put it at the very top of enterprise-class computing. Today, however, many "big iron" shops are considering alternatives such as Linux®, UNIX® and Windows® to address the perceived high costs of running workloads on the mainframe and upgrading hardware. To counter this trend, IBM introduced specialty engines to lower the mainframe's TCO. The most widely used specialty processor is the System z® Integrated Information Processor or "zIIP."

At Software AG, we strongly believe that mainframe applications have a strong role to play in your Digital Transformation. To help you address the increasing demand to serve online, mobile and cloud applications, as well as the Internet of Things, Natural for zIIP can offload batch and ever-increasing Online Transaction Processing (OLTP) application workload to a low-cost alternative.

With minimal effort, you can move your Natural workload from the GPP to IBM's zIIP processor with Natural for zIIP. Since no changes to the Natural application or TP environment are required, this is a low-risk solution.

### **Key benefits**

#### Reduce mainframe operating costs

Realize significant GPP CPU savings, often more than 90 percent, thus reducing the overall total cost of computing on the z/OS mainframe.

#### Postpone hardware upgrades

This low-cost alternative to increasing capacity on existing GPPs allows you to continue using your existing hardware.

#### Save software costs

Most software is priced based on the capacity represented by or the utilization of the configured GPP, independent of any specialty engines. Consequently, any work moved off the GPPs to zIIP is free from a software perspective.

#### Improve price-performance ratio

Achieve higher throughput with the low cost computing power of the zIIP and defer processor upgrades—and their attendant software costs—significantly improving mainframe price-performance and further reducing the mainframe's TCO.

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#### **Features**

#### Workload redirect

Move eligible workload from the GPP by switching to Service Request Block (SRB) execution mode whenever possible. By keeping the overhead involved with switching to a minimum while maximizing the execution time on the zIIP processor, reductions in GPP CPU of up to 98 percent can be achieved.

#### Statistical reporting

Forecast how much load can be directed to zIIP in your environment from provided statistical reports. Even if you currently don't have any zIIPs in place, the statistics will tell you how much load could be moved to zIIP for each Natural batch job or any of your TP regions.

#### **Full processor speed**

zIIPs always run at full speed, never throttled, enabling faster batch run completions with higher throughput and more computing power.

#### **Batch and OLTP support**

You can offload Natural workload from batch and OLTP servers. With Natural Batch for zIIP, Natural for Com-plete for zIIP, Natural for CICS® for zIIP, and Natural for IMS™ for zIIP, you can zIIP enable your batch and online applications to achieve optimum results and reduce the overall total cost of computing.

#### **Natural Roll Server**

Offload internal Natural workload from CICS and IMS environments to zIIP using Natural Roll Server. Because Natural Roll Server operates as a separate server outside the TP environment, it is an essential tool for transferring workload to zIIP as you cannot offload workload to zIIP with other roll facilities such as CICS Temporary Storage or Natural Swap Pool which reside inside TP systems.

#### **Production-ready**

Your Natural code requires no changes for this low-risk approach to lowering your TCO. Natural for zIIP is available on Natural for Mainframe 8.2.3 and above, operating on IBM System z9 servers or later.

#### **KPI** dashboard

Monitor the impact Natural for zIIP has on your system from a single web-based dashboard. View overall zIIP utilization as well as analyze trends over certain time frames. Opportunities for performance improvement can be found by evaluating Key Performance Indicators (KPIs) and measuring the impact of system changes.



#### Take the next step

Ask your Software AG representative about a free proof-of-value assessment. Using our proven methodology, Software AG Global Consulting Services will assess your mainframe environment, peak usage times and Natural workload to determine the full potential of zIIP-enabling your Natural applications.



Using GPP (General Purpose Processor)

## Natural for zIIP

Move eligible

Natural workload to zIIP





Using GPP with zIIP (z Integrated Information Processor)

Directing workloads from the GPP to the zIIP decreases CPU-consumption and associated costs, lowering overall mainframe TCO.

#### **ABOUT SOFTWARE AG**

Software AG (Frankfurt TecDAX: SOW) helps companies with their digital transformation. With Software AG's Digital Business Platform, companies can better interact with their customers and bring them on new 'digital' journeys, promote unique value propositions, and create new business opportunities. In the Internet of Things (IoT) market, Software AG enables enterprises to integrate, connect and manage IoT components as well as analyze data and predict future events based on Artificial Intelligence (AI). The Digital Business Platform is built on decades of uncompromising software development, IT experience and technological leadership. Software AG has more than 4,500 employees, is active in 70 countries and had revenues of €879 million in 2017. To learn more, visit www.softwareag.com.

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