



# The Business Case for Smart/RRSAF

## Overview

IBM has identified RRSAF as its strategic interface for DB2 batch applications running in z/OS and UNIX System Services. RRSAF provides several advantages over TSO Attach and Call Attach such as thread reuse, end user control over accounting intervals and 2-phase commit support (whose scope encompasses updates to all RRS compliant resources, not just DB2). Furthermore, IBM has stated that future enhancements will be made to RRSAF rather than Call Attach.

How can you obtain these benefits without the need to write low level RRSAF code? Smart/RRSAF from Relational Architects *transparently manages* the RRSAF connection and thread under which the application's SQL calls, IFI requests and DB2 commands all execute. The connection and thread are established *automatically* with

the first request to DB2. Thus, you can migrate your existing DB2 batch applications from TSO Attach to Smart/RRSAF — without changes to source code. Your applications can then update DB2, MQ, IMS and/or any other RRS compliant resources within a single unit-of-recovery and vary their COMMIT frequency dynamically. With Smart/RRSAF, you can also run your DB2 batch applications using regular JCL, so they look and behave like regular OS jobs.

Smart/RRSAF is a seasoned and mature product that is successfully implemented in Fortune 1000 organizations worldwide. Smart/RRSAF is backed by knowledgeable and responsive technicians who are available 24 hours a day, 7 days a week to keep your DB2 batch production running smoothly.

## Questions about your DB2 batch environment

- Does RRSAF look attractive to your organization but seem difficult or impractical to implement because it requires low level coding?
- Does your organization continue to use batch TSO and the DSN and RUN commands because TSO Attach manages DB2 connections and threads automatically — on first SQL call?
- Is it reasonable to require developers to manage their own RRSAF connections and threads in each application?
- Does migrating an existing portfolio of DB2 batch applications from one attachment facility to another represent an expensive and time consuming challenge?
- Is your organization concerned that a site written RRSAF implementation may lack documentation and ongoing support?
- Are charge back statistics for your existing DB2 batch applications lumped together under the TSO Terminal Monitor Program (IKJEFTxx) *because* you use TSO Attach? (With Smart/RRSAF, SMF accounting records are properly charged to the application program.)
- Do batch TSO and the DSN/RUN commands ever mask abends and/or non-zero return codes in your DB2 batch applications? (Smart/RRSAF applications return accurate jobstep completion codes to ensure proper dataset disposition, correct execution of downstream jobsteps and compatible operation with job schedulers and production control systems.)

# The Business Case for Smart/RRSAF

## Smart/RRSAF — a complete solution

- Smart/RRSAF provides a simple and complete solution for running DB2 applications in batch, TSO, ISPF and stored procedure environments
- Smart/RRSAF transparently manages the RRSAF connection and thread under which an application's SQL calls, IFI requests and DB2 commands all execute
- Most of the problems associated with utilizing RRSAF are completely eliminated with Smart/RRSAF

## Smart/RRSAF Benefits

- Expands the application's commit scope to include all RRS compliant resources, not just DB2
- Lets you vary an application's COMMIT frequency dynamically
- Simplifies DB2 application development, maintenance and troubleshooting
- Simplifies DB2 batch JCL
- Prevents SNAFUs in DB2 batch production by ensuring accurate jobstep completion codes
- Helps diagnose problems and improve performance with flexible tracing of SQL calls and IFI requests as well as DB2, RRSAF and CAF commands
- Provides a single attachment for use with DB2 batch applications, stored procedures and DB2 ISPF dialogs
- Lets you upgrade DB2 batch applications to restartable operation whenever convenient (through seamless interoperation with Smart/RESTART)
- Dramatically reduces run times with a *Parallel Thread Facility* that lets you multitask and multi-thread the same program within a single jobstep

## Smart/RRSAF Features

- Built-in tracing, monitoring and reporting facilities capture key performance and diagnostic data (flexibly in varying levels of detail) with minimal overhead
- DB2 batch applications that call their subroutines dynamically will run 'as is' while applications which issue static calls (such as COBOL modules compiled with the NODYNAM option) need simply be relinked. The Smart Conversion Facility supplied with Smart/RRSAF lets you relink selected load modules or entire libraries to run with Smart/RRSAF.
- Supports STEPLIB, JOBLIB and LINKLIST datasets as application program libraries
- Lets you change DB2 subsystem and application plan names dynamically at runtime via Smart/RRSAF exits
- Translates DB2 return, reason and abend codes into meaningful error messages
- Permits unrestricted use of the ISPF SELECT service within DB2/ISPF dialogs
- Enables the use of OS Checkpoint/ Restart (which is not supported under batch TSO)

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## **Summary — Justifying Smart/RRSAF to Management**

- Smart/RRSAF is quick and easy to implement. It's the proven, industry standard for exploiting RRSAF
- Smart/RRSAF is backed by a vendor lauded for its knowledgeable, responsive and professional support
- Smart/RRSAF offers a compelling ROI proposition that provides significant cost savings over site written code
- Smart/RRSAF is highly reliable and easy to service with excellent Reliability, Availability and Serviceability (RAS) characteristics
- Smart/RRSAF interoperates with its companion Smart/RESTART product to provide a complete checkpoint/restart solution that's robust, reliable and simple. Restartability enables an application to resume execution from near the point of failure, rather than have to backout all processing and then rerun from the beginning
- Bottom line — your organization obtains RRSAF benefits for its entire DB2 batch workload — with minimal time, effort and expense