RTPA™
Real-Time Program Audit™

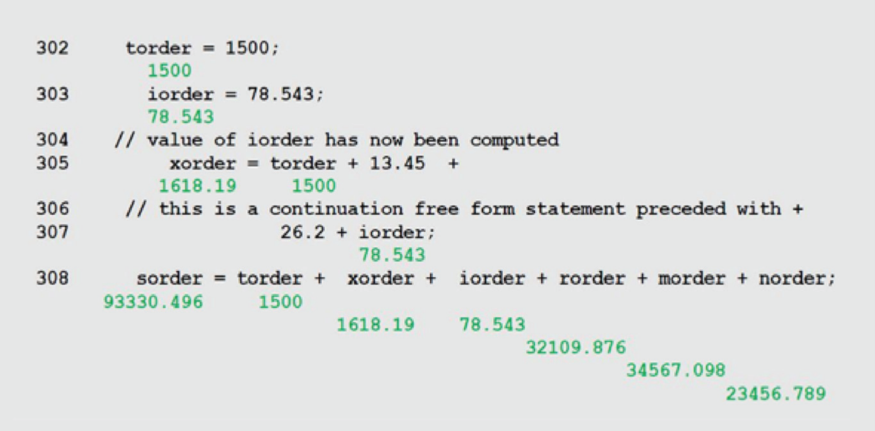
RTPA for IBM i Product Sheet

Enables Advanced, Job-Level Telemetry for IBM i RPG, COBOL, and CL Applications

See and record data-inclusive execution flows in a permanent log

Highlights

- Automated provision of data lineage
- CCTV-like recording of all executing jobs
- Patented method
- Facilitates root cause analysis



```
302     torder = 1500;
          1500
303       iorder = 78.543;
          78.543
304    // value of iorder has now been computed
305         xorder = torder + 13.45   +
           1618.19     1500
306     // this is a continuation free form statement preceded with +
307                   26.2 + iorder;
                             78.543
308      sorder = torder +  xorder +  iorder + rorder + morder + norder;
      93330.496     1500
                           1618.19    78.543
                                            32109.876
                                                     34567.098
                                                              23456.789
```

RTPA audit log output of RPG program NEWEXPSH execution

The Real-Time Program Audit (RTPA) is a patented computer-implemented method for generating a real-time audit record of a computer program while the program is executing. The software provides previously-unavailable critical database information such as: where the data came from, the value of variables used in each calculation, and how the data was used and handled over time. By illuminating and recording the flow of the code, it addresses a significant pain point by providing a bridge between applications and database information.

Like a security camera, RTPA records each program statement of every audit-enabled program as it is executed, recording it in an 'RTPA audit' database. The values of each variable are captured for every executed statement of a program's code, with the user name, date, time of execution, and program identification. The result is an exact, contemporaneous record of each executed line of code, making any complex transaction or group of transactions completely visible and auditable.

Record and understand the real-time flow of your code.

See what executed.

Know what happened.

From a business-value perspective, RTPA provides opportunities to:

- **Enhance productivity levels** resulting in reduced costs for application development, maintenance, and problem solving
- **Protection of applications** as a competitive business asset, through reduced dependency on legacy knowledge and reduced risk
- Develop competitive advantage through **innovation and digital transformation initiatives**, for example by leveraging RTPA's **automation** features
- **Extract telemetry**, for example: number of error messages issued, number of updates to a file by day/time, etc.

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Added technical capability for today's application-related challenges:

Key Features/ Capabilities

- For RPG, COBOL, CL
- Option to cover all or user-defined sections of the source code
- Dynamically converts RPG III to RPG IV

- Provides fast insight into large unfamiliar programs without legacy knowledge, **addressing RPG and COBOL skill gaps and legacy knowledge dependency**
- Enables the rapid tracing and identification of bugs and other problems in complex environments, **keeping mission-critical systems running smoothly and preventing downtime**
- Enhances rapid testing and change verification processes, allowing users to 'prove change' early, **reducing the velocity gap in increasingly-pressurized development environments**
- Creates a CCTV-like recording of all RTPA audit-enabled programs or jobs, **allowing programmers and other staff into the 'black box' of applications**

IT environments today are complex, and programmers need multiple tools in their toolbox to be effective. There are other available products to help programmers understand complex programs, modernize code, and undergo digital transformation projects.

What makes RTPA a different kind of application analysis tool?

	Other Application Analysis Tools and Debugging Products	RTPA
Primary problem solved	Need: 'big picture' view of large unfamiliar programs and program interdependencies	Need: (a) 'detailed view' of what happened on particular executed jobs or in specific programs; (b) immutable time-stamped record for real-time or post-event analysis (c) Selective, user-defined code audit (eg, Customer Number 4225)
Primary display method	Visual display with graphics and flowcharts Additional ability for tables and raw events	Log of executing program statements including executed code with data. Includes executed statement number, statement contents, the data processed with any variables, and a time stamp (eg, date/time, job #, user, program name, programming language) Customized ad hoc reports available using RTPA/IBM/SQL query tools
'Data Flow' Meaning	Shows relationships and effects between fields Shows the static statement, but not the data	Shows the line of code that was executed, including the contents of every variable in every executed statement in the job
Automation Level	Manual setting of breakpoints and learning of program relationships	Automated function, runs hands free

FIND OUT MORE:

To find out more about the Real-Time Program Audit (RTPA) for IBM i software tool, visit us at www.realtimeprogramaudit.com or email info@harkinsaudit.com.