

# Support and Maintenance for SMARTS

The SMARTS system nucleus is written mostly in IBM 390 Assembler but also in open source C and is therefore supported using cumulative fix packs as a means to provide corrections to customers.

This chapter covers the following topics:

- Reporting Problems
  - Problem Resolution
- 

## Reporting Problems

Problems should be reported to your local technical support center. You will be asked to provide whatever information is required to solve the problem. Generally, you should have the following available when reporting a problem:

1. Version, revision, and SM level of the SMARTS software where the problem occurred.
2. Type and level of operating system where SMARTS was running.
3. Version, revision, and SM level of other products associated with the problem (for example, Natural, Adabas).
4. Message numbers where applicable.
5. System log for a period of time before the event.
6. Sequence of actions used to cause the problem, if reproducible.
7. Name and offset of the module where the problem occurred. Where an ABEND occurs within a SMARTS module, generally RC will point to the start of the module where you will find a constant identifying the module. The PSW address should be subtracted from the address in RC to provide the offset into the module.
8. The register contents at the time of the ABEND.

With this information, it may be possible to identify a previous occurrence of the problem and a correction. If this is not the case, the following additional information is required:

1. The operating system online dump or SMARTS address space dump, as appropriate.
2. Output from the job where the failure occurred.
3. Other information that support personnel feel is relevant.

## Problem Resolution

A number of tools are available to diagnose problems as follows.

### Batch Dumps

When running in batch, a standard dump is taken for the POSIX server address space, as would be taken for a normal batch task. Standard diagnosis techniques may be applied to this dump.

### Trace Facilities

Where problems are encountered with the operation of the POSIX server interface, the trace functions may be useful in determining the nature of the problem. POSIX server tracing may be activated using the POSIX server TRACE configuration parameter.