

B+B

S/390 Assembler to COBOL Automatic Migration Tool “BB-AsTra”



A number of legacy applications still rely on Assembler-based (sub-) programs environments.

Most legacy applications were developed using business-oriented languages like COBOL, PL/1, Fortran...

Their migration to open system platforms will be quiet ‘easily’ to maintain, since corresponding compilers are available.

Except assembler, which has a very strong dependency between the language and the machine’s architecture i.e. machine code instruction, and for which no compiler is available on open system platforms.

Thus, CIO planning to modernize their legacy applications, are facing the problem that the modernization process runs into dead-ends, whenever a significant part of their mission-critical application is strongly related to legacy-code of embedded assembler programs.

For this reason, CIOs are forced first to reengineer functions provided till now by the assembler programs, before any application migration will be feasible. In addition, resources for interpreting and for reengineering the assembler code are in the most cases, no more available in the Company.

That’s the reason why we have developed BB-AsTra, which migrates all your legacy assembler code to COBOL.

BB-AsTra will be offered as a **migration service** by B+B since it does not make sense to train your IT-experts on a tool which will be used only once. Your single concern is having migrated your assembler code into a ‘readable’, executable and maintainable COBOL code, running on the target operating system platform, and the chosen compiler.



BB-AsTra for migrating S/390 Assembler to COBOL.

BB-AsTra comprehends a set of software components, based on a complex set of rules, for analysing the complexity of the Assembler code to be translated, and to convert it, thru one or more iterations, to COBOL, taking also into account your goals and directives for the produced code. The complete COBOL structure will be created, fields will be recognized and stored either in a LINKAGE-, WORKING-STORAGE-, or FILE- section. PROCEDURE DIVISION is automatically divided into sections and paragraphs.

Conditional branches are translated to ‘IF’ and ‘PERFORM’ statements, including also the adequate ‘END-IF’ and ‘END-PERFORM’; comment lines are of course, maintained as well.



The conversion process works on a semantic level. Original code constructs are transformed based on a full set of information and rules stored in our high sophisticated **AsTra knowledgebase**.

AsTra's Knowledgebase is the know-how backed by numerous successful assembler to COBOL migration projects, and it can handle different sequences of instructions, as well as user-written macros. The most common operating system macros (SVCs) are supported too.

Character data translation like EBCDIC to ASCII as well as the handling of specific code-pages for character encoding are recognized and solved thru customization of BB-AsTra as well.

BB-AsTra Migration Tool is available for all mainframe-based application environments and it covers, with its implemented knowledgebase instructions sets, the assembler language for **IBM/370, IBM/390, z/OS, VSE, MVS, BS2000**.

With BB-AsTra we are able to easily implement state-of-the-art technologies into the target COBOL, as well as your special requirements for modernization aspects. This is a major benefit and it allows developers to use afterwards modern IDE like Eclipse for further development.

BB-AsTra Offering:

- Full Assembler to COBOL applications migration
- COBOL source code that is easy to read and to maintain
- No proprietary runtime routines required – native source code
- State-of-the-art translation thru new Java-based migration engine
- 'Migrate and go' concept - not blocking any of your resources
- Validation and documentation of the migration process



Your Benefits:

- Migration process as a service
- 1:1 migration - no impact on your mission critical application
- No impact on your team resources
- Short project duration

About Us:

B+B Unternehmensberatung, based in Bad Dürkheim helps translate clients' strategic agendas into IT initiatives that measurably improve performance. B+B combines a range of consulting services—from IT strategy planning and infrastructure improvement to application modernization and IT risk mitigation. B+B collaborates closely with clients to deliver technology implementation as well as strategic direction.

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