尊敬的客户：

自动化测试平台 TTworkbench 22 版本出来了！这个新版本支持即将颁布的 TTCN-3 V. 4.8.1 版本. TTworkbench 22 版本基于 Eclipse 4.4.2。这个版本发布主要目的是为了维护和增强稳定性。

请注意：

在升级您的 TTworkbench 版本时不要忘记升级您的插件（TTplugins）。TTworkbench 22 兼容的插件已经可以下载了。

What's new in detail?

General

- TTworkbench 22 is based on Eclipse 4.4.2 and requires Java 7 at a minimum，(Java 8 is recommended)

TTCN-3 Core Language Editor (CL Editor)

- Enhancements for automatically organizing imports

TTCN-3 Compiler (TTthree)

- Support of TTCN-3 edition 4.8.1 (TTCN-3:2016) - the new default
  - ✧ Enumeration values associated with multiple numbers
  - ✧ Unrestricted anytype with additional selection-syntax for disambiguation
    (<anytype_value>.<module_name>.<type_name>)
  - ✧ Select union statement for anytype values
  - ✧ Actual out parameters can be skipped like in parameters with default values (if skipped, the result value will be ignored)
  - ✧ Inout/out parameters given to functions started on ptcs have no effect in calling context (i.e. the result value is ignored)
  - ✧ Use of enumerated values without known type context (e.g. log(a)) is not allowed in strict standard compliance mode
  - ✧ Types used by module parameters are allowed to contain component or default types (but their initialization must be null)
  - ✧ Initialization of variable where right-hand side evaluates to <UNINITIALIZED> is not allowed in strict standard compliance mode
  - ✧ White-space and backslash-newline are allowed in octet, hex and bit string literals

- ✧ Optional template to match non-optional value expression using operation
  "match" is allowed
- ✧ The behavior started on a PTC (using the start statement) can also be an altstep
- ✧ Compiler hint if (parts of) component variables are used as actual inout parameters
- Improvements for backwards compatibility and several bug fixes (see bug list below)

Test Execution (TTman)

- For string-results of conversion from integer, variables view shows the original integer value as decoded value
- TTmanServer automatically imports projects that have been manually copied to the TTmanServer workspace
- TTman deploys referenced projects when using TTmanServer
- TTmanClient C++ API updated to work with latest server version
- PDF test report improvements

Codec Generator

- Support for case sensitive type names when introducing specific prefixes for generated
  codec classes
  - ✧ Fallback to old handling without specific prefix via system property 'tcdgen.prefix=false'

TTlibrary

- **New!** TTlibrary_Storage module
  - ✧ Setting, reading, and other handling of global variables via external functions
- **New!** TTlibrary_TTCN2Compatibility module
  - ✧ Helper functions for translated test suites

TTplugin ASN.1

- Support of EXPORTS ALL declaration
- TTCN-3 View keeps the type structure (nested types are mapped to equally nested types, anonymous types that represent the inner types are not created anymore)

✧ Note: It may cause a code backward incompatibility when using internal names

✧ Note: No need to regenerate ASN.1 Factory codecs since they remain compatible

TTplugin Ethernet

- Support of dump trace functionality
  - ✧ Enable pcap trace file attachment per test case via new parameter 'DumpTrace'

TTplugin IP

- Support to access IP header for incoming messages (octetstring IP header added to the address type IPAddressInfo)
- Support of dump trace functionality
  - ✧ Enable pcap trace file attachment per test case via new parameter 'DumpTrace'

TTplugin RS232

- Support for map parameter for dynamic configuration from TTCN-3 added

TTplugin TCP

- Support for TTCN-3 RT added

TTplugin UDP

- Support for TTCN-3 RT added

TTplugin WSDL

- Dumps the result message even if an exception occurs

TTplugin XSD

- Generic XML codec now registers itself for all XML codecs with the xsd-encoding parameter under their xsd-encoding rule, so it does not need to be the default codec
- Bug fixes

Deprecation Notice

Support for Java 6 will be terminated with the next TTworkbench release. It is recommended to start using TTworkbench with Java 8.

Solved Issues

The following list shows bug IDs of all issues solved within TTworkbench 22. You might check your conversation with our support team for references.

3533, 4151, 4350, 4947, 4949, 5347, 5732, 6023, 6059, 6071, 6144, 6315, 6387, 6622, 6657, 6682, 6718, 6739, 6760, 6761, 6766, 6772, 6776, 6779, 6781, 6782, 6784, 6786, 6788, 6789, 6790, 6791, 6792, 6793, 6795, 6799, 6802, 6804, 6805, 6815, 6817, 6818, 6819, 6820, 6821, 6822, 6823, 6824, 6839, 6840, 6841, 6843, 6844, 6845, 6846, 6847, 6849, 6850, 6851, 6853, 6854, 6855, 6856, 6857, 6864, 6865, 6867, 6869, 6871, 6872, 6876, 6878, 6880, 6881, 6882, 6883, 6892, 6894, 6903, 6906, 6909, 6914, 6920, 6921, 6922, 6926, 6927, 6929, 6938, 6939, 6942, 6946, 6953, 6955, 6958, 6965, 6966, 6968, 6974, 6975, 6978, 6981, 6982, 6984, 6985, 6988, 6991, 6996, 6999, 7004, 7011, 7012, 7015, 7018, 7019, 7021, 7028, 7031, 7033, 7036, 7037, 7038, 7042, 7046, 7047, 7050, 7054, 7055, 7057, 7060, 7062, 7067, 7070, 7073, 7075, 7081, 7083, 7092, 7093, 7095, 7097, 7103, 7107, 7109, 7110, 7113

升级 TTworkbench Express/Basic/Professional

TTworkbench 下载链接 www.testingtech.com/support/downloads.php.打开连接后，输入你的 Reference ID。如果您还没有 Reference ID，请联系我们 sales@testingtech.com.cn。

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非常感谢您的关注，如果您关注 TTCN-3、关注自动化测试平台、关注协议测试，欢迎联系我们。