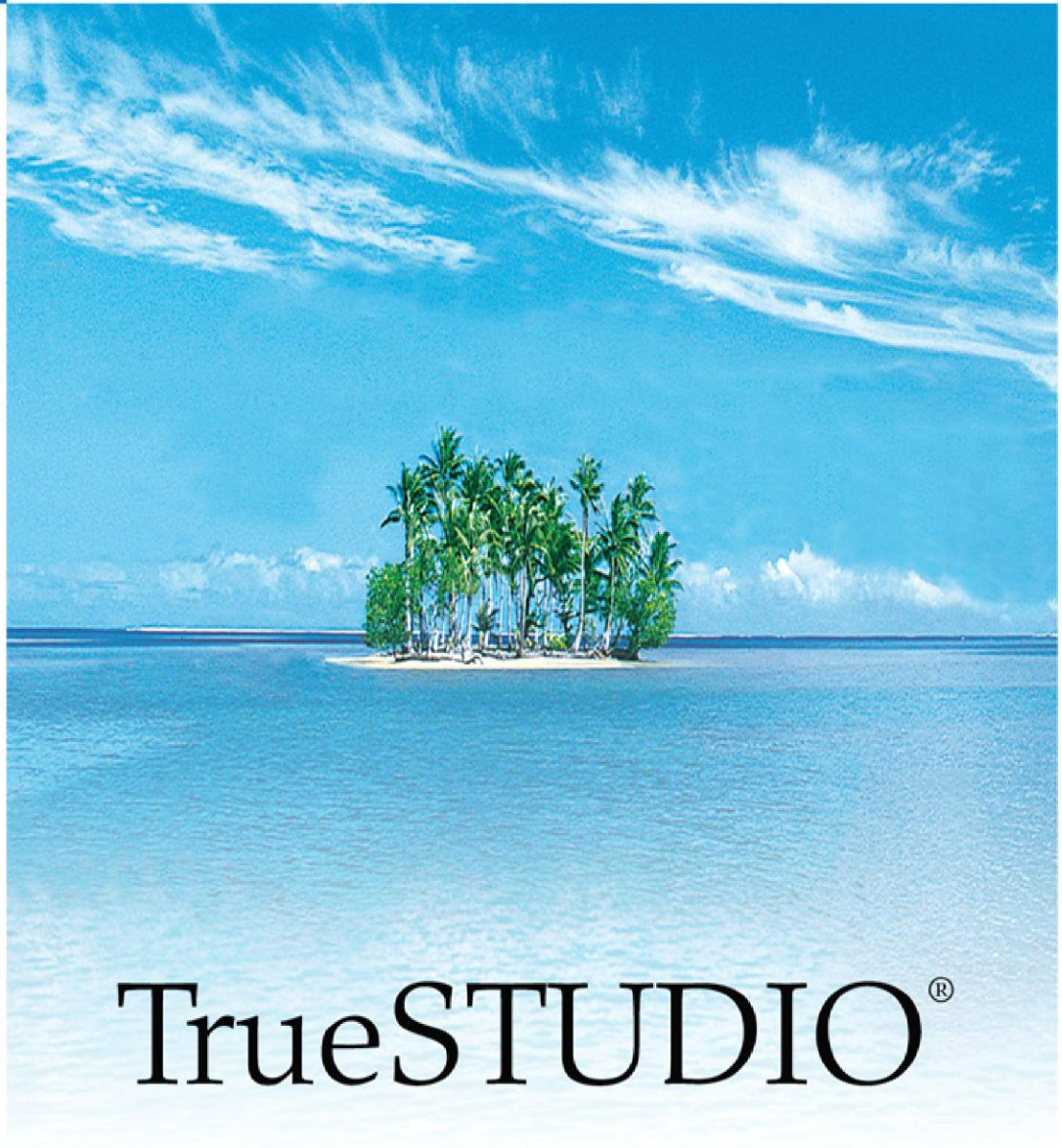


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TrueSTUDIO[®]

**Feature list and
feature comparison
guide for v2.3 products**

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INTRODUCTION

Welcome to the **Atollic TrueSTUDIO®** feature comparison guide. The purpose of this document is to help customers evaluate the differences between the various **Atollic TrueSTUDIO®** product versions.

WHO SHOULD READ THIS GUIDE

This document is primarily intended for embedded systems developers who are interested in software development tools, although many parts of this document could be of interest to development managers, project managers, procurement staff and other parties as well.

DOCUMENT CONVENTIONS

The text in this document is formatted to ease understanding and provide clear and structured information on the topics covered.

TYPOGRAPHIC CONVENTIONS

This document has the following typographic conventions:



Style	Use
Object names	Names of user interface objects (such as menus, menu commands, buttons and dialog boxes) that appear on the computer screen.
<i>Cross references</i>	A cross reference in this document or to other external documents.
Product name	Atollic company products.
	Identifies help tips and hints.
	Identifies a caution.

Table 1 – Typographical conventions



Section 1. FEATURE COMPARISON

This section provides information on the feature-set in the different versions of **Atollic TrueSTUDIO®** and its optional add-on products **Atollic TrueINSPECTOR®**, **Atollic TrueANALYZER®** and **Atollic TrueVERIFIER™**.

- Project manager
- Building
- Debugging
- Productivity tools
- UML modeling
- Version control system integration
- Bug database integration
- Source code review and code review meetings
- Static code inspection
- Code coverage analysis
- Test automation

OVERVIEW

Atollic TrueSTUDIO® is the premier tool for embedded systems development, providing an unrivalled feature-set and unprecedented integration. While most other embedded systems development tool vendors still only support the traditional edit/compile/debug cycle introduced decades ago, **Atollic TrueSTUDIO®** and its optional add-on products **Atollic TrueINSPECTOR®**, **Atollic TrueANALYZER®** and **Atollic TrueVERIFIER™** provides tool support for a much wider set of problems. This includes powerful features for team collaboration, modern work methodologies as well as code analysis and test automation.

Atollic TrueSTUDIO® is available for many different microprocessor types, and the **Atollic TrueSTUDIO®** product for each microprocessor family is available in different variants as outlined in the table below.

Atollic TrueSTUDIO®	Lite	Pro
Price	Free	Commercial
Integrated Information center	√	√
Languages supported	Asm, C	Asm, C/C++
Powerful IDE based on ECLIPSE™	√	√
Many additional IDE features	-	√
Basic cmdline tools for ARM®	√	√
Additional cmdline tools for ARM®	-	√
Basic cmdline tools for PC	-	√
Additional cmdline tools for PC	-	√
Basic debugger features	√	√
Professional debugger features	-	√
Real-time SWV tracing in debugger	-	√
Graphical UML modeling	-	√
Version control system integration	-	√
Bug database integration	-	√
Code review & review meetings	-	√
I/O redirection of runtime libraries	-	√
Optional tiny printf/sprintf/fprintf	-	√
Number of supported JTAG probes	Limited	Extensive
Static source code inspection	Demo	1 week fully working
Code coverage analysis	Demo	1 week fully working
Test automation	Demo	1 week fully working
Unlimited code-size	√	√
Unlimited usage-time	√	√
Advertisement free	-	√
Customers must advertise Atollic TrueSTUDIO in end-user manuals of developed products	√	-
Technical support	-	Available

Table 2 – Product version overview

DETAILED FEATURE COMPARISON

Atollic TrueSTUDIO® and its optional add-on products contain tool support for a large number of problem domains, including:

- Editing
- Building
- Debugging
- Design
- Architecture
- Revision control
- Bug database management
- Source code review and review meetings
- Static source code analysis
- Dynamic code coverage analysis
- Test automation
- etc

The following sections outline the detailed feature comparison for each of these different function areas.

PROJECT MANAGER

Atollic TrueSTUDIO®	Lite	Pro
Target specific project wizard	√	√
Project wizard generates application projects	√	√
Project wizard generates library projects	-	√
Project wizard generates example projects	√	√
Project wizard generates target adapted linker file	√	√
Project wizard generates device driver library	Most targets	Most targets
Project wizard generates makefile (only applicable in unmanaged mode projects)	√	√
Linker file wizard can generate new modified linker files	-	√
Optional tiny printf/sprintf/fprintf	-	√
Optional I/O redirection	-	√
Import projects	√	√
Export projects	√	√
Open projects	√	√
Close projects	√	√
Working sets	√	√
Project explorer view	√	√
File navigator view	√	√
Managed ARM® C projects	√	√
Managed ARM® C++ projects	-	√
Managed PC C projects	-	√
Managed PC C++ projects	-	√
Unmanaged ARM® C projects	√	√
Unmanaged ARM® C++ projects	-	√
Unmanaged PC C projects	-	√
Unmanaged PC C++ projects	-	√
Reconfigure basic project settings (MCU, board, etc) in GUI	-	√
Reconfigured basic project settings generate a new linker file	-	√

Configure command line tool build options in GUI	-	√
--	---	---

Table 3 – Project manager features

EDITORS

Atollic TrueSTUDIO®	Lite	Pro
C/C++ editor	√	√
Assembler editor	√	√
Makefile editor	√	√
Internal web browser	√	√
Code review editor	-	√
Bug issue editor	-	√
Annotation editor	-	√
Merge conflict editor	-	√
UML activity diagram editor	-	√
UML class diagram editor	-	√
UML component diagram editor	-	√
UML composite structure diagram editor	-	√
UML deployment diagram editor	-	√
UML profile diagram editor	-	√
UML sequence diagram editor	-	√
UML state-machine diagram editor	-	√
UML use-case diagram editor	-	√

Table 4 – Editors

SOURCE CODE EDITOR FEATURES

Atollic TrueSTUDIO®	Lite	Pro
C/C++ outline view	√	√
Colour coding in the outline view of #ifdef items evaluating to false	√	√
Assembler outline view	√	√
Makefile outline view	√	√
Bookmarks view	√	√
Task view (to-do items)	√	√
Tasks automatically created by keywords detected in comments	√	√
Markers view	√	√
Spell checking of C/C++ comments	√	√
All occurrences of selected symbol highlighted everywhere in the editor	√	√
Symbol type assistance	√	√
Parameter hints	√	√
Content assist	√	√
Code completion	√	√
Code templates	√	√
Configurable coding styles	√	√
Configurable colour coded syntax	√	√
Expand/collapse of code blocks	√	√
Show collapsed code blocks as tooltips	√	√
Show symbol definitions as tooltips	√	√
Show macro definitions as tooltips	√	√
Surround with...	√	√
Macro expansion explorer	√	√
Show line numbers	√	√
Block selection mode	√	√
Show whitespace characters	√	√
Open #include files with hypertext links	√	√
Go-to-definition of a symbol with hypertext links	√	√
Advanced code navigation features	√	√

Refactoring	√	√
Configurable keyboard bindings	√	√
Keyboard shortcut assist	√	√
User configurable code templates	√	√
Drag & drop template view	√	√
Find matching elements	√	√
Find in editor	√	√
Find-in-files with regular expressions	√	√
C/C++ grammar search with regular expressions	√	√
Search results view	√	√
Graphical file compare	√	√
File history view	√	√
#include file dependency browser view	√	√
Colour coding of files not included due to #ifdef's evaluating to false in the #include file dependency browser view	√	√
Type hierarchy view (class browser)	√	√
Call hierarchy view	√	√
Symbol index view	√	√
Runtime library function manuals as editor tooltips	-	√
Notepad view	-	√
Instant search view	-	√
Full-screen mode	-	√
MS/DOS shell view	-	√
Batch file view	-	√
Programmers calculator with DEC/HEX/BIN conversions	-	√

Table 5 – Source code editor features

BUILD SYSTEM FEATURES

Atollic TrueSTUDIO®	Lite	Pro
Managed build mode (GUI)	√	√
Unmanaged build mode (makefile)	√	√
Configure command line options in GUI	-	√
Make utility	√	√
Remove utility	√	√
ARM® address to line utility	-	√
ARM® archiving utility (librarian)	-	√
ARM® assembler	√	√
ARM® C compiler	√	√
ARM® C++ compiler	-	√
ARM® linker	√	√
ARM® object conversion utility	-	√
ARM® object dump utility	-	√
ARM® ELF reader utility	-	√
ARM® size utility	-	√
ARM® strip utility	-	√
ARM® strings utility	-	√
ARM® report generator utility	-	√
PC address to line utility	-	√
PC archiving utility (librarian)	-	√
PC assembler	-	√
PC C compiler	-	√
PC C++ compiler	-	√
PC linker	-	√
PC object conversion utility	-	√
PC object dump utility	-	√
PC ELF reader utility	-	√
PC size utility	-	√
PC strip utility	-	√
PC strings utility	-	√
Standard C runtime library	√	√
Optional tiny printf/sprintf/fprintf	-	√

Math C library	√	√
Standard C++ runtime library	-	√
I/O redirection of runtime library	-	√
Pre-compiled power-on-reset code	√	√
Power-on-reset code with source code	-	√
Make targets view	√	√
Console output view	√	√
Colour coding of warnings and errors in console view	√	√
Save console view text to file	√	√
User defined (with regular expressions) colour coded syntax in the console output view	-	√
Progress view	√	√
Problems view	√	√
Double clicking on a warning or an error in the problems view opens the offending line in the editor	√	√
Errors and warnings are flagged on the appropriate lines in the editor	√	√
Auto-rebuild mode	√	√
Parallel compilation	√	√
Build multiple projects simultaneously	√	√
Multiple build configurations	√	√

Table 6 – Build system features

DEBUGGER FEATURES

Atollic TrueSTUDIO®	Lite	Pro
Project wizard auto-configure a debug configuration	√	√
Debug ARM® assembler code	√	√
Debug ARM® C code	√	√
Debug ARM® C++ code	-	√
Debug PC assembler code	-	√
Debug PC C code	-	√
Debug PC C++ code	-	√
Supported JTAG probes	Limited	Extensive
J-LINK gdbserver is bundled	√	√
ST-LINK gdbserver is bundled	√	√
Supports any 3 rd party JTAG probe with a compliant gdbserver	-	√
Pre-configured configurations for supported JTAG probes	√	√
Simplified debug configuration & debug launching system	√	√
Configuration GUI for gdbserver settings	√	√
Auto-start & auto-stop of gdbserver transparently to user	√	√
Powerful execution control commands	√	√
Possibility to enter gdb and gdbserver commands manually	√	√
Code breakpoints	One	Many
Data breakpoints	-	√
Counting and conditional breakpoints	-	√
User configurable debugger scripts with support for iterations and conditional behavior	-	√
User configurable breakpoint event-handler scripts with support for iterations and conditional behavior	-	√
Multiprocessor debug support	-	√
Debug any number of Windows PC command line applications simultaneously in a multiprocessor	-	√

debug session		
Debug any number of single-processor embedded boards simultaneously in a multiprocessor debug session	-	√
Debug any number of multi-processor embedded boards with any number of processors simultaneously in a multiprocessor debug session		
Debug any number of Windows PC command line applications, single-processor boards, and multiprocessor boards, in any combination, at the same time , in a multiprocessor debug session	-	√
Process view	√	√
Console view	√	√
Breakpoints view	√	√
Expressions view	√	√
Variable watch view	√	√
Variables are highlighted when values change	√	√
Expand/collapse complex data structures in variable view	√	√
Disassembly view	√	√
Memory view	√	√
Import/export data to memory view	√	√
CPU register view	√	√
CPU registers are highlighted when values change	√	√
SFR register view	-	Most targets
SFR registers are highlighted when values change	-	Most targets
SFR registers view also covers Cortex-M “core peripheral” registers	-	√
RS232 terminal view	-	√
Modules view	√	√
Executables view	√	√
Source code editor in debugger	√	√
Colour coded syntax in debugger source code editor	√	√

Expand/collapse code blocks in debugger source code editor	√	√
Mouse hover over variable name in debugger source code editor display current variable value	√	√
Toggle debugger breakpoints while in C/C++ editing mode	√	√

Table 7 – Debugger features

SWV capable ARM® targets only	Lite	Pro
Configuration GUI for Serial wire viewer (SWV) real-time event tracing	Demo	√
Real-time Event trace log	Demo	√
Real-time Graphical event timeline chart	Demo	√
Real-time Exception trace log	Demo	√
Real-time Graphical exception timeline chart	Demo	√
Real-time ITM console view	Demo	√
Real-time Graphical ITM timeline chart	Demo	√
printf() redirection over ITM	Demo	√
Real-time updated memory access monitoring	Demo	√
Real-time updated C variable access monitoring	Demo	√
Real-time updated variable data plot graph	Demo	√
Real-time Data trace log (memory and variables)	Demo	√
Double-click in Data trace log jump to editor line that made data access	Demo	√

BUG DATABASE INTEGRATION

Atollic TrueSTUDIO®	Lite	Pro
Integrated GUI client for popular bug database and issue management systems	-	√
Task repository view	-	√
Task list view	-	√
Task list legend	-	√
Task editor	-	√
Task search	-	√
Task queries	-	√
Capture screenshots and attach to a task as a file attachment	-	√
Crop and annotate screenshots	-	√
User is automatically notified when other users add or change status of a task that matches the criteria in any task query	-	√
Work scheduling	-	√
Work planning	-	√
Automatic recording on what files and line numbers are active when stop working on a task	-	√
Auto-load of source code files related to the active task	-	√
The project explorer view only show files related to the active task	-	√
Automatic calculation of time spent working on each task	-	√
Integration between Subversion commits and bug issues	-	√
Local mode for server-less configuration in single-user mode	-	√
Server mode for server shared across the development team	-	√
Connector for Bugzilla servers	-	√
Connector for Mantis servers	-	√
Connector for Trac servers	-	√

Table 8 – Bug database integration features

VERSION CONTROL SYSTEM INTEGRATION

Atollic TrueSTUDIO®	Lite	Pro
Integrated GUI client for popular version control systems	-	√
Client for SVN servers	-	√
Client for CVS servers	-	√
Supports many server protocol settings	-	√
Browse remote repository	-	√
Add projects, files and directories to repository	-	√
Update files from repository	-	√
Check-out files from repository	-	√
Commit changes to repository	-	√
Pre-commit check for errors and warnings in files	-	√
Graphical file difference utility visualizes changes being committed to the server	-	√
Graphical file difference utility visualizes differences between revisions	-	√
Commit comment template	-	√
Revert changes	-	√
Visualize change history	-	√
Branch and merge	-	√
Merge conflict editor	-	√
Show merge history	-	√
Create and apply patches	-	√
Lock and unlock files	-	√
Labels/tags	-	√
Revision management	-	√
Revision selection	-	√
Revision annotation in source code editor	-	√
Source code change traceability	-	√
Detect and manage conflicts	-	√
Keywords with dynamic auto-expansion in source code files	-	√

Subversion commit and bug database bug issue integration	-	√
History view	-	√
Synchronize view	-	√
SVN revision properties view	-	√
SVN locks view	-	√
SVN properties view	-	√
SVN repositories view	-	√
SVN repository browser view	-	√
SVN revision graph view	-	√
CVS editors view	-	√
CVS repositories view	-	√

Table 9 – Version control system integration features

SOURCE CODE REVIEW & REVIEW MEETINGS

Atollic TrueSTUDIO®	Lite	Pro
Tool support for source code review and review meetings	-	√
Supports a 3-phased review process	-	√
Individual review phase	-	√
Team review phase	-	√
Rework phase	-	√
Create any number of reviews in a project	-	√
Define a template with default settings for new reviews	-	√
User defined list of reviewers	-	√
User defined list of severity levels (major, minor, etc)	-	√
User defined list of review comment categories (logic error, optimization problem, etc)	-	√
User defined list of review decisions (invalid, valid won't fix, valid needs fixing, etc)	-	√
User defined list of status types (open, assigned, closed, etc)	-	√
Reviewers can add code review comments to any source code line in the editor	-	√
Review comments can be displayed as tooltips in the editor	-	√
Review comment list view	-	√
Review comments are synchronized across the team using any version control system	-	√
Global review comment list view for team review meetings	-	√
Review meetings can decide what to do with every review comment	-	√
Review comments can be assigned to team members for fixing	-	√
Team members have a to-do list with review comments that has been assigned to him for fixing	-	√
Team members can update status of review comment after fixing	-	√
Source code review as a work	-	√

methodology results in improved
software quality

Table 10 – Code review & review meeting features

UML MODELING

ACTIVITY DIAGRAM EDITOR FEATURES

Atollic TrueSTUDIO®	Lite	Pro
Graphical diagram editor	-	√
Grid	-	√
Snap to grid	-	√
Rulers	-	√
Zoom (in, out, fit)	-	√
Pan	-	√
Configurable fonts	-	√
Configurable line- and fill colours	-	√
Configurable line types and widths	-	√
Configurable connector types	-	√
Auto-routing	-	√
Auto-arranging	-	√
Configurable layout strategy	-	√
Alignment of graphical objects	-	√
Ordering (send to front/back etc)	-	√
Auto-sizing objects	-	√
Filter object details	-	√
Graphical outline view	-	√
Properties view	-	√
Activity	-	√
Parameter set	-	√
Parameter	-	√
Activity parameter node	-	√
Activity partition	-	√
Accept event action	-	√
Accept time event action	-	√
Add feature value action	-	√
Call behavior action	-	√
Call operation action	-	√
Create object action	-	√

Opaque action	-	√
Send signal action	-	√
Opaque behaviour	-	√
Value specification action	-	√
Activity initial node	-	√
Activity final node	-	√
Flow final node	-	√
Merge node	-	√
Decision node	-	√
Fork node	-	√
Join node	-	√
Conditional node	-	√
Expansion region	-	√
Loop node	-	√
Structured activity node	-	√
Central buffer	-	√
Datastore	-	√
Expansion node	-	√
Pin	-	√
Input pin	-	√
Output pin	-	√
Selection	-	√
Control flow	-	√
Object flow	-	√
Exception handler link	-	√

Table 11 – Activity diagram editor features

CLASS DIAGRAM EDITOR FEATURES

Atollic TrueSTUDIO®	Lite	Pro
Graphical diagram editor	-	√
Grid	-	√
Snap to grid	-	√
Rulers	-	√
Zoom (in, out, fit)	-	√
Pan	-	√
Configurable fonts	-	√
Configurable line- and fill colours	-	√
Configurable line types and widths	-	√
Configurable connector types	-	√
Auto-routing	-	√
Auto-arranging	-	√
Configurable layout strategy	-	√
Alignment of graphical objects	-	√
Ordering (send to front/back etc)	-	√
Auto-sizing objects	-	√
Filter object details	-	√
Graphical outline view	-	√
Properties view	-	√
Class	-	√
Package	-	√
Enumeration	-	√
Data type	-	√
Primitive type	-	√
Constraint	-	√
Association class	-	√
Interface	-	√
Comment	-	√
Attribute	-	√
Operation	-	√
Enum literal	-	√
Port	-	√
Template signature	-	√

Element import	-	√
Association	-	√
Shared aggregation	-	√
Composite aggregation	-	√
Navigable association	-	√
Dependency	-	√
Abstraction	-	√
Usage	-	√
Substitution	-	√
Generalization	-	√
Provided interface	-	√
Required interface	-	√
Constrained element	-	√
Nary dependency target	-	√
Nary dependency source	-	√
Association end	-	√
Realization	-	√
Template binding	-	√
Annotated element	-	√
Instance specification	-	√
Slot	-	√
Literal string	-	√
Literal integer	-	√
Expression	-	√

Table 12 – Class diagram editor features

COMPONENT DIAGRAM EDITOR FEATURES

Atollic TrueSTUDIO®	Lite	Pro
Graphical diagram editor	-	√
Grid	-	√
Snap to grid	-	√
Rulers	-	√
Zoom (in, out, fit)	-	√
Pan	-	√
Configurable fonts	-	√
Configurable line- and fill colours	-	√
Configurable line types and widths	-	√
Configurable connector types	-	√
Auto-routing	-	√
Auto-arranging	-	√
Configurable layout strategy	-	√
Alignment of graphical objects	-	√
Ordering (send to front/back etc)	-	√
Auto-sizing objects	-	√
Filter object details	-	√
Graphical outline view	-	√
Properties view	-	√
Component	-	√
Artifact	-	√
Interface	-	√
Class	-	√
Part	-	√
Package	-	√
Comment	-	√
Provided interface	-	√
Required interface	-	√
Delegation connector	-	√
Dependency	-	√
Assembly connector	-	√
Association	-	√
Shared aggregation	-	√

Composite aggregation	-	√
Navigable association	-	√
Annotated element	-	√
Element import	-	√
Attribute	-	√
Operation	-	√
Port	-	√

Table 13 – Component diagram editor features

COMPOSITE STRUCTURE DIAGRAM EDITOR FEATURES

Atollic TrueSTUDIO®	Lite	Pro
Graphical diagram editor	-	√
Grid	-	√
Snap to grid	-	√
Rulers	-	√
Zoom (in, out, fit)	-	√
Pan	-	√
Configurable fonts	-	√
Configurable line- and fill colours	-	√
Configurable line types and widths	-	√
Configurable connector types	-	√
Auto-routing	-	√
Auto-arranging	-	√
Configurable layout strategy	-	√
Alignment of graphical objects	-	√
Ordering (send to front/back etc)	-	√
Auto-sizing objects	-	√
Filter object details	-	√
Graphical outline view	-	√
Properties view	-	√
Collaboration	-	√
Class	-	√
Interface	-	√
Instance specification	-	√
Constraint	-	√
Comment	-	√
Element import	-	√
Attribute	-	√
Operation	-	√
Port	-	√
Collaboration use	-	√
Slot	-	√
Connector	-	√
Role binding	-	√

Provided interface	-	√
Required interface	-	√
Association	-	√
Shared association	-	√
Composite association	-	√
Navigable association	-	√
Constrained element	-	√
Annotated element	-	√

Table 14 – Composite structure diagram editor features

DEPLOYMENT DIAGRAM EDITOR FEATURES

Atollic TrueSTUDIO®	Lite	Pro
Graphical diagram editor	-	√
Grid	-	√
Snap to grid	-	√
Rulers	-	√
Zoom (in, out, fit)	-	√
Pan	-	√
Configurable fonts	-	√
Configurable line- and fill colours	-	√
Configurable line types and widths	-	√
Configurable connector types	-	√
Auto-routing	-	√
Auto-arranging	-	√
Configurable layout strategy	-	√
Alignment of graphical objects	-	√
Ordering (send to front/back etc)	-	√
Auto-sizing objects	-	√
Filter object details	-	√
Graphical outline view	-	√
Properties view	-	√
Artifact	-	√
Device	-	√
Node	-	√
Environment	-	√
Specification	-	√
Manifestation	-	√
Deployment	-	√
Specification link	-	√
Communication path	-	√
Dependency	-	√
Annotated element	-	√
Element import	-	√
Property	-	√

Table 15 – Deployment diagram editor features

SEQUENCE DIAGRAM EDITOR FEATURES

Atollic TrueSTUDIO®	Lite	Pro
Graphical diagram editor	-	√
Grid	-	√
Snap to grid	-	√
Rulers	-	√
Zoom (in, out, fit)	-	√
Pan	-	√
Configurable fonts	-	√
Configurable line- and fill colours	-	√
Configurable line types and widths	-	√
Configurable connector types	-	√
Auto-routing	-	√
Auto-arranging	-	√
Configurable layout strategy	-	√
Alignment of graphical objects	-	√
Ordering (send to front/back etc)	-	√
Auto-sizing objects	-	√
Filter object details	-	√
Graphical outline view	-	√
Properties view	-	√
Interaction	-	√
Lifeline	-	√
Message	-	√
State invariant	-	√
Action execution	-	√
Interaction use	-	√
Combined fragment	-	√
Gate	-	√

Table 16 – Sequence diagram editor features

STATE MACHINE DIAGRAM EDITOR FEATURES

Atollic TrueSTUDIO®	Lite	Pro
Graphical diagram editor	-	√
Grid	-	√
Snap to grid	-	√
Rulers	-	√
Zoom (in, out, fit)	-	√
Pan	-	√
Configurable fonts	-	√
Configurable line- and fill colours	-	√
Configurable line types and widths	-	√
Configurable connector types	-	√
Auto-routing	-	√
Auto-arranging	-	√
Configurable layout strategy	-	√
Alignment of graphical objects	-	√
Ordering (send to front/back etc)	-	√
Auto-sizing objects	-	√
Filter object details	-	√
Graphical outline view	-	√
Properties view	-	√
State machine	-	√
Simple state	-	√
Composite state	-	√
Submachine state	-	√
Region	-	√
Final state	-	√
Initial	-	√
Shallow history	-	√
Deep history	-	√
Fork	-	√
Join	-	√
Junction	-	√
Choice	-	√
Terminate	-	√

Entry point	-	√
Exit point	-	√
Entry connection point reference	-	√
Exit connection point reference	-	√
Transition	-	√

Table 17 – State machine diagram editor features

USE CASE DIAGRAM EDITOR FEATURES

Atollic TrueSTUDIO®	Lite	Pro
Graphical diagram editor	-	√
Grid	-	√
Snap to grid	-	√
Rulers	-	√
Zoom (in, out, fit)	-	√
Pan	-	√
Configurable fonts	-	√
Configurable line- and fill colours	-	√
Configurable line types and widths	-	√
Configurable connector types	-	√
Auto-routing	-	√
Auto-arranging	-	√
Configurable layout strategy	-	√
Alignment of graphical objects	-	√
Ordering (send to front/back etc)	-	√
Auto-sizing objects	-	√
Filter object details	-	√
Graphical outline view	-	√
Properties view	-	√
Use case	-	√
Actor	-	√
Subject	-	√
Package	-	√
Constraint	-	√
Comment	-	√
Extension point	-	√
Element import	-	√
Association	-	√
Extend	-	√
Include	-	√
Generalization	-	√
Constrained element	-	√
Dependency	-	√

Annotated element	-	√
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Table 18 – Use case diagram editor features

STATIC SOURCE CODE INSPECTION

The static source code inspection functions are implemented by the optional **Atollic TrueINSPECTOR** add-on product. This product is available for most targets, and these features are subject to availability for the desired target. The 1 week fully working license is only available for paying customers of the Professional version.

Atollic TrueSTUDIO®	Lite	Pro
Source code validated against a formal coding standard	Demo	1 week fully working
Exclude files and folders from analysis	Demo	1 week fully working
Support for the MISRA®-C:2004 coding standard	Demo	1 week fully working
Select rules to use for testing	Demo	1 week fully working
Summary overview with statistics and graphical charts	Demo	1 week fully working
Violations view lists rule violations with hypertext links to offending lines in the editor	Demo	1 week fully working
Rule violations flagged in editor margin on offending lines	Demo	1 week fully working
Rule description view explains selected rule, with example of bad and good coding practice	Demo	1 week fully working
Source code metrics (code statistics) on module, file and function level	Demo	1 week fully working
Code complexity measurement (cyclomatic value of code complexity)	Demo	1 week fully working
Generate reports in Microsoft® Word® format	Demo	1 week fully working
Generate reports in Microsoft® Excel® format	Demo	1 week fully working
Generate reports in Microsoft® PowerPoint® format	Demo	1 week fully working
Generate reports in HTML format	Demo	1 week fully working
Generate reports in PDF format	Demo	1 week fully working

Table 19 – Atollic TrueINSPECTOR static source code inspection

CODE COVERAGE ANALYSIS

The code coverage analysis functions are implemented by the optional **Atollic TrueANALYZER** add-on product. This product is available for most targets, and these features are subject to availability for the desired target. The 1 week fully working license is only available for paying customers of the Professional version.

Atollic TrueSTUDIO®	Lite	Pro
Code coverage analysis of the application when running in the target board	Demo	1 week fully working
Automatic instrumentation of the application	Demo	1 week fully working
Automatic re-compilation of the application	Demo	1 week fully working
Automatic downloading of the instrumented application to the target board using a JTAG probe	Demo	1 week fully working
Code coverage measurements made automatically when the application executes in the target board	Demo	1 week fully working
Measurement results are uploaded to the IDE for visualization	Demo	1 week fully working
Report generator export to CSV files as formal proof	Demo	1 week fully working
Statement coverage	Demo	1 week fully working
Function coverage	Demo	1 week fully working
Function call coverage	Demo	1 week fully working
Branch/decision coverage	Demo	1 week fully working
Modified condition/decision coverage (MC/DC level)	Demo	1 week fully working
Target execution control view	Demo	1 week fully working
Project summary result view	Demo	1 week fully working
Detailed result view	Demo	1 week fully working
Colour coded code coverage visualization in the source code editor	Demo	1 week fully working
Fully integrated into the IDE	Demo (most targets)	1 week fully working

Table 20 – Atollic TrueANALYZER code coverage analysis

TEST AUTOMATION

The test automation functions are implemented by the optional **Atollic TrueVERIFIER** add-on product. This product is available for most targets, and these features are subject to availability for the desired target. The 1 week fully working license is only available for paying customers of the Professional version.

Atollic TrueSTUDIO®	Lite	Pro
Embedded test automation in the target board	Demo	1 week fully working
Exclude files and folders from testing	Demo	1 week fully working
Analyze the source code	Demo	1 week fully working
Auto generation of parameter values	Demo	1 week fully working
Manual editing of parameter values	Demo	1 week fully working
Auto generation of test cases	Demo	1 week fully working
Test cases can be instrumented for return code checking	Demo	1 week fully working
Test cases can be instrumented for custom input- or output data checking	Demo	1 week fully working
Automatic code coverage instrumentation of the test cases	Demo	1 week fully working
Automatic re-compilation of the test cases	Demo	1 week fully working
Automatic downloading of the instrumented test cases to the target board using a JTAG probe	Demo	1 week fully working
Code coverage measurements made automatically when the test cases executes in the target board	Demo	1 week fully working
Test results and coverage information are uploaded to the IDE for visualization	Demo	1 week fully working
Test results visualization	Demo	1 week fully working
Block coverage visualization	Demo	1 week fully working
Branch coverage visualization	Demo	1 week fully working
Modified condition/decision coverage (MC/DC level) visualization	Demo	1 week fully working
Unit test view	Demo	1 week fully working
Unit test result view	Demo	1 week fully working
Coverage view	Demo	1 week fully working
Global variable view	Demo	1 week fully working

Table 21 – Atollic TrueVERIFIER test automation

SUPPORT AND LIMITATIONS

Atollic TrueSTUDIO®	Lite	Pro
Unlimited code-size	√	√
Unlimited usage-time	√	√
Customers must advertise Atollic TrueSTUDIO in end-user manuals of developed products	√	-
Advertisements	√	-
Technical support	-	Available
Upgrade agreement	-	Available

Table 22 – Support and limitations