

98 symbols glossary

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1 API Symbols Glossary

This glossary is auto-generated from the public API in `api` by `api2glossary`.

| Module | Name | Kind | Summary |
|------------------|---|----------|---|
| <code>api</code> | <code>build_verification_results</code> | class | Container for build verification results. |
| <code>api</code> | <code>calculate_file_hash</code> | function | Calculate hash of a file for integrity verification. |
| <code>api</code> | <code>create_build_validation_report</code> | function | Create a comprehensive build validation report. |
| <code>api</code> | <code>create_build_verification_script</code> | function | Create a comprehensive build verification script. |
| <code>api</code> | <code>create_build_report</code> | function | Create a comprehensive build report combining all verification results. |
| <code>api</code> | <code>create_integrity_manifest</code> | function | Create an integrity manifest for build verification. |
| <code>api</code> | <code>load_integrity_manifest</code> | function | Load integrity manifest from file. |
| <code>api</code> | <code>run_build_command</code> | function | Run a build command and capture output. |
| <code>api</code> | <code>save_integrity_manifest</code> | function | Save integrity manifest to file. |

| Module | Name | Kind | Summary |
|--------|------|----------|---|
| ■ | ■ | function | Validate build configuration and settings. |
| ■ | ■ | function | Validate that a build script is properly structured. |
| ■ | ■ | function | Verify that expected build artifacts are present and correct. |
| ■ | ■ | function | Verify that the build environment is properly configured. |
| ■ | ■ | function | Verify build integrity against a baseline. |
| ■ | ■ | function | Verify build reproducibility by running build multiple times. |
| ■ | ■ | function | Verify consistency between dependency files. |
| ■ | ■ | function | Verify integrity between two manifests. |
| ■ | ■ | function | Verify that output directory has expected structure. |
| ■ | ■ | function | Add two numbers together. |
| ■ | ■ | function | Calculate the average of a list of numbers. |
| ■ | ■ | function | Find the maximum value in a list of numbers. |
| ■ | ■ | function | Find the minimum value in a list of numbers. |
| ■ | ■ | function | Check if a number is even. |
| ■ | ■ | function | Check if a number is odd. |
| ■ | ■ | function | Multiply two numbers together. |

| Module | Name | Kind | Summary |
|--------|------|----------|--|
| ■ | ■ | class | Represents a public API entry from source code. |
| ■ | ■ | function | Scan ■ and collect public functions/classes with summaries. |
| ■ | ■ | function | Generate a Markdown table from API entries. |
| ■ | ■ | function | Replace content between begin_marker and end_marker (inclusive markers preserved). |
| ■ | ■ | class | Container for integrity verification results. |
| ■ | ■ | function | Calculate hash of a file for integrity verification. |
| ■ | ■ | function | Check file permissions and accessibility. |
| ■ | ■ | function | Create an integrity manifest for all output files. |
| ■ | ■ | function | Generate a human-readable integrity report. |
| ■ | ■ | function | Load integrity manifest from file. |
| ■ | ■ | function | Save integrity manifest to file. |
| ■ | ■ | function | Validate that all expected build artifacts are present and correct. |
| ■ | ■ | function | Verify compliance with academic writing standards. |
| ■ | ■ | function | Verify cross-reference integrity in markdown files. |
| ■ | ■ | function | Verify data file consistency and integrity. |

| Module | Name | Kind | Summary |
|--------|------|----------|---|
| ■ | ■ | function | Verify file integrity using hash comparison. |
| ■ | ■ | function | Verify current integrity against a saved manifest. |
| ■ | ■ | function | Verify that all expected outputs are present and complete. |
| ■ | ■ | function | Perform comprehensive integrity verification of all outputs. |
| ■ | ■ | class | Raised when PDF validation encounters an error. |
| ■ | ■ | function | Extract the first N words from text, preserving punctuation. |
| ■ | ■ | function | Extract all text content from a PDF file. |
| ■ | ■ | function | Scan extracted text for common rendering issues. |
| ■ | ■ | function | Perform comprehensive validation of PDF rendering. |
| ■ | ■ | class | Container for citation style configuration. |
| ■ | ■ | class | Container for publication metadata. |
| ■ | ■ | function | Calculate a complexity score for the publication. |
| ■ | ■ | function | Calculate hash of a file for integrity verification. |
| ■ | ■ | function | Create academic profile data for ORCID, ResearchGate, etc. |
| ■ | ■ | function | Create a publication announcement for social media and blogs. |

| Module | Name | Kind | Summary |
|--------|------|----------|--|
| ■ | ■ | function | Create a publication package with all necessary files. |
| ■ | ■ | function | Create repository metadata for GitHub repository. |
| ■ | ■ | function | Create a submission checklist for academic conferences/journals. |
| ■ | ■ | function | Extract all citations from markdown files. |
| ■ | ■ | function | Extract publication metadata from markdown files. |
| ■ | ■ | function | Format authors for APA style. |
| ■ | ■ | function | Format authors for MLA style. |
| ■ | ■ | function | Generate APA citation format. |
| ■ | ■ | function | Generate BibTeX citation format. |
| ■ | ■ | function | Generate MLA citation format. |
| ■ | ■ | function | Generate markdown section with all citation formats. |
| ■ | ■ | function | Generate DOI badge markdown. |
| ■ | ■ | function | Generate publication metrics for reporting. |
| ■ | ■ | function | Generate a publication summary for repository README. |
| ■ | ■ | function | Validate DOI format and checksum. |
| ■ | ■ | function | Validate that the project is ready for publication. |

| Module | Name | Kind | Summary |
|--------|------|----------|---|
| ■ | ■ | class | Container for document quality metrics. |
| ■ | ■ | function | Analyze compliance with academic writing standards. |
| ■ | ■ | function | Analyze various document metrics for quality assessment. |
| ■ | ■ | function | Perform comprehensive quality analysis of a research document. |
| ■ | ■ | function | Analyze document formatting quality. |
| ■ | ■ | function | Analyze text readability using multiple metrics. |
| ■ | ■ | function | Analyze document structural integrity. |
| ■ | ■ | function | Calculate overall quality score from individual metrics. |
| ■ | ■ | function | Check document accessibility features. |
| ■ | ■ | function | Count syllables in text using a simple heuristic. |
| ■ | ■ | function | Count syllables in a single word. |
| ■ | ■ | function | Extract detailed text information from PDF for quality analysis. |
| ■ | ■ | function | Generate a human-readable quality report. |
| ■ | ■ | function | Validate that a research document contains all expected sections. |
| ■ | ■ | class | Container for reproducibility analysis results. |

| Module | Name | Kind | Summary |
|--------|------|----------|---|
| ■ | ■ | function | Calculate hash of all files in a directory. |
| ■ | ■ | function | Calculate hash of a file for integrity verification. |
| ■ | ■ | function | Capture dependency information for reproducibility. |
| ■ | ■ | function | Capture the current environment state for reproducibility. |
| ■ | ■ | function | Compare two version snapshots for changes. |
| ■ | ■ | function | Create environment configuration for reproducible builds. |
| ■ | ■ | function | Create a template for reproducible research scripts. |
| ■ | ■ | function | Create a version snapshot of the current build for future comparison. |
| ■ | ■ | function | Generate a comprehensive build manifest for reproducibility. |
| ■ | ■ | function | Generate comprehensive reproducibility report. |
| ■ | ■ | function | Load reproducibility report from file. |
| ■ | ■ | function | Save build manifest to file. |
| ■ | ■ | function | Save reproducibility report to file. |
| ■ | ■ | function | Validate that experiment results are reproducible within tolerance. |
| ■ | ■ | function | Verify build integrity against a saved manifest. |

| Module | Name | Kind | Summary |
|--------|------|----------|---|
| ■ | ■ | function | Verify reproducibility by comparing current and previous reports. |
| ■ | ■ | class | Container for benchmark results. |
| ■ | ■ | class | Container for numerical stability test results. |
| ■ | ■ | function | Benchmark function performance across multiple inputs. |
| ■ | ■ | function | Check numerical stability of a function across a range of inputs. |
| ■ | ■ | function | Check function compliance with research software standards. |
| ■ | ■ | function | Create a template for a new scientific module. |
| ■ | ■ | function | Create a comprehensive test suite for a scientific module. |
| ■ | ■ | function | Create a template for scientific research workflows. |
| ■ | ■ | function | Generate comprehensive API documentation for a scientific module. |
| ■ | ■ | function | Generate a performance analysis report. |
| ■ | ■ | function | Generate scientific documentation for a function. |
| ■ | ■ | function | Validate that a module follows scientific computing best practices. |
| ■ | ■ | function | Validate scientific implementation against known test cases. |