

## PHILIP MORRIS INTERNATIONAL

## **Software Quality Assurance**

Term	Definition
Affiliate:	means an entity that, either directly or indirectly, controls, is controlled by, or is under common control with, the relevant entity, where "control" means the ability to direct the affairs of another by ownership, contract or otherwise.
Agreement:	means the agreement between the Client and the Supplier for the provision of the Services, which incorporates these software quality assurance provisions.
Client:	means the person purchasing the Services under the Agreement.
Client Group:	means the Client and all its Affiliates (and "member of the Client Group" shall be construed accordingly).
Services:	means the services being provided by the Supplier under the Agreement.
Supplier:	means the person providing the Services to the Client under the Agreement.

The Supplier shall implement, maintain and comply, at all times during the term of the Agreement, with quality assurance procedures and processes normally practised by nationally recognised organisations performing services of a similar nature which shall, as a minimum, include the following:

Software design:	A procedure for the design and development of software which addresses design and development planning, organizational and technical interfaces, design input, design output, design review, design verification, design validation, and design changes. In addition, the Supplier's quality assurance procedures and processes must specifically provide for the analysis of the Client Group's requirements, building of software elements, integration of software elements into a working product, testing and evaluation of software prior to delivery, and maintenance processes.
Technical Documentation:	The initiation, approval, distribution, amendment, archiving and disposal of technical documentation and information supporting the software (e.g. program documentation), including version control with respect to such technical documentation.
Purchasing of components:	If the software consists of or integrates components that are purchased, licensed, sub-contracted for, or otherwise acquired from any third party, procedures to ensure that the Supplier is in possession of all rights required for the Supplier to use such components and provide them to any member of the Client Group, and that such components conform to the published specifications for such components.
Product identification and traceability:	<ul> <li>Procedures to identify and track the history of the software, including:</li> <li>the history of reusable software (i.e. software products or components that have been previously used by other end users);</li> <li>the use of any third-party software or proprietary information;</li> <li>the reporting and tracking of problems with the software, major product releases, product components, intermediates, and functional units thereof; and</li> <li>the reporting and tracking of other changes to the software and its version scheme, and the applicability of such changes to the software, its components and the program documentation.</li> </ul>
Process control:	Manufacturing controls that provide for the software (including any updates) to be produced consistently to meet predetermined specifications and standards.
Inspection and testing:	Procedures to govern testing practices. Such procedures must describe how: test plans are developed and managed; designs are tested; tests are structured to find errors; test results are evaluated; testing errors are recorded and resolved; testing results are retained for future use; testing responsibilities are assigned; and testing tools are selected. Such procedures must also provide for:  (i) inspection and testing of products and other data received from third parties (including from any member of the Client Group);  (ii) inspection and testing of in-process development activities; and  (iii) final inspection and testing.
Equipment:	The inspection, calibration, maintenance and testing of equipment used in the design, development and testing of the software.

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Inspection and test status:	A system to identify the stage of development of the components of the software (software components, intermediates and functional units) and the test status (e.g. untested, tested with error, tested successfully, or approved for release or for any further development activity).
Nonconforming product:	The identification and segregation of nonconforming software and software components to prevent its inadvertent use, including procedures for the disposition of such nonconforming product. The Supplier's quality assurance procedures and processes must also ensure the implementation of required corrective action to prevent recurrence of non-conformities, including the investigation of the root cause of such nonconformities and monitoring and testing to determine if the correction has been successful
Quality records and other vital documents:	The management and control of records created in accordance with their requirements (e.g. testing results) and other documents related to the software (including records for backup and recovery of programs, data and design specifications). Such procedures must address the identification, collection, security, storage, maintenance of and access to quality records.
Internal quality audits:	Regularly scheduled internal quality reviews and audits of process activities and deliverable products.
Training:	Training of all personnel performing activities affecting the development of software, and the documentation of such training.
Statistical techniques:	Statistical techniques for establishing, controlling and verifying process capability (process maturity, number and type of errors in process outputs, error removal efficiency, milestone slippage) and product characteristics (testability, reliability, maintainability, and availability).

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