Flight software development to ECSS Category A qualification level is a technical challenge that up to now has not been required too often in the European space industry (e.g., ATV MSU, ESM PDE) and for which the production of qualification evidences are not straight forward although the requirements are clear in ECSS. Currently more and more space systems require operating systems and software building blocks to be qualified to category A, to enable the development of project specific category A software on top of them for new high criticality applications. As many of these software building blocks and operating systems are qualified up to ECSS Category B, GTD developed on behalf of ESA a methodology and its accompanying tools to systematically upgrade such software components up to category A.