**Alpha Testing**

**Alpha Testing** is a type of software testing performed to identify bugs before releasing the software product to the real users or public. It is a type of [acceptance testing.](https://www.guru99.com/user-acceptance-testing.html) The main objective of alpha testing is to refine the software product by finding and fixing the bugs that were not discovered through previous tests.

This testing is referred to as an alpha testing only because it is done early on, near the end of the development of the software, and before Beta Testing

**Who is involved in Alpha testing?**

Alpha testing has two phases,

1. The first phase of testing is done by in-house developers. They either use hardware-assisted debuggers or debugger software. The aim to catch bugs quickly. Usually while alpha testing, a tester will come across to plenty of bugs, crashes, missing features, and docs.
2. While the second phase of alpha testing is done by software QA staff, for additional testing in an environment. It involves both black box and [White Box Testing](https://www.guru99.com/white-box-testing.html).

So, alpha testing can be envisioned as an online application that is not completely ready for the usage but has been opened up to get some initial feedback.

**Alpha Testing Process Example**

Usually, an alpha testing takes place in the test lab environment on a separate system. In this technique, project manager teams up with the developer to define specific goals for alpha testing, and to integrate the results into evolving project plans.

As such alpha testing is done on a prototype, in-depth reliability testing, installation testing, and documentation testing can be ignored.

A good alpha test must have a well-defined[Test Plan](https://www.guru99.com/what-everybody-ought-to-know-about-test-planing.html)with comprehensive test cases. Various activities involved in alpha testing are logging defects, fixing defects, retesting, several iterations, etc.

Although Alpha testing is not completely functional, QA team must ensure that whatever is on hand should be thoroughly tested, especially those which has to be sent to the customer.

For best practice, the QA team should gather early all additional information like usability feedback on an alpha stage storage code, look and feel of the software, navigation scheme, etc.

Also, e-mail to the customer citing all the details about the test is recommended to make the customer aware of the current condition of the software.

**How to do Alpha Testing**

**To do Alpha Testing** efficiently for software testing, we need to first review the design specification and functional requirements, then develop a comprehensive test plan and test cases, after that execute the test plan in order to find log defects and fix those defects and finally retest once the issues are solved for smooth functioning of software.

**Advantage of Alpha testing**

* Better insight about the software’s reliability at its early stages
* Free up your team for other projects
* Reduce delivery time to market
* Early feedback helps to improve software quality

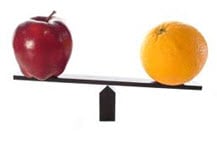
## Beta Testing

**Beta Testing** is performed by “real users” of the software application in “real environment” and it can be considered as a form of external [User Acceptance Testing](https://www.guru99.com/user-acceptance-testing.html). It is the final test before shipping a product to the customers. Direct feedback from customers is a major advantage of Beta Testing. This testing helps to test products in customer’s environment.

Beta version of the software is released to a limited number of end-users of the product to obtain feedback on the product quality. Beta testing reduces product failure risks and provides increased quality of the product through customer validation.

**Alpha Testing Vs Beta testing:**

Following are the differences between Alpha and Beta Testing:



|  |  |
| --- | --- |
| **Alpha Testing** | **Beta Testing** |
| Alpha testing performed by Testers  who are usually internal employees of the organization | Beta testing is performed by Clients or End Users who are not employees of the organization |
| Alpha Testing performed at developer’s site | Beta testing is performed at a client location or end user of the product |
| Reliability and [Security Testing](https://www.guru99.com/what-is-security-testing.html) are not performed  in-depth Alpha Testing | Reliability, Security, Robustness are checked during Beta Testing |
| Alpha testing involves both the white box and black box techniques | Beta Testing typically uses [Black Box Testing](https://www.guru99.com/black-box-testing.html) |
| Alpha testing requires a lab environment or testing environment | Beta testing doesn’t require any lab environment or testing environment. The software is made available to the public and  is said to be real time environment |
| Long execution cycle may be required for Alpha testing | Only a few weeks of execution are required for Beta testing |
| Critical issues or fixes can be addressed by developers immediately in Alpha testing | Most of the issues or feedback is collected from Beta testing will be implemented in future versions of the product |
| Alpha testing is to ensure the quality of the product before moving to Beta testing | Beta testing also concentrates on the quality of the product, but gathers users input on the product and ensures that the product is ready for real time users. |

**Entrance Criteria for Beta Testing:**

* Sign off a document on Alpha testing
* Beta version of the software should be ready
* Environment ready to release the software application to the public
* Tool to capture real time faults

**Advantages of Beta Testing**

* Reduces product failure risk via customer validation.
* Beta Testing allows a company to test post-launch infrastructure.
* Improves product quality via customer feedback
* Cost effective compared to similar data gathering methods
* Creates goodwill with customers and increases customer satisfaction