

Blu-ray Disc (BD), sometimes called "Blu-ray", is an [optical disc storage](#) medium designed to supersede the standard [DVD](#) format. Its main uses are for storing [high-definition video](#), [PlayStation 3](#) video games, and other [data](#), with up to 25 GB per single layered, and 50 GB per dual layered disc. The disc has the same physical dimensions as standard [DVDs](#) and [CDs](#).

The name *Blu-ray Disc* derives from the [blue-violet laser](#) used to read the disc. While a standard [DVD](#) uses a 650 [nanometer](#) red laser, Blu-ray uses a shorter [wavelength](#), a 405 nm blue-violet laser, and allows for almost six times more data storage than a DVD.

During the [format war over high-definition optical discs](#), Blu-ray competed with the [HD DVD](#) format. [Toshiba](#), the main company supporting HD DVD, ceded in February 2008, and the [format war](#) ended;^[2] in July 2009, Toshiba announced plans to put out its own Blu-ray Disc device by the end of 2009.^[3]

Blu-ray Disc was developed by the [Blu-ray Disc Association](#), a group representing makers of consumer electronics, computer hardware, and motion pictures. As of June 2009, more than 1500 Blu-ray disc titles are available in Australia, 2500 in Japan, 1500 in the United Kingdom, and 2500 in the United States and Canada.^{[4][5]}

History of Blu-ray Disc

When the CD was introduced in the early '80s, it meant an enormous leap from traditional media. Not only did it offer a significant improvement in audio quality, its primary application, but its 650 MB storage capacity also meant a giant leap in data storage and retrieval. For the first time, there was a universal standard for pre-recorded, recordable and rewritable media, offering the best quality and features consumers could wish for themselves, at very low costs.

Although the CD was a very useful medium for the recording and distribution of audio and some modest data applications, demand for a new medium offering higher storage capacities rose in the '90s. These demands lead to the evolution of the DVD specification and a 5-10 x increase in capacity. This enabled high quality, standard definition video distribution and recording. Furthermore, the increased capacity accommodated more demanding data applications. At the same time, the DVD spec used the same form factor as the CD, allowing for seamless migration to the next generation format and offering full backwards compatibility.

Now, in the next millennium, high definition video demands a new solution. History proved that a significant 5-10 x increase in storage capacity and the ability to play previous generation formats are key elements for a new format to succeed. This new format has arrived with the advent of Blu-ray Disc, the only format that offers a considerable increase in storage capacity with its 25 to 50 GB data capacity. This allows for the next big application of optical media: the distribution and recording of high definition video in the highest possible quality. In fact, no other format can offer the data capacity of Blu-ray Disc, and no other format will allow for the same high video quality and interactive features to create the ultimate user experience. As with DVD, the Blu-ray Disc format is based on the same, bare disc physical form factor, allowing for compatibility with CD and DVD.