

## White Paper

# The Truth About Interactive Whiteboard Resolution

### Why higher resolution does not always mean greater accuracy

When it comes to the resolution of interactive whiteboards, *higher resolution* does not equate to *greater accuracy*.

From time to time, people ask us about the resolution of our interactive whiteboards. They have heard that the higher the resolution, the greater their ability to touch and select small items on the interactive whiteboard screen.

## Getting Clear About Resolution

The definition of resolution varies, depending on what exactly you are talking about. If people tell you that their interactive whiteboard has a higher resolution than the one you own or want to purchase, ask them if they mean touch resolution or projector resolution.

### Touch resolution

Interactive whiteboard resolution is measured by the number of contact points, or touch points, that the screen can potentially register. For example, a SMART Board™ 600 series interactive whiteboard has a touch resolution of 4096 x 4096. Multiplied together, those numbers represent more than 16 million unique points on the interactive whiteboard's surface that can interpret inputs when you touch the screen with a finger or pen.

### Projector resolution

Digital projectors have a resolution measured in pixels. These are the number of tiny dots that together form an image on a screen. Most modern projectors have XGA resolution, which is represented as 1024 x 768 for a total of 768,432 pixels. An SXGA projector offers 1280 x 1024 or approximately 1.31 million pixels. The resolution of the projector is further determined by the resolution information received from the computer to which the projector is attached. If you set your computer resolution to 800 x 600, and your projector is capable of processing 1024 x 768, the projected image will be 800 x 600. If you set your computer resolution to 1400 x 1050 and your projector is capable of processing 1024 x 768, the projected image will be 1024 x 768.

Here is the important point: the interactive whiteboard is a projection surface, not a monitor. It displays only what is projected onto it by another device – a projector.


A quick calculation shows how the SMART Board 600 series interactive whiteboard provides resolution that more than meets your needs – today and in the future.

	Product	Resolution	Total points
<b>A</b>	SMART Board interactive whiteboard	4096 x 4096 points	16.78 million
<b>B</b>	Average high-resolution projector (SXGA)	1280 x 1024 pixels	1.31 million
<b>A minus B</b>	Extra points of resolution	16.78 million – 1.31 million	15.47 million


## The Conclusion

The SMART Board interactive whiteboard is capable of handling 15 million more pieces of information than a typical projector can deliver. Accuracy and touch precision are not influenced by the resolution of the interactive whiteboard.

**Projector resolution is the limiting factor  
– not the interactive whiteboard**



Native resolution is more than 16 million pixels (4096x4096)



Projector resolution is 1.31 million pixels (1280x1024)

## Technology for Today and the Future

When thinking about resolution, remember that as long as the interactive whiteboard's native resolution is greater than the projector's resolution, there is no impact on the performance of your interactive whiteboard. With the resolution of SMART Board interactive whiteboards 15–20 times greater than today's standard projectors, the product will meet your needs today and in the future.

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