Project case Study No. 37



Start spreading the news...

C2S Systems are part of the WTS Broadcast group specializing in the International broadcast TV and media sectors. C2S systems approached SmartGlass International following the success of the ITV Daybreak studio project which was carried out in August 2010.

This studio project is a joint venture between global news network, The Associated Press and WTS Broadcast. The Associated Press is the world's largest global news network, delivering fast, unbiased news from every corner of the world to all media platforms and formats. In fact, on any given day, more than half the world's population sees news from the AP.

Founded in 1846, the AP today is one of the largest and most trusted sources of independent newsgathering. The AP considers itself to be the backbone of the world's information system, serving thousands of daily newspaper, radio, television, and online customers with coverage in text, photos, graphics, audio and video.

SmartGlass International's SPD SmartGlass was specified for this state of the art television studio project to create a solar control glazing system that would combat the negative effects of direct sunlight including glare and heat.

Project

Glass facades and particularly television studio backdrops are significantly complex to design as lighting and temperature are often affected by solar glare and heat passing through windows.

C2S Systems were faced with a design issue – how would they achieve flawless lighting and an ideal room temperature while still showcasing the London skyline as the backdrop to all five of the studios?

The design brief centres on the glass in the studios having the ability to instantly switch to maximize daylight when it's really needed and to provide controllable solar shading during peak light conditions, a feature which is both valuable and unique. This feature is especially useful for application in a television studio as it allows for maximum daylight to enter without compromising recording quality and controls room temperature which is also critical in this particular environment.



News stations will broadcast news at various different times throughout the day meaning the levels of sunlight entering the studio will vary and the glass will need to be "tuned-in" to facilitate studio lighting conditions. Associated Press specified that the London skyline would feature as the backdrop to all five of the television studios.



The iconic "London Eye" can clearly be seen capturing the attention of viewers immediately. The famous "London Shard" will also feature in the skyline to the left view of the central studios backdrop.

When completed in 2012, it will be the tallest building in the European Union and the 45th tallest building in the world. SPD SmartGlass is the ideal solution for a project of this type precisely meeting the design brief.





Client: Associated Press/WTS Broadcast

Date: January 2011





SmartGlass International

SmartGlass International is the leading worldwide manufacturer of electronically switchable glass and provides the perfect solution to this design problem. SmartGlass can be used in almost every glazing application as it is available in a number of various shapes and can also be curved making it suitable for a range of different applications and projects. SmartGlass International manufactures two switchable glass products, LC SmartGlass for instant privacy and SPD SmartGlass for solar and light control.

SPD SmartGlass

SPD-SmartGlass can be manually or automatically "tuned" to precisely control the amount of light, glare and heat passing through a window. While glass is a favored product for use in building facades; glare, solar heat gain and UV exposure are problematic and can often make the use of glass impractical resulting in the need to invest in expensive solar shading devices. Glass facades using patented SPD light-control technology reduce the need for air conditioning during the summer months and heating during winter.



In this case, the glass facade can be automatically dimmed from clear to dark controlling glare and solar heat gain while protecting the studio inhabitants from the damaging effects of UV.

SPD SmartGlass has lots of advantages which complement the abilities described above including energy savings on cooling and light costs, reduction of buildings carbon emissions and elimination of the need for expensive window dressings.



The University of Cambridge carried out a study on the energy saving potential of SPD smart glass. The main findings were that:

- Solar gain can be reduced by up to 90% in SPD smart glass windows when compared to regular float glazing.
- In all states of transparency the glass rejects over 99% of UV light transmission.
- SPD glass was able to provide a much more uniform and comfortable internal room temperature than regular single float glazing, with fluctuations of only 2° C compared with 8° C.

For more information on past SmartGlass International projects and the ITV Daybreak television studio project visit the case studies section of our website on www.smartglassinternational.com.

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