

Case Study:

# BBC Mailbox

A turnkey installation of 27 state-of-the-art digital studios



With space at a premium, each recording environment needed to be effectively acoustically isolated from one another.



In one of the biggest studio projects the company has ever undertaken, IAC Acoustics, world leader in acoustic engineering, has designed and installed 27 state-of-the-art digital studios for the BBC's new broadcasting centre at The Mailbox in Birmingham.

The purpose-built, 100,000sq ft facility replaces Pebble Mill and occupies two floors of a building that also houses hotels, shops, restaurants and apartments. Providing public access presented particular design challenges to the team: Building Design Partnership (architects, structural and environmental engineers), BDP Acoustics, ISG Interior Exterior plc (management contractor) and IAC Acoustics.



It was the low weight-loading capacity of the building that brought the architects to us - and our lightweight Moduline™ product. It's highly flexible, and because each component is acoustically-rated, it gives great acoustic quality as well." Moduline™ is also a self-supporting system that does not necessitate walls to be full height between floor slabs so a space could be left above the studios for a service void. Walls, floors and ceilings are constructed from 100mm thick acoustic panels into which high performance Noise-Lock doors and windows and internal tuner panels and acoustic plaques are fitted. Years of lab and field tests meant the architects were guaranteed Moduline's excellent acoustic performance.

state-of-the-art TV studio. Ian Rich again: "Each acoustically-sensitive area is a 'room-within-a-room'. Each inner chamber has a floating floor supported on anti-vibration mountings. Twin magnetic seal acoustic doors are integrated into the structure and we custom-designed the vision panels. Manufacture was complex as some have glass up to 32mm thick and many needed low reflective properties."



**Moduline Building System**

Ian Rich, IAC's Sales Manager for Studios said: "We won the tender In January 2002 against tough acoustic and aesthetic criteria.

**Studio Design**

The 27 studios range from Control / editing rooms, voiceover booths, radio studios and post production suites, through to a full-scale,

**Acoustic Tuner Panels & Plaques**

Stylish and resilient wood, metal and fabric acoustic plaques stand off the walls to accommodate a tuning zone behind them which is filled with acoustic panel absorbers and wrapped fibreglass. Ceilings are finished with sophisticated acoustic metal tiles within a plasterboard perimeter and raised flooring throughout facilitates technical wiring for the broadcasting equipment.

### Acoustic Doors

27 IAC STC-53 rated Noise-Lock® acoustic doors were fitted into the digital studios at The Mailbox. The customised, single, double and link acoustic doors were fitted with twin magnetic seals and included various glazing types.



### Acoustic Glass Wall

This glass wall is 3.2m high by 8.5m wide and incorporates a frameless glass door.



### Acoustics & Style

Other acoustic rooms include a four-studio radio suite, audio workshops, NPA and NCA booths, finishing suites, foley room and dubbing area.

### Drama Suite - Home To The Archers

For the first time in 30 years, Birmingham's public will be able to view BBC radio in action, The suite of six radio studios located around an operation room in the centre has extensive glazing between studios and two windows into the public area in the foyer.



The drama suite is perhaps the most exciting of all the studios, Home to the world-renowned radio UK farming soap The Archers, IAC supplied most fittings needed for recording sound effects: carpet and hardwood flooring areas, 'false' doors and even sinks with running water.



### Project Management

IAC project managed the design and installation of all 27 studios over 18 months. It took 25 acoustic fitters and 3 site managers to create this state-of-the-art studio environment — a fitting home for the world's best broadcaster.

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