

Nimbus

Mastering the Classics ~ on DAT

**AUDIO MEDIA
tracked down
Nimbus to their
estate at Wyastone
Leys, just outside
Monmouth, to talk
about the
company's purist
approach to
recording, and their
experiences with
mastering on the
DAT format.**

Nimbus is outwardly something of an anomaly — its estate in the heart of the Monmouthshire countryside combines the traditional with the modern. The same is true of its approach to recording, particularly in the case of its specialist *Prima Voce* label. Nimbus also combines this dichotomy between art and business within its ownership — it was founded, in the 1950s, by Count Alexander Numa Labinsky, with co-directors Gerald and Michael Reynolds. The results, however, are spectacular, underlining the maxim that technology and tradition can go hand in hand.

Nimbus is also one of the few companies to emerge unscathed, and if anything stronger, from the auspices of the Maxwell empire, celebrating its escape just one year ago. Out of that situation arose two freestanding companies — Nimbus Manufacturing in Cwmbran, whose core business involves CD and CD-ROM duplication, and Monmouth-based Nimbus Communications International.

The latter company is the parent of the independent record label, Nimbus Records, as well as the recently formed Nimbus Technology and Engineering. Here, the focus is on developing and manufacturing the Nimbus-Halliday laser mastering system which is now sold worldwide, plus research and development into new technologies — the



The specially-designed Nimbus Halliday Ambisonic Microphone array, shown with an EMG c1935 "Expert" Gramophone.

latest of which to cause a stir is the Nimbus Video CD system.

Behind The Labels

The aspect which differentiates the Nimbus approach most fundamentally in this age of technological wizardry is that of simplicity — believing that the performance is fundamental and should be preserved without interference from edits, effects and studio technology in general. In each case, artists are encouraged to record as if to a full house, removing the temptation to stop and correct every wrong note. The aim is to preserve the 'live' and unique aspects of each recording, which rely on a complex mix of skill, atmosphere and environment.

Although this may appear to be flying in the face of convention, translating these performances into quality recordings involves a fair complement of sophisticated equipment — from the DAT recorder through to the use of



Ambisonic Surround Sound and the specially-designed Nimbus Halliday microphone.

At the heart of Nimbus' recordings is the Ambisonic Surround Sound recording and playback system, first developed in the mid 1980s. Designed to create a vivid, three-dimensional sound picture, the Ambisonic technique aims to reproduce both the positions of the performers as well as the sound of the venue, providing a sense of depth that reflects the overall atmosphere of the recording location. This is enhanced by the use of a single point microphone system, developed by Dr Jonathan Halliday to complement the Ambisonic approach.

His belief that a single microphone most closely equates to what is perceived by the human hearing mechanism at a musical performance has been translated into a composite array using three transducers. One focuses on the front to rear image, a second on left to right, with the third acting in omnidirectional mode, capturing both direct

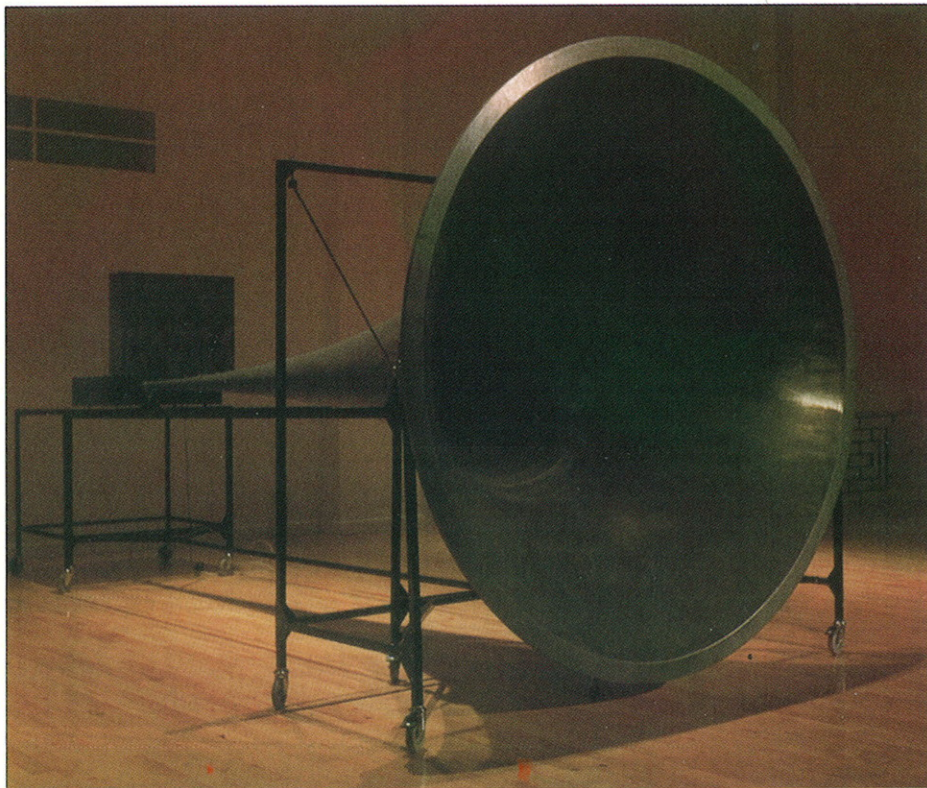
and reflected sound and preserving the natural balance between the artists. Once captured, the recording is left intact without any subsequent mixing, manipulation or compression.

Purism In Practice

These principles were demonstrated to us during a recording session taking place in Nimbus' custom-built concert hall on the estate. The Franz Schubert String Quartet from Vienna were recording the latest in a number of classical successes under the Nimbus label. After a brief balance session, they moved into full performance mode — all of which was recorded simultaneously on two Sony PCM7010 DATs using 3M Professional R90 tapes. The session was supervised by Nimbus' assistant music director, Geraint Lewis: "We are dealing with musicians of the very highest calibre, bringing years of experience to these recordings. They ►

Wyastone Leys, Headquarters of Nimbus Communications International.

Nimbus



The 5.5 metre exponential horn, called "Saddam".

The team worked closely over the past three years to crack the problem of unlocking the original sound, involving a return to the original thorn needles, as well as mammoth horns. The theory is that the Nimbus technique exactly mirrors that of the original recordings, whereby the artist used to stand in front of the hot wax system, singing into the horn. The process is now reversed, with the Nimbus-Halliday microphone system placed strategically in front of the massive horn. Thorn needles are used to playback the 78s, moulding themselves to the grooves and lasting all of 30 seconds a go! DAT does the rest. Nimbus has relented on one front, however, and added an electric turntable to the original system.

Each CD can take up to a month of studio time. The only licence the team allows itself is to edit out clicks individually, eschewing automated options such as the CEDAR system as being too intrusive. Dominic stresses that this is the only way to preserve quality, despite the fact that it can take several days to complete. He is also a master of the cross-fade, for the same reasons.

On Location With World Music

The third label in the family is *World Music*, which aims to popularise and recognise the great musical traditions of the world. The most recent project took producer Robin Broadbank to Paraguay and Brazil, where he was recording, amongst others, Pernambuco band Oficina de Cordas (String Workshop) and Paraguayan Polcas and Chamames — popular forms of local song featuring the harp, guitar and accordion. Using a minimalist set-up of DAT machine (Sony PCM2000), Ambisonic encoder (Calrec or Minim portable) and microphone (Nimbus-Halliday or AMS ST-250 Soundfield), Robin's focus is on capturing the vitality of the music in performance. This process can sometimes be hampered by local conditions — a car battery had to provide the

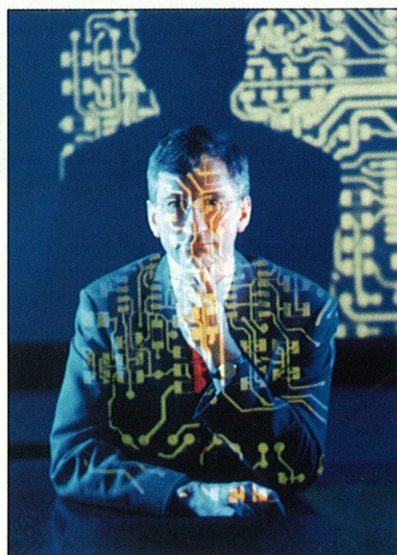
source of electricity for the equipment in Paraguay. He comments on the technical challenge such recordings present: "Portable DAT equipment has been a god-send to anyone involved with location sound recording. Combine it with a venue with a decent acoustic and a first-class microphone, and you get some astonishingly good results. I never use studios; they seem to have an in-built, low-level boredom threshold to do with the ease of going over material again and again. I like to work quickly. Most of the Cante Flamenco CD, for example, was recorded in the heart (and heat!) of Andalusia. This

certainly gets the adrenalin going, on both sides of the microphone! "If I am travelling by car, and can use mains supply at the venue, I'll take the

Prima Voce — The Quest For The Original Sound

In addition to their mainstream Classical recordings, Nimbus has also established a worldwide reputation for transferring early 78rpm masterpieces onto CD. Nimbus relies on the expertise of consultant Norman White to scour the globe looking for pristine 78s, suitable for transfer. Apparently, central Europe, and the former Soviet republics in particular, are starting to yield a wealth of riches.

The same minimalist approach is used, together with largely identical recording techniques — with one big exception, the use of a massive exponential horn 5.5 metres long and with a mouth some two metres across. Designed to ensure that even the lowest registers are faithfully captured, the horn (affectionately known as "Saddam") reproduces well into the second lowest octave on the piano, down to 60Hz. It is the result of considerable research, undertaken by Gerald Reynolds himself. Enrico Caruso, Jussi Bjorling and Adelina Patti are a few of the great names which have been given the Saddam treatment!



Research Director, Dr Jonathan Halliday.

► look to us to preserve the integrity of their music, reflecting their individual expression and artistry. The technology cannot be allowed to get in the way of this process — it must simply aid it and reflect it faithfully."

Classic Masters

Nimbus use the DAT format for the vast majority of their mastering now, apart from rare occasions where U-Matic is the second option. Given the 'single take' approach of their recordings, and what some consider to be DAT's comparatively unproven track record, we asked why they had elected to follow this route.

To quote producer Dominic Fyfe: "There is no doubt that DAT provides the most convenient option for both location work and archiving. It reduces the sheer volume of tape we have to deal with, particularly as everything is recorded on two machines simultaneously. Much of our work is in the field — sometimes in extremely remote locations for the World Music recordings — and portability is very important to us. So too is the ability to place IDs, to find and locate tracks quickly and check that, for example, the last note finishes cleanly between takes — a function which DAT performs excellently."

"We are very concerned with issues of quality, involving rigorous and careful maintenance of the field equipment through to the choice of tape we use. We conducted extensive tests via our manufacturing facility into the 3M Professional DAT tapes, which proved, on the bench and in the field, to be highly reliable. We quite often don't get a second chance with a recording, so everything has to be right first time."