SURROUND MIKING TECHNIQUE
FOR ORCHESTRAL

When we first decided to do this project, both of us were baffled by the amount of pre-production that we had to do. From mic input lists to actually learning about 5.1 microphones and miking techniques, we had to cover everything in a matter of days.

The first couple of shortlisted techniques were OCT surround, Decca tree with Hamasaki Square, dual ORTF and Fukada tree. We found out that Fukada tree was the best microphone technique with our given assets from SAE Byron bay and the capabilities of our recording studio.

ABOUT FUKADA TREE

Fukada tree is one of the most underutilised 5.1 surround techniques as it has one of the best down mixing results from 5.1 to stereo. Fukuda tree facilities one of the best down mixing results from 5.1 to stereo, albeit an underutilised 5.1 surround technique.
This is due to the two Omni capsules on either end of the technique. Some also say that Fukada is OCT surround. On stereo steroids! The ratio for the distances we went for was 1.8m between L, and R.
C was another 0.8m forward. And the two Omni's on the extremes were another 0.6m apart. The SL and SR were equidistant from L and R in relation to the Omni's Because of such tight measurements in comparison to the huge sound stage; we could achieve the explosive 5.1 immersion at the other end. Also, the equal distance between the surrounds and the Omni's helped achieve what engineer's call 'Decca tree Downmix.'
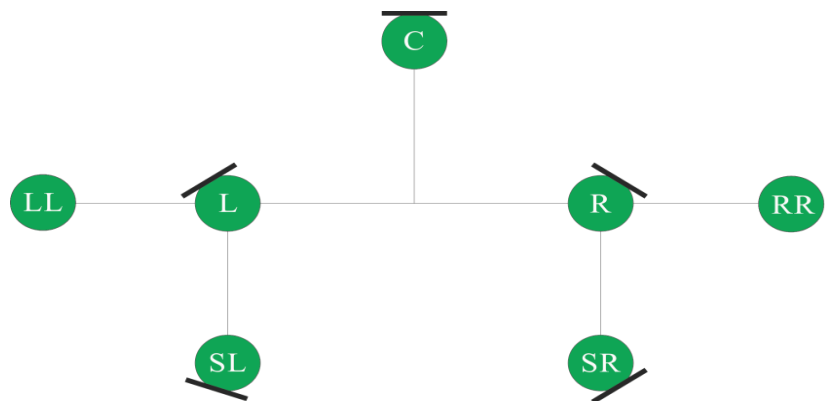
Microphones used in the technique were as follows:

LEFT	RIGHT	CENTER	L SURR	R SURR	LL	RR
U87i	U87i	NTR	NT2A	NT2A	KM183	KM183
1.8 from R	1.8 from L	0.8 from L R line	0.6m from L	0.6m from R	0.6m from L	0.6m from R

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Other Mics used were

- An A-B flown around 2.5m high parallel to the centre mic, both tilted in an angle of 45^0 inwards.
- 4 spot mics on each string instrument: violins, viola and cello.
  The mics included TLM 103, TLM 102, AKG C414 ULS, and
  Neumann M147

Please download the input list to know more about patching.

Regards

Vaishnav & Jarmila