Subject: Organ Reed Stops - Love Them or Hate Them
Posted by FredT on Wed, 06 Apr 2005 12:20:41 GMT
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The two manual Allen organs typically have two speaker cabinets for each manual plus a subwoofer. The principals and reeds for each manual play through one cabinet and the flute stops throught the other. The pedal stops are divided between the two flute cabinets, whose lowest two octaves (16-64hz) are augmented by the separately amplified subwoofer.There might be one of two problems with the reed stop that causes your eyes to cross - if it sounds distorted it's turned too loud and overdriving the midrange and high frequency drivers into nonlinear excursions. This is a very common problem with the smaller digital organs - the folks who install them turn them as loud as the equivalent pipe organ would sound (100+dB at 10-20 ft distance), which is too loud for the speakers to handle, and you get a noticable amount of harmonic and intermoduation distortion when the loud reed stops and/or the full organ are played. Only an audiophile would notice anything is wrong because everyone else believes it's normal for loud music to be distorted.The larger Allen organs solve this problem by using many speaker cabinets including high efficiency cabinets for the more powerful solo reed stops. The new four manual Allen organ at 1st Methodist in Houston has 160 speaker cabinets. That may sound like overkill, but it's the equivalent of a pipe organ that would have more than 5,000 pipes. With all the stops drawn this organ really does sound glorious, but if it has been designed with too few independent signal paths (separate DAC's, amps and speaker cabinets) it would sound really crappy.If the reed stop isn't distorted but sounds thin and strident it's probably intended to sound that way. One popular solo reed stop on pipe organs is a trompette en chamade (horizontal trumpet) voiced on high wind pressure and often used to play the solo trumpet line of a fanfare like the ones Purcell, Handle, and Clarke wrote in the 18th century. The Royal Trumpet stops in the organ at St Pauls Cathedral in London are voiced on very high wind pressure and sound to me like a tuned diesel locomotive whistle. It's thrilling when the organist plays a fanfare on them with antiphonal responses from the full main organ (10,000+ pipes) which is located about two football fields away at the other end of the sanctuary. But it's one of those things you either love or you hate; everyone who hears it is moved, either to extasy or to the nearest exit.For a sample of a Trompette en Chamade go to track four on the link below. It's Michael Murray playing the Purcell Trumpet Tune, with the trumpet part played on the State Trumpet Stop of the 143 rank E.M. Skinner organ at the Cathedral of St John the Divine.
Purcell Trumpet Tune - Track 4