



EMS
Engineering & Mfg Services, Inc.

Success Spotlight

EMS 3D Scans an Entire Mansion

When building a 10 million dollar mansion usually few expenses are spared. In the case of a large mansion built on Tampa Bay, FL the entire house was built with all concrete exterior including the roof, $\frac{3}{4}$ " thick glass in all the windows and the ability to withstand 250mph hurricane force winds.

The Problem

The house was going to have some very expensive marble, granite and other stonework on the inside and the outside of the house. Because of the cost of this and the fact the stone would be fabricated overseas it was very important to manufacturer the stone to the exact size and shape. Using 2D drawings of the house wouldn't guarantee the information was correct as it's not uncommon in construction that actual building doesn't perfectly match the 2D drawings.

The Solution

EMS was contacted to 3D scan the house. This included the entire outside of the house, roof, swimming pool, outside stairways, drive up entrance overhang and main interior entrance and grand stairway inside the house. Using their Surphaser long range 3D scanner, EMS spent 3 days scanning the entire house taking over 50 scans and collecting 60 gigabytes of data. Once the data was collected EMS converted all the scan data in a feature based solid model. The detail the Surphaser 3D Scanner was able to gather allowed for a very precise and detailed model. Slight imperfections in the concrete could then be factored into the manufacturing of the stone work. And because this stone work was being done overseas this would save a lot of time and money by not having to rework the stone on-site.

Conclusion

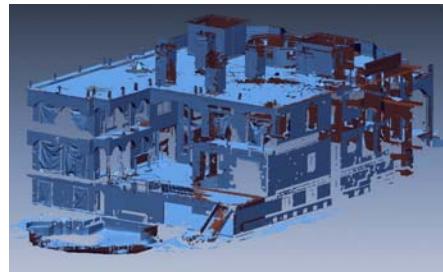
Most people couldn't justify the expense of 3D scanning their own house for manufacturing but when it comes to large, expensive custom built homes the savings in time and mistakes can make it well worth it.

When it comes to 3D scanning large objects such as buildings, aircraft, vehicles, plants, bridges and other objects EMS has the ability accurately do so using the best 3D Scanning and CAD modeling equipment on the market.

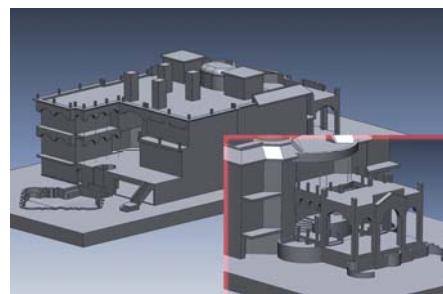
Visit www.ems-usa.com for more information.



Bay Side of the Mansion



Over 60 Gigabytes of raw
3D scan data



Finished 3D CAD Model. Inset shows
The front entrance