

## TIA Portal Application Awards - 2012 FieldTurf

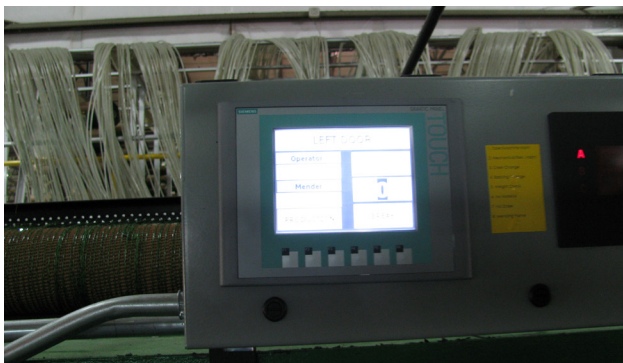
**Company Name:** FieldTurf

**Location of Application:** 175 North Ind. Blvd  
Calhoun, Georgia 30701

**Website:** [www.fieldturf.com](http://www.fieldturf.com)

**Key Business Activities:** Manufacturer of artificial turf systems, specialized for football, baseball and soccer fields, golf, residential and commercial landscaping, playgrounds, pets and even airports.

**Name of Application:** Tufting Machine Monitoring and First Out System



**Description of Application:** Application allows any maintenance personal to walk up to the machine and be able to troubleshoot if the machine is down electrically. The HMI will display what's holding the machine out. On the monitoring side of the application you can keep up with each machines' efficiency and look at all your different downtime codes.

### What challenges led you to look at a new solution?

The main challenge that FieldTurf faced was to reduce the downtime on their tufting machines, whether that was waiting for raw material or other faults on the machine. They wanted their maintenance to be able to walk up to any non-running machine and to troubleshoot it without having to go online with the PLC or pull out a meter to debug any electrical faults. Therefore they needed all possible diagnostic faults to appear on a HMI panel, with clear instructions for the operator, as well as a way to data log the reasons and lengths of downtime on a machine. They also needed a cost effective control solution with the functionality they needed.

### What Siemens automation products were chosen for this project and why?

To meet their challenges, FieldTurf selected the S71214 PLC, KTP600 Basic Panel, along with local digital and analog I/O cards. These products were selected because the PLC and HMI panel provided the features and functionality that Fieldturf required at a competitive price. In addition, they were engineered and commissioned inside one project using the TIA Portal engineering software, which made the whole process much easier.

### What features in the TIA Portal addressed your project challenges?

The main feature for FieldTurf in the TIA Portal was the ability to have all the PLCs and HMIs for all their tufting machines inside one project. This made the management of these projects much easier. The Device and Networks editor allowed for easy communication setup via simple drag and drop functions between the PLCs, HMIs and Client PC collecting the downtime data. The integrated Modbus blocks also allowed for easy communication. The diagnostic and alarming features built in to the PLC and HMI engineering software made it easy to troubleshoot down machines, with all possible faults displayed on the HMI.

### How has your business improved?

The use of the TIA Portal software, combined with the S71200 PLCs and Basic Panels has resulted in a lot less downtime of the tufting machines, in regards to electrical faults or lack of material. With this current configuration it is much easier to collect and log downtimes and so make their processes much more efficient. In addition, Fieldturf stated that in comparison to another automation vendor, they reduced their engineering development and commissioning time by approximately 15% by using the TIA Portal software.

