![Rain Bird logo]

Prince Mohammad Bin Fahd University, Saudi Arabia

**RAIN BIRD INTERNATIONAL
SERVICE ENGINEER**
Amr Hussein

**LANDSCAPE AND IRRIGATION SERVICES
DEPARTMENT**
Engr. Sami A. Hassanin

RAIN BIRD PRODUCTS:
• Maxicom2® Central Control
• Maxicom2® Cluster Control Unit
• ESP-SAT 12, 24, 36, 48 Station Controllers
• Site-SAT 12, 24, 36, 48 Station Controllers
• Flow Sensors
• Weather Station
• Disc Filters

"Maxicom has allowed us to efficiently manage the irrigation system and safeguard the operation of our pumps."

— Engr. Sami A. Hassanin
Head, Landscape & Irrigation Services Department
Engineering & Technical Affaires
Prince Mohammad Bin Fahd University

PROJECT OVERVIEW:

Prince Mohammad Bin Fahd University (PMU) is located on the eastern coast of Saudi Arabia next to Half Moon Bay and the Arab Gulf. Water for irrigation is either supplied by the city or drawn from underground wells and stored in tanks. The landscape department recently upgraded their central control system to Maxicom2® Central Control so they could automatically control which booster pump is used based on water tank levels.

CHALLENGE:

The irrigation system at PMU is connected to three booster pumps. Which booster pump is used varies based on the available water supply. The first two pumps are each connected to a storage tank; one tank for ordinary water and one tank for treated water. The third pump draws water directly from the well to fill either of the tanks or to supply water directly to the irrigation system when both tanks are at low fill levels. To protect each of the tank pumps from running when the water level was low which could damage the booster pumps, the landscape department would monitor tank fill levels daily and manually switch which pump was used to complete the irrigation schedule.

RESULTS:

"Using Maxicom's 'if-then' programming logic, I was able to create irrigation schedules that helped the operations team automatically control which pump was used based on tank fill levels," said Amr Hussien, Rain Bird International's service engineer. The Maxicom 'if-then' logic ensures the ESP-SAT Controllers connected to the pumps and tank float switches check tank water levels first before using water from either of the tanks.

During the irrigation cycle, if the tank water level falls below the low fill level, Maxicom interrupts the schedule and uses water from the other tank or well to complete the irrigation cycle. If neither tank has adequate water levels, Maxicom uses the well pump to get water directly from the well. Maxicom is also used to turn the well pump on to fill the tank if the water level is below the low fill level, and switch the pump off after the tank is full.

Using Maxicom to automatically control which pump is used for irrigation, and to maintain adequate storage tank fill levels has helped the University manage the irrigation system more efficiently, and helped protect the pumps from damage.

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