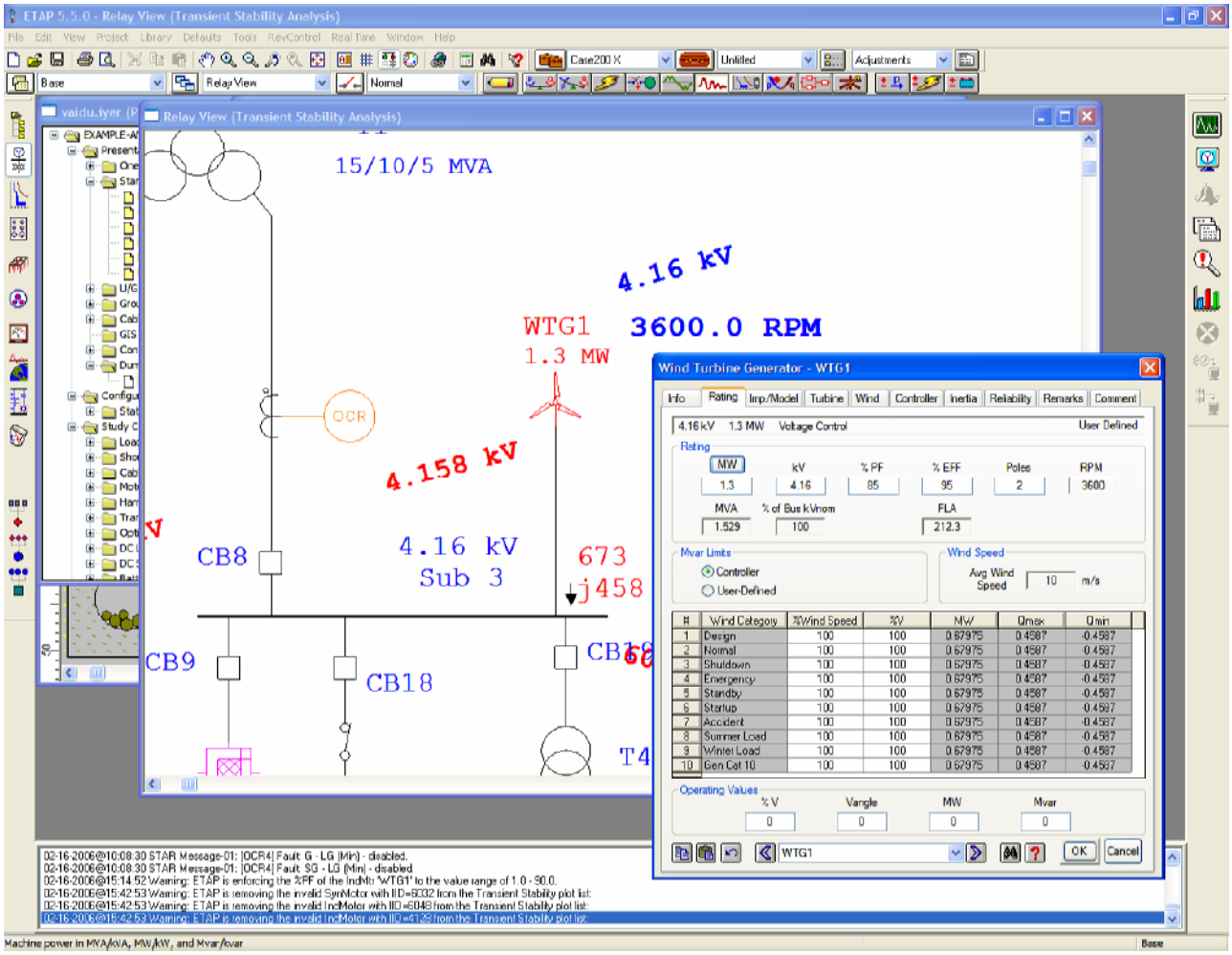
Wind Turbine Generator (WTG)

The Wind Turbine Generator module is an important new addition to ETAP 5.5. It allows you to design and monitor wind farms in a highly flexible graphic interface optimized for both simulation and analysis. The WTG module is fully integrated to work with all ETAP calculation modules such as GIS Map, Harmonic Analysis, Load Flow, Optimal Capacitor Placement, Device Coordination, ETAP Real-Time, and Transient Stability. Place simulated disturbances and view the impact on the wind farm to model alternative turbine placement, the installation of protective devices, and other corrective actions.

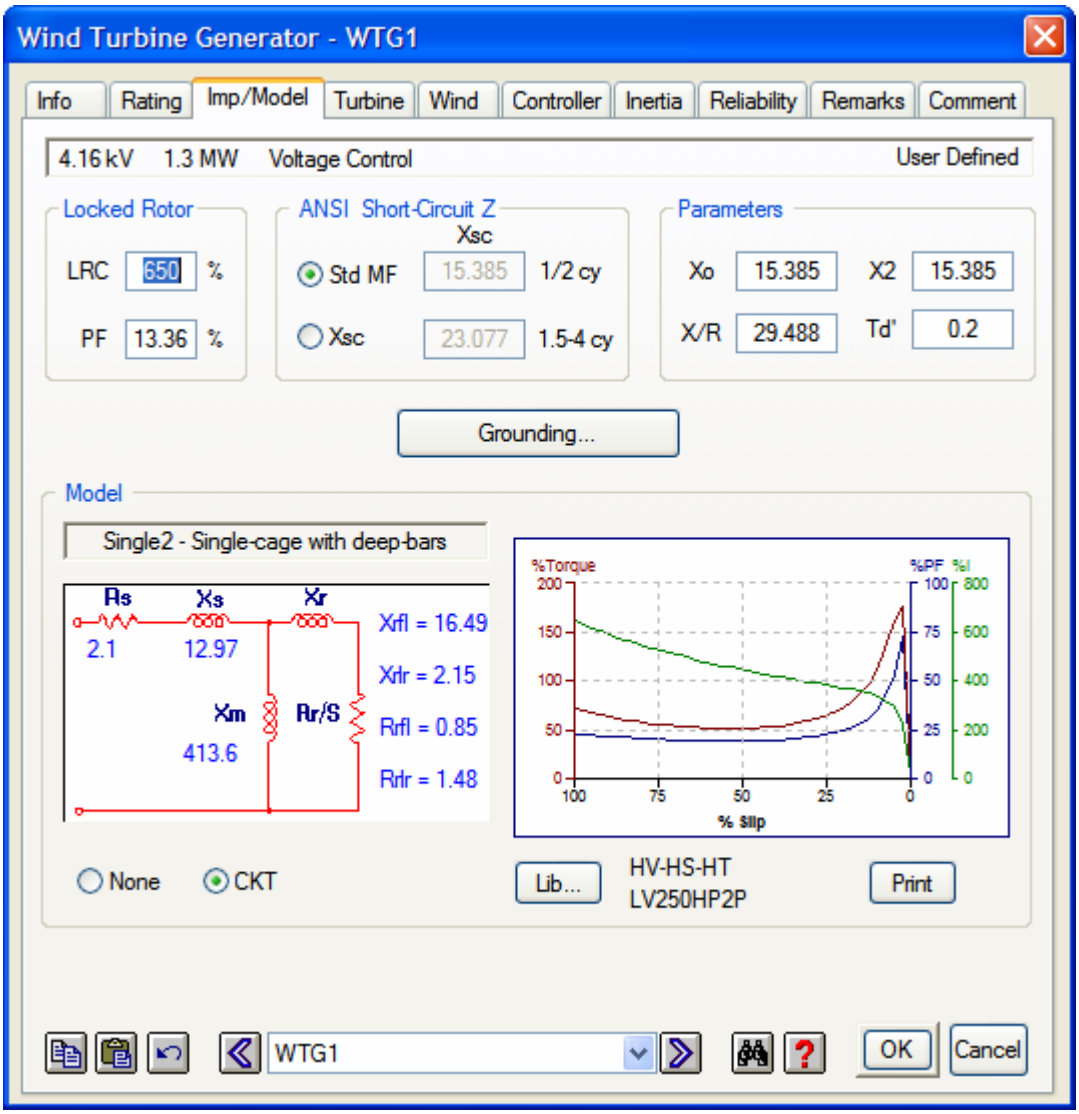
The ETAP WTG module comes to market with proven utility. It is currently being used for real-time monitoring of power exchange between wind turbines and the power grid for the third largest wind farm in the United States. Features of the new Wind Turbine module include:

- Model wind turbine generators individually, or in groups
- Model detailed turbine dynamics including aerodynamics and power coefficients
- Model doubly-feed machines with pitch and converter controller characteristics
- Model multiple wind speed with ramp, gust, & noise disturbances
- Create multiple generation categories for predictive “what if” studies
- Perform transient stability analysis with individual or zone-based disturbances
- Run one instance or continuous steady-state calculations in analysis mode

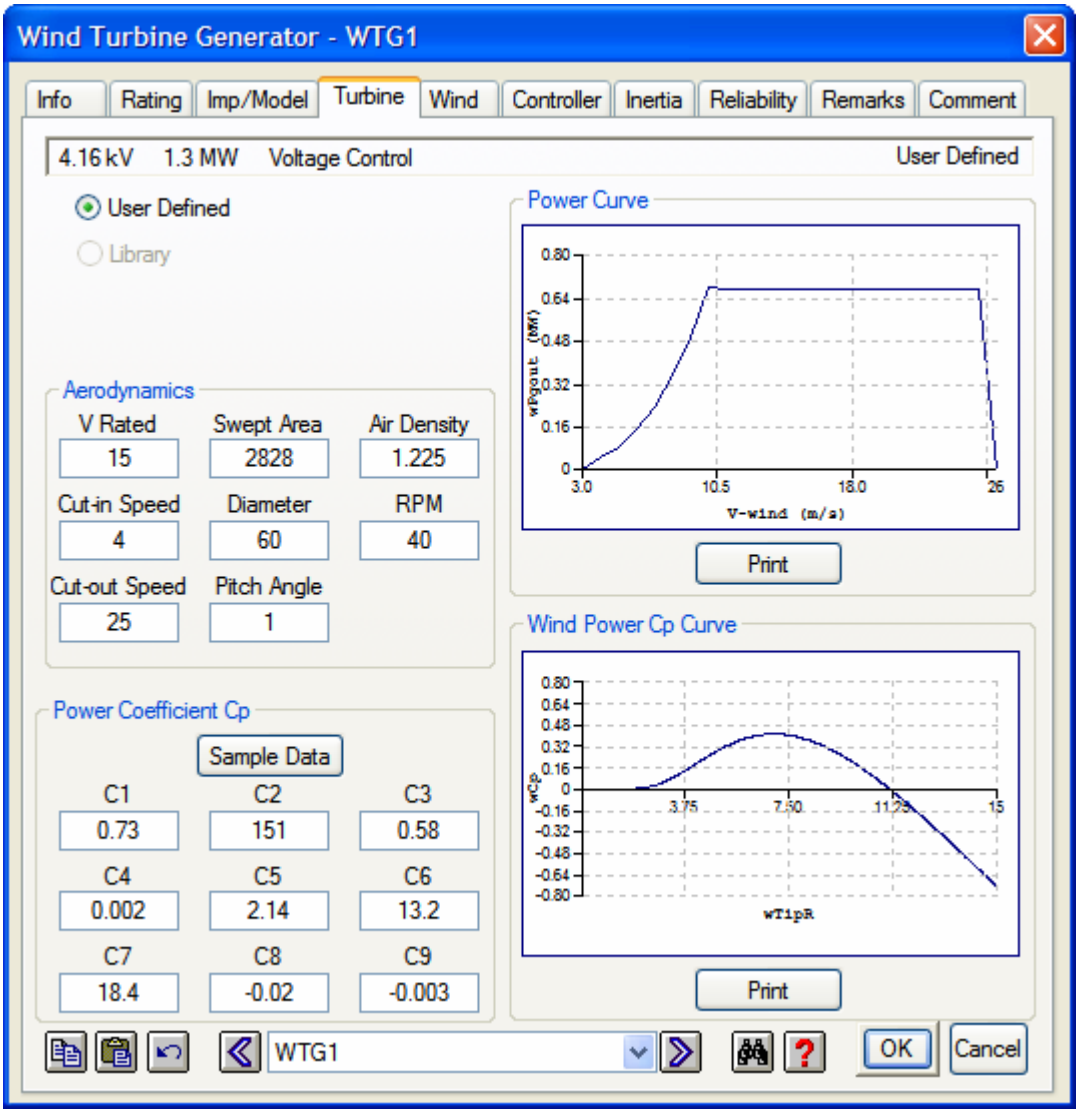
This document is confidential and proprietary to Operation Technology, Inc. and may not be reproduced, published or disclosed to others without the written authorization of Operation Technology, Inc., 17 Goodyear, Suite 100, Irvine, CA 92618, USA. All Rights Reserved.



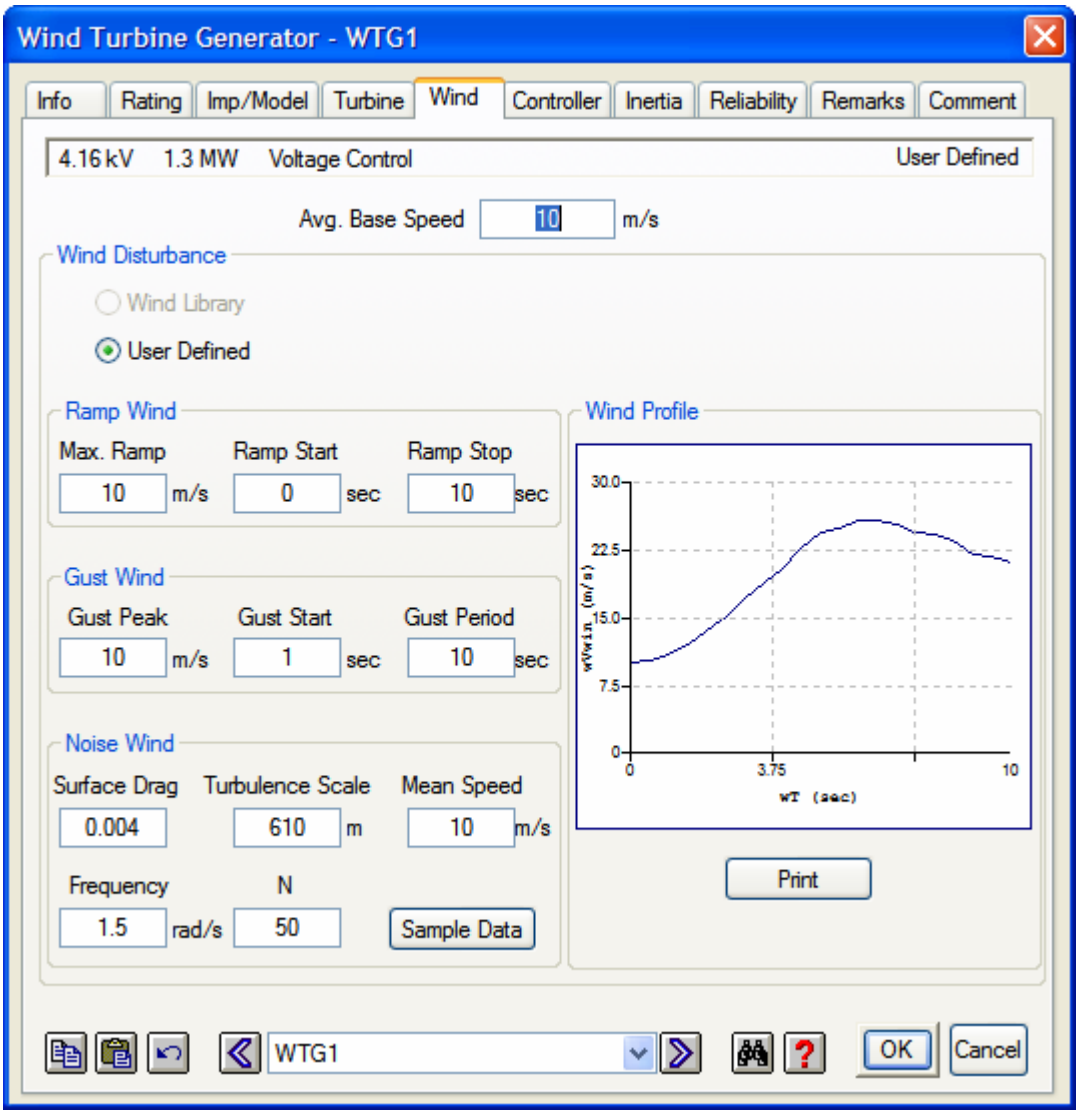
This document is confidential and proprietary to Operation Technology, Inc. and may not be reproduced, published or disclosed to others without the written authorization of Operation Technology, Inc., 17 Goodyear, Suite 100, Irvine, CA 92618, USA. All Rights Reserved.



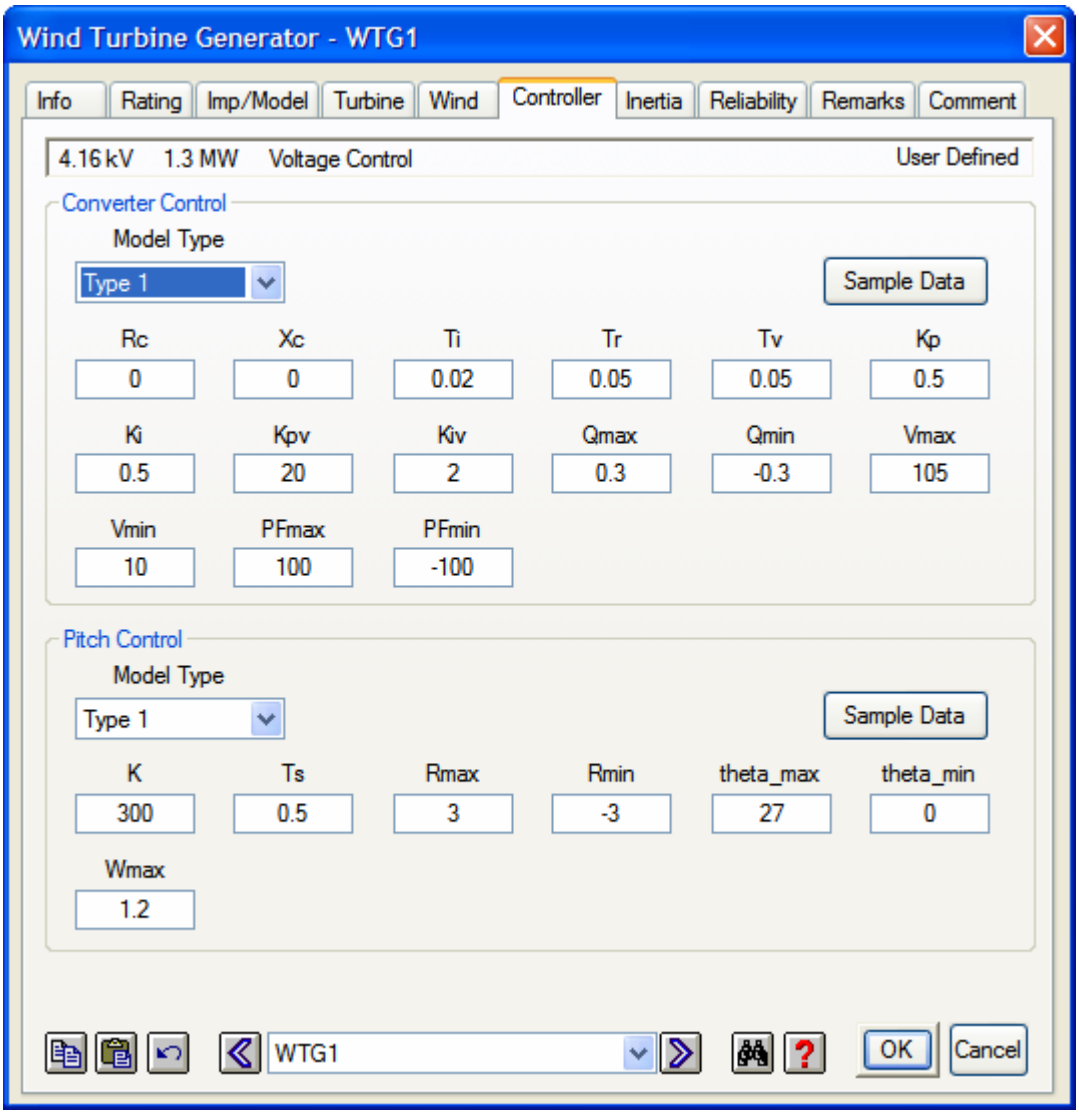
This document is confidential and proprietary to Operation Technology, Inc. and may not be reproduced, published or disclosed to others without the written authorization of Operation Technology, Inc., 17 Goodyear, Suite 100, Irvine, CA 92618, USA. All Rights Reserved.



This document is confidential and proprietary to Operation Technology, Inc. and may not be reproduced, published or disclosed to others without the written authorization of Operation Technology, Inc., 17 Goodyear, Suite 100, Irvine, CA 92618, USA. All Rights Reserved.



This document is confidential and proprietary to Operation Technology, Inc. and may not be reproduced, published or disclosed to others without the written authorization of Operation Technology, Inc., 17 Goodyear, Suite 100, Irvine, CA 92618, USA. All Rights Reserved.



This document is confidential and proprietary to Operation Technology, Inc. and may not be reproduced, published or disclosed to others without the written authorization of Operation Technology, Inc., 17 Goodyear, Suite 100, Irvine, CA 92618, USA. All Rights Reserved.