



WinCast™

WinCast™ is a multi-purpose simulator that operates totally within the WinFlow™ interface and contains all of the same features and capabilities available in WinFlow™. **WinCast™** is used to study the depletion or accumulation of gas or products from or into wells, reservoirs and storage fields. It will perform single or multiple steady state runs over time in order to perform pseudo transient state analysis of any transmission, distribution or gathering system from the reservoir to the customer. **WinCast™** predicts minimum pressure requirements to maintain contract pressures throughout the network, bottlenecks, power requirements, temperature profiles, gas quality tracking, and the rate and pressure profiles and life expectancy of wells and producing fields.

WinCast™ provides industry standard gas well productivity equations according to “Darcies Law” and the back-pressure curve.

WinCast™ allows the user to directly calculate the Inflow Performance IPR curve for the iteration time step by using input data on reservoir properties provided by the user, the calculated reservoir pressure (from gas storage reservoir P/Z or as input by the user if no storage reservoir is defined), and the flowing well pressure (or rate). Well productivity can be individually controlled by system constraints (including tubing strings), surface back-pressure (chokes) or by user-defined limits on rates. In addition, **WinCast™** has the ability to input well or field deliverability (rate vs. cumulative production) equations.

WinCast™ can also be used to perform multi-scenario studies for a given pipeline system. For example, an engineer or operator may wish to run a series of capacity analyses for a given pipeline network using many different pressures, set points, and loading configurations. The data for all the various scenarios can be directly input or uploaded into **WinCast™** and all the multiple runs can be performed and the results displayed using one single model rather than one model per scenario.

WinCast™ Applications:

- ◆ Provides insight with which to optimize and ensure efficient operation of existing systems;
- ◆ Predicts field and well rates over days, weeks, months or years;
- ◆ Performs deliverability calculations;
- ◆ Allows for efficient planning of field and well production, injections and withdrawals;
- ◆ Provides sensitivity analysis;
- ◆ Provides insight for new system design (pipelines, compressors, wells, etc.) and required timing;
- ◆ Allows for well controls to safeguard reservoirs and equipment
- ◆ Determines the production life and depletion profile of fields;
- ◆ Multiple Scenarios Analysis using one single model.

