CLK-Design Automation FAQ

What key technologies have we acquired?

The acquired technologies are based on a unique and proven fast transistor simulation technology with SPICE-like accuracy. This technology has been applied in the following products:

> • **Path FX**: Variance and IR-drop aware path-based timing simulation. Customers have independently integrated Path FX with RedHawk™ for advanced processor designs. Path FX complements popular static timing analysis (STA) tools since selected paths from popular STA tools are analyzed by Path-FX.
> • **Variance FX**: Process variance-aware characterization of IP cells

Both products have strong differentiation in the market, and are good additions for our sales channel to sell. Additionally, this technology has also been used for EOS (electrical over stress), transistor aging, and memory characterization.

Is ANSYS entering the STA market or trying to replace PrimeTime™ or other popular STA tools?

No. We complement those tools and make them better.

Who has joined us?

R&D and Application Engineers (AEs) have joined ANSYS. The R&D team is based in the US and has already moved to our ANSYS office in Concord. One AE is based in San Diego, and another in Taiwan. The team reports into the ANSYS Semiconductor Business Unit.

The team is very seasoned, with deep expertise in transistor modeling and simulation, variability modeling, and timing.

Who are the key customers of FX technology?

ANSYS has acquired the contracts to CLK-DA's customers, along with the associated products, source code, patents, and key personnel. The existing customer base aligns very well with ANSYS' semiconductor customers, and includes leading mobile chip manufacturers.

What is the product roadmap for this acquired technology?

The acquired technologies fit directly into our roadmap of accelerating Multiphysics and multi-scale sign-off with ANSYS' Big Data Elastic Compute Platform, SeaScape™ and 16/7nm sign-off leadership. Timing variability, due to voltage drop, is a key requirement for our customers, and our Semiconductor Business Unit's strategic plan, developed in 2016, which calls for a new product to complement our current offerings. As such, the acquisition has accelerated our product roadmap by 2 to 3 years.