~~“IBIS files do not define buffer “models”.~~ ~~Instead, k~~Keywords and subparameters in IBIS files describe device behaviors in terms of data sets, to be used in combination with model equations and assumptions defined within EDA simulation tools.  These data sets are generally assumed to have been collected under static conditions using a test fixture.  In other words, IBIS buffer data generally describes a “device under test” (DUT), where the actual modeling of the collected data is performed by the EDA simulator.

Not all the DUT fixture conditions are currently defined in IBIS.  In particular, the node used as a reference for the rails defined by, and voltage value arguments for, the [Voltage Range], [Pullup Reference], [Pulldown Reference], [POWER Clamp Reference], and [GND Clamp Reference] keywords is not specified.  Similarly, the node to be used as a reference for the voltage arguments to the [Receiver Thresholds] keyword subparameters, and the [Model] keyword Vinh and Vinl subparameters, is not explicitly stated.  While the C\_comp\_pullup, C\_comp\_pulldown, C\_comp\_power\_clamp, and C\_comp\_ground\_clamp subparameters define references for I/O capacitances, the reference for the C\_comp subparameter is also not specifically defined.  **The specification generally assumes that, unless stated otherwise, the same single node, separate from the I/O pad, buffer supply rail, or any package pin, is used as the reference for all DUT model content, including keyword and subparameter voltage values, ~~as well as~~ and [Model] subparameters such as C\_comp, Vinh, Vinl, and Vmeas.**  Specific EDA vendors, however, may make different assumptions or permit user assignment of the reference to another defined point (e.g., a specific pin).

The behavior of most IBIS data in EDA tool models under conditions *other* than those use to extract that data – called “device in action” (DIA) – is not currently defined by the specification and may vary between simulators.  ~~Exceptions to this include the [ISSO\_PU], [ISSO\_PD], and [Composite Current] keywords, where data and data-collection conditions are provided for both DUT and DIA contexts.”~~