**Trinity University**
## Digital Commons @ Trinity

Information Literacy Resources for Curriculum Development

Information Literacy Committee

Fall 2011

# All About Data Sheets

Kevin Nickels

*Trinity University*, knickels@trinity.edu

Follow this and additional works at: https://digitalcommons.trinity.edu/infolit_grantdocs

All About Data Sheets – Homework Assignment   ENGR 3181

<u>Task</u>
In this assignment, you are going to identify, retrieve, and organize information from several (at least three) data sheets from different manufacturers of the same component.

<u>Background</u>
Several manufacturers make the same set of compatible components.  We consider the components commodities, in that they all fulfill some set of minimum specifications and have identical pinouts and functions.  However, the data sheets generated by each manufacturer are often very different.  Some are much better organized than others, and all require some effort to understand.

<u>Identification and Retrieval</u>
Locate and download data sheets from at least three different manufacturers for a SN74LS00 component.  This is an integrated circuit (IC) with four NAND gates on it.

<u>Assignment</u>
1. Retrieval
   a. Identify where you retrieved each data sheet.
2. Definitions
   a. Find definitions in Sedra & Smith (the course text) for the parameters we call $I_{OH}$, $t_{pd}$, and $V_{cc}$.  Restate these definitions in your own words.
   b. Identify the symbols used on each of your data sheets for these parameters. Make a table cross-referencing these.
3. Values
   a. Identify the range of possible values for each parameter.  Identify the typical value of each parameter.
4. Evaluation - Evaluate each data sheet on:
   a. Are the terms well-defined within the data sheet?
   b. The overall organization of the data sheet
   c. The writing style and clarity of the prose.