

# DESIGN WORKSHOP TECHNOLOGIES

## ✧ Features Preview ✧

*A peek at the newest enhancements to appear in release 8.20 of our dw-2000™ physical layout suite.*

### The Navigator

#### OVERVIEW

A handy, new display feature, the Navigator window emerges as a step up in the natural evolution of an editing window. Our intuitive Navigator tool allows users to increase their situational perception of data in the current viewing area for complex designs. The current view extent is drawn in highlight mode in the Navigator, which simultaneously presents a close-up view of the structure and its references in an editing window.

#### VIEWING AROUND

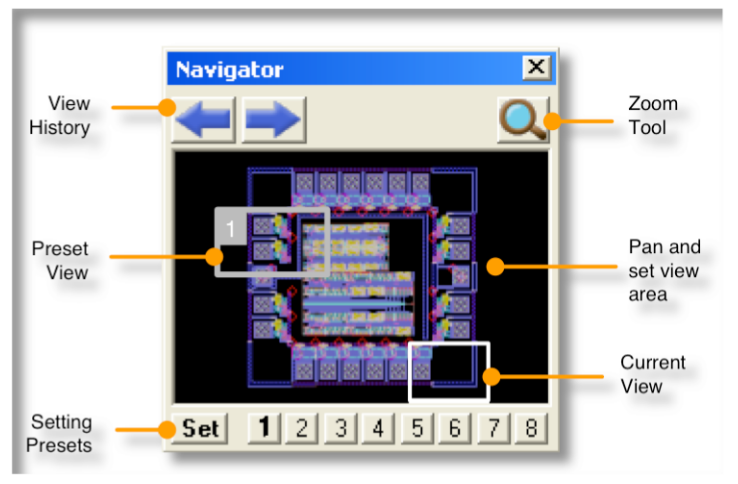
The Navigator is also capable of setting a particular view, panning around, and zooming in on the data.

#### PRESET VIEWS

The Navigator tool also offers users the ability to set and invoke specific preset viewing areas. This is easily accomplished by clicking on a range of buttons, just like programming preset radio stations with your car stereo! Selections, which can be chosen by mouse, are also visible in the Navigator window as rectangles with an associated number corresponding to a given preset view.

#### VIEW HISTORY

Arrow buttons are provided to give users the ability to traverse view history. Much like a common Web browser, one can navigate back and forth, tracking the views that were set in any opened structures.



# The Library Manager

Version 8.20 of dw-2000 introduces a new concept in viewing, exploring and editing content of a particular layout. Once a layout database (library) is opened, users are presented with a convenient palette window that displays file information as well as content. The Library Manager has been designed in such a way that all information pertaining to all opened libraries is readily available, so common operations are a mere click away.

## BROWSE THROUGH THE LIBRARY

The Library Manager is divided in two distinct areas. The upper portion displays libraries currently opened by dw-2000 and dynamically updates any information that is presented. In this section, users are provided with the capability to bind libraries. The lower portion of the window details a list of library content (structures or cells). Users can take a quick glance at this area, and then perform actions related to the structures themselves. Tabs allow the user to traverse multiple libraries, whether or not they are linked together.

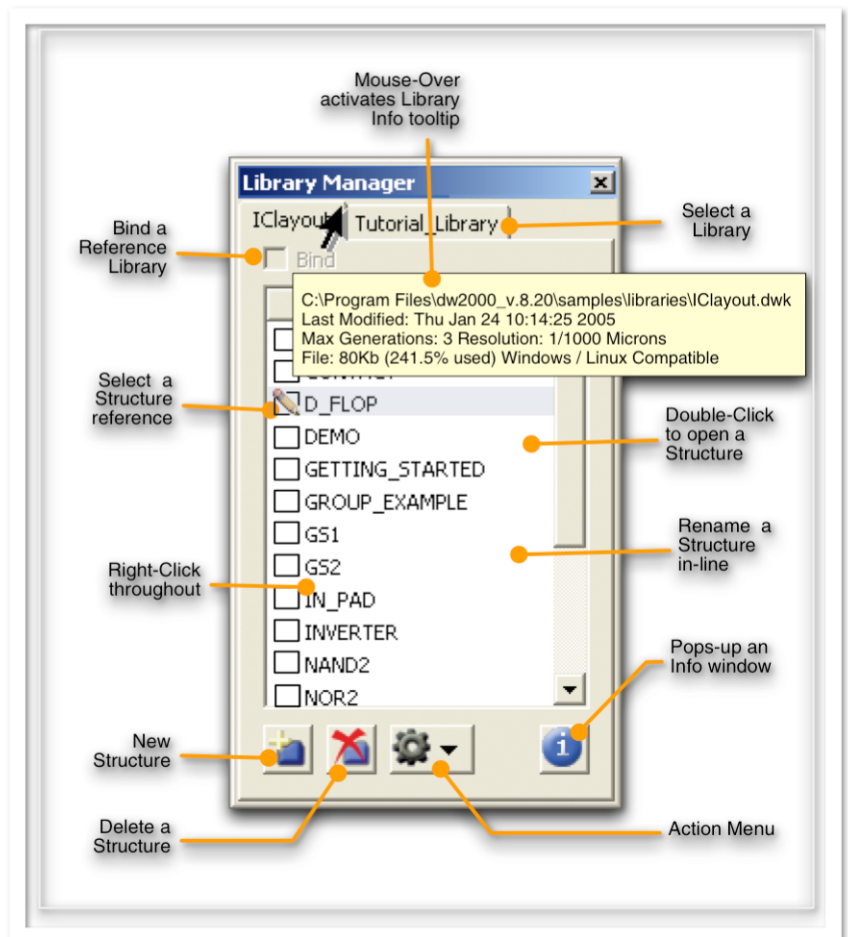
## STRUCTURE ACTIONS

The most important efficiency gains attributed to the Library Manager result from actions that can be applied to your structures. For example, double-clicking on a structure name opens that structure for viewing and editing. A convenient Action Menu permits users to easily rename, copy, and merge structures, or perform a number of other important functions. Selecting any structure in the Library Manager and right clicking on it with a

mouse can also provide users with immediate access to the Action Menu.

## REFERENCE PLACEMENT

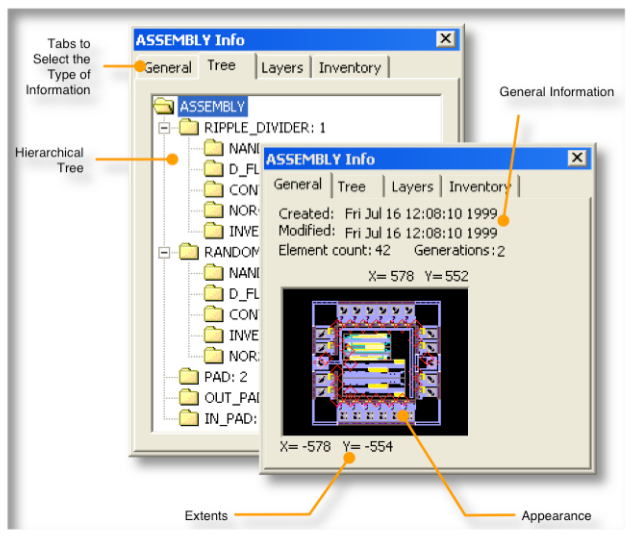
The structure list is also used in structure reference placement. By simply clicking on any item in the column, users can quickly select a particular structure for placement. With this new feature, users can preview any structure or sub-structure inline, verify its details, and then place



any number of references at specific locations within the current structure canvas. The Library Manager presents users with an easily accessible and truly efficient way to perform edits in a hierarchical layout.

## GET INFORMATION

The Library Manager also provides comprehensive access to very specific information about structures. All the structures are presented and sorted in alphabetical order. Selecting a structure in the list and clicking the “Info” icon displays a window where all the information related to a structure is organized. Several of these windows can be left on the desktop for effortless cross-referencing of information. The information window is organized under specific tabs: General Information, Tree of Sub-references, Layers Summary and Data Inventory. As a result, accurate assembly information is just a click away!



# Viewer

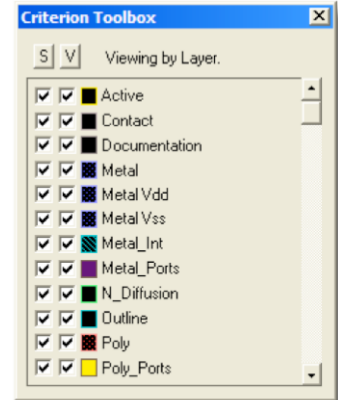
Innovation is a key philosophy within Design Workshop Technologies, and as a result of this approach we are pleased to announce several major enhancements to the dw-2000 Viewer.

These developments will have a significant effect on the productivity of users who employ the Viewer to inspect layouts from outsourced layout designers. Design Workshop Technologies is

committed to enriching your design flow process while safeguarding your investment in our physical layout software tool suite.

## NEW CRITERION TOOLBOX

You now have access to the new Criterion Toolbox to turn on and off layer visibility. The “Criterion Toolbox” displays a selectable list of criteria that were defined using dw-2000 or automatically generated during the GDSII import process. This ability to distinguish criteria as defined within dw-2000 when a dw-2000 library is loaded directly, significantly improves productivity while using the Viewer to inspect a layout generated by a third party designer.



## AUTOMATIC DATA CONVERSION

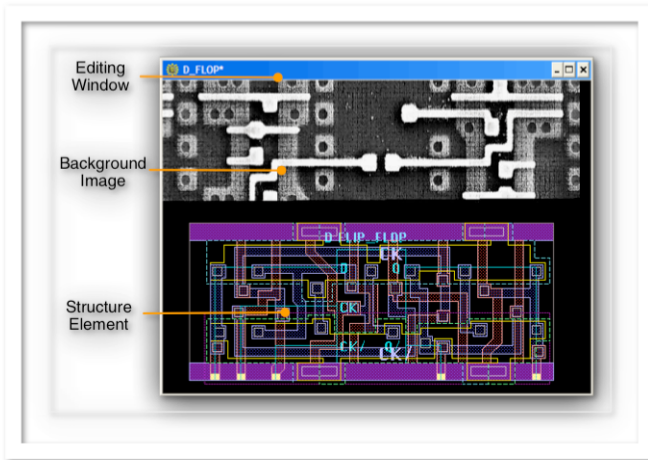
For your convenience, we’ve eliminated the necessity of keeping multiple Viewer versions installed. The versatile dw-2000 Viewer can now open any library in dw-2000 format up to and including the current Viewer version. Just install the most recent Viewer and open a library that has been saved in any older format. A quick prompt will start the upgrade process. In an instant, the library will be updated, saved in a new location and ready to be viewed.

## AUTOMATIC CRITERIA CREATION

When importing GDSII files, the dw-2000 Viewer will automatically create criteria for all layers used in the GDSII file. The criteria are displayed in the Criterion Toolbox and will have generic names such as “Layer 1”, “Layer 2”, etc.

# Background Images

A brand new feature of dw-2000 is the ability to set a background image for your editing window. Select graphics from a Scanning Electron Microscope (SEM) chip image, a microfilm scan, or any other source, such as GIF, JPEG or TIFF. This unique design-level option can be used in reverse-engineering, IP protection or for rebuilding chips.



# Advantages

As the result of an extensive development effort, the 8.20 release includes new features and functionality based on user feedback and Design Workshop Technologies' commitment to the continued enhancement of the dw-2000 product suite. Scheduled for the second quarter of 2005, the 8.20 version release builds on dw-2000's already powerful features: native GDSII driven design, parametric drafting, robust IP management tools, custom design rule verification and intuitive navigation. The new developments are designed to improve all aspects of component design efficiency for the microelectronics and photonics industries.

Version release 8.20 will provide customers with several new capabilities and features to improve the design process, including enhanced modeling performance. New modeling tools allow users to quickly build and edit structures from hierarchical databases, making the software even more productive. Faster modeling means users can turn out product designs more quickly and efficiently.

This version release will streamline physical layout design, enabling companies to bring products to market faster. Easy-to-use modeling features, like the Navigator, Library Manager and Criterion Toolbox, will help users layout and analyze their design's structural integrity while accelerating the design process by improving productivity.

## DW-2000: YOUR EXTENDIBLE SOLUTION

The dw-2000 Layout Editor uses the Graphics Programming Environment (GPE) and Parametric Cells (P-cells), which enable users to exercise the highest level of control over re-useable and accurate ready-to-manufacture design layouts. The Data Conversion Module (DCM) gives users the flexibility to import, work with, and export a variety of key file formats, including GDSII, CIF, MEBES, Cambridge, JEOL-xx and Gerber. This capability helps users quickly integrate with third-party designers. The Enhanced Design Rule Checker (XDRC) analysis capabilities assists designers and engineers in getting the design right the first time, eliminating the time and cost of fixing production errors. Find out more:

### DESIGN WORKSHOP TECHNOLOGIES

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