



Chapter 1

Introduction

MDL SCREEN® performs all information processing and storage tasks for High Throughput Screening (HTS) information management.

SCREEN requires a specific type of large, fast computer (called a *server*), which has high capacity disk drives and fast processing. The server runs a high-performance ORACLE relational database, with complete data security, integrity, and recovery features. SCREEN stores very large amounts of information, accommodating more than one billion data points.

Personal computers (called *clients*) connect to the server and run the SCREEN client software. The client allows you to enter data into the database and review the data through graphical user interfaces. SCREEN has an interface for each high throughput screening procedure.

SCREEN models typical work flows used in screening and uses common terminology to help you organize and understand all aspects of the screening process.

SCREEN helps you perform data entry and analysis for all screening tasks, whether you are a technician who enters data and perform assays, a scientist who analyzes and uses the data, an ORACLE administrator who installs and maintains the database, or a scientific database administrator who designs SCREEN experiments.

Installation of MDL SCREEN

The *MDL SCREEN Installation Guide* explains in detail how to install or upgrade MDL SCREEN.

Before installation, the SCREEN administrator needs to plan the size and structure of the relational database on the server computer. A spreadsheet is provided to help plan the structure and size of the database. You can choose to install a small, medium, or large database. You can vary the size of the database to meet your exact needs.

Login Name and Password

You will need a login name and password to display the panels and perform the examples in this guide. Use the login and password assigned to you by the SCREEN administrator.

Examples and Data

All examples in this guide assume that the SCREEN administrator installed SCREEN with the recommended path names and the default configuration settings. The examples also assume that the database was populated with the example data option offered during the installation.

The example data can be used for all tasks of screening. Do not attempt to “unrelease” the original example data (in runset 0). Unrelease only your own data.

About This Manual

This manual is for all persons interested in an overview of the capabilities in MDL SCREEN.

Chapter 2 through Chapter 10 provide you with a tour of the modules of SCREEN and the tasks that the modules perform. These chapters familiarize you with the SCREEN software and terminology.

Chapter 11 shows you how to use SCREEN to perform assays on plates that contain samples. This chapter outlines each step of the screening process and demonstrates how you can use SCREEN to organize the work flow and track the data.

Chapter 12 through Chapter 14 explain how to use SCREEN to perform each different type of assay. Each assay requires specific methods. These three chapters are more technical.

One purpose of this guide is to associate the way you perform assays at your site to the functions available in SCREEN. You can then adapt the standard work flows used in SCREEN to suit your needs.

This guide does not explain in detail how to use the interfaces or how to perform each task of screening. After you read this guide and gain familiarity with SCREEN, use the extensive online help to assist you with specific panels or tasks.

Conventions used in this document

Keys and commands are in **boldface**.

Input that you must type exactly is in **bold type**.

Input that depends on your system configuration, preferences, or site is in ***bold italic***.

Defined words are in *italic*.

Computer output is in fixed width print, in a separate paragraph:
output

Note: A note indicates added information about a procedure or description.

Caution: A caution warns you about a possible data integrity issue or client application error.

Other SCREEN Documents

Along with this document, the extensive SCREEN online help explains how to:

- Start SCREEN
- Work with each panel and module
- Perform each task
- Understand the database structure
- Become familiar with concepts and terms

The *MDL SCREEN Release Notes* provide important information about each release of SCREEN.

The *MDL SCREEN Installation Guide* explains in detail how to install or upgrade MDL SCREEN.

SCREEN and ISIS

On a PC-compatible client running ISIS/Base 2.1, the MDL Information Systems chemical database information manager, you can view the structures of compounds that are both in the SCREEN database and an ISIS database. See the *MDL SCREEN Installation Guide* for more information.

On a PC-compatible client running ISIS/Base 2.1, you can view the contents of any table of the SCREEN database. You can also register compounds from an ISIS database into the SCREEN database. To enable these functions, you must set up your ISIS/Base and ISIS/Host. See the separate written document "ISIS to MDL SCREEN Integration" and use the files available on the CD.

Further Information and Assistance

For questions related to SCREEN, call MDL Customer Support at 800-326-8002 or your SCREEN representative.