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Guide to the Sample Applications

CLARION 5.5 contains a collection of ready-to-use Sample Applications. The databases for these applications interlock and complement each other. You can easily extend some of these applications into a custom suite.

The ready-to-use sample applications included with the ***CLARION 5.5*** demonstrate a variety of Clarion programming techniques. Use these Sample Applications to learn by example.

All the applications depend on source code automatically generated by the templates, so they were developed very quickly and they benefit from the reliable time tested foundation code that is built-in to the Clarion and ABC Templates. Each application includes commented source code, complete Windows help files, and help source in Rich Text Format (.RTF)

Other Example Programs included with ***CLARION 5.5*** demonstrate a variety of Clarion programming techniques. Some of these are hand-coded programs showing the power of the Clarion language. Others use the Application Generator to demonstrate its capabilities.

Click below for more information on a specific ready-to-use Sample Application.

Automobile Log

This application is used to track expenses and trip data for multiple automobiles. Track all trips and expenses whether they are business related or not. The trip entries and expense entries have a field to denote whether they are business related.
The reports can be run for specific date ranges and are suitable for submission to the IRS for tax filing.

See \C55\EXAMPLES\AUTOLOG.

Credit Card Register

The Credit Card Registration program stores all personal credit card account-related information and helps keep track of credit card transactions on those cards. It maintains transaction information, such as charges, payments and interest charged. When transactions are logged, they are kept in a current transaction listing for future reconciliation with the monthly account statement. After transactions are reconciled, they are retained for user-defined reporting inquiries such as account history and spending habit analyses. The main features and functions of this program are:

Account Registry

The account registry is a convenient reference of stored account-related information, such as addresses, phone numbers, credit limits, and interest rates.

Transaction Log Credit card transactions, such as purchases, payments and interest charges can be logged for each individual account. Current balances are calculated and displayed here.

Monthly Reconciliation

The credit card registration program maintains a list of current transactions which facilitates quick verification of transactions recorded on monthly credit card statements.

Transaction History

Transaction history for all accounts is maintained to track spending habits, interest costs, and payments.

See \C55\EXAMPLES\CARDREG.

Club Manager

Club Manager is designed to let you keep track of the members in your club or association. Club Manager tracks names, addresses, phone numbers and more. Club Manager also let's you create subgroups of club members. Then you can print reports, mailing labels and form letters for the groups you define. In addition, you can track basic transactions for club members such as initiation fees and periodic dues.

- Drag and drop club members into committees you define.
- Sort member lists by name, ZIP Code or member type.
- Define custom label sizes on-the-fly, and print mailing labels for any subset of club members, sorted in any order.
- Print mail-merge form letters for all members or for a custom subset of members, and automatically print a corresponding set of mailing labels.
- Set your personal data entry and report sort and selection preferences. Club Manager remembers them, so you don't have to.
- Club Manager remembers the size and position of the various Club Manager screens from session to session, so you only need to arrange them once.

See \C55\EXAMPLES\CLUBMGR.

Event Manager

Event Manager is the total solution for Event and Party Planning. With Event manager, you can keep track of an event's expenses, attendees, and seating arrangements with ease.

- Maintain your Guest List easily with Drag-and-Drop lists.
- Maintain your Event's seating arrangements easily with Drag-and-Drop lists.
- Easily add more tables or seats to tables. Supports up to 400 attendees for an Event.
- View your Event's budget, item costs, and the amount to bill the Event's Sponsor, all in one list.
- Easily spot items which have gone over budget at a glance in colorized list.
- Easily spot items which you have under-billed at a glance in colorized list.
- Print Mailing Labels, Name Badges, and Table Place Cards for your Event.
- Print a detailed Invoice for your Event.
- Complete on-line help allows you to learn the system quickly.

Let Event Manager take care of your planning so you can concentrate on the important things, like enjoying yourself at your Event!

See \C55\EXAMPLES\EVENTMGR.

Inventory Manager

This application is designed to keep track of your inventory. It does so by using a Products file (Products.TPS) that holds all necessary information about your products, a history file (Invhist.TPS) that tracks all the transactions that affect your inventory, and a Vendor file (Vendors.TPS) that allows you to keep track of who you purchase your inventory from. It also includes a zip code file (Zipcodes.TPS) that helps in entering Vendor address.
The application is designed to work with the sample Invoice Manager. To use them together, simply copy them into the same directory.

See \C55\EXAMPLES\INVNTORY.

Invoice Manager

The Order-Entry & Invoice Manager is designed to let you keep track of your customers, products, and customer orders. You can print invoices for each order, mailing labels, customer lists, and product lists. Some features of the Order-Entry & Invoice Manager include:

- Save default company information that may be reused for printing Invoices.
- A view of customers orders in expanding tree form. Important information on all customer orders is displayed at different levels of the tree, and you may update records at each level of the tree.
- View and update customer information quickly. A selected customer's orders can be viewed quickly for accuracy before printing Invoices.
- Easy access to Orders from a button on the customers list. All information for an order is displayed on this window. You can also print Invoice from this window.
- View and update product information easily. Pictures of products are displayed when updating product information.
- Works in conjunction with the Inventory Manager.
- Remembers the size and position of the various windows and forms from session to session, so you only need to arrange them once.

See \C55\EXAMPLES\INVOICE.

Mailing List Manager

This application keeps track of all the mailings that you may encounter in the business environment. It is designed to store mailing information about individuals, build targeted mailing lists based on a variety of criteria, and print these lists in one of three standard mailing label formats. Specific features of this application include:

- A user defined keyword list. This allows you to define a list of criteria (i.e. products, interests, customer types, etc.) that can be assigned to individuals. More than one keyword can be assigned to an individual for flexibility.
- Status settings for a mailing. Individual mailings for individual people can by set to either Active or Inactive. Mailing labels can be generated for active members of a list only. This allows for more accurate mailings and cost savings.
- Mailer building utility. Allows an entire mailing list to be created in seconds. Simply fill in criteria to select a unique group of people (i.e. by keywords, state, birthday) and check the results. Add to existing groups one person at a time, or add a group of people with the query utility.
- Export feature. Export the address and personal information of the people file into a standard comma separated values (.CSV) file. This data can be imported and used in a variety of other products, including word processors and spreadsheets.

See \C55\EXAMPLES\MAILLIST.

Project Manager

Project Manager helps you get organized! You can define projects, break projects into tasks and then assign resources to complete the tasks. As you define each task, you indicate an estimated number of days to complete the task and the order in which the tasks should be completed. Project Manager automatically calculates starting and ending dates for the tasks and rolls up this information to the project.

- View your projects in an expanding tree form, table form, or on a timeline.
- Optional auto-calculation of starting and ending date.

See \C55\EXAMPLES\PROJECT.

School Manager

This application keeps track of Students and Teachers, and the Courses and Classes they take or teach. Specific features of this application include:

- A photograph of each student is stored in a BLOB field in the database (not in a separate file on disk). This photograph is then printed on each Student's ID card.
- Grades for a Mid-Term Exam, Final Exam, and a Term Paper are recorded for each class a Student takes. Final Grades for each class are calculated by adding the Mid-Term Exam, Final Exam (worth double), and Term Paper, then dividing the result by 4. These grades are calculated when printing the Final Grades report.
- The Mid-Term Exam, Final Exam, and Term Paper grades can be updated using a Browse list demonstrating edit-in-place.
- Drag and drop techniques have been used every place an entry control's value should come from another data file.

See \C55\EXAMPLES\SCHOOL.

Solodex

Think of Solodex as your personal electronic Rolodex file. Like a Rolodex, Solodex provides a finger-tip reference for mailing addresses, phone numbers, and any other information indexed by a name or company. Solodex saves this information in a special file format usually (but not necessarily) designated by a file extension of .SOL. You can create as many Solodex files as you want, Solodex always "remembers" the last file you were using.

"Cool Stuff" in Solodex:

Free-Form Card Layout

Solodex is a convenient electronic file of free-form cards. You can enter your anniversary on your wife's card. Or you can keep track of your kids social security numbers. You can save an internet address. Or the names of an associate's wife and kids. It's completely free-format.

Built-in Memory Queues

Memory queues that "live" on the heap are built in to the Clarion language. Queues are processed like files with ADD, DELETE, GET, PUT, and FREE statements. Clarion list boxes are populated from queues and can be scrolled without program intervention. Queues are one reason Solodex is so fast. At start-up, Solodex reads every record and constructs a memory queue of names and companies. Pressing a Tab controls constructs a category queue which is a subset of the "ALL" queue. No disk activity is required. Moving the selector bar accesses a single record that is displayed in the text controls.

Unlimited "Undos"

Solodex deletes a record by marking it as "deleted". Solodex saves records by adding a new record and marking the old record "deleted". Records marked as "deleted" are purged from the file when it is processed at start-up. The "Undo" queue simply contains record and queue pointers, the actual pre-images are stored in the file. As a result, Solodex imposes virtually no limit to the number of operations than can be reversed.

Replicating Files

You probably have more than one computer. With Solodex you replicate your changes so each machine always has the latest data. If you make any changes, export them to a floppy disk. Solodex remembers all records that have been added or changed since the last export. Then import the diskette to your other systems. If you misplace a disk, don't worry about it because every record is date and time stamped. Import will never replace a newer record with an older one.

Scrolling Tabs

Now the perfect Window control for selecting a sub-category is scrollable with CW 2.0. When a new category is entered. Solodex creates a new tab control. If all cards in a category are changed to other categories, Solodex destroys the tab control. It's really quite simple.

Animated Icons

The image of the Rollodex file is animated by a timer event that displays a different icon 5 times a second. To stop the animation, simply click on it.

See \C55\EXAMPLES\SOLODEX.

Time Tracker

This application lets you track time expended by a particular employee on a particular project performing a particular task. Select an Employee, a Project, and a Task to time, then press the Start button.
You may update Employee, Project and Task files, and print two simple reports that present logged time in an organized fashion.
The starting date and time is initially written to disk when you press the Start button. Then, every 15 seconds the disk record is updated in the TimeLog file with a new ending date and time based on the computer's system date and time, until either the 'Stop' or 'Exit' button is pressed. The elapsed time between the Starting and Ending dates and times is simply calculated, not stored.
Time Tracker uses icons, timers, and the destruction and recreation of controls in a window to do its job. There are numerous embedded source points that are heavily commented to assist the developer.

See \C55\EXAMPLES\TIMELOG.

Guide to the Other Examples

The other example programs included with CLARION demonstrate a variety of Clarion programming techniques. Some of these are hand-coded programs showing the power of the Clarion language. Others use the Application Generator to demonstrate its capabilities.

HexEdit--Hand-coded Procedures and Functions in the Application Generator
MultiLanguage -- An example of how to use multiple languages (Clarion, C++, etc.) in a single program.
ODBCJoin -- An example of how to use any ODBC data source.
People -- Use the ABC Templates and Classes to dynamically sort and filter reports. Run two or more reports from the same procedure. Run a two-pass report.
Tutorial Solutions--The solutions to the Getting Started tutorials
WINAPI--Managing Windows API Prototypes for Clarion Programs
CDPlayer--Demonstrating Windows API Calls
DDE --How to make your program a DDE Client or Server
Hello--The Standard .EXE Size Benchmark
LIB Maker--Make a TopSpeed .LIB for any .DLL
Prototyper --Converts Clarion prototypes to C prototypes and Name Mangles the prototype.
OLEDemo--OLE objects activated, saved, and restored (16 or 32-bit)
OLEProp--Managing 32-bit OCXs and their properties.

HexEdit--Hand-coded Procedures and Functions in the Application Generator

The HEXEDIT.APP file is in the \C55\EXAMPLES\HEXEDIT directory. This application is a fully-functional Windows Hexadecimal file editor which demonstrates mixing hand-coded procedures and functions (using the Source Template) with generated procedures in the Application Generator.

This is an MDI application, allowing you to load multiple files at once. It also reads the files in the "background" (using the TIMER attribute) allowing you to view the beginning of large files before the whole file read is complete. It has a right-click popup menu to edit or close the file, duplicating local menu items in the editing procedure that merge into the Application Frame's menu. This application uses edit-in-place on the LIST control to edit the Hexadecimal values.

The Source Procedure Template allows you to create a PROCEDURE for use within an Application Generator application. This example contains one hand-coded PROCEDUREs (the main editing logic) and two other hand-coded PROCEDUREs which translate ASCII characters to their Hexadecimal representation and back again. The PROCEDURES both receive parameters and pass them.

MultiLanguage

This program uses Clarion and C++ together to manipulate a directory listing. The example is in the \C55\EXAMPLES\SRC\SHOWIMG directory.

ODBC Join Test

This application (JOINTEST.EXE) demonstrates ODBC connectivity, and allows you to test the JOIN operation capabilities of your ODBC data source. The example is in the \C55\EXAMPLES\ODBCJOIN directory.
NOTE: The starting point assumption of this application is that you have an ODBC data source installed and correctly configured. If you experience any problem connecting to the data source or opening the files in this application, please consult the documentation that came with your data source and/or its ODBC driver.
This application will correctly function with any ODBC data source that you may have. The pre-compiled JOINTEST.EXE is a 16-bit application. Therefore, if you want to use Microsoft's Access 7, you must first re-compile for 32-bit, as the Microsoft Access ODBC driver is 32-bit, only.
The first time you execute the program, there is no data to browse. Just choose Edit >> Populate

Database and sample test data (contained in several .INP files) will be imported into the database.
The two Browse menus appear to be the same - they are not, they display different databases. The most important menu selections are the Child>Parent selections (below the separators). These demonstrate the various JOIN operations. Once you have seen the effect of each, you may choose Edit >> Set Join Type to explore the capabilities of your data source. As you choose from the two sets of radio button options, you setup the behavior and the resulting SQL sent to the data source. It is normal and expected that some of these choices will generate SQL errors, depending on your ODBC data source, thus allowing you to determine that capabilities of the data source.

People

This application (People.App) demonstrates the power of the ABC Templates and ABC Library used in combination. With a single custom property and a few lines of embedded source code, this application dynamically sorts and filters a report, runs two or more reports from the same procedure, and run a two-pass report. The example is in the \C55\EXAMPLES\REPORTS directory.

Tutor--The Getting Started and Learning Clarion tutorial applications

The completed APPWIZ.APP, QWKTUTOR.APP, and TUTORIAL.APP and the completed QWKTUTOR.DCT and TUTORIAL.DCT files are in the \C55\EXAMPLES\TUTOR directory. These are the files created by following the steps in the Getting Started and Learning Clarion books.

WINAPI--Managing Windows API Prototypes for Clarion Programs

The WINAPI.APP file is in the \C55\EXAMPLES\RESOURCE\WINAPI directory. This is more than an example. If you need to call the Windows API from your Clarion application or program, the WINAPI program can help you build an include file with the necessary Windows API prototypes and associated data declarations. The prototypes use the OMIT compiler directive to accomodate transparent toggling between 16-bit and 32-bit applications!
The WINAPI program comes with a near comprehensive master list of Clarion prototypes and data declarations (APIVIEW.TPS). You can add additional prototypes and data declarations as needed (RIGHT-CLICK on the prototypes list).
Copy your program's subset of prototypes and data declarations from the master list into an include file you specify. Then include the file and section in your program at the appropriate point:

```
INCLUDE('WINAPI','Equates')!Include Windows API equates
...
MAP
INCLUDE('WINAPI','Prototypes')!Include Windows API prototypes
END
```

The WINAPI program protects you from adding duplicate labels and has file import capability so you can modify include files created with the WINAPI program.

CDPlayer--Demonstrating Windows API Calls

The CDPLAYER.CLW file is in the \C55\EXAMPLES\SRC\CDPLAYER directory. This program is a fully functional Compact Disk player which demonstrates making calls to the Windows MultiMedia API. It demonstrates the API calls needed to make an application "stay on top" and it also automatically shuts down when Windows shuts down. In addition to all the Windows API techniques, this program makes extensive use of Drag and Drop.

DDE--Demonstrating Clarion for Windows as a DDE Client and Server

There are several DDE examples with CLARION. The \C55\EXAMPLES\SRC\DDE directory contains DDECLT.CLW (how to make your program a DDE client), DDESVR.CLW (how to make you program a DDE server), and DDEDEMO.CLW (how to access another DDE server--Progman).

Hello--The Standard .EXE Size Benchmark

The HELLO.CLW file is in the \C55\EXAMPLES\SRC\HELLO directory. This program contains the seven lines of Clarion code that create a minimum "Hello World" application. The project is set to produce a "one-piece" Windows executable which does not require any .DLL or runtime library. When compiled, this shows the minimum executable program size, which you can benchmark against any other product's "Hello World" program size. This program also demonstrates the elegant simplicity of Clarion language source code; a similar program in C or C++ would take several pages of code to accomplish.

LibMaker--Make a TopSpeed .LIB for any .DLL

The LIBMAKER.CLW file is in the \C55\EXAMPLES\SRC\LIBMAKER directory. This application is a fully-functional utility that creates a .LIB file in the TopSpeed format from any .DLL (or multiple .DLLs), whether that .DLL has been compiled with a TopSpeed compiler or not. This allows you to link any Windows .DLL to a Clarion for Windows program. One .LIB file can provide the linking information to multiple .DLLs.

OLEDemo--OLE objects activated, saved, and restored (16 or 32-bit)

The OLEDEMO.CLW file is in the \C55\EXAMPLES\SRC\OLEDEMO directory. This application demonstrates several techniques for creating, opening, saving and restoring OLE objects (spreadsheets, clipart, etc.).

OLEProp--Managing 32-bit OCXs in the 16-bit development environment

The OLEPROP.CLW file is in the \C55\EXAMPLES\SRC\OLEPROP directory. The program creates the 32-bit OCX, sets any properties you need, then stores the OCX object in a compound storage file.

Prototyper and Name Mangler

The Pro2Exp.CLW files are in the \C55\EXAMPLES\SRC\Pro2Exp directory. This program converts Clarion prototypes to C prototypes and Name Mangles the prototype.

Messaging Examples

The messaging example programs can be found in \C55\EXAMPLES\MESSAGING. There are three examples in this folder. The ALL folder contains a messaging example that demonstrates various features of the messaging templates. The SMTP folder contains a simple example that demonstrates how to setup the templates to send email using the SMTP protocol. The NNTP folder contains an example that demonstrates how to setup the templates to send newsgroup messages using the NNTP protocol.

See \C55\EXAMPLES\MESSAGING

Rich Text

The Rich Text example demonstrates how to use the rich text control in a notepad example. This example also demonstrates a simple way to use macro substitution.
See \C55\EXAMPLES\RTF

HTML Help

The HTML Help example demonstrates each control template available. The HTML help templates work with a compiled HTML help file (.chm).

See \C55\EXAMPLES\HTMLHELP

Crystal Reports

The Crystal Reports example demostrates all control templates available. They simply let you Print or Preview an already created Crystal Report. The other templates demonstrated show how to set or retrieve a Crystal Report Query or Formula.

See \C55\EXAMPLES\CRYSTAL