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Executive Summary

Name: Paul Mashford

Company: SKM

Name of Project: Macro – Project Explorer

Awards Result: Second Place

Paul cleverly used 12d Model's inbuilt macro language (12dm) to manage standard 12d library data. A macro was written that searches all 12d Projects from a base directory and creates a panel with a list of chains, drainage files, MTFs, PPFs, models and tins.

Using the panel, data is easily copied to the current project from any other location accessible to the user. Models and tins may also be shared from another project into a current project from the panel.

This entry helps ensure consistency and uniformity, very efficiently, across multiple 12d Model Projects.





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Entry Form

Please email your completed entry to innovation@12d.com

Name:	Paul Mashford
Position:	Senior Civil Designer
Company:	SKM
Name of Project:	Macro - Project Explorer
Client:	Every client

Description of Project:

- Wanted a way to manage standard 12d library data (ie where standard chains, drainage files, mtf's, ppfs are saved and how they are copied to the current project)
- Wanted a simpler way to share models and tins between projects

How the problem was solved:

- A macro was written which searches a base directory for all 12D projects under its subdirectories.
- The data from each project is displayed to the user in a meaningful manner
- Data is easily copied to the current project from any other location accessible to the user.

Relevant 12d screenshots and/or data attached:

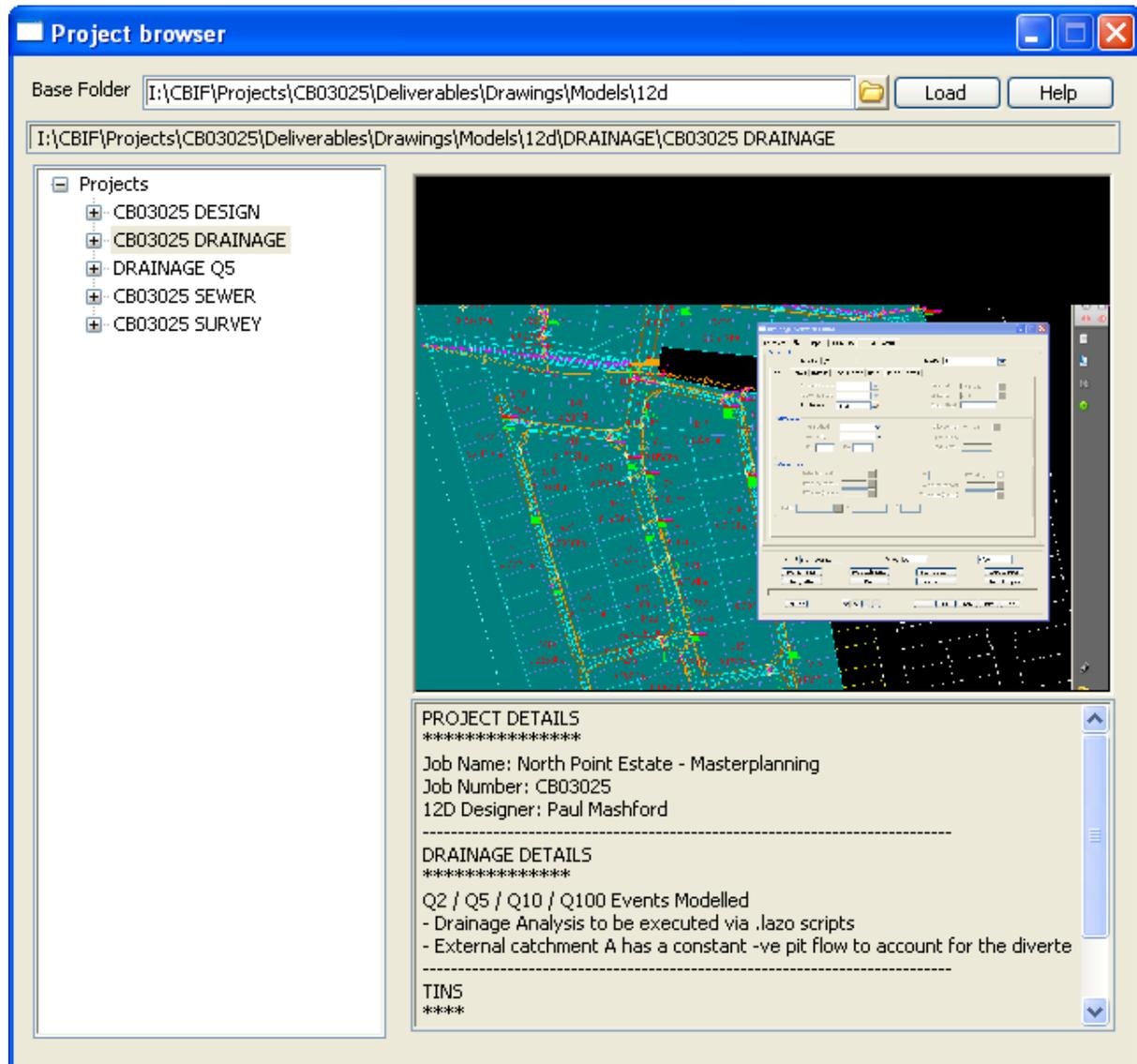
The Project Explorer macro has a variety of uses such as browsing projects relative to the current project, copying setup/supplementary files from other projects, and probably the biggest time saver of all - sharing models and tins between projects.

Basically you provide it with a Base Folder and the macro crawls all subdirectories looking for 12d model projects. If the macro starts with no arguments then the current projects folder is used (it actually jumps up 3 directories then starts crawling from there). If you supply the macro with a directory path as an argument then that's where it starts crawling.



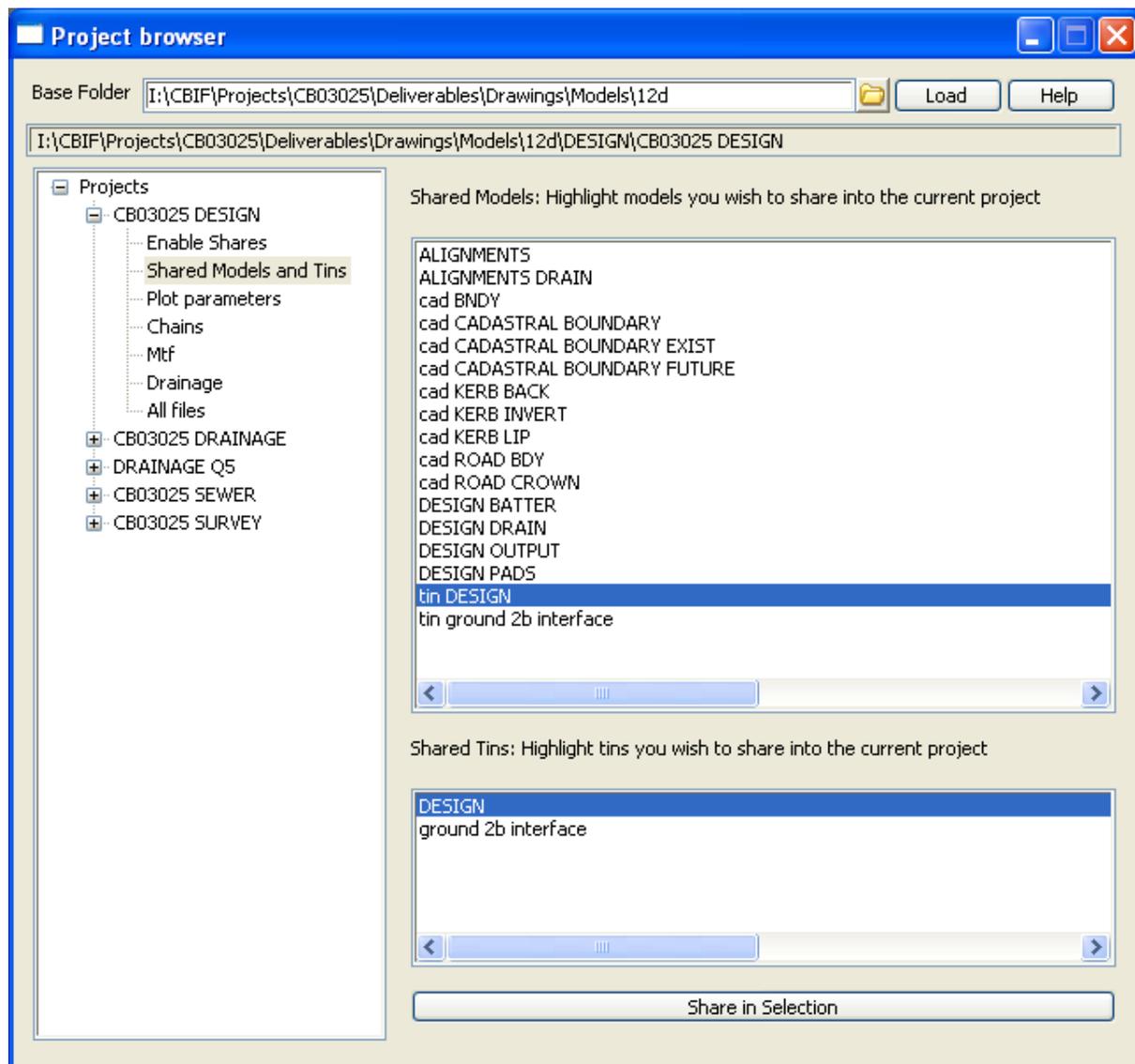
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Upon loading, the macro presents all projects which were found. The saved image, and also its description, and the full path to the project is displayed so that you can easily tell which 12d project you are looking at.



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From there it provides a series of views to inspect certain elements of each project. See below for a description of each view.



Enable Shares – This displays all models in the project. From here you can enable models/tins to be shared (that is any project you can see with the macro, you can enable the share without actually loading that project !).



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So for example if you are in the DRAINAGE.project and you want to share in data from the SEWER.project, you go to the enable shares view and select the models you want to be shared in the SEWER project.

Shared Models and tins – (see above image) This displays all models and tins which have been shared from the project. From here you can add the selected shares to the current project. This is a big time saver compared to using the default 12d way. (Tins=>Sharing=>Add... Browse to the correct path, and only then you can pick which models/tins you would like to add and god forbid if you forgot to enable the share back in the source project... but no worries now... see Enable Shares as described above).

Plot parameters – Lists all the plot parameters for that project, allowing you to copy to the current project. (it looks in the .project folder)

Chains – List all the chains for that project allowing you to copy to the current project.

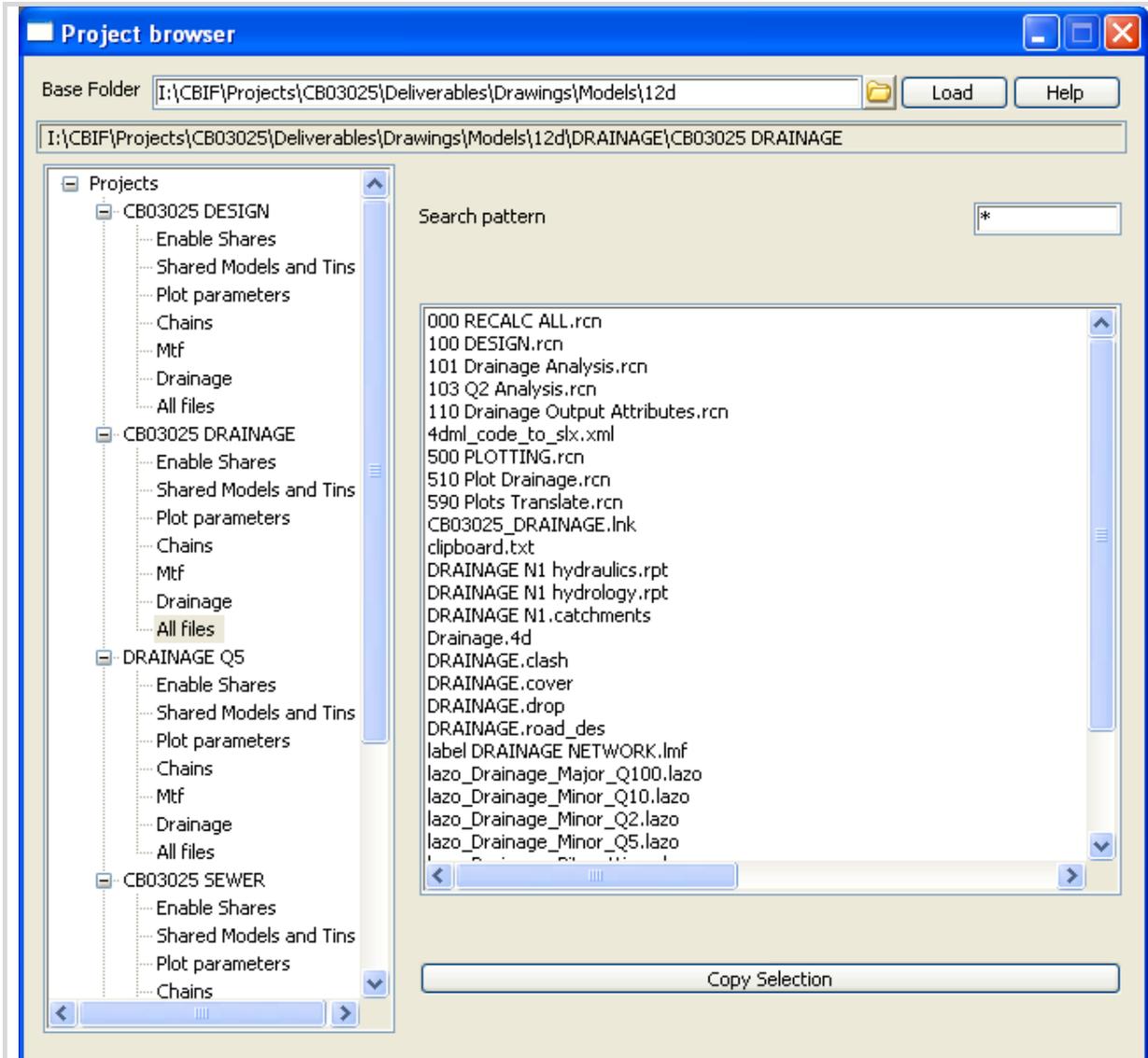
Mtf – List all the mtf files for that project allowing you to copy to the current project.

Drainage – List all the drainage files for that project allowing you to copy to the current project.

All files – List all files for that project, and allows you to filter by wildcard, allowing you to copy selected files to the current project. (see below)



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That highlights where the macro is useful when browsing relative to the current 12d project.

The Project Explorer macro is also very useful for browsing standard libraries as well.

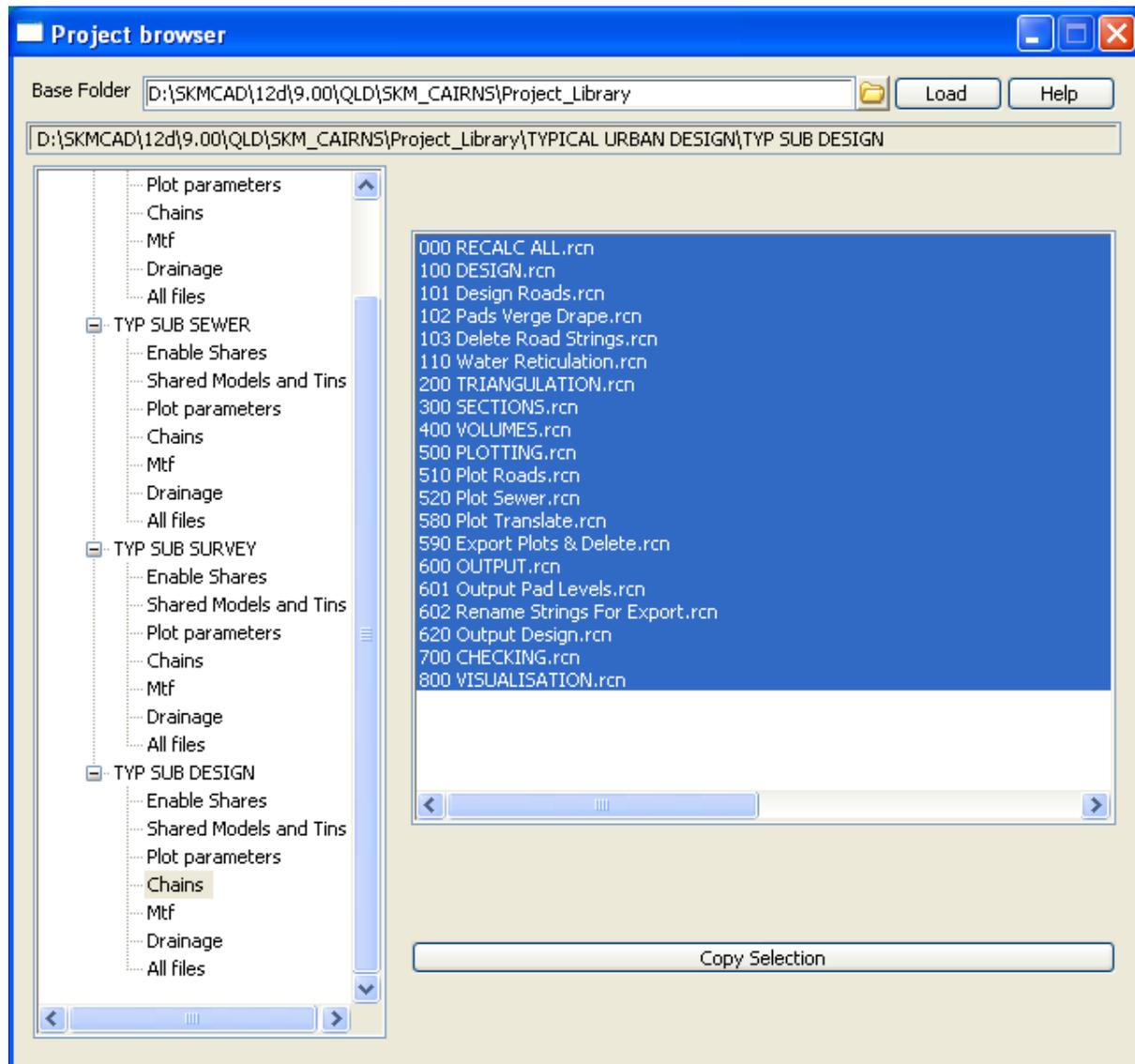
The macro accepts an optional argument, which is a starting path to crawl for projects. So you can supply it with the path to where your standard library is located. (ie This is usually done via a usermenu.4d command)

You can now quickly browse your standard library from inside the current project (ie. no windows explorer). You

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can now quickly copy files to the current project, again without resorting to flicking between windows explorer folders and using copy+paste.

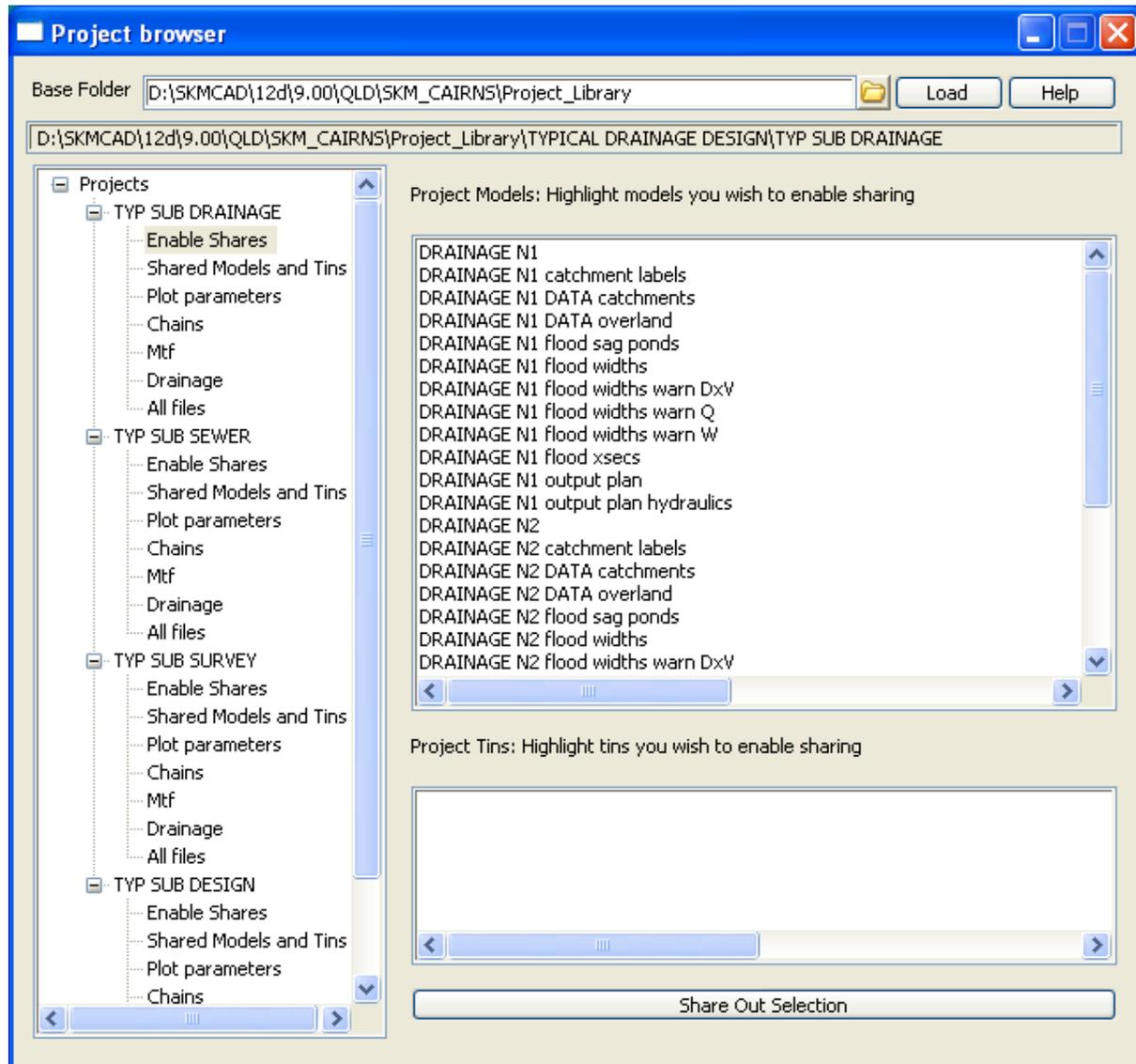
Here is an example where all the chains for a typical subdivision design can be copied to the current project. (see below)



It's also very quick to get all your drainage setup files such as .clash .cover .drop .road_des drainage.4d.

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Another useful function of the macro is being able to peek at the models in other projects. This helps to recall your model naming conventions without having to resort to a printed/online manual. (see below where you can easily see the names of the models for a typical 12d drainage project)





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To see the sharing functionality in action refer to this [video](#)

