

## PATHFINDER: DOCUMENTATION OF DATABASE MENU SYSTEMS

The ability to track programs called by a menu system is vital to any site. For sites using a database, (dynamic) menu system, PATHFINDER's APIs can be used to include object references made by the menu system in PATHFINDER's Object X-ref. Configuration of PATHFINDER APIs is as easy as it is important.

In general, there are two categories of database menu systems. In the first category, the database file containing the menu options ("options file") will have one field containing the program name to be called and another field containing the library name for the program. When a user selects a menu option, a CALL is made to the specified program. In the second type of database menu system, the "options file" file has one large field which contains a CL statement to be executed when the user selects the specified option.

For the first type of menu system (program and library name stored in separate fields), use PATHFINDER's Object API to facilitate easy entry of the menu option calls into Object X-ref. The Object API allows cross reference information to be added directly to PATHFINDER's Object X-ref files. This will enable "where used" inquiries for the programs referenced by the database menu system. The Object API is actually a program which gets called for each record in the "options file". Parameters are passed along with the call. These parameters include:

- X-ref library name
- Object being referenced
- How used
- Object making the reference
- Source statement

Appendix D of PATHFINDER's User Manual provides a detailed explanation of the Object API, including explanation of each parameter. To use the Object API, create a program which reads records from your "options file", sets up the appropriate parameters, and places calls to the Object API. The Object API will add this cross reference information directly into PATHFINDER's Object X-ref files.

For the second type of database menu system, where each record in the "options file" contains a CL statement to be executed, PATHFINDER's CL API should be used. This API allows you to add CL statements to PATHFINDER's Object X-ref files, enabling "where used" inquiries for objects referenced by your menu system. The CL API is a program which gets called for each record in your "options file". Parameters are passed along with the call. These parameters include:

- X-ref library
- CL Statement
- Object making the reference

Appendix G of PATHFINDER's User Manual provides a detailed explanation of the CL API, including explanation of each parameter. A program must be created which reads your "options file", sets up parameters, and calls the CL API. We have provided a sample program to show how the gathered source statements could be passed to the CL API (source file: HAWKEYE/QCLSRC1 member: H\$APICLEX). Once all records from your "options file" have been read, the CL API will add cross reference information for the passed CL statements to PATHFINDER's Object X-ref files.

Once X-ref data for your menu system has been successfully added to existing X-ref data, it is important to modify your refresh procedure to capture any changes that take place in your menu system. There is no way for PATHFINDER to determine which records in your "options file" have been added, changed, or deleted. Therefore, in order to update X-ref data with changes in your menu system, PATHFINDER's Remove API is used to remove all menu system references from X-ref data. Then the Object API or CL API is used to re-enter X-ref data for existing records in your "options file". Appendix H of PATHFINDER's User Manual provides a detailed explanation of how this API can be used to remove all references previously entered via the Object API or CL API. We have provided a sample program to show how to remove X-ref data with the Remove API (source file: HAWKEYE/QCLSRC1 member: H\$APIRMVEX). By modifying your refresh procedure to first call the Remove API, then call the Object API or CL API, X-ref data for objects referenced by your menu system will automatically be kept up-to-date.

For further information, please contact our Technical Services department. We can be reached by email at [info.hawkinform.com](mailto:info.hawkinform.com) or call us Monday-Thursday, 7 a.m. to 5 p.m. (MST) and Friday 7 a.m. to 3 p.m., VOICE (970) 498-9000 or FAX (970) 498-9096.