# 2. CHANGES FROM KOTO LOOPS

This chapter describes how the current release of Xerox LOOPS, Lyric/Medley LOOPS, differs from the Koto Release. The current Xerox LOOPS release runs under the Lyric release of Xerox Lisp. With the addition of a patch file, the current Xerox Loops release will also run under the Xerox Lisp Medley release. The inclusion of the patch file is automatically handled by the LOOPS installation process. To convert Koto LOOPS files into Lyric/Medley LOOPS files, see the Xerox LOOPS Users' Modules CONVERT-LOOPS-FILES.

A number of significant fixes to both the documentation and software have been made. In addition, Xerox LOOPS behaves differently due to new features of Xerox Lisp found beginning with the Lyric release:

- Xerox LOOPS vs. Packages

  Lyric has Common Lisp functionality, including packages and new case-insensitive readtables. All Xerox LOOPS symbols are in the INTERLISP: or IL: package, and Xerox LOOPS is case-sensitive, so it is much easier to type Xerox LOOPS expressions into an Interlisp Exec (see the *Xerox Lisp Release Notes, Lyric Release,* for more on different Exec types).

- Editing

  Lyric has a new default structure editor, SEdit. DEdit is still available as a Lyric Library Module, but most people find SEdit to be much faster and easier to use. SEdit has no specific Xerox LOOPS support features yet, but the features it has support Xerox LOOPS rather well. As an example, all Lyric LOOPS development was done using SEdit. See the *Xerox Lisp Release Notes, Lyric and Medley Releases,* for more information on SEdit.

- Source File Management

  Xerox LOOPS source forms are no longer LAMBDATRAN forms; instead they use the definer system which also handles Common Lisp forms in Lyric and Medley (see the *Xerox Common Lisp Implementation Notes* for more on definers). This has several consequences:

  - The source file format for Lyric/Medley LOOPS is different. A conversion utility is provided which takes Koto LOOPS source files and converts them to Lyric/Medley LOOPS format. The converter will not work correctly on source files from the prototype Buttress version of LOOPS. These files must first be converted using Koto LOOPS.

  - Xerox LOOPS source forms are no longer of filetype FNS; they are instead METHOD-FNS.

  - Comments may appear anywhere in a definer form, since the definer system removes them before making the form executable. This also means that various comments that the Xerox LOOPS system uses as help information (doc properties and first comments in method code) now need to be strings rather than comments, so the definer system will not remove them. The conversion utility handles this for most important comments; new code should use strings in these places.

  - Method bodies can now be CL:LAMBDAs or IL:LAMBDAs, by using the **Method** function and specifying a keyword when creating the method. A

Xerox LOOPS CL:LAMBDA method can have Common Lisp features like &rest and :keywords.

- Masterscope

  Masterscope is now a Xerox LOOPS Library Module, to match Masterscope becoming a Xerox Lisp Library Module in the Lyric release of XAIE, primarily because Masterscope does not support Common Lisp yet. Masterscope still supports Xerox LOOPS, however, and many bugs in that support from Buttress and Koto LOOPS have been fixed.

  When using LOOPS Masterscope, quote all Method Names that you use. The Masterscope parser currently will not recognize Method Names unless they are quoted.

- ICONW

  ICONW is now a part of Xerox Lisp and no longer needs to be loaded to run LOOPS.

- New Compiler

  Lyric/Medley LOOPS uses the new Lyric compiler, which handles Common Lisp. This has several consequences:

  - **_Super** and the other similar functions are now lexically scoped; that is, it is now illegal to call **_Super** anywhere but within a method body, and any selector given must be the same as the selector for that method.

  - Files compiled by the new compiler have no FILECOMS. Use

    ```
    (LOADFROM <FILE> NIL 'ALLPROP)
    ```

    to load Source files so that Xerox LOOPS browsers can find them.

  - The .DFASL output of the new compiler loads much faster than .DCOMs or the .LCOMs of Lyric.

  The ByteCompiler is no longer supported for compilation of LOOPS files. With the new compiler and its macrolet facilities, a cleanup of LOOPS files requires that *DEFAULT-CLEANUP-COMPILER* be set to 'CL:COMPILE-FILE. The *Xerox Lisp Release Notes, Lyric Release,* contain more information on the new compiler and the cleanup flag. The ByteCompiler is no longer supported for compilation of LOOPS files.

- LOOPS Library Modules

  **SSDigimeter** will be removed from Gauges in the next release of LOOPS. DigiMeters are inherently self scaling because Meters are. Therefore, **SSDigiMeter** is redundant . Note that SSDigiMeters are also generally slower than DigiMeters.

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