## With thin client is there a way to update and push changes to programs live (on the fly), without having to kill and restart the isCOBOL Server?

The JVM keeps copies of the classes in a memory cache and generally does not reload them from disk even if the disk file is replaced.

However, the Application Server has several options for reloading programs if those programs were loaded from **iscobol.code\_prefix**.

You configure this behavior by setting **iscobol.code\_prefix.reload**.

The default value, **iscobol.code\_prefix.reload=1**, will cause the Application Server to look at the date and time of each program before running it.

If the date and time don't match the cached program, the Application Server will reload the program automatically before running it, using C\$UNLOAD in the background.

You can control this process manually by setting **iscobol.code\_prefix.reload=0**. Then you can unload these cached programs in the Application Server panel or programmatically with C\$UNLOAD, which will force the Application Server to reload them. Only those you manually unload will be reloaded.

In the screen shot of the Application Panel below, the second line shows a program with a different date and time than the cached class.

You can unload this by selecting the line (click on it), and then clicking on "Unload Selected".

Location	Program Name	Server Datetime	9 Disk Datetime	CQ
:\Veryant\isCOBOL\sample\isapplication\prg	CHECKFILE	2019/02/13 15:03:26	2019/02/13 15:03:26	^
:\Veryant\isCOBOL\sample\isapplication\prg	ISAPPLICATION	2019/02/13 15:03:26	2019/02/13 15:16:50	
:\Veryant\isCOBOL\sample\isapplication\prg	ISPROGRAM	2019/02/13 15:03:29	2019/02/13 15:03:29	
:\Veryant\isCOBOL\sample\iscontrolset	ISCONTROLSET	2019/01/25 13:40:36	2019/01/25 13:40:36	
\Veryant\isCOBOL\sample\iscontrolset	NOTIFPROG	2019/01/25 13:40:36	2019/01/25 13:40:36	
\Veryant\isCOBOL\sample\issamples\prg	BARS	2019/01/25 13:40:36	2019/01/25 13:40:36	
Veryant\isCOBOL\sample\issamples\prg	ENTRY_FIELD	2019/01/25 13:40:38	2019/01/25 13:40:38	
\Veryant\isCOBOL\sample\issamples\prg	GRID	2019/01/25 13:40:38	2019/01/25 13:40:38	
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If you sent **iscobol.code\_prefix.reload=2**, a call to C\$UNLOAD (programmatically or through the Application Server panel) will unload all cached classes.

This can cause a performance slowdown for the next client that connects, because each program has to be loaded again.

The Application Panel will unload all classes instead of showing the screen above.



**Note:** that programs loaded from the CLASSPATH can't be unloaded and won't be reloaded until you restart the Application Server.

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