



# Run-Time...

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### Does and Dont



Do not edit the source files by hand Do not lose your change file (it contains your code)

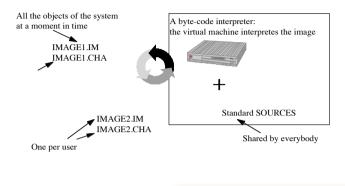
You cannot lose code (if you keep the change file) Always use Smalltalk to save your code Always use Smalltalk to rename your environment

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# Smalltalk Run-Time Architecture



· Virtual Machine + Image + Changes and Sources



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## All your changes are recorded



So have a lot at the changes sorter and change recovery tools suite of your dialect.

You should not lose code.

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### Smalltalk Run-Time Architecture



- The byte-code is in fact translated into native code by a just-in-time compiler (in VW, ST/X)
- The source and the changes are not necessary for interpreting the byte-code, this is just for the development. Normally they are removed for deployment.
- An application can be delivered as some byte-code files that will be executed with a VM. The development image is stripped to remove the unnecessary development components.

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### VWorks Runtime Architecture



Parcels reproduce the schema of the image and change: \*.pcl are the byte code, \*.pst are the source code
Parcels allows for fast atomic loading/unloading and prerequisite parcels

Good for dynamic loading and source code management

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#### VWorks Smalltalk Run-Time Architecture Sources Shared by everybody User 2 User 1 VM VM Image Change **Image** Change byte code of all the objects currently in memory Source of all the objects (Parcel(pcl)) Parcel(pst) piece of image (byte code) piece of source (text) S.Ducasse