

# A Generic Guide to Building the SIRTf Downlink Sub-system

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This document outlines the steps required to successfully deploy and build the downlink software system and associated SDM dependencies for use in automated pipelines. It is generic enough for deploying and building downlink on any Solaris 2.8 machine with visibility to the Concurrent Versions System (CVS). It is assumed the user is familiar with basic CVS commands.

1. Export or check-out a delivery of “/downlink” and concurrent deliveries of “/sdm” and “/common” from CVS.  
% cvs checkout downlink  
% cvs checkout sdm  
% cvs checkout common  
If checking out under a specific tag, ensure to specify -r <tagID> after the word “checkout” in the above command lines.
2. The cspice library under “/common” must be built:  
% cd /common/cspice/VN52a  
% ./buildCspiceVn52a.csh
3. In the downlink repository: /downlink/builds, the required files are:  
*build\_downlink\_IandT.csh*, *twoPassBuild.csh* and *downlink\_generic.env*. Copy these three files to the **/downlink** sub-directory.
4. In *downlink\_generic.env*, you only need to change the **SOS\_VERSION** environment variable to point to the directory where your /downlink sub-directory resides (i.e. where you initially checked-out /downlink). As a sanity check, also ensure the paths set by all other environment variables can be “seen” from your machine.
5. On the very first build, execute the following in your /downlink directory:  
% ./build\_downlink\_IandT.csh  
This will perform the two-pass build automatically.
6. If you wish to perform a complete build again in the same /downlink directory, you only need to execute the second pass build by executing:  
% ./twoPassBuild.csh 2
7. The entire build process takes  $\approx 3\frac{1}{2}$  hours on a 500 Mhz machine. Two log files are generated under /downlink: **env\_log** contains a log of all environment variables set by your system and **build\_log** contains a log of the build process.