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How to create dataless SEED for seismic stations

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**Abstract.** Once a seismic station is installed, it is critical to describe basic station parameters such as station location, digitizer sample rate, channel descriptions, gains, and instrument response. This information is stored as Metadata. One of the methods of packaging Metadata is through a Dataless Seed file. This document describes how to generate a dataless SEED using the JAVA utility PDCC, which is available for download through IRIS.

# Introduction

In order to utilize seismic data, some basic information about the station must accompany the waveforms such as station location, accurate time base, and calibration information. This Metadata is stored in various ways, from a simple table in a book, to actually embedding it within the file itself. One of the common methods of providing this data is to create a dataless SEED file. This file contains the entire record of station history, from station location changes, to amplifier gain changes, to even instrument upgrades. This guide is to be used in association with the manual from IRIS for the PDCC utility in order to help you a dataless SEED file that contains the Metadata for a basic, three-component station.

# Program setup

PDCC is available from IRIS at <http://ds.iris.edu/ds/nodes/dmc/software/downloads/pdcc/>

It is a JAVA based system, so you are required to have the latest JAVA present on the computer. Follow the instructions within the user manual that is located on the IRIS page to download and install the software.

#### Downloading some sample dataless seed files

According to the PDCC manual, you may attempt to create a dataless SEED file from scratch. However the easiest course of action is to take an existing dataless and modify it for your own needs. You may find two such files at this location: <http://www.github.com/tychoaussie/PDCC-Extras>