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**Title:** Version Control for Instruments in the National Children's Study

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### **Abstract**

Because the Program Office of the National Children's Study (NCS) continuously distributes amended instrument documents, it is necessary to appropriately update data collection software and the related VDR submissions in a timely manner. We have developed a Standard Operating Procedure (SOP) for change control around LimeSurvey, the open-source instrument tool we use at our Study Center. The SOP begins with loading Institutional Review Board (IRB)-approved documents onto an internal SharePoint site. Upon approval, the previous version of the instrument is exported to an XML-based LimeSurvey Survey Structure (LSS) file and deactivated. Deactivation additionally archives the data previously collected. The exported LSS file is then imported back to our testing environment and named with the amendment version ID and date. The imported instrument is modified according to the new amendment requirements. Given the skip patterns and logic in each instrument, this process saves a considerable amount of time for staff who are able to update, rather than rebuild, each instrument. Validation and testing are completed in the testing environment. Then, the Extract Transform and Load (ETL) process in Talend Open Studio tool is modified based on the changes. The validated instrument (via LSS file) and new Talend job are subsequently imported to the production server. Because the new instruments have an amendment version number and the date, our data collection staff can easily identify and administer the correct instrument. As the National Children's Study continues to expand and evolve, we will continue to develop more robust and efficient methods for managing change.