NATIONAL STUDENT LOAN DATA SYSTEM

U.S. Department of Education
Federal Perkins
Data Provider Instructions
(Version 2)

May 19, 2000

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Chapter 1: Introduction

Schools participating in the Federal Perkins Loan Program are required to report detailed loan information to the National Student Loan Data System (NSLDS). This operating manual explains Federal Perkins Loan reporting requirements and the processes used to add or update Federal Perkins loans on NSLDS. It explains how to use the new NSLDS DataPrep software and is for the use of data providers (schools and their servicers) with administrative responsibility for the Federal Perkins Loan Program.

1.1 About This Manual

This manual is intended to assist users with the data provider portion of the NSLDS update process as well as provide basic information about the entire process.

To make the instruction manual easy to follow, we have used the following icons to identify key points:

Indicates a definition or explanation that you will need to keep in mind throughout the discussion.

Indicates a special note, suggestion, or comment that will assist you in running DataPrep or in providing insight into the NSLDS update process.

Indicates a warning of which you should take special note.

Dear Colleague Letter
April 1995
CB-95-5 (LD)
All schools in the Title IV aid programs are required to participate with NSLDS. Schools with active Perkins Loans (including National Direct Student Loans, National Defense Student Loans, and Income Contingent Loans) are required to provide updated data to NSLDS once a month on a schedule established by ED.

1.2 What Is NSLDS?

NSLDS supports ED in a variety of operational and research functions meant to improve the administration and delivery of student aid through Title IV aid programs. Specifically, the three main goals of NSLDS are:

1. To improve the quality and accessibility of student aid data

2. To reduce the burden of administering Title IV aid

3. To minimize abuse within the aid programs through accurate tracking of funds appropriated to assist the postsecondary students for whom the programs were designed

NSLDS is a national database of recipients, enrollment data, and loan, Federal Pell Grant, and overpayment information on student aid disbursed under Title IV of the Higher Education Act of 1965, as amended (the Act). Data in NSLDS is provided by schools, guaranty agencies, and ED agencies. The data includes information about the following:

- The Federal Family Education Loan Program (FFELP)

- The Federal Direct Loan Program (FDLP)

- Federal Perkins loans (including National Direct Student Loans, National Defense and Income Contingent Loans)

- Federal Pell Grants

- Overpayments from the Federal Pell Grant, Federal Supplemental Educational Opportunity (FSEOG), and Federal Perkins Loan programs

- Demographic and enrollment data on Title IV recipients

NATIONAL STUDENT LOAN DATA SYSTEM
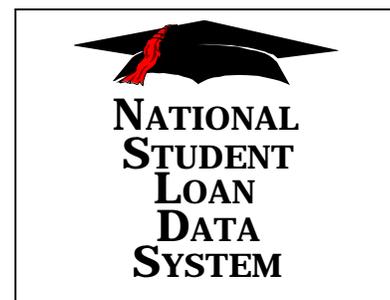
1.2.1 What Are the NSLDS Functions?

NSLDS currently has responsibility for the following functions:

1. **Prescreening for Title IV Aid Eligibility**—The NSLDS Prescreening function gives schools electronic access to information on prior Title IV aid received by aid applicants. Schools use this information to determine applicants' eligibility for further Title IV aid.

2. **Postscreening for Title IV Aid Eligibility**—The NSLDS Postscreening function informs institutions when their applicants' eligibility for Title IV aid has changed due to a change in default or overpayment status after their initial prescreening.

3. **Default Rate Calculations**—Cohort default rates are calculated annually for schools participating in the William D. Ford Federal Direct Loan Program and Federal Family Educational Loan Program. Rates are also calculated for guaranty agencies and lenders. Schools with default rates above established thresholds for at least three consecutive years can be disqualified from participating in some or all student financial aid programs.

4. **Monitoring of Guaranty Agency and Lender Financial Reporting for Reasonability**—NSLDS allows ED to monitor financial reporting for reasonability by supporting more timely assessment and by providing loan-level information. This helps ensure that the financial reporting submitted to ED by lenders and guaranty agencies reflects the status of their portfolios as reported to NSLDS.

5. **Research Studies and Policy Development Support**—NSLDS provides several types of access in support of users performing research and developing policy. Online queries range from focused queries, pertaining to a single student or school for relatively small amounts of data, to queries requiring NSLDS to supply or summarize massive amounts of data.

6. **ED Budget Analysis and Development**—Every year, ED develops input for the President's budget, based partly on projected loan program costs for a seven-year period. NSLDS information is used to develop reliable, sound assumptions on which to base the estimated program budget; answer budget related questions; and support necessary hypothetical analyses.

7. **Audit and Program Review Planning**—ED uses audits and program reviews to assess the performance of various Title IV aid delivery system participants. Audit and program review planning functions include retrieving specific data from NSLDS on organizations (schools, lenders, and guaranty agencies), and identifying key indicators used to schedule audits and reviews for maximum effectiveness.

8. **Assessment of FFELP Administration by Guaranty Agencies, Schools, and Lenders**—NSLDS provides the data for researching and assessing FFELP administration by guaranty agencies, schools, and lenders. Such research can be either short- or long-term and generally aims to evaluate the effectiveness of specific program practices.

9. **Refund/Cancellation Support**—When a student withdraws from school early and qualifies for a refund, the school is required to provide the refund or return of check to the appropriate party within a fixed time period. NSLDS provides information about the time schools take to perform these actions. This information helps auditors and program reviewers identify schools with poor records of handling refunds and cancellations.

10. **Borrower Tracking**—The Borrower Tracking function helps qualified users locate borrowers who have defaulted on student loans. NSLDS Borrower Tracking capabilities allow these qualified users to identify other schools, guaranty agencies, and lenders previously associated with a borrower, so they can be contacted for the borrower's current address.

11. **Loan Transfer Tracking**—Loan Transfer Tracking monitors transfer activity by maintaining dates of sale and names of loan holders. This information identifies likely problems with participants. It also helps evaluate the administration and billing of Title IV loan programs.

12. **Student Status Confirmation Report**—Student Status Confirmation Report (SSCR) information is used by loan holders to verify a borrower's enrollment status. This enrollment information enables loan holders to properly place a borrower into repayment. NSLDS has standardized the SSCR process and maintains current enrollment information.

13. **Financial Aid Transcript**—The Financial Aid Transcript (FAT) component of NSLDS summarizes all previous Title IV aid a student has received.

14. **Credit Reform Act Support**—The Credit Reform Act (CRA) requires loan level tracking of all federally guaranteed loans. NSLDS tracks and reports loans by program, cohort year, and risk category. Loan data is used semi-annually to estimate government costs associated with loan programs.

15. **Aid Overpayment**—NSLDS maintains a record of overpayments owed and repaid by students on Federal Pell Grants, Federal Supplemental Educational Opportunity Grants, and Federal Perkins Loans. The information is used to determine a student's eligibility for aid.

16. **Organization Contact**—NSLDS enables organizations, including schools, to enter contact information by function. This contact capability is accessible by both online screens and NSLDS's Financial Aid Professionals web site (www.nsldsfap.gov). It helps users quickly locate the correct contact person at a school, guaranty agency, lender, servicer, or other data provider.

17. **Student Access**—NSLDS gives students access to basic information about their Federal loans at a secure web site accessible to standard web browsers.

These function areas, and the system capabilities that support them, reflect requirements established for NSLDS by the U.S. Congress and ED.

1.2.2 Where Does NSLDS Data Come From?

As a comprehensive repository of Title IV recipients and their loan, Pell Grant, overpayment, and enrollment information, NSLDS receives data from many sources (some external and some internal to ED) and makes it available to approved users for a variety of purposes authorized by the Act. The principal sources of NSLDS data are the following:

- **Guaranty Agencies** provide loan data on FFELP loans from loan origination until the loan is paid in full. Some of the information guaranty agencies provide, such as loan balances, is received from lenders who report on loans through their guaranty agencies. Guaranty agencies submit their data monthly.

- **Schools (or their servicers)** provide enrollment data via the SSCR process.

- **Schools (or their servicers)** that participate in the Federal Perkins Loan Program provide monthly updates of loans.

- The **Debt Collection Service** provides data monthly on loans and overpayments assigned to ED and weekly data on lenders and lender servicers.

- The **Postsecondary Education Participant System** (PEPS) provides weekly data on schools.

- The **Central Processing System** (CPS) provides quarterly demographic data on students in the NSLDS database.

- The **Pell Grant Recipient Financial Management System** (PGRFMS and the new RFMS) provides daily updates on Pell Grant payments to students.

- The **Federal Direct Loan Program** (FDLP) Servicer provides monthly data on FDLP loans.
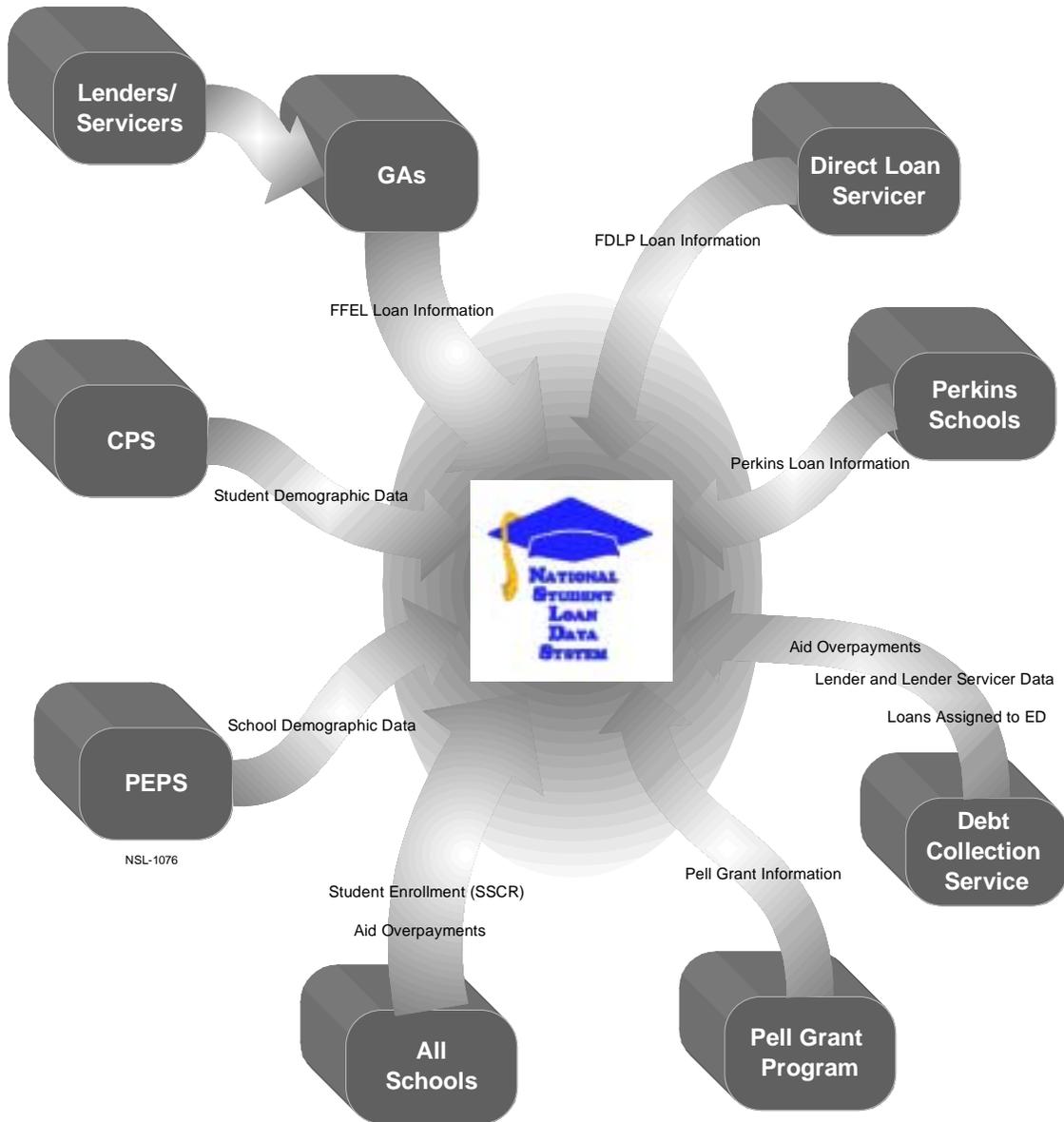
Figure 1–1, Sources of NSLDS Data

1.2.3 NSLDS Users

NSLDS users include personnel from ED, other Federal agencies, guaranty agencies, lenders, schools, and independent researchers.

NSLDS provides its users with Internet access and batch processing. The system's products are designed to provide efficient access to NSLDS data for a variety of user levels and purposes. See Figure 1–2 for the flow of data from NSLDS to various users.
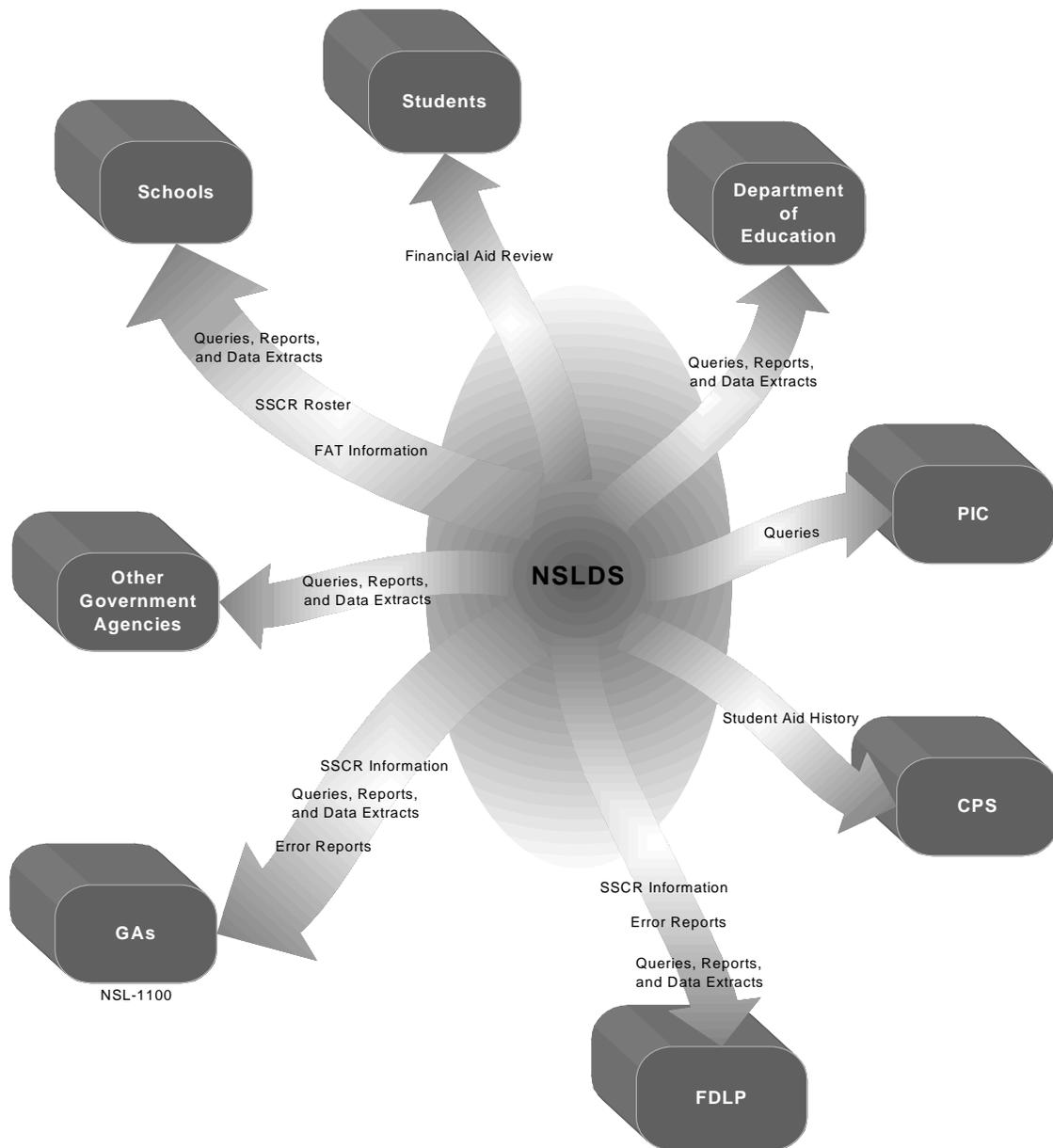
Figure 1–2, Outflow of NSLDS Information

1.3 Getting Help

NSLDS Customer Service Center is available to help answer all your questions. The CSC offers comprehensive assistance on all aspects of using the DataPrep software, from step-by-step installation questions to receiving error reports. The CSC can help you identify and correct Extract problems resulting from file- and domain-level edits, or NSLDS update problems resulting from record-level and load-level errors. The CSC will address your Perkins data provider set-up and scheduling questions and will distribute your school's yearly data provider load schedule each November.

In addition, the CSC can help:

- Identify other data providers to resolve identifier conflicts
- Clarify Data Provider Instructions
- Schedule initial and ongoing data loads
- Troubleshoot problems with DataPrep installation
- Discuss submittal requirements
- Explain specific error codes
- Review your submittal schedule

When you call the CSC you may be asked to provide specific information, including:

- Your OPE ID code and school name and phone number

- Whether you are using the mainframe or Windows-based version of the software

- The Version/Release number and release date of the DataPrep software you are using

- The nature of the problem

- The part of the process you were working with at the time the problem occurred

- Whether you have been able to duplicate the problem and, if so, what the conditions were at the time

- Error messages or other indicators of the source of the problem.

Customer Service Center
Contact the CSC at (800) 999-8219 between 8 a.m. and 8 p.m. Eastern time, weekdays except Federal holidays. Customer Service personnel will log your call, issue a confirmation number, answer questions, and, if possible, resolve problems immediately. If the problem requires further research, Customer Service will estimate when you can expect a return call.

Chapter 2: Data Provider Responsibilities

Data providers must provide information to NSLDS on Federal Perkins loans and regularly report on new loans and changes to existing loans. These reports must be submitted on an ongoing basis and on a regular schedule established between the data provider and the U.S. Department of Education (ED).

Data providers must:

- Meet all NSLDS reporting requirements as detailed in this operating manual.

- Report all Federal Perkins loans that were open or closed on or after October 1, 1989.

- Report new loans or updates to existing loans monthly on a schedule established by NSLDS. Data reported must be current and not extracted earlier than shown on the established schedule for the data provider.

- Create a Database Extract file meeting the specifications contained in Appendix A. Data providers are responsible for coding and testing their software as needed to properly format the Database Extract file.

- Use NSLDS provided DataPrep software to perform Extract Validation and create a Submittal file.

- Transmit the Submittal file to NSLDS on ED-provided communications lines in accordance with their established schedule. Note: Data providers can, on an exception basis and only with prior approval from ED, use cartridge or tape to send the Submittal file to NSLDS.

- Retrieve the Load Process Error file for each submittal. Data providers must review errors and correct as many as possible before the next submittal. Data providers are responsible for the accuracy of their data as well as for the timely reporting of loan data to NSLDS.

- Retrieve any Error Submittal Summary Notification files sent by NSLDS. Data providers are responsible for taking action to

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Schools and Servicers
The term "schools" in this document includes both schools and their servicers. Together, schools and servicers are referred to as data providers.

remedy file-level errors or missed submissions identified by such files.

- Work with other data providers—including guaranty agencies, the Direct Loan Program, the Debt Management Collection System, and the Pell Grant System—to resolve identifier conflicts.

- Receive and process reconciliation files provided by NSLDS. Reconciliation of loan data between NSLDS and the school's system of record can be done voluntarily upon request from the school or mandated by ED if it determines reconciliation is necessary to meet data quality standards.

In summary, data provider data must meet NSLDS reporting requirements and quality standards. All data submitted to NSLDS must be as complete and correct as possible. Schools that fail to meet their NSLDS reporting requirements are subject to the limitation, suspension, and termination regulatory provisions.

2.1 Data Privacy

NSLDS data is subject to the protections of the Privacy Act of 1974, as amended. Maintaining the security and confidentiality of the personal data supplied by those applying for and receiving loans is of paramount concern to NSLDS. Both NSLDS and its data providers are responsible for preserving the security of any NSLDS data in their possession.

You must be constantly vigilant in assuring the security of data being prepared for, sent to, and received from NSLDS. You must also protect student loan data against intentional or inadvertent disclosure or destruction. You should label sensitive materials—such as data, software documentation, operation manuals, and handbooks—as such and store them in a secured location. Failure to follow these steps can lead to personal liability under the Privacy Act.

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Privacy of Data
All NSLDS data is subject to the protections of the Privacy Act of 1974, as amended. Failure to preserve its confidentiality can lead to personal liability under that act.

2.2 Data Accuracy and Timeliness

In order for NSLDS to meet the needs of its user community, the submissions it receives from data providers must be timely, complete, and accurate. To help ensure the best possible data quality, NSLDS monitors submissions in two ways:

1. **Submittal Tracking**—NSLDS monitors late and missed submittals on a continuing basis.

2. **Error Tracking**—NSLDS calculates the percentage of records in a submittal that are in error and maintains a record of all errors until the error condition is resolved. Error rates are monitored on a regular basis to ensure data accuracy.

The error rate is calculated by dividing the number of loan records with errors by the total number of records extracted. If a record contains more than one error, the system still only counts it as a single record with errors when calculating the error rate. Thus, the total number of errors will not necessarily equal the number of records with errors.

Data providers falling short of expectations in either of these areas are subject to the limitation, suspension, and termination regulations of ED.

Calculating the Error Rate:
The error rate uses the number of records in error, not the total number of errors (there can be more than one error in a record).

Example:
If there are a total of 25 errors, but those errors appear in only 19 records out of 456 records extracted, the calculated error rate is:

19 / 456 = 4.2%

Chapter 3: The Update Process

NSLDS update process is comprised of six steps:

1. **Data Providers Create the Database Extract File**—You create a copy of your loan portfolio in a format specified by NSLDS. This copy, called the Database Extract file, includes all open loans and all loans closed on or after October 1, 1989, formatted according to the guidelines established in Appendixes A and C.

2. **Data Providers Run the Extract Validation Process Using DataPrep**—You run the Database Extract file through the NSLDS DataPrep Extract Validation process to check for file-level and domain-level errors. If there are file-level errors (such as an incorrect header or a school code for any record that does not match the header record school code), the process stops.

   If the rate of domain-level errors (such as a non-numeric character in a numeric field, an invalid date, a missing identifier, or a missing new identifier) is above a specified threshold, the process also stops and the complete Database Extract file is rejected. You must correct the error(s) before proceeding.

   If the number of domain-level errors is within the prescribed limits, DataPrep creates a new file called the Submittal file.

3. **Data Providers Generate Error Reports**—Using the Extract Error file produced by DataPrep, you generate Extract Error reports (both a summary and detail report are available) and use this information to make all necessary file-level and domain-level changes to your database and/or extract process. You can also use the Extract Validation Log report to perform a test of reasonability—a review of the data comparing the current data with previous submittals to look for the numbers of records processed and loan amount totals.

   If you make corrections, you then start again at step 1 by recreating the Database Extract file, running the Extract Validation process, and running Extract Error report.

4. **Data Providers Send or Transmit the Submittal File**—Once a Submittal file has been successfully created (after all file-level errors are corrected and after the number of domain-level

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> **Warning: Data Provider Responsibility**
> Data providers are responsible for submitting data to NSLDS using the edit rules, format, and processing flow specified by ED. Caution should be exercised when using specifications or software applications developed by other organizations or vendors. Regardless of whether third party software or procedures are used, data providers remain responsible for the accuracy of their data and for using procedures approved by ED. Schools and Third Party Servicers are jointly and severally responsible for compliance.

errors is below the specified thresholds), you transmit the data to NSLDS via the Title IV Wide Area Network (WAN).

5. **NSLDS Runs the Load Process**—NSLDS receives your Submittal file and runs file-level edits on it. If the file passes all file-level edits, NSLDS then checks each loan record for domain-, record-, and load-level errors. Loan records that pass all edits are matched against records already existing in the NSLDS database. Depending upon the outcome of that match, NSLDS either creates new student or loan records, or updates existing records. Loan records that fail one or more edits are added to the Load Process Error file NSLDS returns to you after loading your data.

6. **Data Providers Retrieve Error Files and Run Load Process Error Reports**—If your Submittal file passes all file-level edits and is loaded onto NSLDS, NSLDS sends you within 48 hours two files: a Load Process Error file containing all the domain-, record-, and load-level errors detected during the Load process and a new Threshold, Error Code, and Field Code (TEF) file. You then use DataPrep to generate Load Process Error reports (both summary and detail reports are available) which will help you make corrections to your database and resolve data conflicts prior to your next monthly extract.

If you fail to send NSLDS a Submittal file at the scheduled time or if the file you send is not loaded because of file-level edits, NSLDS sends you within 48 hours an Error Submittal Summary Notification file notifying you that your file was not received or was not loaded. In this case, NSLDS does not send you a Load Process Error file or TEF file.

Viewed as a linear sequence, the six-step update process looks like this:

Step 1 — **Data Providers** create a Database Extract File from their own databases, using their own software and ensuring that it meets NSLDS system requirements.

Step 2 — **Data Providers** run the Extract Validation Process against their Database Extract File using DataPrep software.

Step 3 — **Data Providers** perform Extract Error Report Generation.

Extract Error Reports

Fix database(s) and/or Extract Validation process to correct file-level and domain-level errors. Rerun steps 1-3.

Use information to correct database(s) and/or Extract Validation process.

Step 4 — **Data Providers** send Submittal File to NSLDS.

Step 5 — **NSLDS** runs Load and Update process against Data Providers' Submittal Files, updates NSLDS database, and creates error and TEF files for Data Providers.

Step 6 — **Data Providers** retrieve error and TEF files from NSLDS and generate Load Process Error Reports to correct record level errors in their database.

NSL-1071

Figure 3–1, Data Provider Six-Step Process

Viewed as an ongoing or cyclical process, the update process can also be illustrated in the following way, with the shaded boxes representing school or data provider responsibility and the darkened boxes representing operations handled by DataPrep.
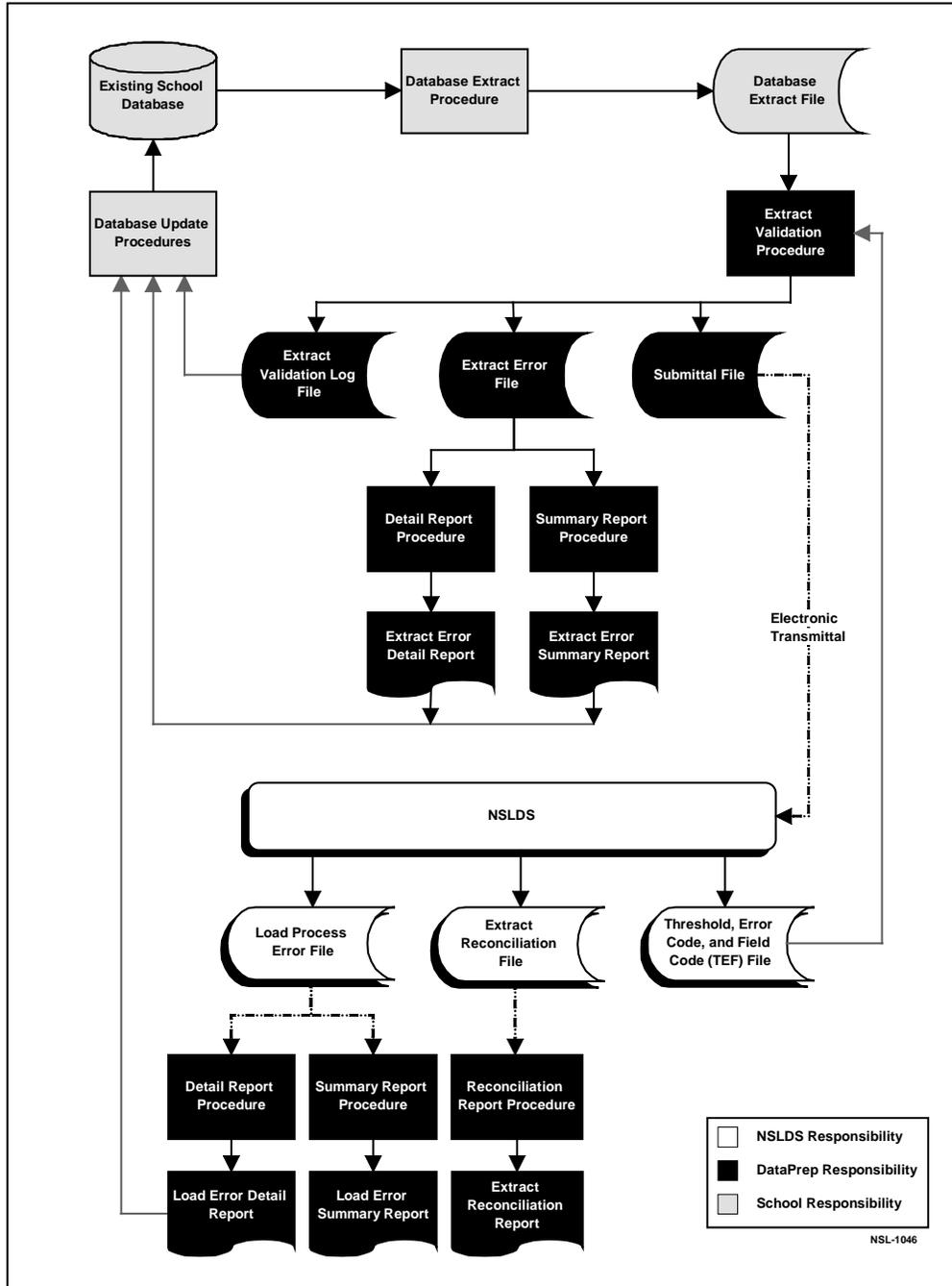
Figure 3–2, DataPrep Processing Flow for Extract Validation and Error Report Generation

3.1 Files Used in the NSLDS Update Process

The following files are created or updated in the update process:

- **Database Extract File (extract.ff)**—This is the formatted Database Extract file you create from your loan database. It includes Header and Detail records and can include Past Period Change records to correct certain kinds of reporting errors in previous cycles. This file is the input to the Extract Validation process.

- **Submittal File (submit.ff)**—This file is created by DataPrep software if there are no file-level errors and the number of domain-level errors in the Database Extract file is below the acceptable threshold levels. The Submittal file contains all current records and all Past Period Change records. You transmit this file to NSLDS, where it becomes input to the Load Process. This file can contain four record types: Header, Detail, Past Period Change, and Trailer. The Trailer record is added by DataPrep.

- **Extract Error File (extrerr.ff)—**This file is an output from the Extract Validation process. It contains an error record for each domain error listing the field in which the error occurred, the value and description of the error. The contents of this file can either be viewed on-screen or printed.

- **Error Submittal Summary Notification File (shsntfop.ff)**— This file informs you that your Submittal file was not loaded onto NSLDS database, either because it was not received by NSLDS or because it contained file-level errors. In the latter case, it identifies the errors that prevented the Submittal file from being loaded. The contents of this file can either be viewed on-screen or printed.

- **Load Process Error File (loaderr.ff)—**This file is an output of the load process. It contains an error record for each domain, record and load level error that failed NSLDS load edits. It identifies errors detected during the Load process and also contains header and trailer records. The contents of this file can either be viewed on-screen or printed.

File Names
You can determine the naming conventions for files used and created exclusively at your own site. But Windows users cannot alter the names used by DataPrep; otherwise, the program will not work properly.

We strongly recommend that mainframe users use the suggested file names provided by DataPrep and used in the sample Job Control Language (JCL) in Appendix G.

- **Threshold, Error Code, and Field Code (TEF) File (TEF.ff)—**This file contains software parameters for Load Process Error processing and error field names and messages for the processing of the Load Process Error file.

Figure 3–3 shows the edit process, some of the problems that can arise during that process, and possible solutions.
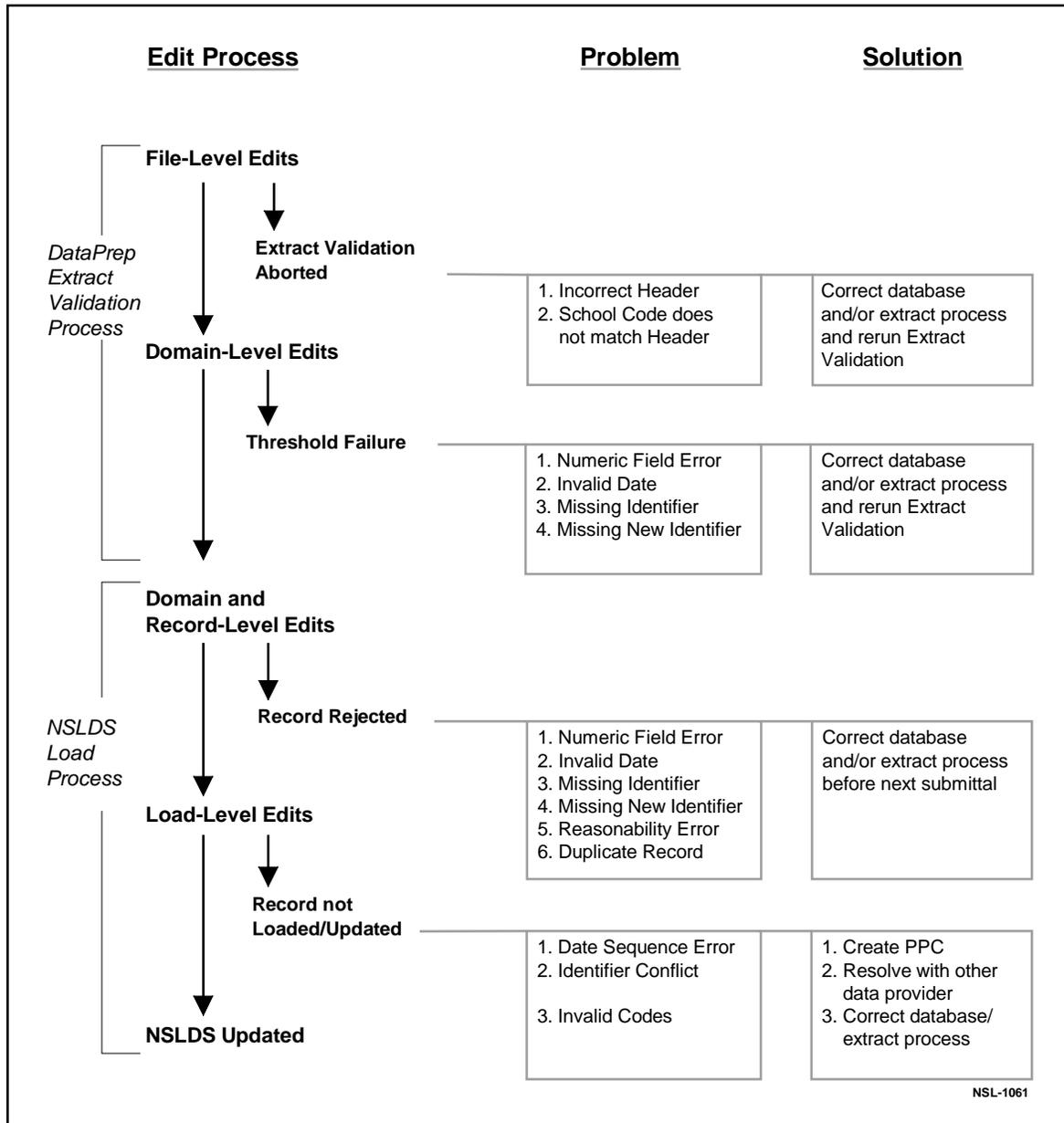
Figure 3–3, NSLDS Edit Process

3.2 What's New in Perkins DataPrep Version 2

The DataPrep software and load process have been modified as follows for Version 2:

1. DataPrep checks the Database Extract file for file-level and file-formatting error conditions. If it finds such errors, it rejects the entire file and does not create a Submittal file. You must fix all file-level errors before DataPrep will create a Submittal file. Previously, such errors were not detected until the Submittal file was processed by NSLDS. This change gives you immediate feedback about file-level errors.

2. DataPrep does domain checks (that is, checks that date fields are real dates or zeros, numeric fields are numeric, identifier and new identifier fields are properly populated) and provides a report on domain error conditions. However, you can send loans with domain errors to NSLDS so that a single complete error file can be generated after load processing.

3. Delta Processing has been removed from DataPrep, enabling you to transmit all loans to NSLDS every month. As a result, you will see a significant reduction in the amount of time it takes to run DataPrep. You can further simplify the extract process by changing the reporting of Outstanding Principal Balance from quarterly to monthly.

4. The Load Process Error report has been changed from a print file to a data file. You can now view and print the Load Process Error report from within DataPrep. DataPrep also supports the printing of a report on domain errors.

5. All First-Level edits (except domain-level edits) have been removed from DataPrep, and will be performed instead at NSLDS. This enables NSLDS to change edits as needed without releasing a new software version of DataPrep. Domain errors have been added to the Load Process Error report, enabling you to receive a complete error report each month.

6. Checking for duplicate loans (that is, two or more loans with identical loan identifiers) has been removed from DataPrep and added to the Load Process. This enables NSLDS to identify duplicate loans and treat them as errors. NSLDS adds an error record for each duplicate loan to the Load Process Error report.

7. You can now populate the Database Extract file with your own loan identifier, which will be returned on the Load Process Error report. The 19 bytes of filler at the end of the existing Detail record are used for this purpose. This change facilitates loan record matches and the identification of duplicate loans created by changing loan identifiers without using the identifier change process. This will help you resolve identifier conflicts.

8. Reasonability edits have been added to protect NSLDS from receiving faulty data. Edits have been added to all date fields to ensure the dates entered in them are not earlier or later than allowable. Reasonability edits have also been added to ensure compliance with Federal Perkins regulations.

9. You can now view and print a Loan Detail file within DataPrep. The format of the file is the same as that of the Database Extract file. This means you can print a formatted report from the content of your Database Extract file.

10. Version 1 of DataPrep required servicers or central collection offices servicing multiple campuses to do a separate extract for each campus and then combine the Submittal files for submission to NSLDS. Version 2 supports processing of multiple campuses in a single Database Extract file. Servicers should either modify their extract procedures to create a single Database Extract file with a separate header for each campus, or merge the individual campus Database Extract files into a single file before performing Extract Validation using the new DataPrep.

11. Version 2 simplifies the process for nullifying Perkins loans. A data provider using Version 1 did not always know all the data on a given loan and, therefore, could be unable to report the loan to NSLDS in a CA status. In Version 2 a loan can be nullified by reporting the loan identifiers, setting the Loan Status to CA, and setting the Loan Status Date to the date the loan was nullified. All other fields in the record can then be set to defaults or the existing current valid values. In either case, the loan will be nullified and dollar values set to zero.

12. NSLDS will now send you via Title IV WAN an Error Submittal Summary Notification file if it did not receive your Submittal file on schedule or if it received your file but was not able to process it because of file-level errors or some other problem. Version 2 allows you to generate an Error Submittal Summary Notification report from this file.

13. New fields have been added to the Trailer record of the Database Extract file. In Version 1, positions 55–300 in the Trailer record were filler. In Version 2, positions 55–63 are Number of Open Loans, positions 64–75 are Loan Total: Amount of Loan, positions 76–87 are Loan Total: Amount of Cancellation, positions 88–99 are Loan Total: Amount of Outstanding Principal Balance, and positions 100–300 are filler.

3.3 Extract Process Changes Required by September 1, 1999

Although there are a number of changes to the Extract Validation process in DataPrep Version 2 that impact how records are reported, the record format itself does not change. This means the internal procedures you currently use to create a Database Extract file under DataPrep Version 1 will still work with DataPrep Version 2. Therefore, your institution can begin to use DataPrep Version 2 before making the following changes to your extract procedures.

All data providers are expected to implement the new DataPrep Version 2 by September 1, 1999.

In addition, you are also expected to make the changes to your extract procedures described in the following subsections by September 1, 1999.

3.3.1 Full Extract Submissions—Report All Loans Every Month

The new version of DataPrep no longer performs First-Level and Delta processing. Instead, DataPrep processes a full extract of all loans in your database that are either currently open, or were closed on or after October 1, 1989, for submission to NSLDS. Your extract should include all open loans and all loans not yet reported and loaded to NSLDS in a closed or assigned status.

You must modify your Database Extract file creation procedures so you no longer extract closed loans already reported and successfully loaded to NSLDS. For example, a borrower makes the final payment on a loan in March 1999. You report the loan as paid in full (PF) with your April submittal. The record contains no

errors and updates NSLDS. Because the loan was loaded to NSLDS, you should not extract this loan record again when you create future Database Extract files. If the loan is reopened, you can report that fact on your Database Extract file and so update NSLDS accordingly.

3.3.2 Loans Closed Prior to October 1, 1989

If you currently extract loans that were closed before October 1, 1989, stop extracting such loans. A new edit will reject any loan closed before October 1, 1989. You can prevent these rejects by not extracting such loans.

3.3.3 Report Outstanding Principal Balances Monthly

The Date of Outstanding Principal Balance reflects the date of the most recent change in the principal balance. The Outstanding Principal Balance may change due to a disbursement, loan payment, or cancellation. Since you submit all loans in your database every month, the requirement to update Outstanding Principal Balance on a quarterly basis is eliminated. Instead, you must update the dollar amount and the date of the Outstanding Principal Balance using the current remaining amount and the date of the most recent change in Outstanding Principal Balance. If you have been reporting the last day of the month as the Date of Outstanding Principal Balance regardless of when the balance changed, you must modify your extract procedure to provide the actual day when the balance changed.

3.3.4 Reporting Outstanding Principal Balances That Are Less Than One Dollar

If a loan is reported with an open loan status, it must have a positive Outstanding Principal Balance. If the loan has a balance of less than one dollar, but not zero, you should report the Outstanding Principal Balance as one dollar. If the loan is being maintained in an open status because of a negative balance on the account (that is, a credit balance), you should also report a balance of one dollar until the loan is closed.

3.3.5 Data Provider Loan ID

You can track a loan through the NSLDS process using your own unique Data Provider Loan ID if you so choose. The last field in the Detail record is available to allow you to insert a unique loan ID that will be carried through the update process and returned on the error records in the Load Process Error file. The use of this new field is optional.

Chapter 4: System Requirements

This manual is written for data providers who use the ED-provided DataPrep software to prepare data for submission to NSLDS from either a mainframe (OS/390 LE Version 2.4 or higher) batch environment or a Windows-based personal computer (PC). Data providers who use other platforms or who want to develop their own software should contact ED for more information. Software developed by data providers must meet the standards established in this manual.

To run the DataPrep software and submit your data, the minimum system requirements are either:

- An IBM/IBM-compatible mainframe running the OS/390 LE, Version 2.4 or higher operating system and an appropriate sort utility, or

- A fully IBM-compatible personal computer with at least a 200 MHz Pentium processor, Windows 95, 98, or NT operating system, 64 Mb of available memory, and 8 Mb of hard disk space to store the program and work files, with additional hard disk space to store data files and backups. For more information about ED system requirements, see Action Letter GEN-97-11 (October 1997). For optimal viewing of reports, you may have to set your monitor's resolution to 1024 x 768 pixels.

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>
> **OS/390 LE Runtime Library**
> If you're running in the OS/390 LE environment, your LE Runtime Library must be in your standard system program library concatenation.

4.1 Estimating Required Disk Space

You will need approximately 8 Mb of disk space to store the PC DataPrep software and its associated test data files. This is the minimum disk space required and does not include storage space for your data files. You should also allow enough space in which to sort work files.

> ⚠
>
> **Enough Disk Space?**
> Database Extract files can be quite large. So it is *very* important that you evaluate whether your computer has enough disk space to store both the DataPrep software and the data files it processes.

Estimate your space requirements by adding the following:

Database Extract files	N * 300 bytes * Y
Submittal Files	[(N * 300 bytes) + (PPC * 300 bytes)] * Y
Extract Error Files	X * 300 bytes * Y
Extract Error Reports	X * 132 bytes * Z * 1.1
Load Process Error Files	X * 300 bytes * Y
Load Process Error Reports	X * 132 bytes * Z * 1.1
Threshold Error File	32,000 bytes
Loan Detail File	N * 300 bytes * Y
Loan Detail Reports	N * 132 bytes * Z * 1.1
(Equals)	_____ bytes of space required

Where:

N	=	Number of records extracted from your database.
X	=	Estimated number of errors.
PPC	=	Estimated number of Past Period Change (PPC) records.
Y	=	Number of Backup files created and stored.
Z	=	Number of Reports Generated.

All the mainframe examples in this document assume use of a Direct Access Storage Device (DASD). Tape can be substituted for DASD for any of the NSLDS files, but in that case, you are responsible for converting the calculations from DASD to that medium.

4.2 Setting Up Communications Links with NSLDS

All data providers access NSLDS through the Title IV WAN using EDConnect software. Data providers are assigned a mailbox, which they use to request and retrieve data from NSLDS. Your WAN ID account number serves as your mailbox identifier.

Title IV WAN Customer Service Center is responsible for setting up new user accounts on the Title IV WAN. You can obtain user documentation for the Title IV WAN and EDConnect32 software by calling (800) 615-1189. For more information, see Action Letter GEN-98-24.

Signing Up for NSLDS
To sign up for NSLDS you must use the Title IV WAN Enrollment Document. For more information, phone the Title IV WAN Customer Service Center at (800) 615-1189.

4.3 Obtaining a Submittal Schedule

NSLDS will assign a submittal schedule to you each year, usually in November. You can check your schedule at any time by selecting the Data Provider Schedule link on the Organization page of the NSLDS web site (*www.nsldsfap.ed.gov).*

For more information, or to obtain a copy of the schedule, contact the NSLDS Customer Service Center (CSC) at (800) 999-8219.

Submittal Schedules on the Web
You can check your submittal schedule at any time on the Organization page of the NSLDS web site *(www.nsldsfap.ed.gov).*

4.4 Initial Population

The first-time transfer of information from schools or data providers to NSLDS is called the initial population. In addition to current loan data, the initial population also includes data for loans that are closed. See Appendix A for detailed information about what data to include in an initial population Database Extract file.

Except for the addition of closed loan data and a slight difference in data reporting requirements, the process for an initial population submission is the same as the one you follow for subsequent updates.

4.5 File Protection and Backups

Files are subject to corruption, especially during transmission. Therefore, we recommend that you keep backups of at least your last two Database Extract files and Submittal files in case errors occur during transmission of the Submittal file or during the Load process.

PC DataPrep provides a quick way to create and organize backup copies of these files. The process for backing up files is described in detail in Section 5.2.4.

While we recommend a minimum of two generations, the sample JCL for OS/390 LE Version 2.4 environments provided in Appendix G allows for four generations of backups. Mainframe operators who use the sample JCL provided in Appendix G will find that a backup of the Submittal file, named NSLDS.SUBMIT.BKUP, is created automatically by the software.

Saving Generations
We recommend that you plan on saving at least two generations of all your files and reports. DataPrep can help you using the File Backup utility.

4.6 Using Servicers

While your school remains responsible for the timely and accurate submission of its data to NSLDS, you can choose to work with a servicer or third-party (including a centralized collection office for a multi-campus school) to process and submit all of your loan-level records to NSLDS.

If you use a servicer, you must consider and incorporate into your reporting procedures the following:

- **Coordinating Any Changes to Identifiers**—Whenever an identifier changes, you must submit the new identifier on every loan affected by the change. This must be done through the servicer.

- **Transferring Records From School to Servicer or Third Party**—The organization reporting on a loan must report all attributes for that specific loan. If the responsibility for reporting on a specific loan is transferred from one party to another, all the data for that loan must be transferred. The receiving party must then continue to report all required attributes on that loan even though there may not be updates to a specific attribute.

  For example, when a school transfers a loan to a servicer, the school must transfer all the data for that loan, including the student's enrollment status at the time the loan was first disbursed. Although the servicer may not update this attribute, the servicer must include it as part of the loan record that it extracts and submits to NSLDS. All data fields in the NSLDS extract should be transferred.

- **Changing Servicers**—If a school changes servicers, it must carefully coordinate with both the current and new servicers to ensure that all data is properly transferred. Regardless of any change in servicer, the school is expected to transmit the Submittal file within 90 days from the date the new servicer becomes responsible for servicing the loans. ED has determined that servicers should transfer portfolios using the same file layout as a Submittal file to NSLDS. The same data should be extracted and prepared as would be for a Submittal file. The Database Extract file thus created should be sent to the new servicer, who in turn should use the Submittal file to populate its database so it can provide the proper student and loan identifiers to NSLDS.

Institutional Responsibility
Because systems and procedures vary significantly from one institution to another, each school is responsible for determining how it will meet the NSLDS reporting requirements.

4.7 Multiple Schools or School Branches

Servicers that report data for multiple schools, or schools that report data for multiple branches with separate OPE IDs (Code for Original Schools), must submit a single file to NSLDS containing data for all the schools or branches being reported. The NSLDS DataPrep software has been developed to process a Database Extract file containing multiple OPE IDs.

If you report data for multiple schools or branches, you must concatenate their data records into one single file for processing through DataPrep. The resulting file should be structured to contain a Header record, all Detail records, and all Past Period Change records for the first school or branch, then the same sequence (Header record, Detail records, Past Period Change records) for each additional school or branch in turn. The file structure is illustrated in the box at right.

Once you have created the combined Database Extract file, you can process it just like a file containing a single school's data using the DataPrep software.

Note that you should not insert trailer records for individual schools or branches because DataPrep will do so for you during the Extract Validation process.

Numbers of Schools or Branches
There is no limit on the number of school or branch data sets that can be appended together in a single Database Extract file.

Multiple School/Branch File Structure
School 1 Header Record
School 1 Detail Records
School 1 PPC Records
School 2 Header Record
School 2 Detail Records
School 2 PPC Records
School 3 Header Record
School 3 Detail Records
School 3 PPC Records
And so on.

Chapter 5: Installation, Utilities, and Testing

After you have made sure that you meet the system requirements for DataPrep Version 2, you are ready to install DataPrep, set up its utilities, and run test files designed both to test whether you have installed DataPrep properly and to familiarize you with how DataPrep works.

5.1 Installation

5.1.1 Installing DataPrep on a Windows-Based PC

To install DataPrep on your PC, follow these steps:

1. Insert Disk 1 in your floppy disk drive.

2. On the Start menu, click Run.

3. Type **a:\setup**. (If your floppy disk drive is not a:\, substitute the proper letter designation for that drive.)

4. Click OK.

The setup procedure will guide you through the rest of the installation process and will prompt you to insert the remaining diskettes when necessary. If you need to change any choice you make during installation, you can return to earlier screens by clicking Back.

If you are running Windows NT, the install program will check whether you have the administrative privileges required to install new software. If you do not, you will get this message:
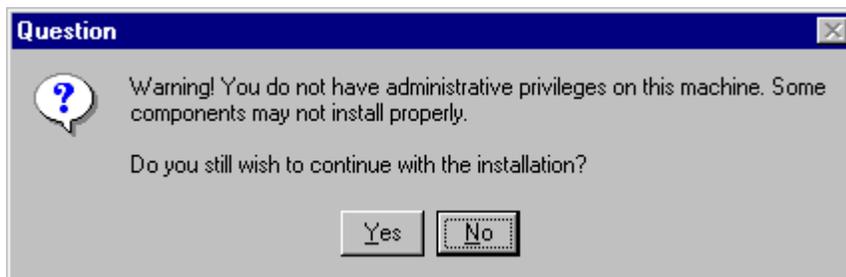
DataPrep and Data Provider Instructions
DataPrep was sent to you on six diskettes. The Data Provider Instructions are posted on *www.ifap.ed.gov*. Check there for any updates or revisions.

Administrative Privileges
If you run Windows NT and do not have administrative privileges to install new software on your computer, you will get a warning when you try to install DataPrep. You can still install the software, but some of its functions may not work properly. If you get this warning, you should check with your information technology department before proceeding.

You can still install DataPrep, but some of its functions might not work properly. For example, you might not be able to print from the DataPrep viewer. Check with your information technology department before proceeding.

During the setup procedure, you must specify where the DataPrep system files are installed. We strongly recommend that you use the default path C:\Nslds-v2.

When you start PC DataPrep for the first time, the Directories dialog box (Figure 5–1) appears, prompting you to select where DataPrep's work files are located. DataPrep supplies default directory paths, but you can change them as needed. It is essential that you supply the paths to where your working files are in fact located, or DataPrep will be unable to find your data. You must also specify the correct directory paths when you transmit your data to NSLDS via Title IV WAN.

When you are satisfied with the directory paths listed in the Directories dialog box, click OK.

Directories
These are the folders where DataPrep working files are stored:

- **Temp**—the location of your temporary sort work files (*.tmp)
- **Extract**—the location of your Database Extract file (extract.ff)
- **Current**—the location of the TEF file (TEF.ff) and all DataPrep output files (*.ff)
- **Backup**—the location of your backup file folders (yCCYYmMM)
- **Loan**—the location of the Loan Detail file obtained by special arrangement (loandtl.ff)

Figure 5–1, Directories Dialog Box

If you have named a path that does not currently exist, DataPrep will ask you if you want to create it. Click Yes to do so.

5.1.2 Installing DataPrep on an OS/390 LE Version 2.4 or Higher Mainframe

To install DataPrep on your mainframe, you must first install the Installation JCL that appears in Step 1 of Appendix G. This Installation JCL is not included on the tape that contains the rest of DataPrep for OS/390 LE Version 2.4, so you must create your own copy. Your site will probably have a JCL file for executing IEBCOPY that closely resembles the Installation JCL. To create the Installation JCL, make a copy of the IEBCOPY JCL and modify it so it contains the same file names as the Installation JCL in Step 1 of Appendix G.

Run the Installation JCL once to unload the Unload JCL that appears in Step 2 of Appendix G from the DataPrep tape. Then run the Unload JCL once to unload and install the actual libraries and software that will allow you to run DataPrep. If you need to run the Unload JCL again to reinstall DataPrep, be aware that step PSTEP005 will delete all data sets previously created.

Note that by installing DataPrep JCL for OS/390 LE Version 2.4, you will be creating data set names on your system. The second and last node in all data set names created by DataPrep contain identifying information (Version/Release/Levelset Date) meant to track which release of DataPrep you are using. **We strongly recommend that you retain this naming convention**.

The Unload JCL can be referenced from the library created by the Installation JCL with CUTTAPE as part of the name. The library member name is UNLOAD.

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OS/390 LE, Version 2.4 or Higher
In order for DataPrep to work on your mainframe, you must be running OS/390 LE, Version 2.4 or higher.

5.2 Options and Utilities

5.2.1 Changing Directory Paths

If at some time after installation you decide to change the directory path for any of DataPrep's working files, follow these steps:

1. From the DataPrep Main Menu, click Options and then Directories.
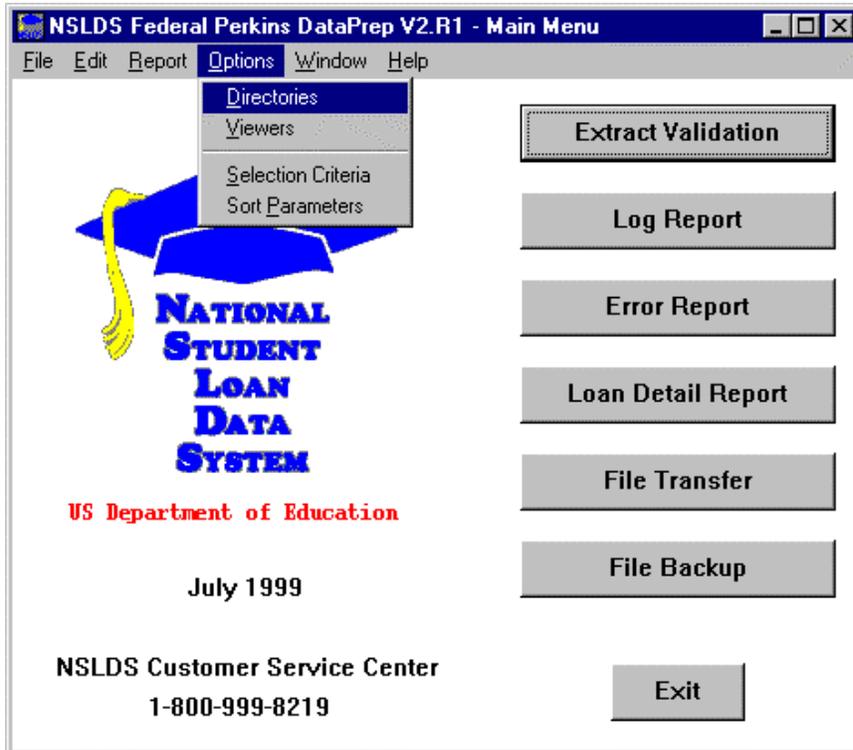

Figure 5–2, DataPrep Main Menu with Directories Selected on the Options Menu

2. The Directories dialog box appears.

Directories and Folders
The terms "directory" and "folder" refer to the same object but viewed from different perspectives. Both refer to a place where files are stored. That place is a *directory* when it is viewed from the point of view of a computer or network's total file structure. The *directory path* is the route a program takes through that file structure to find an individual file. A *folder* is the visual representation of the directory as an individual icon (as in a desktop shortcut) or within My Computer or Windows Explorer.
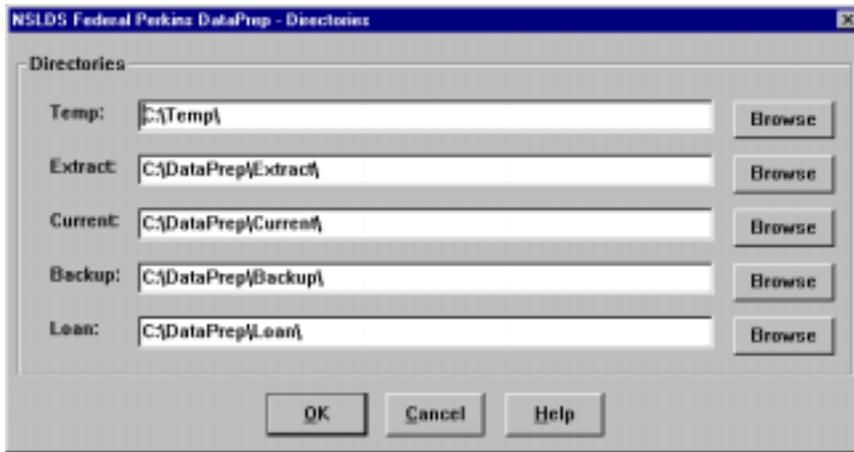
Figure 5–3, Directories Dialog Box

3. Select new directory paths in one of two ways:

    A. Type the new path into the text box.

    B. Press the Browse button to the right of the text box and use
        the Select File Directory dialog box that appears to select
        the new path.

4. Click OK to save your changes.

Note, however, that if you change the directory path for your
Current folder, you must use Windows Explorer or My Computer
to copy the following files from your old Current directory to your
new Current directory:

- ERRDTL.sel
- ERRDTL.srt
- ERRDTL.var
- LOANDTL.sel
- LOANDTL.srt
- LOANDTL.var
- TEF.ff

If you fail to copy these files to your new Current directory,
DataPrep will be unable to sort your detailed Extract Error report
or Load Process Error report.

In addition, you may wish to copy any additional files that you
wish to retain.

⚠️

Copy Your Sort Files
If you use the Directories
dialog box to change the
directory path for your
Current folder after you have
installed DataPrep, you must
be sure to copy the files
containing sort parameters
from your old Current
directory to your new
Current directory. Those files
have names that end with
the following suffixes:

- **.sel**
- **.srt**
- **.var**

5.2.2 Viewers

DataPrep allows you to generate a whole series of reports as you move through the NSLDS update process. To view and print those reports, you must use a viewer. When you install DataPrep, it automatically establishes its own built-in viewer (uta0.exe) as the default viewer for reports. This viewer was especially designed to display and print reports in the correct format, and we recommend that you become familiar with its features.

You can also use Notepad, WordPad, and some word processing software as viewers. However, if you use them, you might have to reformat reports to fit on screen or on paper. In addition, you may need to increase your desktop size to at least 1024 by 768 pixels to view reports without having to scroll horizontally.

Likewise, when you print reports from the DataPrep viewer (uta0.exe), it automatically formats them so they look on the page much as they do on-screen, and so the individual rows of the report are not broken across two or more lines of print. If you use another viewer, you will need to set your printer options with care to achieve equally good results.

There are situations in which you will want to use a viewer other than the DataPrep viewer (uta0.exe) to view or print reports. The figures in this manual frequently use Notepad to make the contents of reports larger and so easier to read. But to view and print reports that are correctly formatted, we recommend that you use the DataPrep viewer (uta0.exe).

The DataPrep Viewer (uta0.exe)

The DataPrep viewer (uta0.exe) includes the following features, which are deployed down the right side of your screen when it displays:

- A drop-down zoom box. You can also zoom in by left clicking on the text of the report, or zoom out by right clicking on it.

- A button that centers the report on the screen.

- A spin box that allows you to navigate through the report one page at a time.

- Fast-forward and rewind buttons that allow you to move directly to the first or last page of the report.

- A Print Current Page button.

- A Print button.

- An Exit button.

- A Help button.

Changing Your Default Viewer

To change your default viewer for all reports, follow these steps:

1. From the DataPrep Main Menu, click Options and then Viewers.
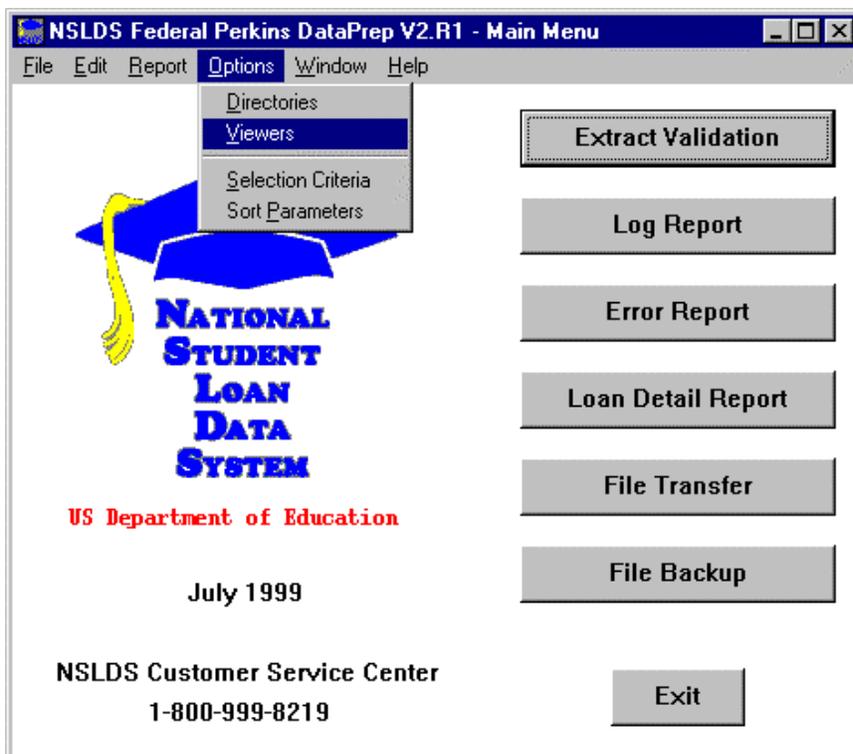
Figure 5–4, DataPrep Main Menu with Viewers Selection on the Options Menu

2. The Viewer Maintenance dialog box appears.
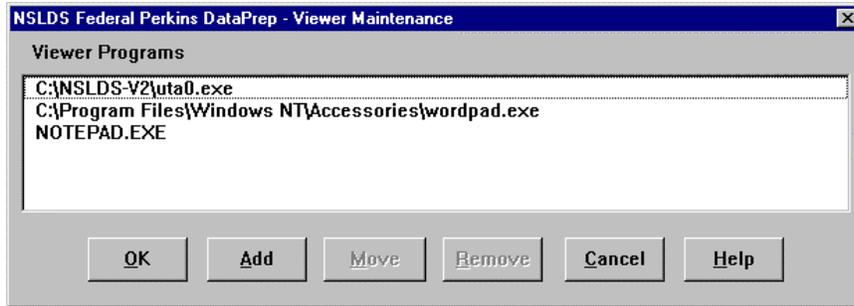
Figure 5–5, Viewer Maintenance Dialog Box

The word processing software that appears at the top of the list is the default viewer for viewing and printing reports. To change the default viewer, follow these steps:

1. Select the viewer you want to make the default by highlighting it.

2. Click Move.

3. Point the cursor to the top of the list and click. This will move the highlighted software to the top of the list.

4. Click OK to exit the dialog box.

To change your default viewer, you must select the viewer you want *and move it to the top of the Viewer Programs list* before clicking OK. Just selecting a viewer and clicking OK will not change your default viewer.

If you want to add other word processing software to the viewer list, click Add and then specify the directory path for the software you want to add.

To remove a viewer from the list, highlight it and then click Remove. DataPrep will ask you to confirm that you want to delete the viewer program from the list.

You can use any viewer to view a particular report after it is generated, *as long as it is one of the viewers on the list*. But you can only change the default viewer from the Viewer Maintenance dialog box.

Selecting the Viewer
The word processing software at the top of the Viewer Programs list is the default viewer. To change the default viewer, follow these steps:

1. Select the viewer you want to make the default by highlighting it.
2. Click Move.
3. Point to the top of the list and click.
4. Click OK.

The viewer you selected will be moved to the top of the list, and DataPrep will use it by default to view reports.

Move the Viewer Before Clicking OK
To change your default viewer, you must select the viewer you want *and move it to the top of the list* before clicking OK. Just selecting a viewer and clicking OK will not change your default viewer.

Changing Viewers for a Single Report

To select a different viewer for a single report without changing your default viewer, follow these steps:

1. If you have already generated a report and displayed it in a viewer, close or minimize the viewer and return to the report dialog box from which you generated the report.

2. Click Viewer to display the Select Viewer dialog box. It will display DataPrep's built-in viewer (UTA0.exe), Notepad, WordPad, and any other viewers you have installed using the Viewers command on the Option menu.
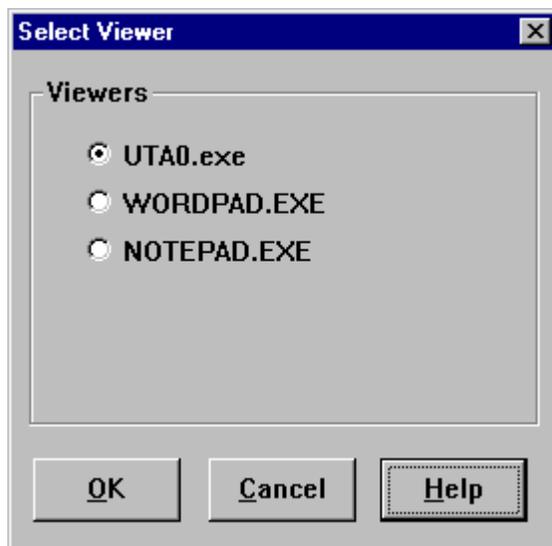
Figure 5–6, Select Viewer Dialog Box

3. Select the viewer you want to use and click OK to view the report.

This process only changes the viewer for the report you are currently viewing. To change your default viewer, see the previous subsection.

5.2.3 File Transfer

DataPrep's File Transfer utility allows you to import or export specific files associated with DataPrep and the NSLDS update process. You can import the following files sent to you by NSLDS, normally via Title IV WAN:

- Thresholds, Error Codes and Field Codes File (Message Class TEFFILOP)

- Load Process Error File (Message Class SLDERROP)

- Loan Detail File (Message Class SLNDTLOP)

- Error Submittal Summary Notification File (Message Class SHSNTFOP)

When you import a file, the File Transfer utility copies (or moves) it to the default folder for files of that type and renames it so DataPrep will recognize it.

You can also use the File Transfer utility to export a Submittal file created by DataPrep to a folder from which it can be transmitted to NSLDS. For detailed instructions, see Section 8.1.3.

To import a file using the File Transfer utility, follow these steps:

1. From the DataPrep Main Menu, click File Transfer. The File Transfer dialog box appears.
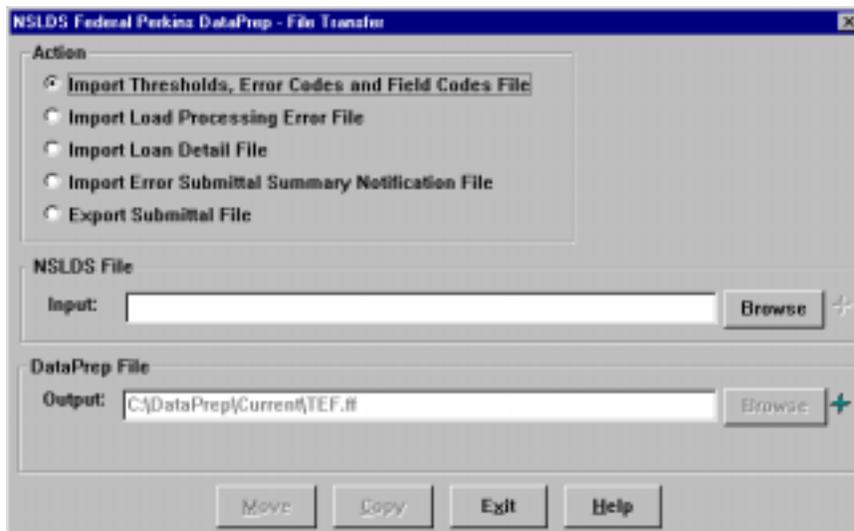
Figure 5–7, Initial File Transfer Dialog Box for File Import

2. Select the action you want to perform. DataPrep displays the default directory path for files of that type as the DataPrep File Output (Figure 5–7). You cannot change this default path. However, if you are importing an NSLDS Loan Detail file (Section 10.3.1), DataPrep does give you the option of assigning it a version name.

Message Class Input and Output Files
Regardless of what file name you insert in the input screen, DataPrep will change the output name so DataPrep can recognize the file. The TEF file message class, TEFFILOP, will output as TEF.ff.

3. Press the Browse button to the right of the NSLDS File Input box to display the Select NSLDS File dialog box. It will display with the File of type option at the bottom of the dialog box set to the kind of file you seek.

   For example, the first time you select Import Thresholds, Error Codes and Field Codes File as an action and click browse, you should see a dialog box similar to the one in Figure 5–8. Notice that the File of type option is automatically set to Received TEF File (teffilop.*).

Browsing for Files
When you browse for files, make sure that the Files of type option is set to the file type you seek or to All Files (*.*).
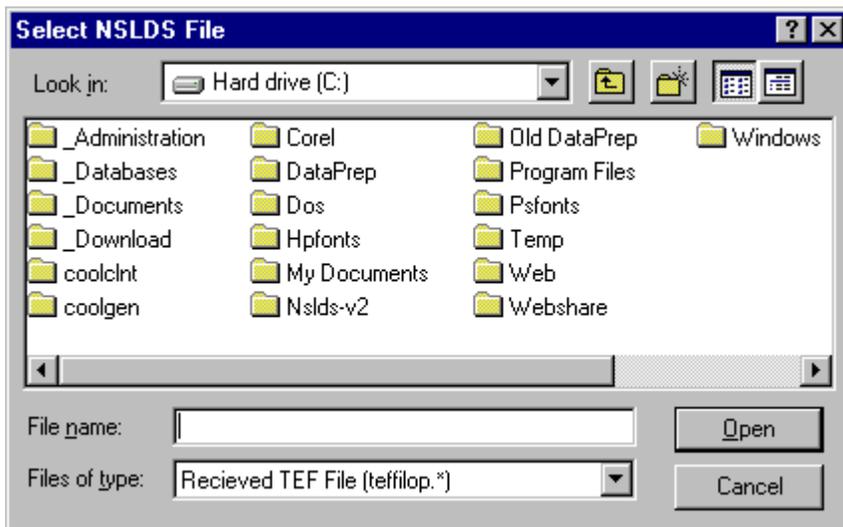
Figure 5–8, Initial Select NSLDS File Dialog Box for TEF File

4. Use the Look in option at the top of the dialog box to locate the folder that contains the NSLDS file you want to import (normally C:\IAM\DATA). You can select any folder you have access to on your computer or network.

Where to Look
These instructions assume that when you receive files from NSLDS via Title IV WAN, they are saved to a directory named C:\IAM\DATA. If you receive files by tape, or store them elsewhere, you will need to adjust accordingly.
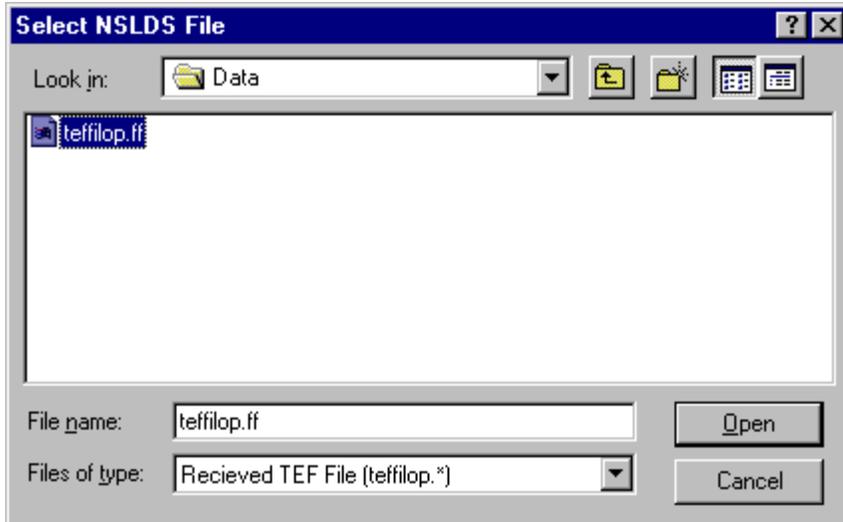
Figure 5–9, Final Select NSLDS File Dialog Box for TEF File

5. Select the file you want to import. Whatever file you select will be displayed as the default NSLDS File Input option the next time you import the same type of file. Click Open to return to the File Transfer dialog box.
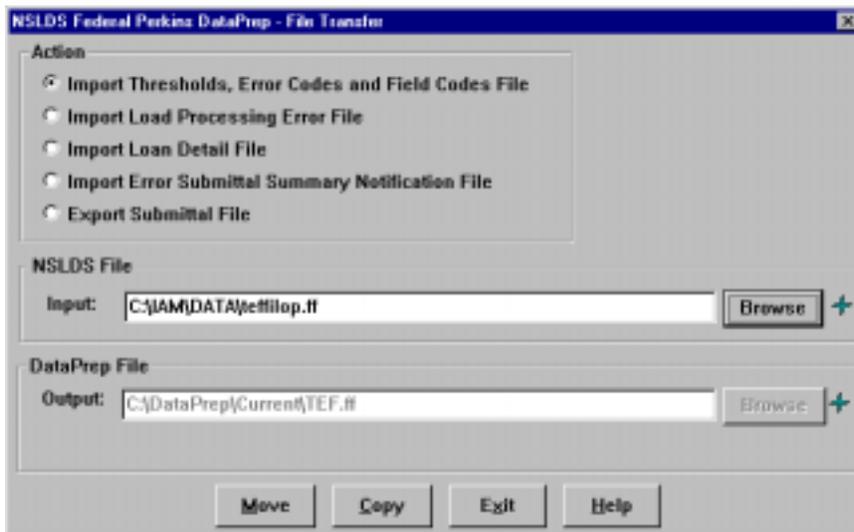
Figure 5–10, Final File Transfer Dialog Box for File Import

6. Clicking on the blue plus signs to the right of the Browse buttons for the NSLDS File Input and DataPrep File Output boxes displays a File Information message box you can use to check that you are transferring the right file and that is it more recent than any file it might replace.

NSLDS Federal Perkins DataPrep - File Information

C:\DataPrep\Current\TEF.ff

Last Modified Date/Time: 1999-10-22   14:39:40

Number of Bytes: 19,118

Exit   Help
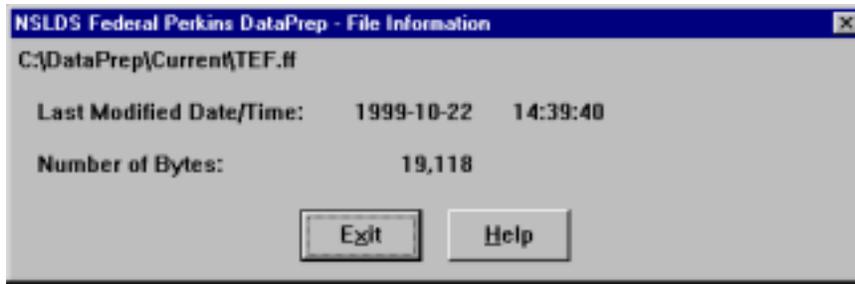
7. If you displayed the File Information message box, click Exit to return to the File Transfer dialog box.

8. Check that the directory paths in both the NSLDS File Input and DataPrep File Output boxes are correct and click Copy or Move. If a file of the type you are transferring already exists in the destination folder, a message similar to the following displays:

C:\DataPrep\Current\TEF.ff

Replace existing file?

Yes   No

> ⚠️
>
> **Copy or Move**
> When you use DataPrep's File Transfer utility to copy a file, DataPrep copies and pastes the file to a new location. When you use it to move a file, DataPrep cuts and pastes the file to a new location.
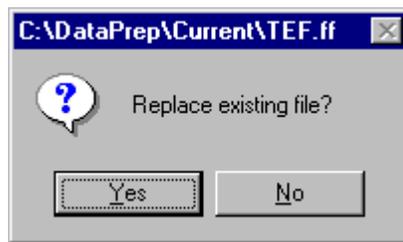
9. Click Yes to continue. If the copy or move is successful, DataPrep displays a message similar to the following:

C:_Documents\DPIs\Perkins\Title IV WAN Mailbox\teffilop.ff

File successfully imported into DataPrep directory.

OK
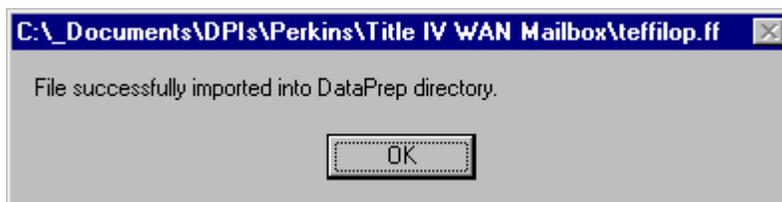
5.2.4 File Backup

We strongly recommend that you regularly backup all your data files. Regular backups give you a full record of your submissions to NSLDS and a potentially invaluable audit trail. DataPrep's File Backup function helps you copy or move files from your working folders (Current, Extract, and Loan) to backup folders of your choice. It also helps you maintain backups after you create them. In addition, you can use it to delete backup files and folders when you no longer need them.

To create a new backup folder, follow these steps:

1. From the DataPrep Main Menu, click File Backup.
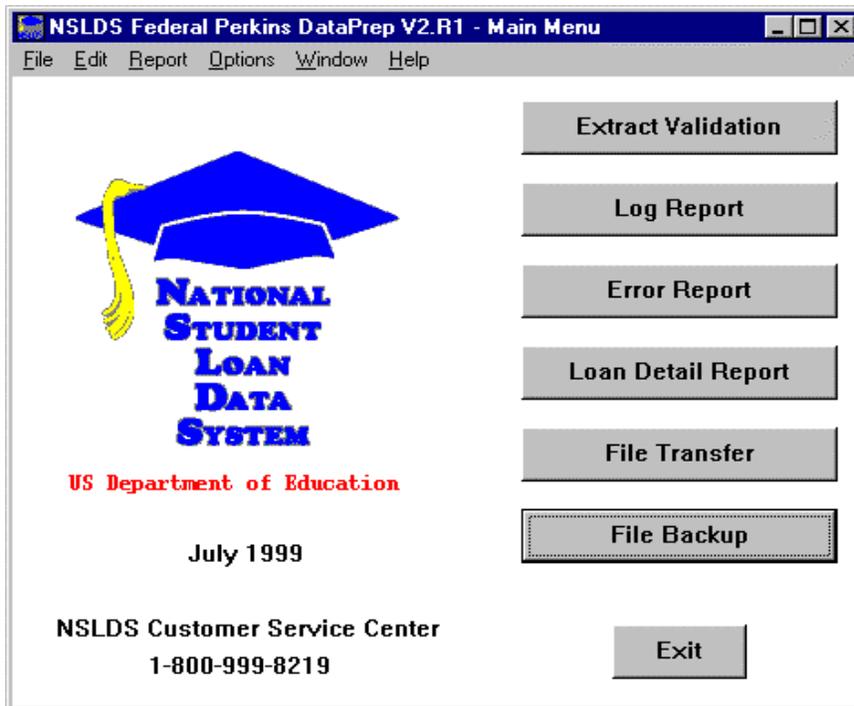
Figure 5–11, DataPrep Main Menu with File Backup Selected

2. The File Backup dialog box appears. The Current Files list shows all the DataPrep files (*.ff files) in your Current, Extract, and Loan folders. It also lists each file's last modified date and time, and size in bytes. The Backup Folders box lists all the folders in your Backup folder (C:\DataPrep\Backup).
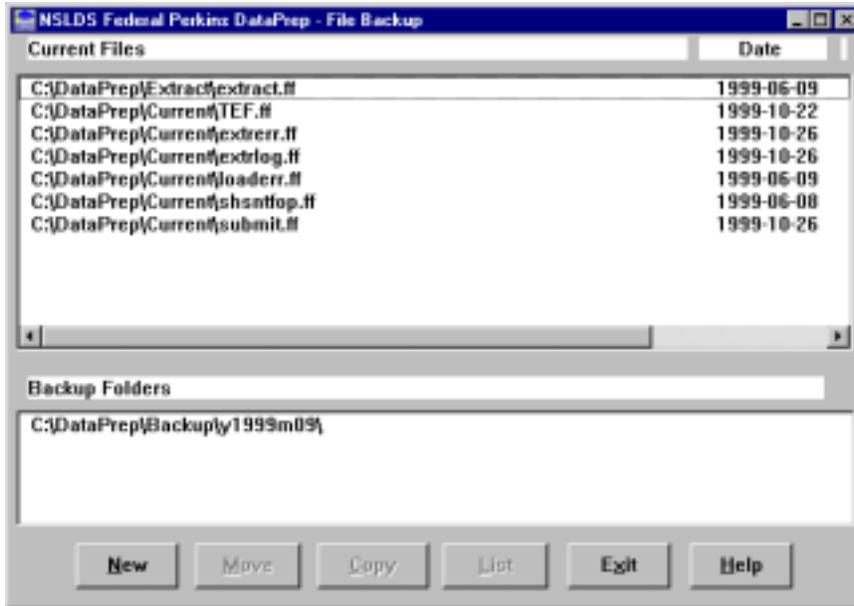
Figure 5–12, Backup Files Dialog Box

3. To create a new backup folder, click New. The New Backup File Folder dialog box appears with a default New Folder name based on current year and prior month or next year and month that does not have a folder.

Figure 5–13, New Backup File Folder Dialog Box

4. Use the New Folder counter to select the month and year of the new backup folder. When you are satisfied with the New Folder name, click OK to return to the Backup Files dialog box.

5. Select the file(s) you want to move or copy to the new folder. To select a file from the Current Files list, click on it and DataPrep will highlight it. Click on it again to deselect it and remove the highlighting. You can select or deselect a group of files by clicking on the first file in the group and then holding down the shift key while you click on the last.

Moving/Copying Files to Backup Folders
Before you can move or copy files to a backup folder, you must select the file(s) *and* the folder. You can determine the creation date and time and number of bytes in each file by moving the scroll bar to the right margin or by double-clicking the file name.
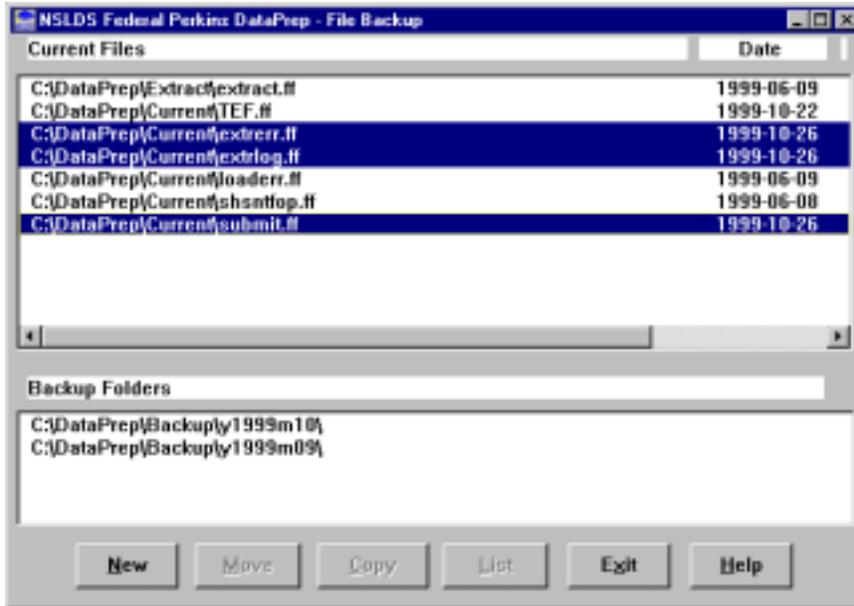
Figure 5–14, Backup Files Dialog Box with Files Selected

6. Select the backup folder in which you want to store the files by clicking on it in the Backup Folders box.
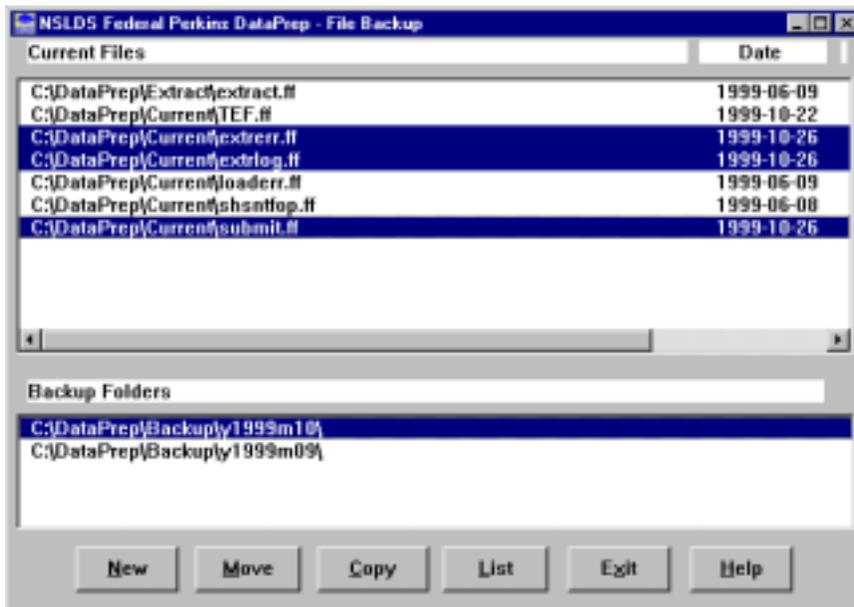
Figure 5–15, Backup Files Dialog Box with Files and Backup Folder Selected

7. Click Copy (or Move) to copy (or move) the files you selected to the backup folder you selected.

If you copy files, DataPrep will leave the original files in the Current, Extract, or Loan folders and create copies in the backup folder you selected. In this case, the original files will still be listed by the File Backup dialog box.
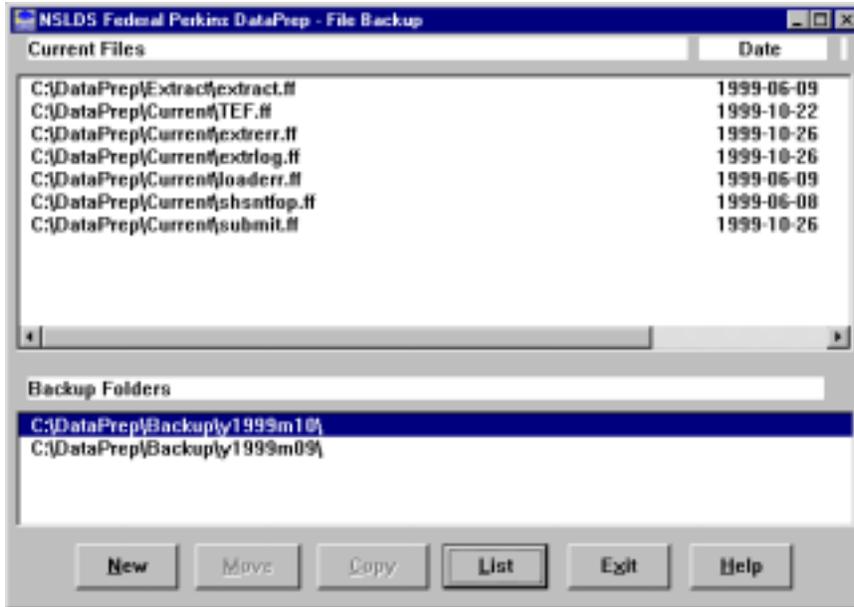
Figure 5–16, Backup Files Dialog Box after Copy

If, on the other hand, you move the files, DataPrep will remove the originals from the Current, Extract, or Loan folders and move them to the backup folder you selected. In this case, the files will disappear from the File Backup dialog box.
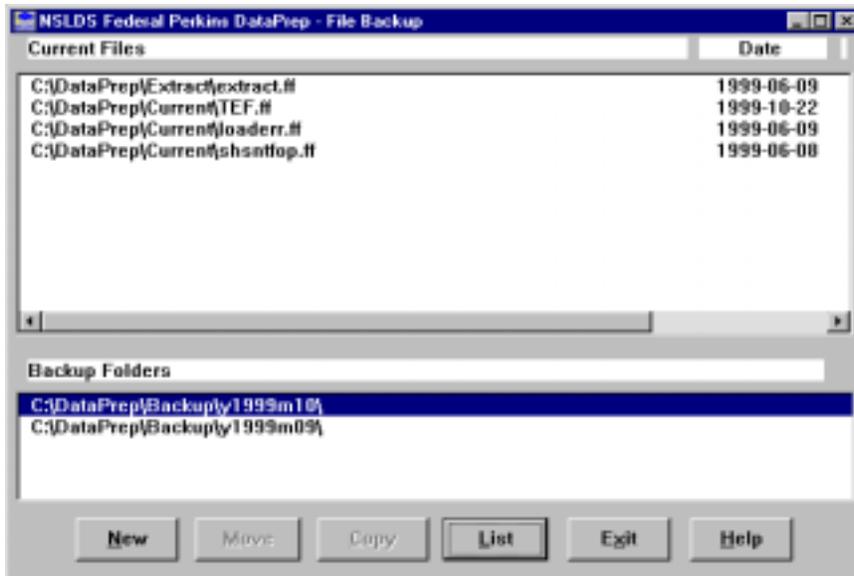
Figure 5–17, Backup Files Dialog Box after Move

Several other features of the File Backup utility are worth knowing.

From the File Backup dialog box, you can check a file's last modified date and time and size in bytes by double clicking on it.
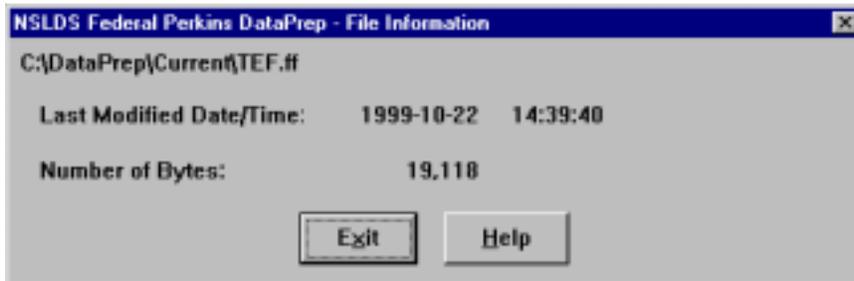
From the File Backup dialog box, you can check the contents of an existing backup folder by selecting it and then clicking List to display the List Backup Files dialog box.
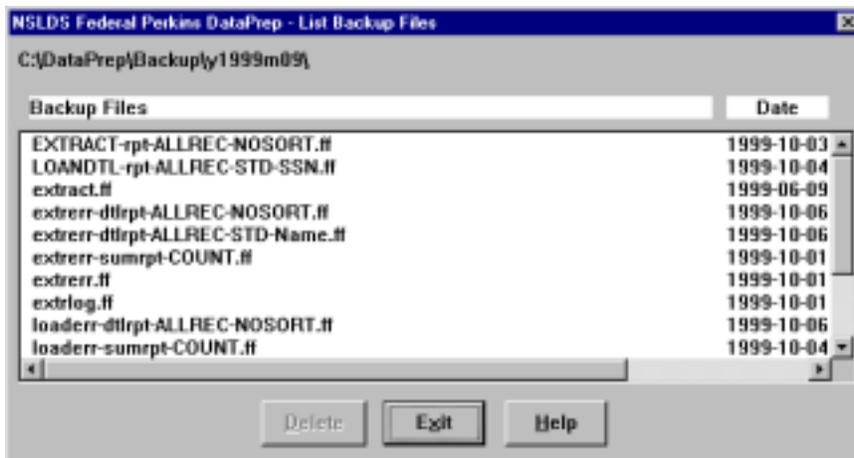
Figure 5–18, List Backup Files Dialog Box

From the List Backup Files dialog box, you can delete individual backup files by selecting them and clicking Delete. DataPrep will ask you to confirm any deletions by displaying the following message:
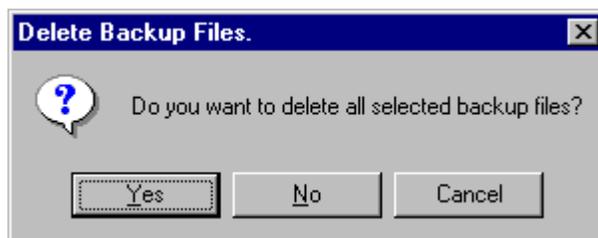
Deleting Backup Files and Folders
If you want to delete a backup folder, delete all the files in the folder. Then click Delete again, and DataPrep will ask you to confirm that you want to delete the folder.

You can delete the backup folder itself by first deleting all the files it contains and then clicking Delete again. DataPrep will display the following message:
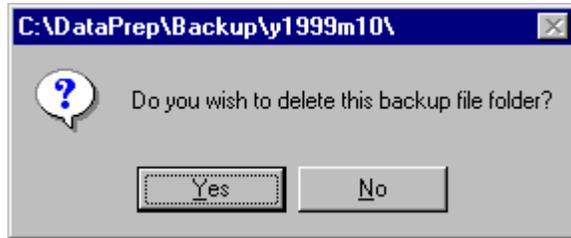
Click Yes to confirm your intention and delete the backup folder.

5.2.5 Help System

The PC version of DataPrep contains a full-featured Help system covering these topics:

- All the menus, commands, and buttons on the DataPrep Main Menu

- The input files, output files, controls, and processing options associated with each DataPrep dialog box

- Built-in shortcut keys available in DataPrep

The Help system documents all DataPrep's functions and includes material not contained in this manual. It is your best source for detailed information about specific DataPrep functions.

5.3 Running Test Files

Included in both the Windows-based and mainframe installation software are test files that will help verify that you have installed the software correctly, and will illustrate how DataPrep works.

For Windows-based DataPrep, the following test files are located in the Samples folder (C:\Nslds-v2\Samples, assuming you chose the default directory paths at installation):

- Two Database Extract files (**extract-fail.ff** and **extract-pass.ff**)
- A Threshold, Error Code, and Field Code (TEF) file (**TEF.ff**)
- A Load Process Error file (**loaderr.ff**).
- An Error Submittal Notification Summary file (**shsntfop.ff**)

Figure 5–19, Test Files Installed in C:\Nslds-v2\Samples

For mainframes, the Running Test Files JCL is in Appendix G; it was unloaded when you installed DataPrep.

⚠️

File Locations
Here, and throughout this manual, instructions for copying or moving files presuppose that you installed DataPrep's work folders in the following default locations:

- **Samples Folder**— C:\Nslds-v2\Samples
- **Backup Folder**— C:\DataPrep\Backup
- **Current Folder**— C:\DataPrep\Current
- **Extract Folder**— C:\DataPrep\Extract
- **Loan Folder**— C:\DataPrep\Loan

If you chose different folder locations during installation (Section 5.1.1) or moved these folders after installation (Section 5.2.1), you will need to adjust accordingly as you copy files, then test and use DataPrep.

5.3.1 Successful Extract Validation

Extract Validation

First, test Extract Validation using the sample Database Extract file. To test Extract Validation on DataPrep for Windows, follow these steps:

1. Use Windows Explorer or My Computer to copy the good Database Extract file (**extract-pass.ff**) from the Samples folder to the Extract folder (C:\DataPrep\Extract) and rename it **extract.ff**. DataPrep will only validate files called extract.ff.
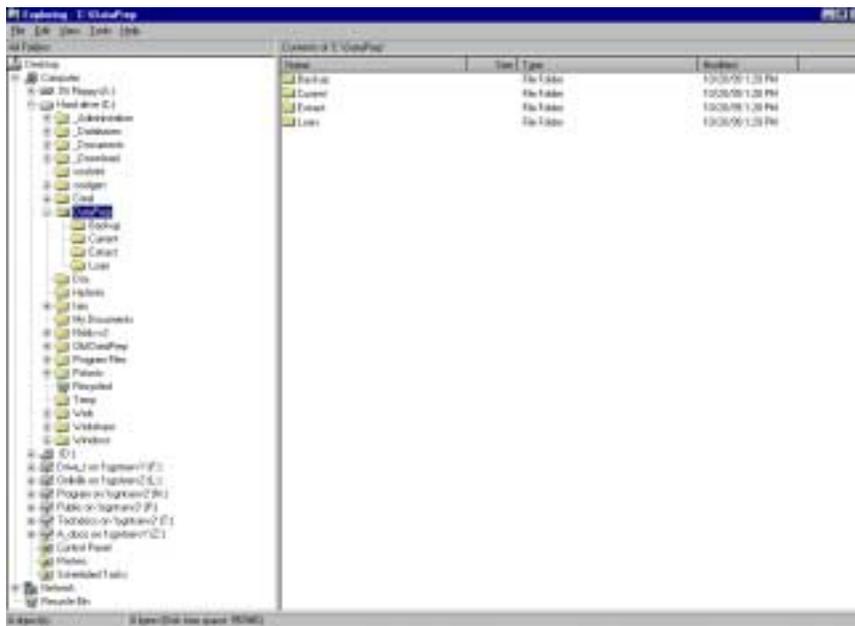
Figure 5–20, C:\DataPrep Folder with Extract and Current Folders

> ⚠️
>
> **Copying Test Files**
> Before you test DataPrep, you must copy two Database Extract files from the Samples folder (C:\Nslds-v2\ Samples) to the Extract folder (C:\DataPrep\ Extracts):
>
> 1. A file that should pass Extract Validation (**extract-pass.ff**)
> 2. A file that should fail Extract Validation (**extract-fail.ff**)
>
> Be sure to copy (copy and paste) these two files rather than move (cut and paste) them from one folder to the other, so backup copies remain in the Samples folder if you need them later.
>
> Use Windows Explorer or My Computer to copy these files. For more information about copying or renaming files, refer to the online Help for Windows.

2. From the DataPrep Main Menu, click Extract Validation.
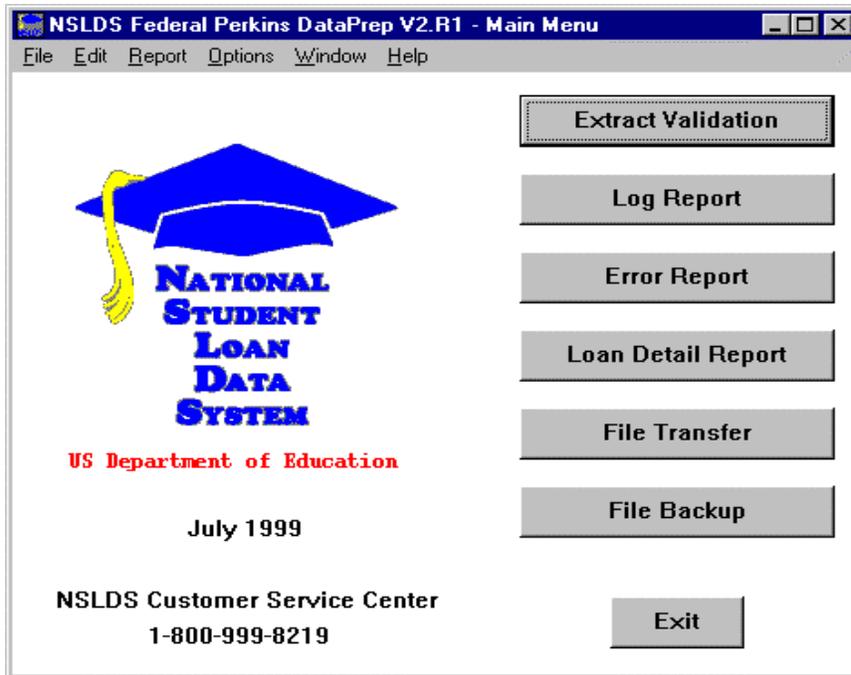
Figure 5–21, DataPrep Main Menu with Extract Validation Selected

3. The Extract Validation dialog box appears.
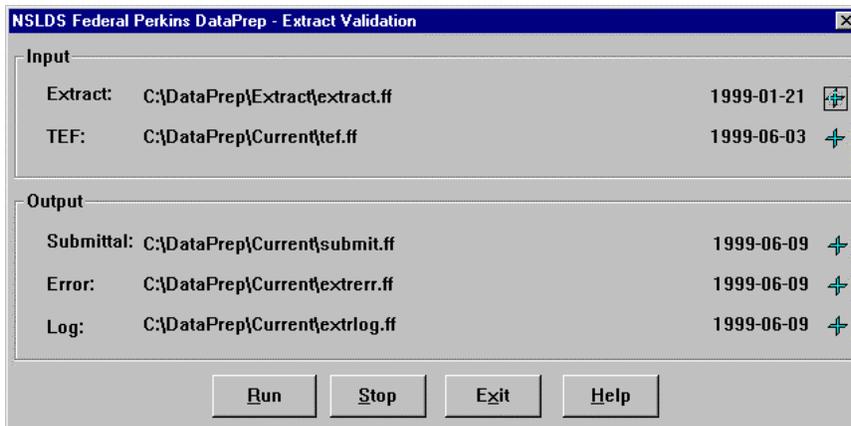
Figure 5–22, Extract Validation Dialog Box

4. Check that the Input directory paths point to the folders where the Extract and TEF files are located and click Run. The Extract Validation Process dialog box displays the Extract Validation Log Report containing a message telling you that Extract Validation was completed successfully.
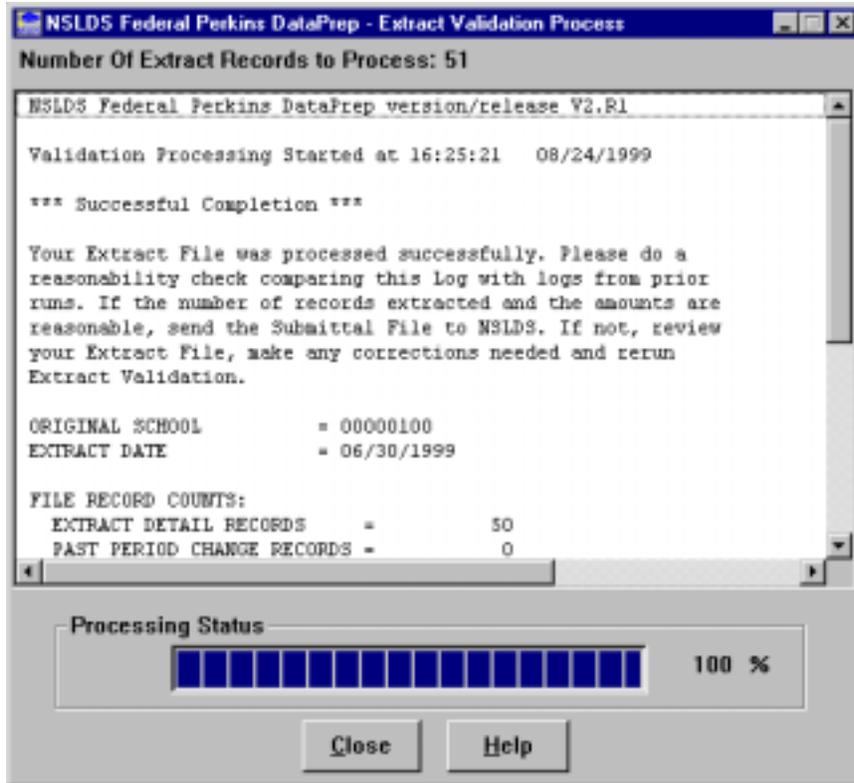
Figure 5–23, Extract Validation Process Dialog Box

If you get any other message, or if Extract Validation did not run, check the following:

- When you copied the file originally called extract-pass.ff to the Extract folder, you renamed it extract.ff.

- There was a valid TEF file in your Current folder.

- The Extract Validation dialog box showed the correct directory path for the extract.ff file.

If you get a message that the Database Extract file was processed successfully, click Close to return to the DataPrep Main Menu.

Extract Validation Log Report

If you wish to redisplay or print the test Extract Validation Log report, do the following:

1. From the DataPrep Main Menu, click Log Report. The Log Report dialog box appears.
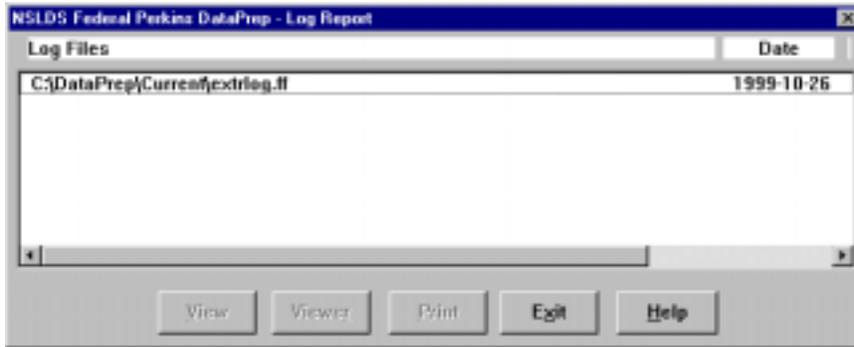
Figure 5–24, Log Report Dialog Box

2. Select the Extract Validation Log file (**C:\DataPrep\ Current\extrlog.ff**) in the Log Files list by clicking on it, and then click View. Your default viewer displays the Extract Validation Log report.

Figure 5–25, Sample Log Report

When the Log report displays successfully, click Exit twice to return to the DataPrep Main Menu.

Extract Error Reports

You are now ready to produce test Extract Error reports. To do so, follow these steps:

1. From the DataPrep Main Menu, click Error Report. The Error Report dialog box appears.
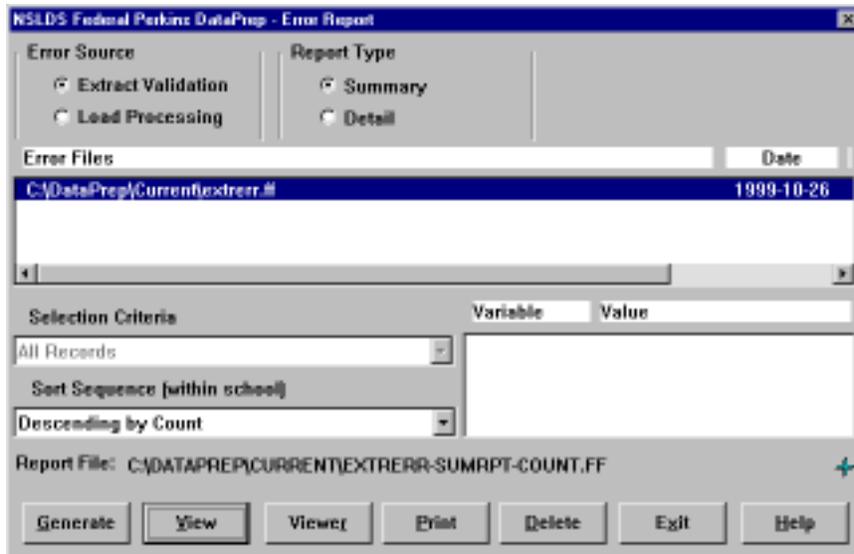
Figure 5–26, Error Report Dialog Box

2. Select Extract Validation as the Error Source.

3. Select Summary as the Report Type.

4. Select the error file listed in the Error Files list (**C:\DataPrep\Current\extrerr.ff**).

5. Click Generate. The Summary Error Report dialog box displays a Status message saying, "The Error Summary Report has been generated."

> ⚠️
>
> **Selecting Files for Reports**
> In order for DataPrep to create an Extract Error report (or any other report), you must select the individual file from which you want to generate the report. Select a file from the Error Files list by clicking on it. Files that have been selected will appear highlighted on your monitor screen.

6. Click View. Your default viewer displays the Summary Extract
    Error report.

Figure 5–27, Summary Extract Error Report

If this report appears, you have successfully generated the Extract
Validation Summary Error Report.

To create an Extract Validation Detail Report, follow the same
steps as outlined above except in Step 3 change "Select Summary
as the Report Type" to "Select Detail as the Report Type".

Now that you have verified that you installed DataPrep
successfully, and have generated Extract Error reports, you should
strengthen your familiarity with DataPrep by returning to the
DataPrep Main Menu and running error reports using different sort
criteria and different viewers. Then look over the reports to get a
good idea of what they are like. You can also check Chapters 10
and 12 for more information about reports.

5.3.2 Unsuccessful Validation

Now you are ready to run the second test and see what happens when a Database Extract file contains too many errors. To do so, follow these steps:

1. Rename the **extract.ff** file in the Extract folder **extract-pass.ff**.

2. Copy the file named **extract-fail.ff** from the Samples folder (C:\Nslds-v2\Samples) to the Extract folder and rename it **extract.ff**.
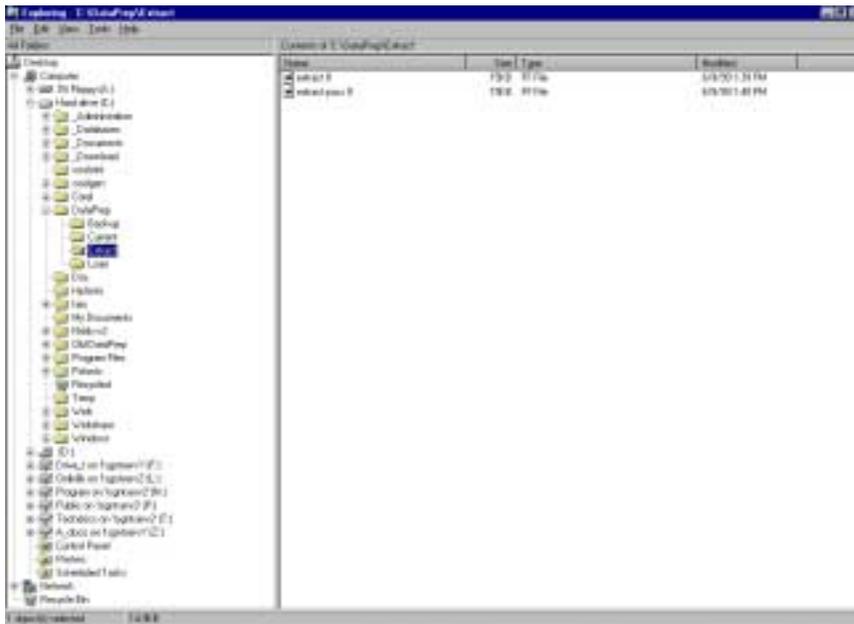
Figure 5–28, Extract Folder

3. From the DataPrep Main Menu, click Extract Validation. The Extract Validation dialog box appears.
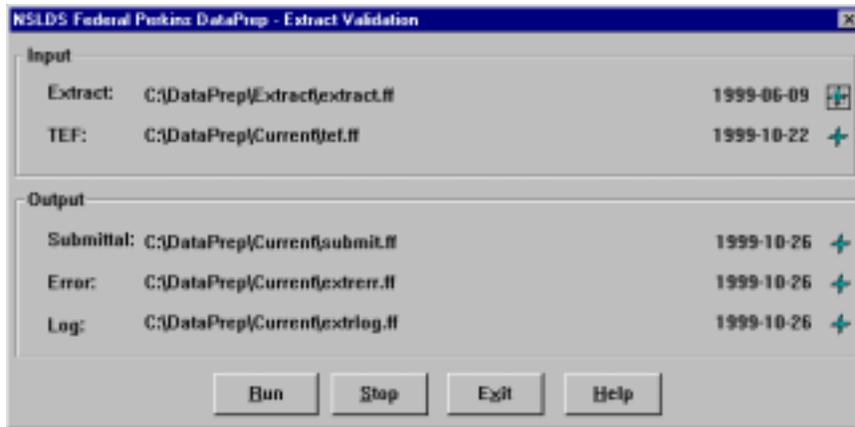
Figure 5–29, Extract Validation Dialog Box

4. Check that the Input directory paths point to the folders where the Extract and TEF files are located and click Run. The Extract Validation Process dialog box displays the Extract Validation Log Report containing a message informing you, "The percentage of domain errors exceeds the allowable tolerances. Therefore, no Submittal File has been created" (Figure 5–30).
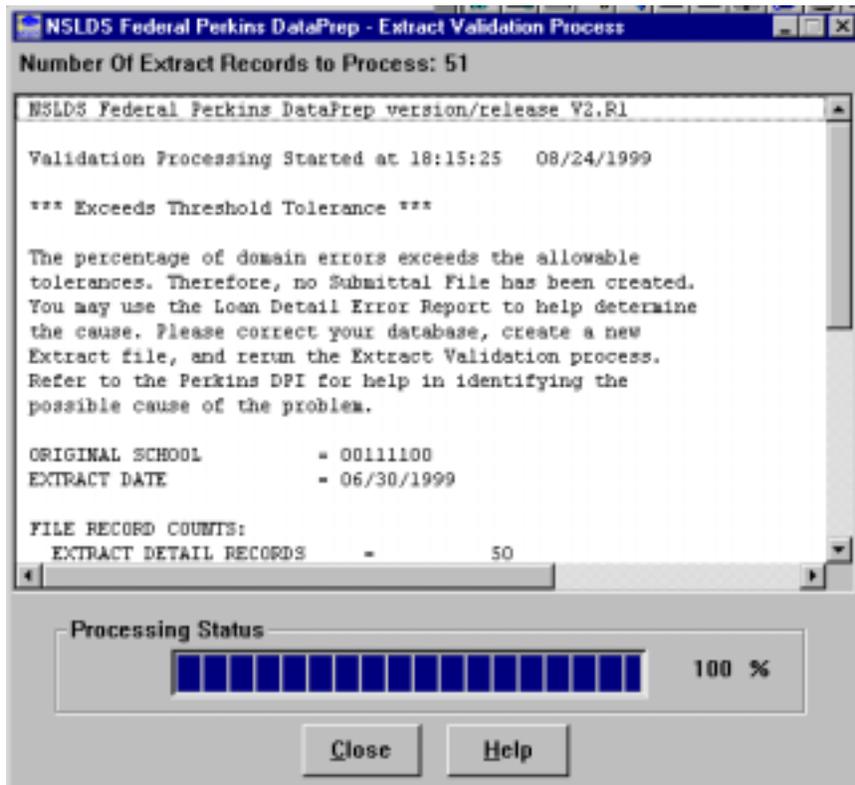
Figure 5–30, Extract Validation Unsuccessful

If this message appears, return to the DataPrep Main Menu and run the Extract Error reports using the directions in the previous subsection. You may also want to print the Extract Validation Log Report as explained in a previous subsection.

If you want to know more about reports, use the instructions in Chapter 9 to generate detailed Extract Error reports with different sort criteria, then view them in the different viewers available in DataPrep (Section 5.2.2).

5.3.3 Test Load Process Error Report

Now you are ready to generate a sample Load Process Error report. Before you can do so, you must import the sample Load Process Error file into the Current folder.

You could use Windows Explorer or My Computer to copy these files, but instead we will use DataPrep's File Transfer function as a way of introducing you to that useful capability.

(i)

Mainframe Testing
For testing the Load Process Error Report function for mainframes, refer to Appendix G.

Import the Load Process Error File

1. From the DataPrep Main Menu, click File Transfer. The File Transfer dialog box appears.
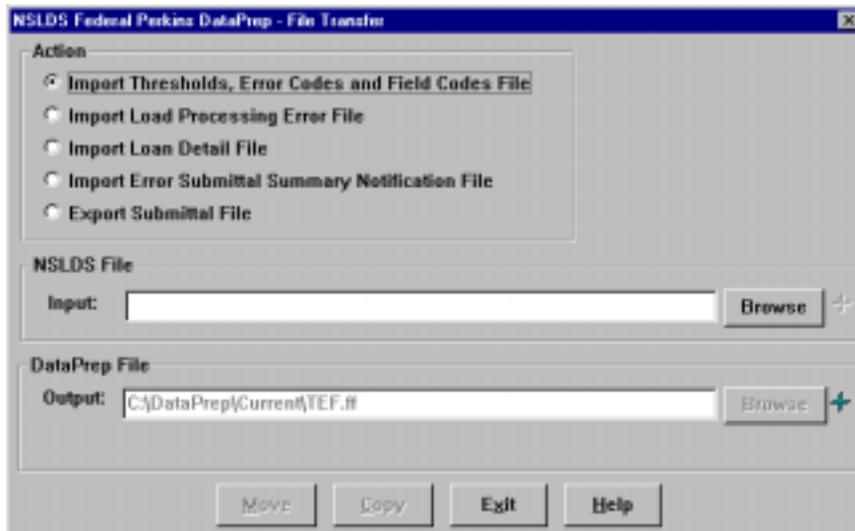
Figure 5–31, Default File Transfer Dialog Box

2. Select Import Load Processing Error File as the Action. DataPrep will change the default DataPrep File Output to C:\DataPrep\Current\loaderr.ff (Figure 5–32).
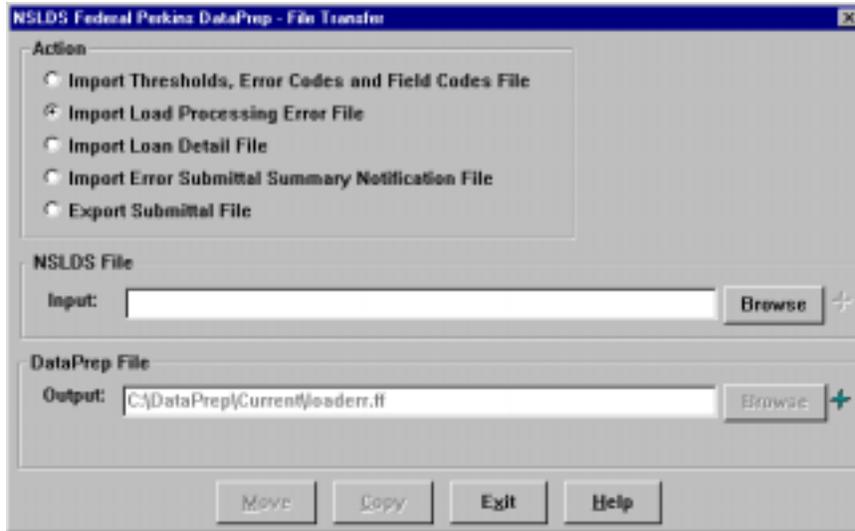
Figure 5–32, Initial File Transfer Dialog Box for Load Process Error File

3. Press the Browse button to the right of the NSLDS File Input box to display the Select NSLDS File dialog box.

4. Set the Look in option to Samples (C:\Nslds-v2\Samples) and the Files of type option to Load Process Error Files (loaderr*.*) or to All Files (*.*).
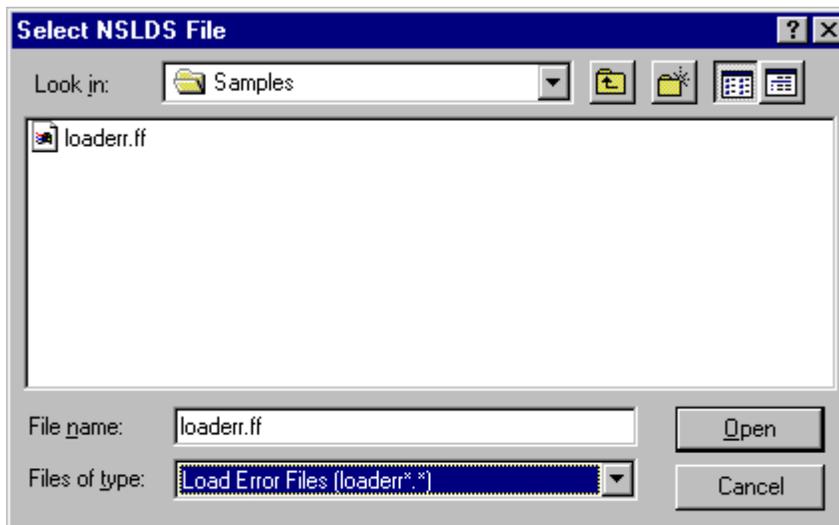
Figure 5–33, Select NSLDS File Dialog Box for Load Process Error File

5. Select the Load Process Error file (**loaderr.ff**) and click Open to return to the File Transfer dialog box.

ℹ

Browsing for Files
When you browse for files, make sure that the Files of type box is set to the file type you seek or to All Files (*.*).

6. Check that the directory path in the DataPrep File Output box appears as it does in Figure 5–34 and click Copy.
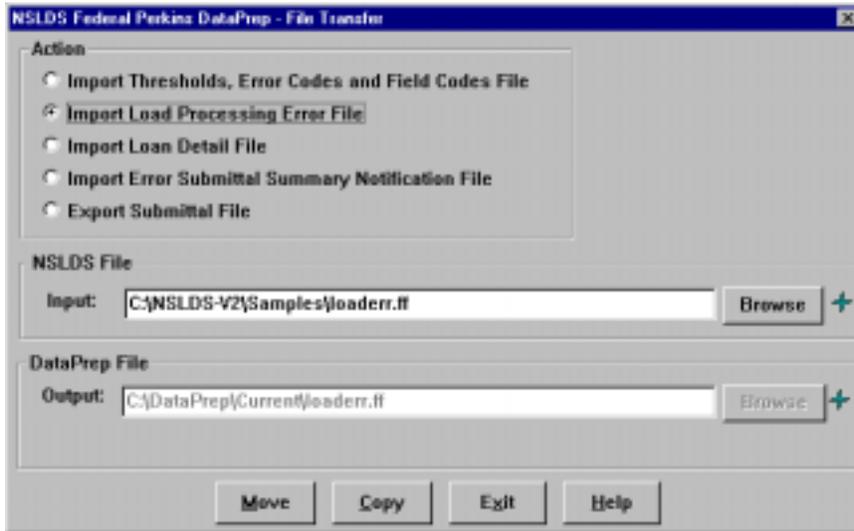
Figure 5–34, Final File Transfer Dialog Box for Load Process Error File

7. If the copy is successful, DataPrep displays the following message:

If you have successfully run Extract Validation, there is already a current TEF file in your Current folder (C:\DataPrep\Current). If there is not a TEF file in your Current folder, you should use DataPrep's File Transfer utility to copy it there from the Samples folder now.

Generate the Load Process Error Report

After you've successfully imported the Load Process Error file, you are ready to generate a Load Process Error report. To do so, follow these steps:

1. From the DataPrep Main Menu, click Error Report. The Error Report dialog box appears.
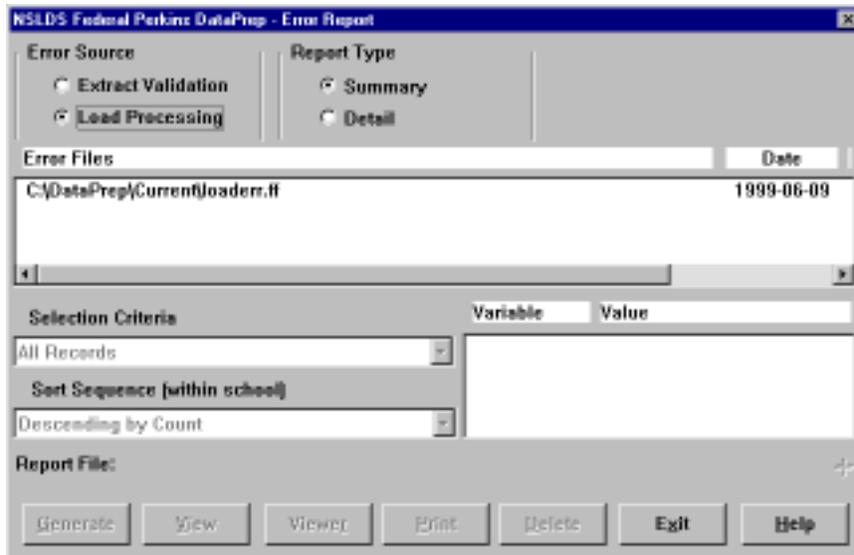
*Figure 5–35, Error Report Dialog Box for Load Process Error
Report*

2. Select the Error Source, Report Type, Selection Criteria, and
    Sort Sequence options shown in Figure 5–35.

3. Highlight the Load Process Error file (**C:\DataPrep\Current\
    loaderr.ff**).

4. Click Generate. The Summary Error Report dialog box
    displays a Status message saying, "The Error Summary Report
    has been generated."
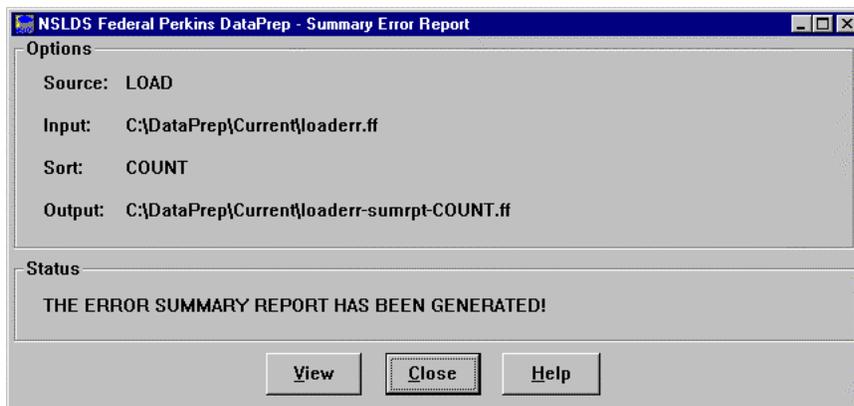
5. Click View. The default viewer displays the Load Process
    Error report.

Figure 5–36, Test Load Process Error Report

After looking over the report, try to generate other Load Process Error reports; including detail reports with different sort options. Refer to Section 10.2 for more information about generating error reports.

5.3.4 Test Error Submittal Notification Report

Import the Error Submittal Summary Notification File

Now you are ready to generate a sample Error Submittal Notification report. First, you may use DataPrep's File Transfer function to import the sample Error Submittal Notification file into the Current folder. Alternatively, you may use Explorer or My Computer to move files from one folder to another.

1. From the DataPrep Main Menu, click File Transfer. The File Transfer dialog box appears.

2. Select Import Error Submittal Summary Notification File as the Action.

Reports
Creating reports is a three-step process:

1. Copy the file containing data for the report into the Current folder (C:\DataPrep\Current).
2. Generate the report.
3. View the report.

---
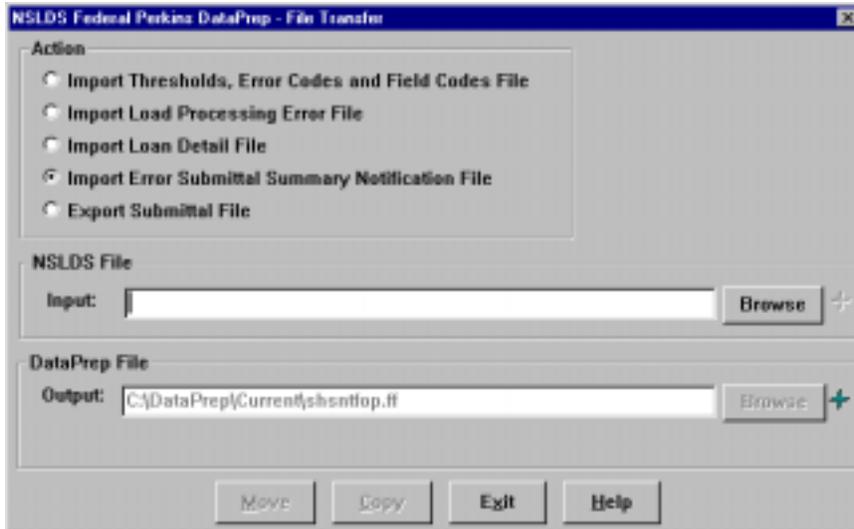
*Figure 5–37, Initial File Transfer Dialog Box for Importing Error
Submittal Summary Notification File*

3. Press the Browse button to the right of the NSLDS File Input
    box to display the Select NSLDS File dialog box.

4. Set the Look in option to Samples (C:\Nslds-v2\Samples) and
    the Files of type option to Submittal Notification Files
    (shsntfop*.*) or to All Files (*.*).
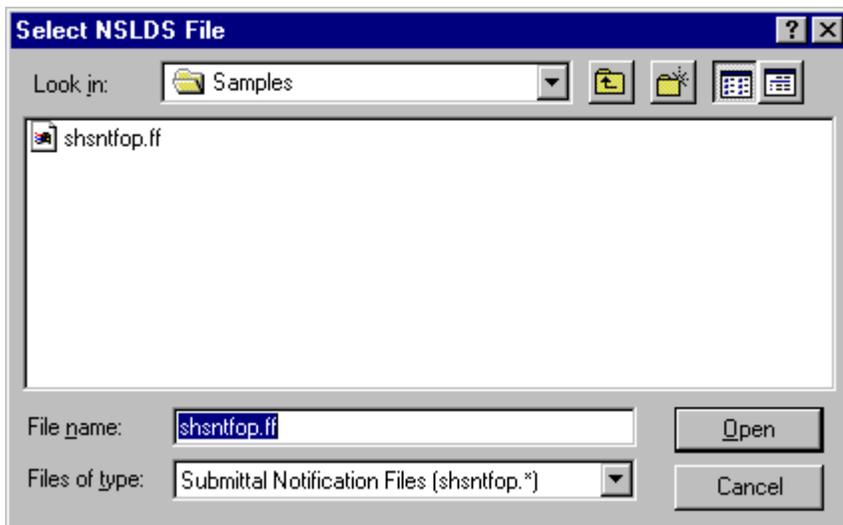
*Figure 5–38, Select NSLDS File Dialog Box for Submittal
Notification Files*

5. Select the Submittal Notification File (**shsntfop.ff**) and click
    Open to return to the File Transfer dialog box.

6. Check that the directory path in the DataPrep File Output box appears as it does in Figure 5–39 and click Copy.
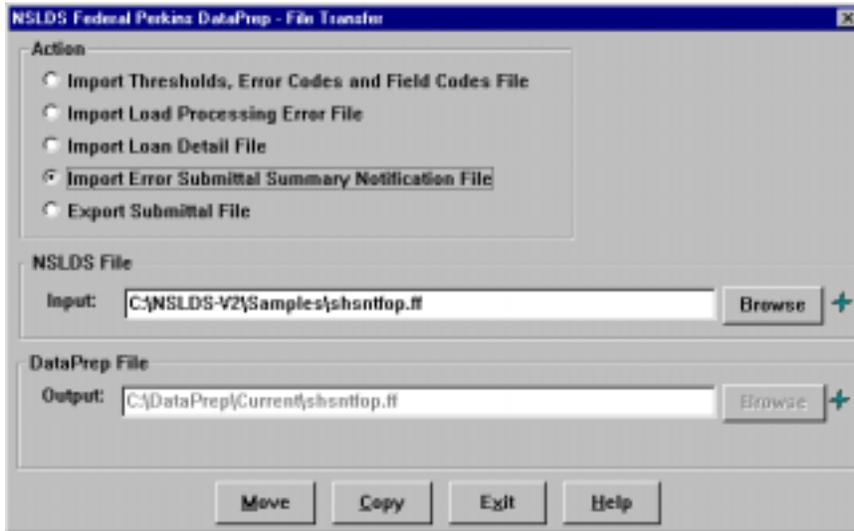
Figure 5–39, Final File Transfer Dialog Box for Importing Error Submittal Summary Notification File

7. If the copy is successful, DataPrep displays the following message:

Generate the Error Submittal Summary Notification Report

Now you are ready to generate the Error Submittal Summary Notification report. To do so, follow these steps:

1. On the Report menu of the DataPrep Main Menu, click Notification. The Notification Report dialog box appears.
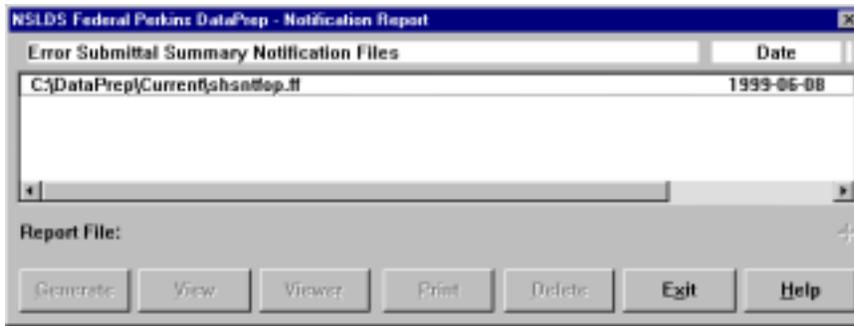
Figure 5–40, Notification Report Dialog Box

2. Select the Error Submittal Summary Notification file
    (**C:\DataPrep\Current\shsntfop.ff**) and click Generate. The
    Generate Notification Rpt dialog box displays a Status message
    saying, "The Error Submittal Summary Notification Report has
    been generated!"

3. To view the report, click View. Your default viewer displays
    the report.

Figure 5–41, Error Submittal Summary Notification Report

5.4 Deleting Test Files

Before you start using DataPrep to process live data, you should delete from DataPrep's working folders (C:\DataPrep and its folders) all the sample files you used and reports you created while testing DataPrep. You can use either Windows Explorer or DataPrep's File Backup function (Section 5.2.4) to delete them. To delete test files using DataPrep, follow these steps:

1. From the DataPrep Main Menu, click File Backup. The File Backup dialog box appears. Its Current Files list shows all the files in your Current, Extract, and Loan folders except sort and selection files.

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Delete All Sample Files
Once you are finished testing DataPrep, you should delete from DataPrep's working folders (C:\DataPrep and its folders) *all* the sample files you used and reports you created during testing. That way, you won't confuse them with real data once you begin processing your institution's Database Extract file.

Do not delete TEF File nor the sort and selection files (i.e., files with a *.srt, *.sel, and *.var type.
Leave the TEF file (TEF.ff) as well as the sort and selection files in the Current folder (C:\DataPrep\Current) because you will need them to process your first live Submittal file.

And Remember
You may need the sample files for later testing or diagnostic purposes, so make sure that you have copies of them in the Samples folder (C:\Nslds-v2\Samples). If necessary, copy sample files back from the working folders to the Samples folder before deleting them from the working folders.
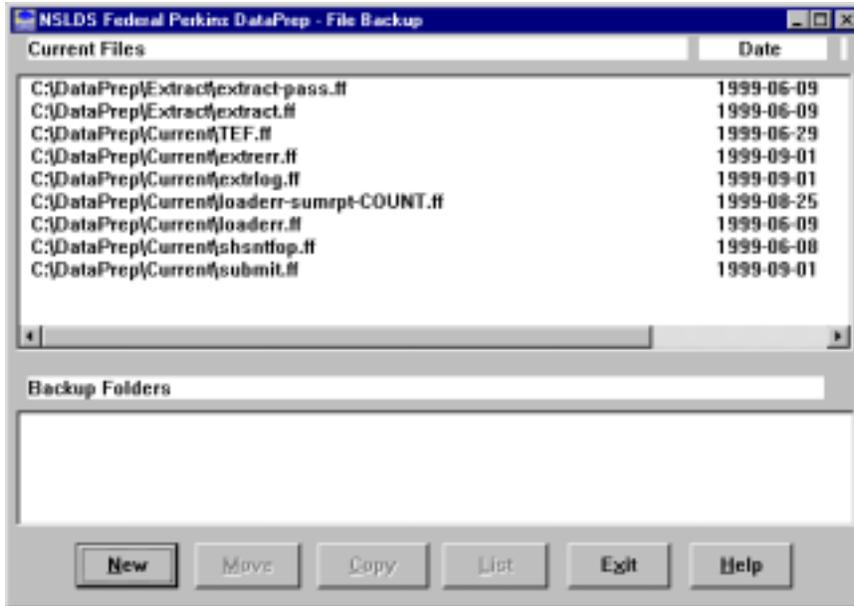
Figure 5–42, File Backup Dialog Box

2. Click New. The New Backup File Folder dialog box appears with a default New Folder name.

Figure 5–43, New Backup File Folder Dialog Box

3. Click OK. A new backup folder appears in the Backup Folders list of the File Backup dialog box.
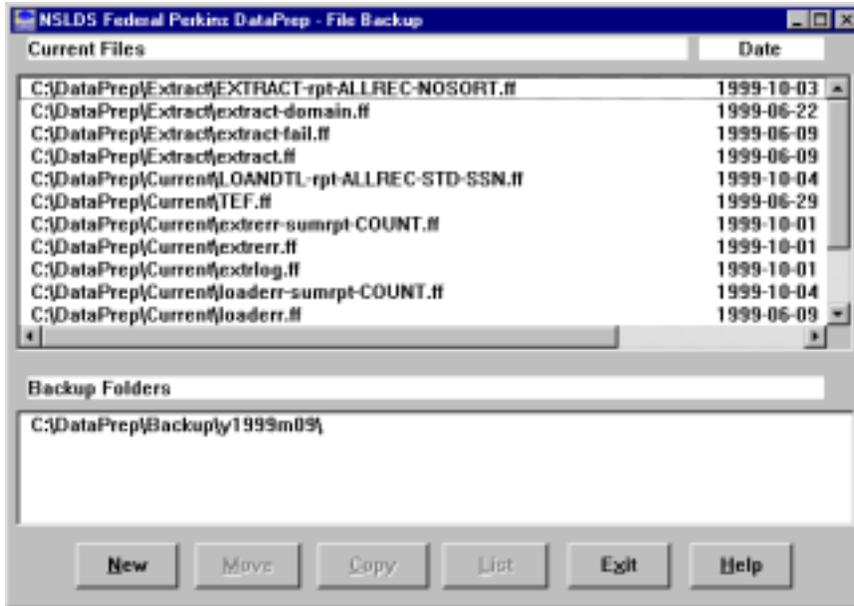
Figure 5–44, File Backup Dialog Box

4. Select both the backup folder and all the files listed in the Current Files list except for the TEF file (TEF.ff). Then click Move, and DataPrep will move all the files you selected to the new backup folder.

5. Click List to display the List Backup Files dialog box with a list of all the files in the backup folder.
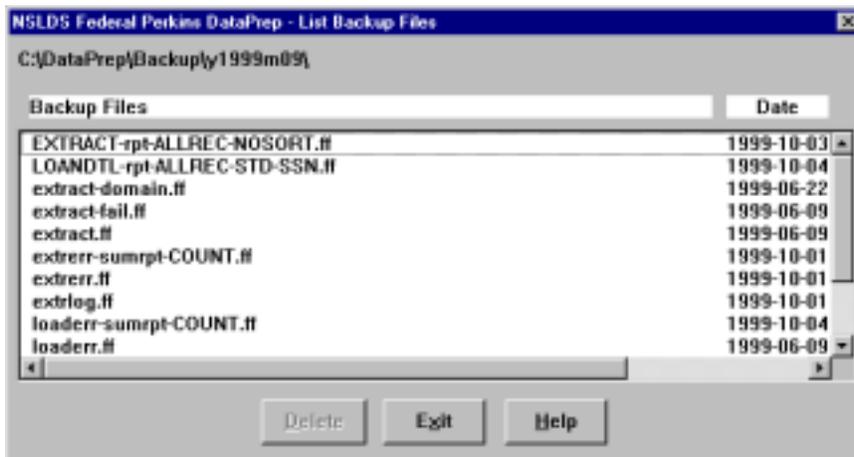
Figure 5–45, List Backup Files Dialog Box

6. Highlight all of the files in the Backup Files list, and then click Delete to delete them from the backup folder.

7. Click Delete again to delete the backup folder.

You're now ready to begin using DataPrep to process your real data. If you have any problems, remember to call the CSC at (800) 999-8219.

⚠️

Problems?
If you have any problems with installation or testing, call the CSC at (800) 999-8219 between the hours of 8 a.m. and 8 p.m. Eastern Time, Monday through Friday except Federal holidays.

5.5 Sample Files OS/390 LE Version 2.4

The JCL for mainframes (IBM or fully compatible CPU) running OS/390 LE Version 2.4 or higher performs the Extract Validation Process and error file generation. Appendix G contains the JCL for these functions. It can be referenced from the library created with JCLLIB as part of the name. The library member name is PRBB1000.

The JCL references a sample Database Extract file containing 50 student/loan records of which 2 are in error. This should be reported in the Extract Validation Log report, the Detail Extract Error Report, and the Summary Extract Error Report.

A second sample Database Extract file contains 100 student/loan records. Eight are in error which causes the file to exceed the ED established error threshold. When you run this sample file, no Submittal file should be created. To use the second sample, you must change the JCL to reference the sample extract containing DBEXTERR as part of the name.

The JCL also references a sample Load Process Error file containing 36 student/loan records for 3 different schools, all in one Database Extract file. School 002021 has 11 errors, school 003554 has 7 errors, and school 004920 has 2 errors. This should be reported in the Detail Error Report and the Summary Error Report.

Chapter 6: The Database Extract File

The first step in the NSLDS update process is for you to create a Database Extract file that accurately reflects the contents of your school's database(s) at the time of the extract. The Database Extract file you create must follow the standards defined by this chapter and the record layouts in the Federal Perkins Loans Data Dictionary (Appendix A). Remember that the Database Extract file must be named **extract.ff** for DataPrep to work properly.

DataPrep does not create a Database Extract file, so you are responsible for determining how to create the file from your school's records or database(s). The Database Extract file you create is subject to audit by ED.

> ⚠
>
> **School Requirements**
> You must create a Database Extract file once a month and no more than 14 days prior to the load date scheduled by NSLDS. The file must be an exact reflection of your database and should not be edited or changed. The Database Extract file is fully auditable, field by field, to your database.

6.1 Business Rules

As a data provider, you must observe these business rules:

- Report all Federal Perkins loans there were open or closed on or after October 1, 1989. Do not report loans that were closed before October 1, 1989. An edit will reject any loan closed before October 1, 1989; you can prevent unnecessary rejects by not extracting such loans.

- Do not report closed loans already reported and successfully loaded into the NSLDS database. For example, suppose a borrower makes the final payment on a loan in March 1999. You report the loan as paid in full (PF) with your April submittal; the record contains no errors and updates NSLDS. Because the loan was loaded into the NSLDS database, you should not extract this loan record again when you create future Database Extract files. If an error was made in closing the loan and you need to reopen it, add the loan to your next Database Extract file with the new information. If the loan record passes all edits, NSLDS will load it and update the loan accordingly.

- Continue to report loans you assign to ED until you receive notice that the loan has been accepted by ED. Once you receive such notice, do not report the loan.

- Report new loans or updates to existing loans **monthly** on a schedule established by NSLDS. The data you report must be current and not extracted earlier than shown on your

established reporting schedule (that is, no more than 14 days before the scheduled load date).

- Create Database Extract files that meet the detailed specifications contained in Appendix A. You are responsible for coding and testing your software as needed to properly format the Database Extract file.

- If you report a loan with an open status, it must have a positive Outstanding Principal Balance. If the loan has a balance of less than one dollar but not zero, you should report the Outstanding Principal Balance as one dollar. If the loan is being maintained in an open status because of a negative balance on the account (that is, a credit balance), you should also report a balance of one dollar until the loan is closed.

- The Date of Outstanding Principal Balance reflects the date of the most recent change in the principal balance. The Outstanding Principal Balance may change due to a disbursement, loan payment, or cancellation. Since you submit all loans in your database every month, the requirement to update Outstanding Principal Balance on a quarterly basis is eliminated. Instead, you must update the dollar amount and the date of the Outstanding Principal Balance using the current remaining amount and the date of the most recent change in Outstanding Principal Balance. If you have been reporting the last day of the month as the Date of Outstanding Principal Balance regardless of when the balance actually changed, you must modify your extract procedure to provide the actual date when the balance changed.

6.2 Record Types

The Database Extract file contains three types of records:

1. **Header Record**
2. **Detail Records**
3. **Past Period Change Records**

The Database Extract file must not have a Trailer record, as DataPrep will create a Trailer record during the Validation process.

6.2.1 Header Record

The Header record is for identification and tracking purposes. It contains your school code; the submittal, initial load, and submittal receive dates; the software version and release number; and the record type. The capital letter H must appear in position 48 of the Header record as the record type.

6.2.2 Detail Records

The Database Extract file must contain a separate Detail record for each loan record in your school's database(s) that belongs to one of the following categories:

- Loans that are currently open

- Loans that were closed on or after October 1, 1989 but not successfully reported as closed to NSLDS

Individual Detail records must reflect the exact contents of your database without editing or other changes.

Continue extracting and reporting loans to NSLDS until one of the following occurs:

- The loan is closed and successfully reported to NSLDS with a Closed loan status. If you report the loan to NSLDS but the loan record is not accepted because of error conditions, you must continue reporting the loan until it is accepted. Valid closed loan status codes are listed in Table B–2 in Appendix B.

- Your school has assigned a loan to ED, received notice from ED that it has accepted the loan, and you have successfully reported the loan to NSLDS (i.e., contains no errors).

Once either of these events occurs, you should no longer extract that particular record when you create your Database Extract file.

Let's look at an example. When a borrower makes the final payment on a Perkins loan, perform the following actions:

1. Extract the record from your database.

2. Report the activity with a valid closed loan status code (see Appendix B–2).

⚠️

Version and Release Number
DataPrep will automatically insert its version and release number in the Header record, so you should leave this field blank when creating the Header record for your Database Extract file.

ℹ️

Initial Population
If you are a data provider submitting data to NSLDS for the first time, that submission is referred to as the Initial Population. During that submission, you must report to NSLDS not only all outstanding (open) loans, but also any loans that have been closed on or after October 1, 1989.

---

3. Include the record in your next submission to NSLDS.

You should continue reporting this loan until it is accepted without errors by NSLDS. Then your school should stop reporting on this loan and no longer include it in future Database Extract files.

Loans that were nullified because they were incorrectly reported, and loans that were awarded but the borrower did not go through with them, should be reported with a Loan Status Code of CA (Cancelled).

⚠️

Loans Erroneously Reported as Closed
If a loan was erroneously reported as closed, you must include this loan in your next Database Extract file with the correct loan status and date.

6.2.3 Past Period Change Records

Past Period Change (PPC) records enable you to correct reporting errors for events that are stored in NSLDS as history and therefore cannot be corrected by a Detail record. Use PPC records:

1. To delete historical events that were reported in error (for example, an event reported for the wrong borrower)

2. To correct historical events that cannot be adjusted simply by updating current data fields (for example, a previously reported loan status that should have been reported with another value at the time it was originally reported)

PPC records can be added to the Database Extract file anywhere after the Header record, so you can easily append them to the file after extracting Detail records from your database.

⚠️

Past Period Changes
When you develop a process to extract records from your school's database, be certain it includes the ability to identify and create PPC records in the Database Extract file. PPC records require the previously reported event date so that the specific posting can be corrected.

Appendix C identifies which attributes require this special transaction for proper correction.

6.3 File Standards

Each record in the Database Extract file must be in a 300-byte layout without carriage returns and line feeds between records. However, if you are a Windows user, you can leave carriage return and line feed combinations in the Database Extract file because DataPrep will strip them out before creating a Submittal file.

Database Extract files should be in the following formats:

- **Fixed-Length EBCDIC** for mainframes running OS/390 LE Version 2.4 or higher

- **ASCII** for PCs running Windows

You must combine all loan records you report on into a single Database Extract file, even if you have loan data stored in multiple databases or are reporting for several campuses or branches in the same extract.

As you create Detail records for your Database Extract file, keep in mind the following considerations:

- Once you create your Database Extract file, you must use the DataPrep software to validate it for submittal to NSLDS. Use the Extract Error report generated by DataPrep to correct any errors in your database before the next time you create your Database Extract file. Do *not* correct errors by editing or otherwise altering the Database Extract file or any subsequent files created by DataPrep.

- All data (including identifiers) must be reported until the record containing that data passes all associated NSLDS edits. Verify that a record has been loaded onto NSLDS by checking the Load Process Error report for errors against that record.

- Because the Detail records in the Database Extract file concern individual loans, you must report (and update) all information at the loan level. This means, for example, that if you report on three loans for the same student and the loans were first reported with the wrong Date of Student's Birth, you must update the New Date of Student's Birth on each of the three loans. Updating the New Date of Student's Birth on only one loan will *not* update the erroneous date of birth on the other two loan records.

Multiple Databases
All data must be combined into a single Database Extract file, even if you have loan data stored in multiple databases or are reporting for several campuses or branches in the same extract.

Several Schools or Branches
If you report for several schools or branches, see Section 4.7 for additional information.

6.4 Field Standards

The standards for populating the fields of your Database Extract file are as follows:

- Character fields can contain letters, numbers, or blanks.

- Numeric fields must contain numbers only. Blanks, alpha, or other characters will cause errors.

- Date fields must contain eight digits, be valid dates, and appear in the format CCYYMMDD (for example, 19990131 for January 31, 1999), where:

  − CC   =   2 digits for the century
  − YY   =   2 digits for the year
  − MM   =   2 digits for the month
  − DD   =   2 digits for the day

- A valid date is any acceptable calendar date. Invalid dates would be dates such as February 30, February 29 of a non-leap year, or September 31. The default value of 00000000 can be used in certain specifically identified fields.

- NSLDS does not accept cents in amount fields. Dollar and cents amounts should be rounded to the nearest dollar.

Appendix B contains a complete account of the various codes you will need to fill some fields in the Database Extract file.

> ⚠️
>
> **Negative Numbers**
> NSLDS does not handle negative numbers. If the outstanding balance on a loan becomes negative (that is, a credit balance), you must report the balance as *one dollar* and keep the status open until you can set the balance to zero.
>
> If you report the Amount of Outstanding Principal Balance as negative, NSLDS will read it as a positive value.

6.5 Updating Identifier Data

After NSLDS has successfully loaded data from your school for the first time, thus completing the Initial Population, processing rules apply to any subsequent attempts to update or change the data that was loaded. These rules are designed to maintain the integrity of the data in NSLDS.

There are two sets of rules governing changes to data in NSLDS. One governs changes to the fields that contain loan identifier data; the other governs changes to the fields than contain non-identifier data.

6.5.1 Loan and Student Identifiers

Loan identifiers are the values contained in positions 1–47 of Detail or Past Period Change records. They uniquely identify a loan, distinguishing it from the millions of other loans stored in NSLDS. Although loan identifiers appear on both Detail and PPC records, you must use a Detail record to change them.

A particularly important subset of loan identifiers is made up of **student identifiers**, which uniquely identify a student just as loan identifiers uniquely identify a loan.

Figure 6–1 lists the fields that constitute the loan identifier portion of a Detail record and which of them also serve as student identifiers.

Field	Position	Type
Code for Original School	1–8	Loan Identifier
Student's Social Security Number	9–17	Loan/Student Identifier
Date of Student's Birth	18–25	Loan/Student Identifier
Student's First Name	26–37	Loan/Student Identifier
Type of Loan/Other Aid	38–39	Loan Identifier
Date of First Disbursement	40–47	Loan Identifier

Figure 6–1, Loan and Student Identifiers

Section 9.4.1 presents an overview of how NSLDS goes about matching the identifiers for newly submitted loan records against student and loan information already in the NSLDS database. The Identifier Match Criteria used in that process are described in detail by the entry for the Student's Social Security Number field in the Data Dictionary (Appendix A).

6.5.2 The Identifier Change Process

You must use the identifier change process to update loan identifier data already loaded on NSLDS. Failure to follow this process can create duplicate loan records that compromise the data integrity of NSLDS and cause students to be denied Title IV aid to which they are entitled.

Because the entire string of information contained in the identifier fields is needed to singularly identify a loan, loan identifiers are processed as a block. When you update one identifier, you must

Loan Identifiers
- Code for Original School
- Student's Social Security Number
- Date of Student's Birth
- Student's First Name
- Type of Loan/Other Aid
- Date of First Disbursement

Student Identifiers
- Student's Social Security Number
- Date of Student's Birth
- Student's First Name

Identifier Change Process
Changing identifier information without submitting full sets of both original loan identifiers and new loan identifiers can create duplicate loan records that compromise the data of NSLDS and cause students to be denied Title IV aid to which they are entitled.

reconfirm the values of the other identifiers. To this end, you must supply a complete set of new identifiers.

To update identifiers, the Detail record must contain the identifier values currently loaded on NSLDS in the original identifier fields (positions 1–47). Then use the new identifier fields (positions 50–96) on the same record to report changes. Whenever you update one or more identifiers, you must fill in *all* the new identifier fields, regardless of whether the values in them are new ones or ones that you have been reporting all along.

The new loan identifier fields are:

- New Code for Original School
- New Student's Social Security Number
- New Date of Student's Birth
- New Student's First Name
- New Type of Loan
- New Date of First Disbursement

Figure 6–2 gives an example of how to update identifier information on a loan that currently exists in the NSLDS database.

New Loan Identifiers
- New Code for Original School
- New Student's Social Security Number
- New Date of Student's Birth
- New Student's First Name
- New Type of Loan
- New Date of First Disbursement

Assume that the following loan information currently exists on the NSLDS database:

- Code for Original School = 00876500
- Student's Social Security Number = 111223333
- Date of Student's Birth = 19600508
- Student's First Name = Robert
- Type of Loan/Other Aid = NU
- Date of First Disbursement = 19910903

Then you discover that the Type of Loan/Other Aid code is incorrect. To update the erroneous identifier, submit the data exactly as shown above in positions 1–47 of the record and, *at the same time,* also report the following values in positions 50–96 of the record:

- New Code for Original School = 00876500
- New Student's Social Security Number = 111223333
- New Date of Student's Birth = 19600508
- New Student's First Name = Robert
- New Type of Loan/Other Aid = PU (only item changed)
- New Date of First Disbursement = 19910903

Note: Only the Type of Loan/Other Aid was changed. All other values must be resubmitted as before.

Figure 6–2, How to Update Loan Identifier Data

6.5.3 Updating Identifiers on Multiple Records

Remember that all information on NSLDS, including identifier information, must be updated at the loan level. This means that your Database Extract file must contain a separate Detail record, with full sets of old and new identifier data, for each loan record whose identifiers you want to update. This is the case even if you are making the same change—typically a change to student identifiers—to a number of loans.

After you submit the updated information to NSLDS, review the Load Process Error report to see that all the Detail records containing the updates were loaded into NSLDS. If any records erred out, correct and resubmit them with both the original loan identifiers and new loan identifiers until they load successfully.

6.6 Updating Non-Identifier Data

The process for updating loan identifier data is described in Section 6.5. A completely different set of rules applies when you report new data in fields that are not part of the loan identifier.

To follow those rules, you must answer two questions:

1. Is the field you want to update one for which NSLDS keeps history?

2. If NSLDS keeps history for the field, are you trying to update the current value of the field or an earlier historical value? (See Figure 6–7 for the list of fields for which history is kept.)

Depending on how you answer these two questions, you face three possible scenarios:

1. **History Is Not Kept for the Field**—In this case, the new data should be captured by your normal extract process and included in your regular submission as part of the Detail record for that loan. You do not have to do anything special to report the new value to NSLDS. As long as the new value passes all applicable edits, it will be loaded onto NSLDS.

2. **History Is Kept for the Field, and You Are Updating the Current Value for That Field**—In this case, the new data

should be captured by your normal extract process and included in your regular submission as part of the Detail record for that loan. You do not have to do anything special to report the new value to NSLDS. As long as the new value passes all applicable edits, it will be loaded onto NSLDS.

3. **History Is Kept for the Field, and You Are Trying to Update an Historical Value for That Field**—In this case, create a Past Period Change record to report the new data.

6.6.1 What NSLDS Does

How NSLDS Creates History

When NSLDS updates a field for which history is not kept, the updated value becomes the current value and the old current value is discarded by the system. When NSLDS updates a field for which history is kept, the updated value becomes the current value *and* the old current value becomes the historical value. As further updates occur, each current value becomes, in turn, an historical value, and all the historical values are stored, in order, as history for that field.

Figure 6–3 and Figure 6–4 will help illustrate how history is created as part of the update process.

In Figure 6–3, the NSLDS database contains a record for Loan X that has been loaded into the database but never updated. Each data element for the loan (A, B, C, and D) has the same value it did when the loan was first loaded onto the database; those are the current values A1, B1, C1, and D1.

The data provider then sends NSLDS a Submittal file that contains updates to two of the fields for Loan X. Those updates are denoted by B2 and D2. The updates pass all the relevant edits and are loaded onto the database. Because history is kept for field D but is not kept for field B, the following occurs:

- The current value of field B is updated to B2, and the old current value B1 is discarded.

- The current value of field D is updated to D2, and the old current value is stored in history as D1.
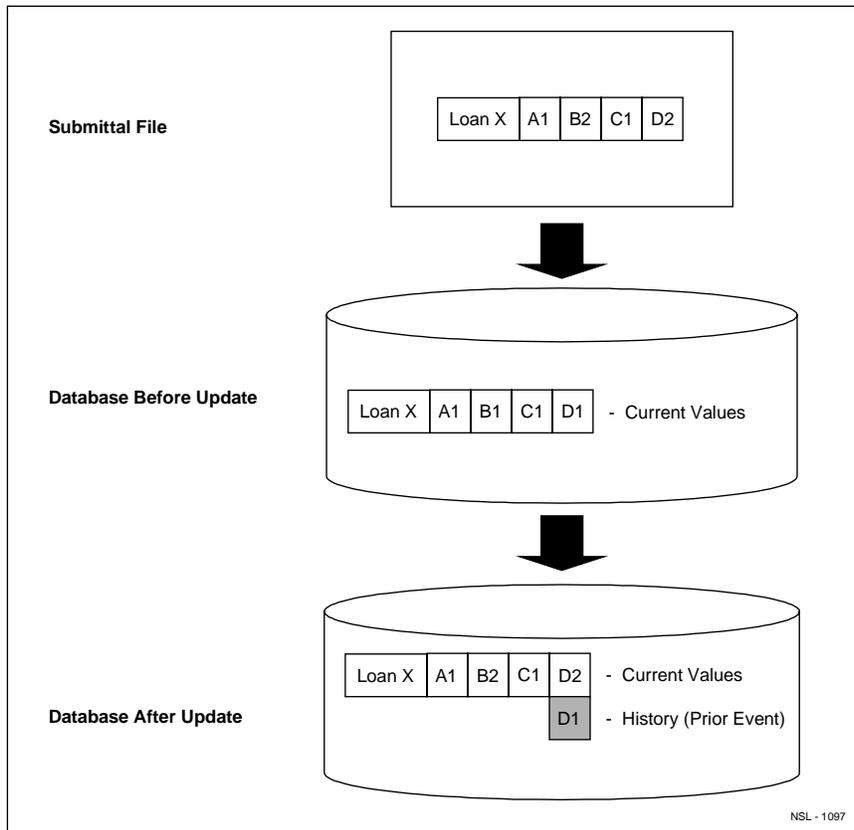
Figure 6–3, NSLDS Update (1 of 2)

In Figure 6–4, the data provider sends another Submittal file to NSLDS. This time, the Submittal file contains updates to fields A, C, and D. Those updates are denoted by A2, C2 and D3. The updates pass all the relevant edits and are loaded onto the database. Because history is kept for fields A and D but not for C, the following occurs:

- The current value of field A is updated to A2, and the old current value is stored in history as A1.

- The current value of field C is updated to C2, and the old current value is discarded.

- The current value of field D is updated to D3, the old current value is stored in history as D2 (which is also part of the prior event), and the original current value is stored in history as D1.

D1 is now strictly history and can only be changed by a PPC record.
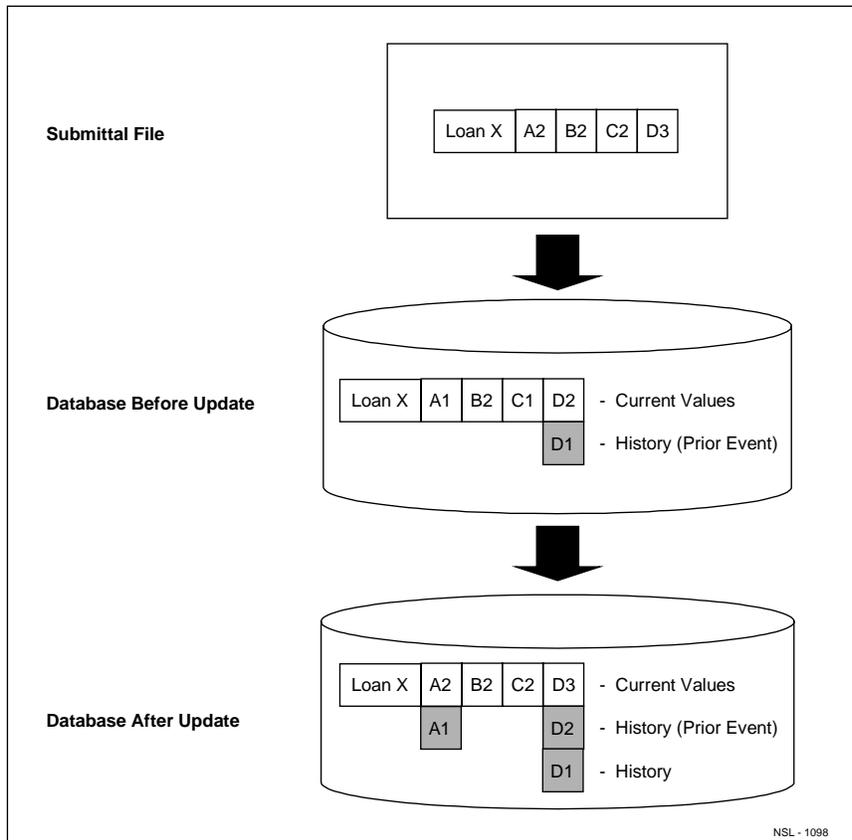
Figure 6–4, NSLDS Update (2 of 2)

Events

While history is stored for some fields that are not part of events, the fields that can be updated by a PPC record are part of one of the following events:

- Cancellation
- Deferment
- Disbursement
- Loan Status
- School Servicer

An **event** is made up of a **key**, usually a date, and one or more associated **values**. The key and values are linked together because they give each other meaning. For example, a Date of Loan Status is not meaningful without an accompanying Code for Loan Status. Together they constitute a discrete event, Loan Status.

Events
Events are made up of keys and associated values. Keys and values are treated as if they were linked because they give each other meaning. For example, a Date of Loan Status is not meaningful without an accompanying Code for Loan Status. Together they describe a discrete Loan Status event.

Events can be classified as current, prior, or history.

Notice in Figure 6–3 and Figure 6–4 that the event immediately preceding the event that created the current value in a field for which history is kept is know as the **prior event**. It can be updated either by a PPC record or by a Detail record, but only if the purpose of the Detail record is to delete the current value for the field and reinstate the value of the prior event as the current value.

How NSLDS Updates Current Events

Figure 6–5 shows what happens when you attempt to update a current event (key and values) using a Detail record.

Case	When the Key (Usually Date)	When Value(s)	NSLDS Does This
1	Stays the same.	Changes to new value.	Updates the value associated with the current event.
2	Changes to earlier date not before the date of the prior event.	Stays the same.	Updates the date associated with the current event.
3	Changes to a later date.	Stays the same.	Updates the date associated with the current event.
4	Changes to a date before the date of the prior event.	Stays the same.	Returns a date sequence error and does not update the record.
5	Changes to an earlier date, but one still after the date of the prior event.	Changes to new value.	Updates the date and value fields associated with the current event.
6	Changes to the same date as the prior event stored on NSLDS.	Stays the same.	Deletes the current event, and the prior event becomes the current event. Updates with value.
7	Changes to the same date as the prior event stored on NSLDS.	Changes to a new value.	Deletes the current event, and the prior event becomes the current event. Updates with values.
8	Changes date to default value (zeros), where there is no previous event in history, and the field being changed is not part of a loan.	Changes to default value (zeros for numeric field, blanks for character field).	Deletes the current event.
9	Changes date to default value (zeros), and there is a previous event in history.	Changes to default value (zeros for numeric field, blanks for character field).	Returns a date sequence error and does not update the record.
10	Changes date to default value (zeros), where there is no previous event in history, and the record being changed is a loan or student status event.	Changes to default value (zeros for numeric field, blanks for character field).	Returns an error and does not update the record. (Deletion of last loan or student status is not allowed.)
11	Changes to a later date.	Changes to new value.	Creates a new event on NSLDS, which becomes the current value. What had been the current event now becomes prior event/history.

Figure 6–5, Updating a Current Event

Notice what happens if, as in Case 4, you attempt to change a current key (date) so it is earlier than the key (date) of the prior event. This illustrates one of the two things you must keep in mind when updating events, whether you are updating their current values or historical values:

1. You cannot change the chronological order of events stored in history. That is, you cannot re-date an event (for example, the event of which data element D2 in Figure 6–4 is part) so that it predates an event that occurred before it (D1) or postdates an event that occurred after it (D3).

2. You cannot re-date events so they overlap in time.

Cases 6 and 7 illustrate the **prior event exception**. Normally, an historical event can only be modified by a PPC record. However, because NSLDS wants to make it easy for you to undo your most recent change to the database, it allows you to delete a current event and update the values of what was the prior event using a Detail record. Do this only when you want to delete the current event and make the old prior event the current event. If, on the other hand, you want to change some value of the prior event without deleting the current event, you must use a PPC record.

How NSLDS Updates Historical Events

Figure 6–6 shows what happens when you attempt to update the various parts of an historical event (keys and values) using a PPC record.

Case	When the Key	When Value(s)	NSLDS Does This
1	Stays the same.	Provides defaults (zeros or blanks, as per record layout specifications).	Deletes event.
2	Stays the same.	Provides new value.	Updates value if it passes validation edits.
3	Changes to a new date within the range of acceptable dates.	Stays the same or changes to default value(s).	Updates date to new date, keeps existing value(s).
4	Changes to a new date within the range of acceptable dates.	Provides new value(s).	Updates date, and value if it passes other edits.
5	Changes to a new date *not* within the range of acceptable dates.	Stays the same or changes to default value(s).	Change not accepted. Date Sequence Error is reported on Load Process Error report.
6	Changes to a new date *not* within the range of acceptable dates.	Provides new value(s).	Change not accepted. Date Sequence Error is reported on Load Process Error report.

Figure 6–6, Updating Historical Events

6.6.2 What You Do

Does NSLDS Keep History for the Field?

To update a loan record on NSLDS successfully, you must be able to answer the two questions posed in Section 6.6:

1. Is the field one for which NSLDS keeps history?

2. If NSLDS does keep history for the field, are you trying to update the current value for the field or an historical value?

To answer the first question, check Figure 6–7 or the History Kept box for the field in the Data Dictionary (Appendix A).

Fields for Which History Is Kept	Fields for Which History Is Not Kept
Amount of Cancellation	Amount of Loan
Amount of Disbursement	Amount of Outstanding Principal Balance
Code for Current School	Data Provider Identifier
Code for Enrollment Status	Code for Original School
Code for Loan Status	Date Enrollment Period Begins
Code for Servicer	Date Enrollment Period Ends
Date Deferment Starts	Date Entered Repayment
Date Deferment Stops	Date Grant Overpayment Repaid
Date Enrollment Status Effective	Date of Outstanding Principal Balance
Date of Cancellation	Date of Student's Birth
Date of Disbursement	Interest Rate
Date of First Disbursement	New Code for Original School
Date of Loan Status	New Date of First Disbursement
Date of Servicer Responsibility	New Date of Student's Birth
Indicator of Grant Overpayment	New Type of Loan/Other Aid
New Student's Social Security Number	Student's Academic Level
New Student's First Name	Student's Last Name
Student's First Name	Student's Middle Initial
Student's Social Security Number	Type of Loan/Other Aid
Student's Social Security Number Indicator	
Type of Cancellation	
Type of Deferment	

Figure 6–7, Fields and History

If history is not kept for the field you want to update, the update should be caught by your normal extract process and submitted to NSLDS on a Detail record without any special effort on your part. As long as the update passes all edits, it will be loaded onto NSLDS.

If, on the other hand, history is kept for the field you want to update, you must know whether you are updating a current value or an historical value.

Are You Updating a Current Value or an Historical Value?

Most of the updates you submit to NSLDS will be to current values. This is as true for fields for which history is kept as it is for fields for which history is not kept. So even if history is kept for the field you want to update, you will normally be updating the current value for that field. If that is the case, the update should be caught by your normal extract process and submitted to NSLDS on a Detail record without any special effort on your part.

On the other hand, you will sometimes know you want to update an historical value because you are aware that a mistake was made when reporting on an event prior to the event that supplied the current values for a field.

More often, you will discover that you want to update an historical value because of the following sequence:

1. You submit a change to a current value on a Detail record, but it errs out of NSLDS.

2. When you check your Load Process Error report, you discover that the change you submitted was valid, but that it conflicted with some other value stored in history on NSLDS.

Depending on the nature of the change you want to make, you may need to know more about the historical values already on NSLDS.

> ⚠️
>
> **Changing History**
> When data is submitted to NSLDS, the system first processes Detail records, then PPC records. For this reason, if you want to change historical information on a loan whose identifiers are also being modified at the same time, the PPC record must refer to the new identifiers, not the old ones.

Checking History Online

To learn the historical values associated with specific events, run the School History Attribute Query (Report ID SCH06A), which can be accessed through the NSLDS web site (www.nsldsfap.ed.gov). After you log onto the site, select the Reports tab and then the School History Attribute Query. The web site then displays the Report Parameter page for that query.

The School History Attribute Query requires you to submit loan identifier information for the loan you want to update and to identify the event(s) for which you want to review history. After the report has run, you will receive, via Title IV WAN, a batch report listing the historical values for the loan and event(s) you have identified.

For more information about using the School History Attribute Query to check history online, refer to Chapter 5 of the NSLDS User Guide (The Paperless Link), which is available from the Department of Education's Information for Financial Aid Professionals web site *(www.ifap.ed.gov)*.

Past Period Events

Past Period Change records update events stored in history on NSLDS. **Events** are made up of two components:

- The **key** that identifies the event
- The **associated values(s)** that describe the event

Figure 6–8 lists the events you can update using PPC records.

Event	Key	Associated Value(s)
Cancellation	Old Date of Cancellation	New Date of Cancellation New Type of Cancellation New Amount of Cancellation
Deferment	Old Date Deferment Starts	New Date Deferment Starts New Date Deferment Stops New Type of Deferment
Disbursement	Old Date of Disbursement	New Date of Disbursement
Loan Status	Old Date of Loan Status	New Date of Loan Status New Code for Loan Status
School Servicer	Old Code for Servicer	New Code for Servicer New Date of Servicer Responsibility

Figure 6–8, PPC Events, Keys, and Values

Creating Past Period Change Records

Past Period Change records must contain the following elements:

- A complete set of loan identifiers

- The key that enables NSLDS to identify the event to be updated

- Any new values with which you want to update the event

Only report the loan identifiers, the key, and any new values for the event that you want to change. Use default values for fields that you are not changing. There is no need to fill all the Old/New fields as you would for changes to loan identifiers.

For PPC record layouts and detailed instructions explaining how to apply specific updates to each PPC event, see Appendix C.

Changing Event Dates

Except for the School Servicer event, all the PPC events you can update have a date as their key. So updating an event key normally involves updating a date.

There are two important things to remember when making date changes with a PPC:

1. You may not change the chronological order of events contained in history. Do not re-date an event so it predates one that occurred before it or postdates one that occurred after it.

2. You may not change the date of an event so that it equals the date of a pre-existing event. For example, if there is a loan status effective date of 3/1/98, you cannot correct another loan status effective date to 3/1/98.

To change a date that is the key to an event, send NSLDS a PPC record containing the loan identifiers, the "Old" date that serves as the key, and the "New" date with which you want to update NSLDS.

To change a date that is an event value, send NSLDS a PPC record containing the loan identifiers, the event key stored in NSLDS, and the new date with which you want to update NSLDS.

Example

The following is an example of a valid change of key date in a Loan Status event.

In this example, the Date of Loan Status (key) is changed from April 1, 1994 to March 1, 1995. Notice that it was not necessary to provide the Code for Loan Status (value) associated with the April 1, 1994 event because it did not change.

Old and New
When a PPC field name starts with the word Old (for example, Old Date of Loan Status) you must report the exact value already contained in the field you are changing. When the PPC field name says New (for example, New Date of Loan Status), you report the new value you want that data element to contain.

For simplicity, here and in the examples that follow, loan identifiers are represented by Loan XYZ, when in fact they consist of all the information contained in positions 1–47 of the loan record.

Loan Identifiers	Old Date of Loan Status	New Date of Loan Status	New Code for Loan Status
Loan XYZ	19940401	19950301	BLANKS

Changing Event Values

To change the value(s) associated with an event, send NSLDS a PPC record containing the loan identifiers, the event key stored in NSLDS, and any new value(s).

Example

In this example, the Code for Loan Status associated with the April 1, 1994 Loan Status is changed to RP, so the New Code for Loan Status will replace the former value for the event. Since the date of the event is not changing, it is not necessary to provide a New Date of Loan Status.

Loan Identifiers	Old Date of Loan Status	New Date of Loan Status	New Code for Loan Status
Loan XYZ	19940401	ZEROS	RP

Changing *Both* Date and Value

To change *both* the key date of the event and the associated data, send a PPC record containing the loan identifiers, the event key (date) stored in NSLDS, the new key (date), and the new value.

Example 1

Assume the following values for a series of Deferment events exist on the NSLDS database:

Start	Stop	Type
01/01/98	01/15/98	FP
02/01/98	02/15/98	FP

Start	Stop	Type
03/01/98	03/15/98	FP
04/01/98	04/15/98	FP

If you want to correct the 02/01/98 deferment to a starting date of 02/02/98 and the Type of Deferment from FP to FS, use the following PPC:

Loan Identifiers	Old Deferment Start Date	New Deferment Start Date	New Deferment End Date	New Deferment Type
Loan XYZ	19980201	19980202	00000000	FS

The New Deferment End Date contains the default value 00000000 because the value isn't being changed.

Example 2

If you want to change the date of a Loan Status event from April 1, 1994 to March 1, 1995 and the Code for Loan Status to RP, use the following PPC:

Loan Identifiers	Old Date of Loan Status	New Date of Loan Status	New Code for Loan Status
Loan XYZ	19940401	19950301	RP

Deleting Historical Data

To delete an event, submit a PPC record that contains the loan identifiers and event key stored in NSLDS, along with default values (given in the PPC record layouts in Appendix C) in all the New fields.

Example

To delete a Loan Status event from history, use the following PPC record:

Loan Identifiers	Old Date of Loan Status	New Date of Loan Status	New Code for Loan Status
Loan XYZ	19940401	ZEROS	BLANKS

6.7 Copy Your Database Extract File to the Extract Directory

When you have created a Database Extract file that meets the standards outlined in this chapter, you must copy it to PC DataPrep's Extract folder (C:\DataPrep\Extract) and name it **extract.ff**. Extract Validation will fail if PC DataPrep does not find a file named **extract.ff** in the Extract folder.

Chapter 7: Extract Validation

Once you have created your Database Extract file and copied it to the Extract folder (C:\DataPrep\Extract), you're ready to run Extract Validation. This task is performed entirely by DataPrep.

7.1 What Happens in Extract Validation?

In the Extract Validation process, DataPrep first examines your Database Extract file to make certain its format is acceptable. DataPrep checks for proper header record(s), 300-byte record lengths, and matching school code(s). These are called **file-level edits**.

If the header format is not correct, DataPrep cannot continue the process, and an error message appears informing you that there was a header error and that processing was aborted.

The Extract Validation process will also abort if any Detail or PPC record has a school code that does not match the school code on its Header record. Therefore, servicers and schools reporting multiple schools or branches should be certain there is a header for each school or branch.

If your Database Extract file passes the file-level edits, DataPrep performs **domain-level edits** by examining all Detail and PPC records in the file to ensure that each data element meets domain requirements. If the percentage of domain errors exceeds the threshold levels set by ED (see box), DataPrep will issue an error message informing you that you have exceeded the threshold and that no Submittal file was created. All errors are noted in an Extract Error file from which you can generate an Extract Error report. Use this report to correct your database or extract program. Then create a new Database Extract file and rerun Extract Validation.

If your Database Extract file passes the file-level edits and the percentage of domain errors is below the maximum threshold levels established by NSLDS, DataPrep creates a Submittal file that you then send to NSLDS.

> **ⓘ**
>
> **Domain-Level Errors**
> There are four kinds of domain-level errors:
>
> 1. **Numeric Field Errors**—A character other than a number is in a field requiring all numbers
> 2. **Invalid Date Errors**—Date specified does not exist on a calendar or is not zeros
> 3. **Missing Identifiers** in one or more loan identifier fields
> 4. **Missing New Identifiers** on records with identifier changes

The Extract Validation process produces three output files:

1. **Extract Validation Log File**—A file containing a log report that summarizes the results of the Extract Validation process and counts of records processed.

2. **Extract Error File**—A file from which you can generate a report listing all domain errors. It is created only if the Database Extract file passes file-level edits.

3. **Submittal File**—The file you transmit to NSLDS. It is created only if the Database Extract file passes file-level edits and remains below ED-established thresholds for domain-level errors.

Successful Extract Validation
For Extract Validation to create a Submittal file, your Database Extract file must not contain any file-level errors, and the percentages of domain-level errors must be below the threshold levels established by ED.
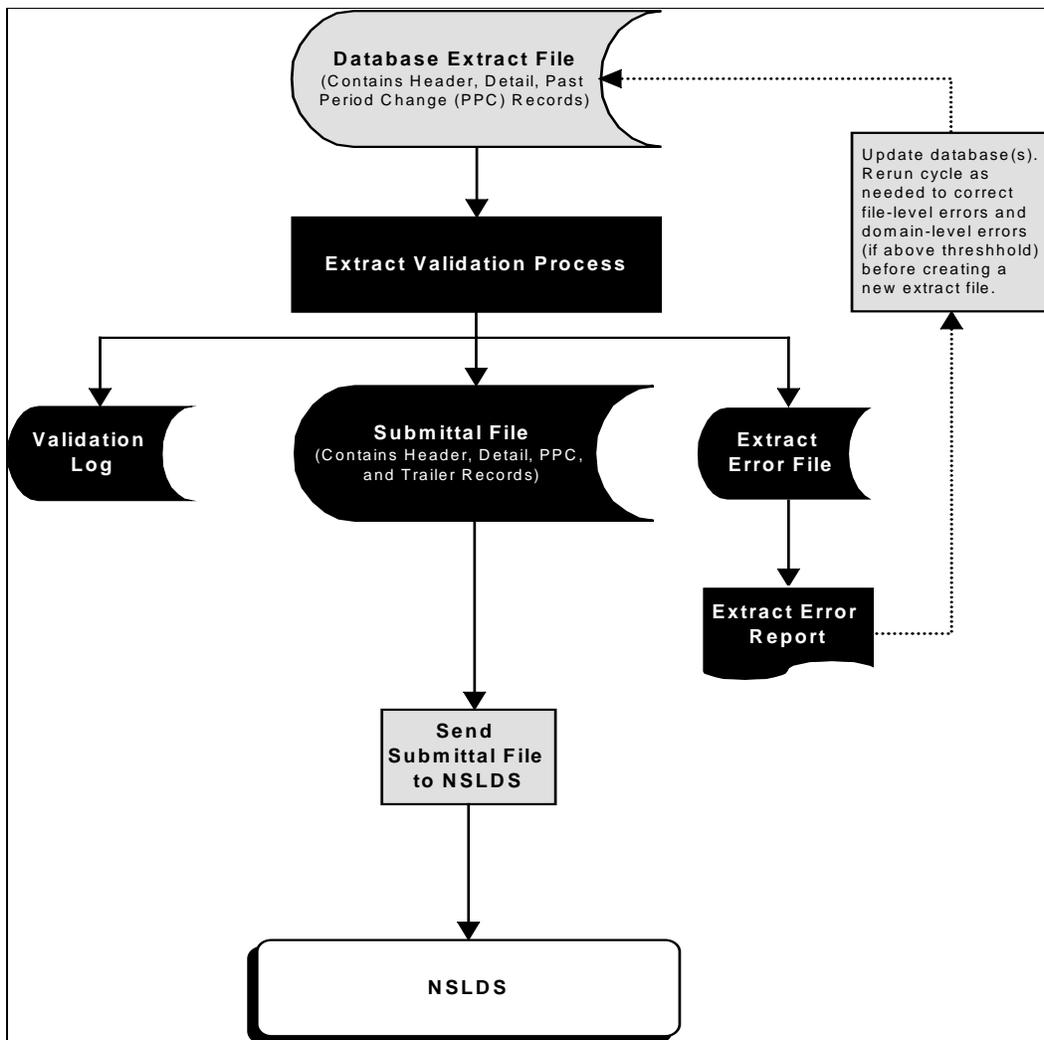
Figure 7–1, Extract Validation Process

7.2 DataPrep Error Path

DataPrep performs two sets of edits during the Extract Validation process:

1. File-level edits
2. Domain-level edits
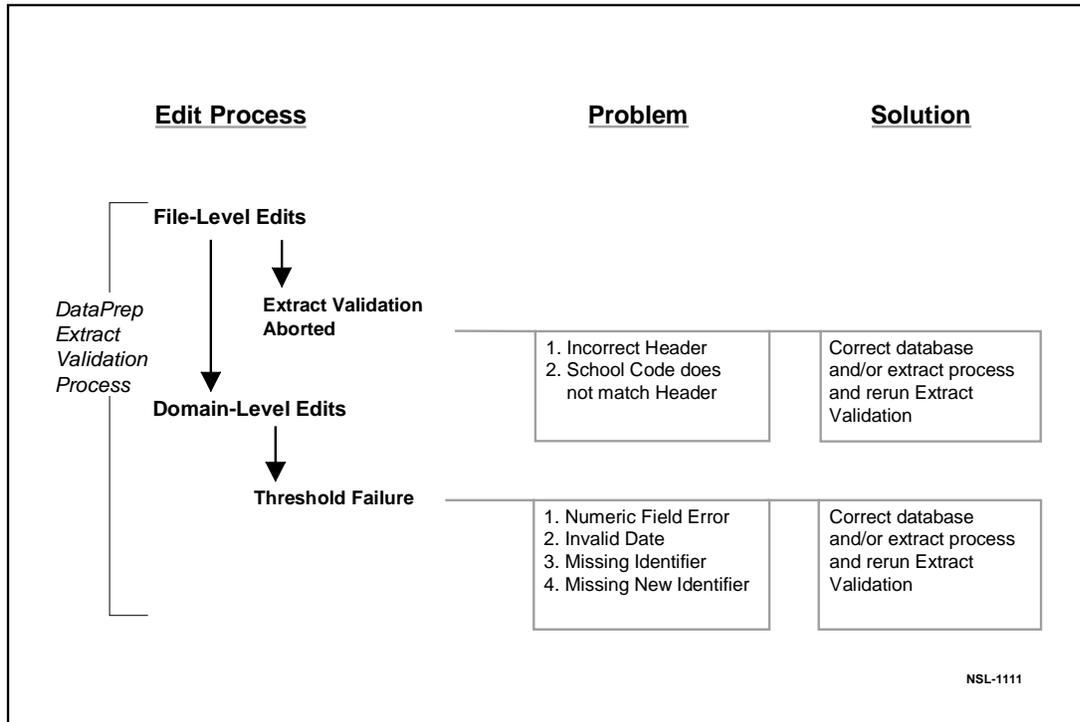
Figure 7–2, DataPrep Edit Process

7.2.1 File-Level Edits

File-level edits check whether the Database Extract file is a legitimate file with the correct header, 300-byte records, and a school code in each record that matches the code in the header. If DataPrep detects any one of these file-level errors, the Extract Validation process aborts and an error message, with a description of the error, appears on screen. If this happens, you must correct your database and/or extract process and create a new Database Extract file. You would then rerun Extract Validation. See Appendix B–10 (PC users) or B–11 (OS 390/LE users) for a complete list of all the file-level and header errors that cause the Extract Validation process to abort.

7.2.2 Domain-Level Edits

Domain-level edits check for four kinds of errors:

- **Numeric Field Errors**—A character other than a number in a field requiring all numbers

- **Invalid Date Errors**—A date that does not exist on a calendar and is not all zeros

- **Missing Identifiers** in one or more loan identifier fields

- **Missing New Identifiers** on records with identifier changes

If the percentage of the records with these errors exceeds the threshold levels established by ED, DataPrep will not create a Submittal file. You must then correct your database or extract process, create a new Database Extract file, and rerun Extract Validation.

Domain Error Rates
DataPrep validates the entire record and can detect multiple domain-level errors on a single input record. The error rates are calculated by DataPrep based on the number of records with one or more errors, not on the total number of errors detected.

7.3 Running Extract Validation on a PC

Before you can run Extract Validation, you must perform the following tasks:

- Install DataPrep and define the directory paths for DataPrep's data files (Section 5.1.1)

- Create a Database Extract file named **extract.ff** and copy it to the Extract folder (Chapter 5)

- Copy the most recent TEF file to the Current folder.

For instructions on receiving the TEF file from NSLDS, see Section 8.2. Once you have a current TEF file, use DataPrep's File Transfer utility (Section 5.2.3), Explorer, or My Computer to copy it to your Current folder.

Once you have performed these tasks, you are ready to run Extract Validation.

1. From the DataPrep Main Menu, click Extract Validation.

> ⚠️
>
> **Naming the Extract File**
> Remember that your Database Extract file must be named extract.ff in order for DataPrep to locate and process it.
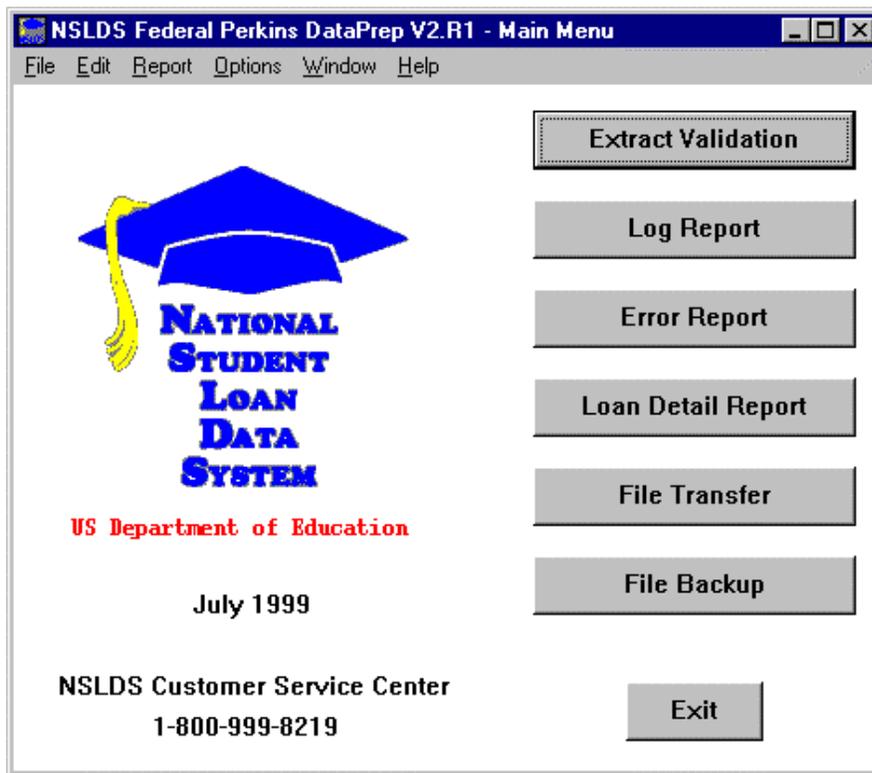
Figure 7–3, DataPrep Main Menu with Extract Validation
Selected

2. The Extract Validation dialog box appears.
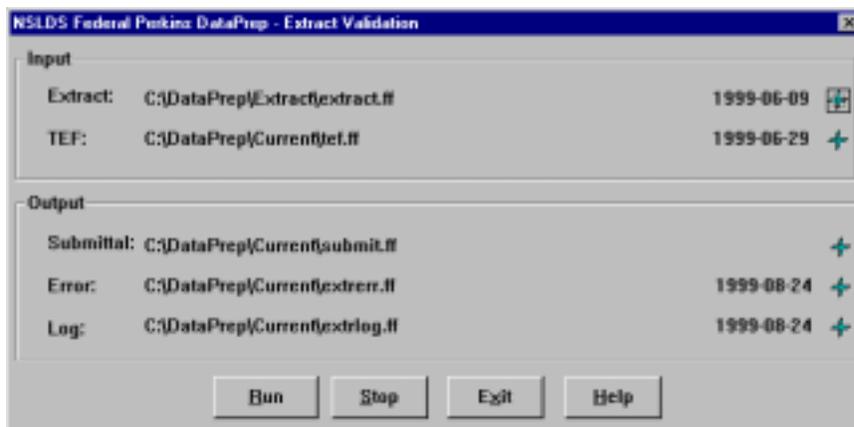
Figure 7–4, Extract Validation Dialog Box

3. If you click any of the plus signs on the far right next to the file
    date, the File Information dialog box appears. This box shows
    the file name, the date and time the file was created or last
    modified (whichever is more current), and the number of bytes
    in the file.

File Date
Note that the date a file was
last modified or created
appears on the right side of
the Extract Validation dialog
box. This is to help you
make sure you are using the
right Database Extract file.

If you click on the plus sign
next to the file date, the File
Information Dialog Box
appears, showing the date
and time the file was last
modified and the number of
bytes in the file.

```
NSLDS Federal Perkins DataPrep - File Information                    [x]
C:\DataPrep\Current\extrerr.ff

   Last Modified Date/Time:        1999-08-24       18:15:26

   Number of Bytes:                   2,416

                       [  Exit  ]      [  Help  ]
```
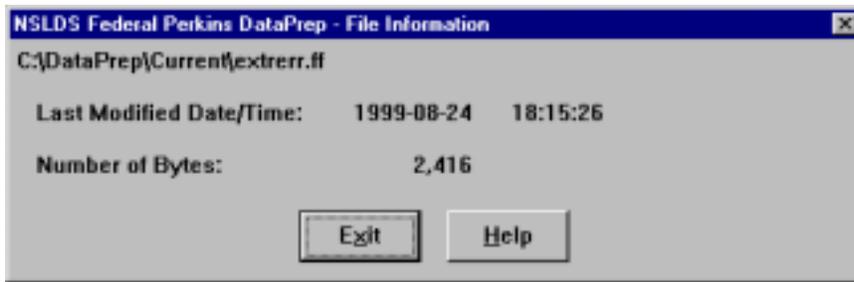
4. Click Exit to return to the Extract Validation dialog box.

5. Click Run. Once Extract Validation begins, the Extract Validation Process dialog box appears, showing you how much of the process is complete. While Extract Validation is in progress, you can close the Extract Validation dialog box and perform other DataPrep tasks. In addition, you can use other software to perform tasks while Extract Validation runs. If you decide to terminate Extract Validation before it is complete, return to the Extract Validation dialog box and click Stop.

   When processing is complete, the Extract Validation Process dialog box shows a Processing Status of 100% and displays information about the Extract Validation process that is repeated in the Extract Validation Log report (Section 7.3.2).

While Extract Validation Is in Progress
While Extract Validation is in progress, you can use DataPrep or other software to perform tasks. When Extract Validation is done, the Extract Validation Process dialog box will show that 100% of the process was completed.
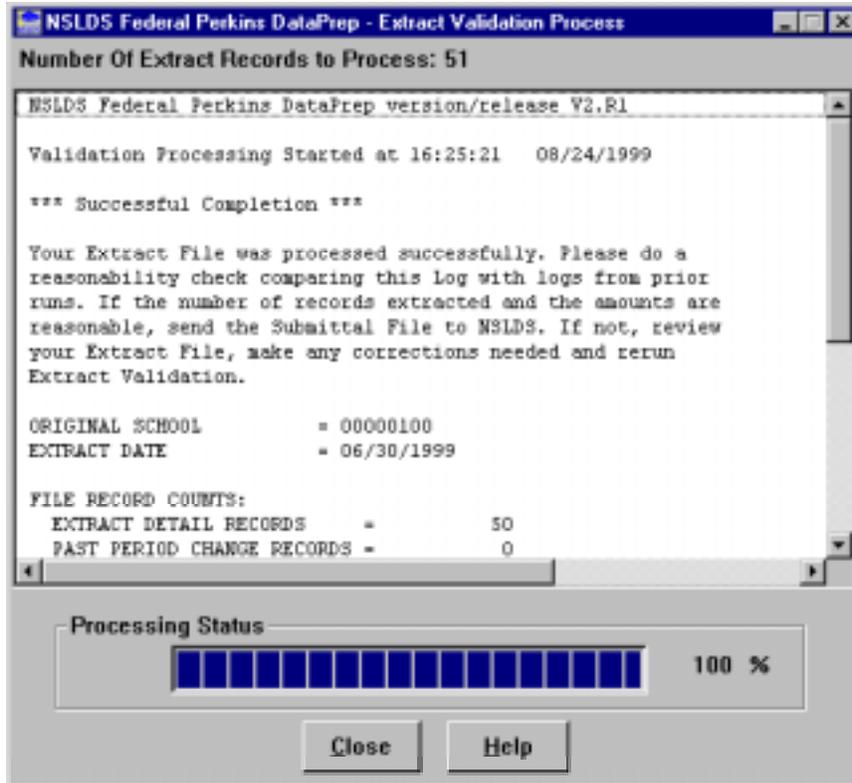
Figure 7–5, Extract Validation Process Dialog Box

Once you are satisfied that Extract Validation has run successfully, click Close to return to the Extract Validation dialog box. Then click Exit to return to the DataPrep Main Menu. From there you have several options, including generating reports.

7.3.1 Output

The successful Extract Validation process produces three files:

1. **Extract Validation Log File (extrlog.ff)**
2. **Extract Error File (extrerr.ff)**
3. **Submittal File (submit.ff)**

7.3.2 Using the Extract Validation Log Report

Section 10.1 explains how to view and print the Extract Validation Log report. This report repeats the information displayed by the Extract Validation Process dialog box when Extract Validation is complete. You must check this report to verify that the Submittal

---

Halting Extract Validation
Once you have started to run Extract Validation, you cannot stop it from the Extract Validation Process dialog box.

If you want to stop the Extract Validation process before it has completed, you must return to the Extract Validation dialog box and click Stop.

file created by Extract Validation contains valid data that will load onto the NSLDS database.

The Extract Validation Log report contains the following information:

- Version and release numbers for DataPrep
- When Extract Validation began
- Whether Extract Validation was successful and what to do next
- Original School
- Extract Date
- Record counts for the Database Extract file
    - Number of Detail records
    - Number of PPC records
- Counts and percentages of domain-level errors
    - Date/numeric errors
    - Identifier errors
    - New identifier errors
- Totals for open loans
    - Number of open loans
    - Amount of loan
    - Amount of cancellation
    - Outstanding principal balance

Original School is the school's OPEID if the Database Extract file contains only records for a single school. If the file contains records from multiple schools, the number of schools reporting on the file appears instead.

The record counts for the Database Extract file are useful when you do reasonability checks. Look, in particular, for unusually large changes in the number of Detail records from one submittal to the next.

DataPrep totals the number of records that contain domain-level errors and the percentage they represent of the records in the Database Extract file. If you have exceeded the error threshold levels defined by ED, DataPrep does not create a Submittal file. In this case, you must correct your database and/or extract process, create a new Database Extract file, re-start the extract process, and re-validate until your error rate is below the threshold levels.

⚠️

Error Numbers
Remember that DataPrep calculates the number of records containing errors if there are multiple errors in a single record, *not* the total number of errors (which could be considerably higher).

Extract Validation Is Successful

If your Database Extract file processes successfully, the Log states:

> Your Database Extract file was processed successfully. Please do a reasonability check comparing this Log with Logs from prior runs. If the amounts and number of records extracted are reasonable, send the Submittal file to NSLDS. If not, review your Database Extract file, make the needed corrections, and rerun Extract Validation.

Compare this log to the logs for prior Validation Extracts to make sure the numbers in the Submittal file DataPrep has just produced are reasonable. In particular, look at the following:

- Number of Detail records
- Number of open loans
- Amount of loan
- Amount of cancellation
- Outstanding balance

Large, unexplained changes in any of these figures could indicate that your Database Extract file contains flawed data, even though it processed successfully.

Extract Validation Fails Because of File-Level Errors

If DataPrep detects a file-level error, it stops Extract Validation and does not create a Submittal file. The Extract Validation Log report announces that DataPrep has detected a file-level error and terminated Extract Validation. It also describes the error and suggests possible remedies.

Checking Reasonability
The Extract Validation Log will tell you whether the Extract Validation process was successful. If it was, compare the Log with Logs from prior Validations to make sure the number of Detail records and totals for open loans are reasonable.

Large increases in the number of Detail records or totals for open loans could indicate that you have duplicated records or extracted some records incorrectly.

```
NSLDS Federal Perkins DataPrep - Extract Validation Process    _ □ ✕

Number Of Extract Records to Process: 160

┌─────────────────────────────────────────────────────────┐ ▲
│ NSLDS Federal Perkins DataPrep version/release V2.R1      │ ▲
│                                                           │ █
│ Validation Processing Started at 16:25:53   10/29/1999    │
│                                                           │
│ While Processing School Code:   00268100                  │
│ Found Non-matching School Code: 00268200                  │
│    (Review the extract file school codes. If all          │
│     school codes are correct, an invalid record           │
│     length may have been detected. Verify that            │
│     all records have a length of 300 bytes and            │
│     rerun the extract validation.)                        │
│                                                           │
│ *** File Level Error ***                                  │
│                                                           │
│ Your Extract File failed File Level Edits and we are unable│
│ to perform an Extract Validation. Please correct the problem,│
│ create a new Extract file, and rerun the Extract Validation│ ▼
│ process. Refer to the Perkins DPI for help in identifying │ ▼
│ the possible cause of the problem.                        │
│ ◄                                                       ► │
└─────────────────────────────────────────────────────────┘

┌─ Processing Status ──────────────────────────────┐
│  ┌──────────────────────────────────────┐        │
│  │ █                                    │    2 %  │
│  └──────────────────────────────────────┘        │
└──────────────────────────────────────────────────┘

          ┌─────────┐      ┌─────────┐
          │  Close  │      │  Help   │
          └─────────┘      └─────────┘
```

Among the possible causes for a failed Extract Validation are the following:

- No Header record
- An incorrect format
- Data that shifted because you inserted a space or a character
- Records were not the required 300-byte length
- Mismatch between the Code for Original School in a Detail record and the school code in the Header record

---

What to Do When Extract Validation Is Halted
If Extract Validation failed because a file-level error caused the process to abort, check to see that you've used the correct Database Extract file, that it has a Header record, is in the proper format, and that the records are all 300 bytes in length.

Extract Validation Fails Because of Domain Errors

If the percentage of domain-level errors in your Database Extract file exceeds the allowable threshold levels, the Log will state that no Submittal file was created, will report the error rate, and will explain the reason for the failure (excessive date/numeric, identifier, or new identifier errors). The Extract Validation Log will state:

> The percentage of domain errors exceeds the allowable tolerances. Therefore, no Submittal File has been created. You can use the Loan Detail Error Report to help determine the cause. Please correct your database, create a new Database Extract file, and rerun the Extract Validation process. Refer to the Perkins DPI for help in identifying the possible cause of the problem.

When you receive this message, you must correct the domain-level errors on your database so that the percentage of errors is acceptable. Use the Extract Error report to see what corrections must be made. But remember that the Database Extract file must be an exact reflection of your database, so you should correct all errors by updating your database, *not* by editing the Database Extract file or any file created by DataPrep.

There are a number of possible reasons for domain-level errors. Some of the following causes and corrections might explain yours:

- **Your Data Is Stored Incorrectly on Your Database**—The solution is to correct the appropriate fields on your database. For example, if your database accepts six digit dates, correct it so it stores the eight digit dates required by NSLDS or make sure your extract process converts six digit dates to eight digits.

- **Your Extract Process Calculates Fields Incorrectly**— Review and correct any programming logic in your extract process. For example, when you calculate Date Entered Repayment by adding one day to the end of the enrollment period, make sure you are not producing invalid dates such as February 29, 1999 (rather than the valid March 1, 1999).

- **Your Extract Process Only Picks up Changed Fields**— Change your process to populate the other fields with the current data for those fields.

⚠️

Domain Error Threshold Levels
ED has set the threshold levels for domain errors at:

- Combined Date and Numeric Field Errors   10%
- Missing Identifier   5%
- Missing New Identifier   5%

These percentages are subject to change at ED's discretion.

⚠️

What to Do When Your Domain Errors Are in Excess of the Threshold
If the number of domain errors (date/numeric field errors, identifier errors, or new Identifier errors) Extract Validation finds in the Detail and PPC records exceeds the threshold defined by ED, it rejects the *whole* Database Extract file.

The Extract Validation Log report contains your error rates. To learn more detail about what caused the errors, generate an Extract Error report.

TEF File Is out of Date

If your TEF file is more than 90 days old, DataPrep will display a message warning that the threshold error values it contains may be out of date. However, DataPrep will perform Extract Validation and create a Submittal file, assuming that your Database Extract file meets the standards described in this manual.
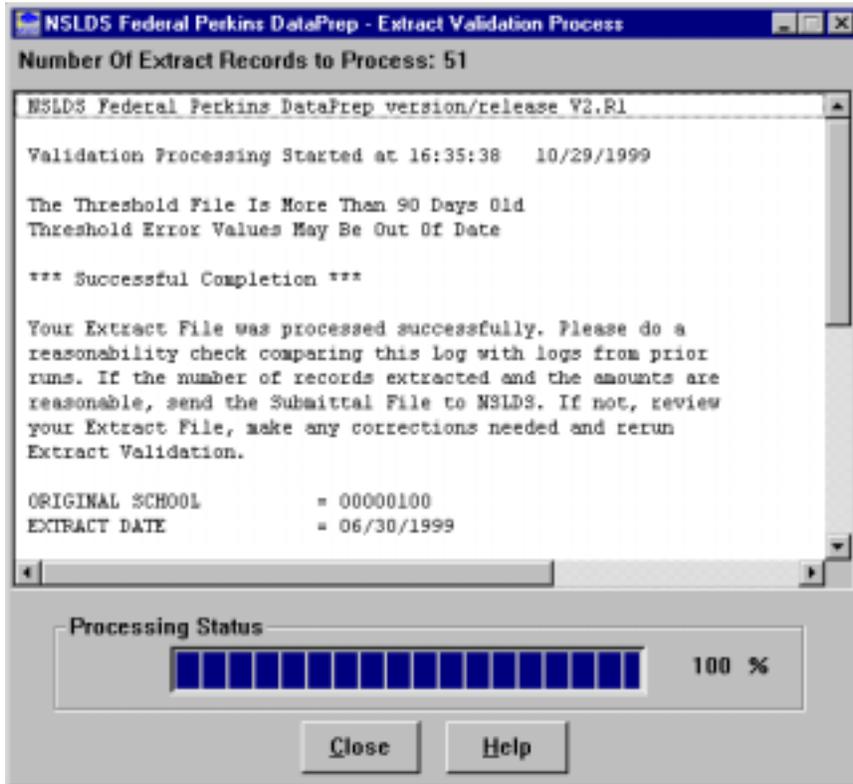
7.4 Running Extract Validation on an OS/390 LE Version 2.4 or Higher Mainframe

The JCL for OS/390 LE Version 2.4 or higher mainframes executes DataPrep procedures that perform Extract Validation and creates an error file. Appendix G contains the JCL for these functions. It can be referenced from the library created with JCLLIB as part of the name. The library member name is PRBB1000.

> ⚠
>
> **Previous Data Sets**
> The first step in the JCL will delete any data sets previously created. If you want to save your previous Submittal file, you must copy it to another file name.

Chapter 8: Sending and Receiving Files

8.1 Sending the Submittal File

You are required to transmit a current Submittal file to NSLDS each month on the schedule assigned to you by ED. Because of the number of data providers and the size of some Submittal files, it is critical that you submit your data according to the schedule established by NSLDS. Normally you will transmit files by Title IV WAN, but *by special arrangement only* you can send files by cartridge or tape.

Make sure that the file you send meets the following standards:

- It is a Submittal file (named **submit.ff**), not a Database Extract or some other file.

- It was created no more than 14 days before your scheduled load date. If you are not sure, use Windows Explorer or DataPrep's File Transfer utility to check when the file was created.

8.1.1 Submittal Schedule

NSLDS will assign a submittal schedule to you each year, usually in December. You can check your schedule at any time by selecting the Data Provider Schedule link on the Organization page of the NSLDS web site (*www.nsldsfap.ed.gov)*.

Your Submittal file should arrive at NSLDS no later than 1 p.m. Central time the day before it is scheduled for Load processing. The data it contains cannot have been extracted from your database more than 14 days before your scheduled load date. Submittal files received more than 15 days after your scheduled load date will not be processed. The period from 14 days before your scheduled load date until 15 days after your scheduled load date is your **submittal window**.

⚠

Meeting Your Scheduled Submittal Date
Schools and other data providers have specific submittal windows within which they must transmit their Submittal files to NSLDS. If you do not transmit within your window, your submittal will be rejected by NSLDS, and you'll receive a message instructing you to submit a new Submittal file on your next scheduled date.

ED keeps track of all missed submissions as well as error rates in determining an institution's ability to properly manage Title IV student aid programs.

ⓘ

Submittal Schedules on the Web
You can check your submittal schedule at any time on the Organization page of the NSLDS website *(www.nsldsfap.ed.gov).*

8.1.2 Submittal File Format

If you are reporting for a single campus, the Submittal file created by DataPrep contains:

- Header Record
- Detail Records
- PPC Records (optional)
- Trailer Record

If you are reporting for multiple campuses, the Submittal file contains records in the same sequence (Header, Detail, PPC, Trailer) by campus. Each campus has its own Header and Trailer record, and all the records for the first campus appear together, followed by all the records for the second campus, and so on. The sequence looks like this:

- Header record for Campus 1
- Detail records for Campus 1
- PPC records for Campus 1
- Trailer record for Campus 1
- Header record for Campus 2
- Detail records for Campus 2
- PPC records for Campus 2
- Trailer record for Campus 2
. . . .
- Header record for Campus N
- Detail record for Campus N
- PPC records for Campus N
- Trailer record for Campus N

The Trailer record, which is created by DataPrep, marks the end of the submittal and contains basic information about the number of records processed and the number of records in error at each level of validation.

8.1.3 Transferring the Submittal File

DataPrep automatically puts the Submittal file generated by successful Extract Validation in the Current folder (C:\DataPrep\ Current). From there, use DataPrep's File Transfer utility (Section 5.2.3) to transfer it to the folder (normally C:\IAM\DATA) from which you transmit files to NSLDS via Title IV WAN.

To transfer a Submittal file from the Current folder to the Data folder, follow these steps:

1. From the DataPrep Main Menu, click File Transfer.

> ⚠️
>
> **Directory Paths**
> These instructions assume that you chose the default directory paths when you installed DataPrep (Section 5.1.1). If you did not, you will need to adjust accordingly. Section 5.2.1 contains instructions for changing directory paths after you have installed DataPrep.
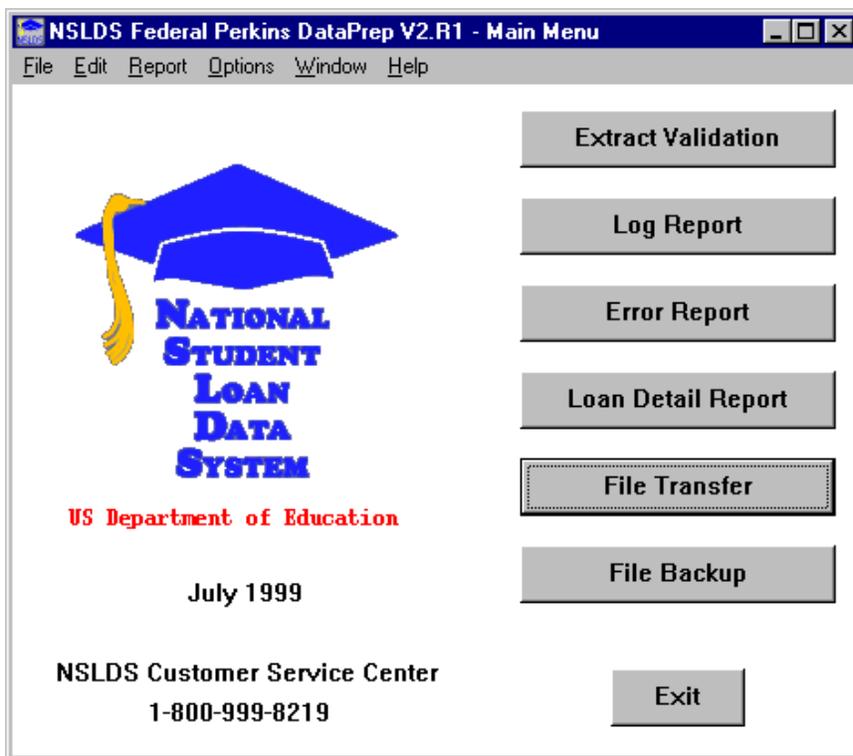
Figure 8–1, DataPrep Main Menu with File Transfer Selected

2. The File Transfer dialog box displays.
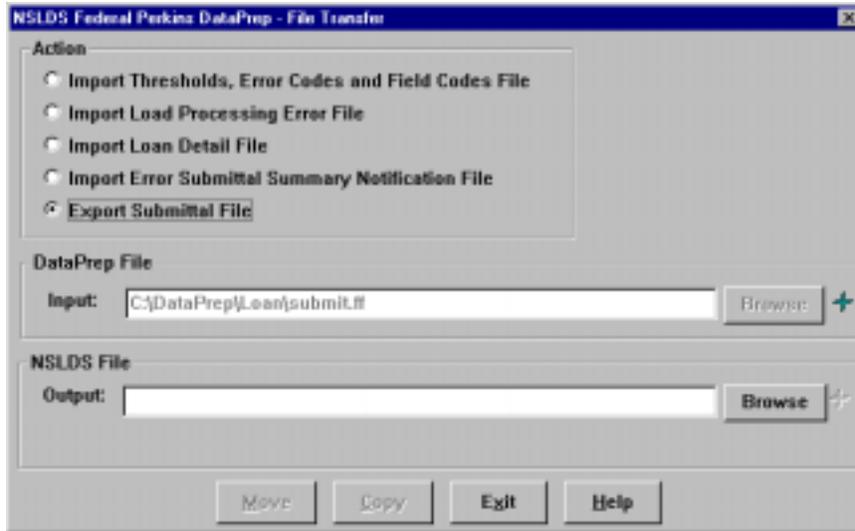
Figure 8–2, File Transfer Dialog Box

3. Select Export Submittal File as the Action. DataPrep automatically selects the file named **submit.ff** in your Current folder as the DataPrep File Input option. You cannot change this option.

4. Enter the full directory path, *including folder and file names,* for a Submittal file and the folder where you keep it for transmission to NSLDS by Title IV WAN (normally C:\IAM\DATA\submit.ff) as the NSLDS File Output option. There are two ways you can do this:

   A. Type the full directory path in the NSLDS File Output box.

   B. Click the Browse button to the right of the NSLDS File Output box and use the Select NSLDS File dialog box that then displays to select the folder.

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Storing Files for Title IV WAN
If you performed a default installation of the EDConnect software, you use the C:\IAM\DATA folder to store files for transmission to NSLDS by Title IV WAN. The message class for Submittal files is SHSLDSIN. So a Submittal file stored in the default folder for such files is C:\IAM\DATA\ SHSLDSIN.DAT.
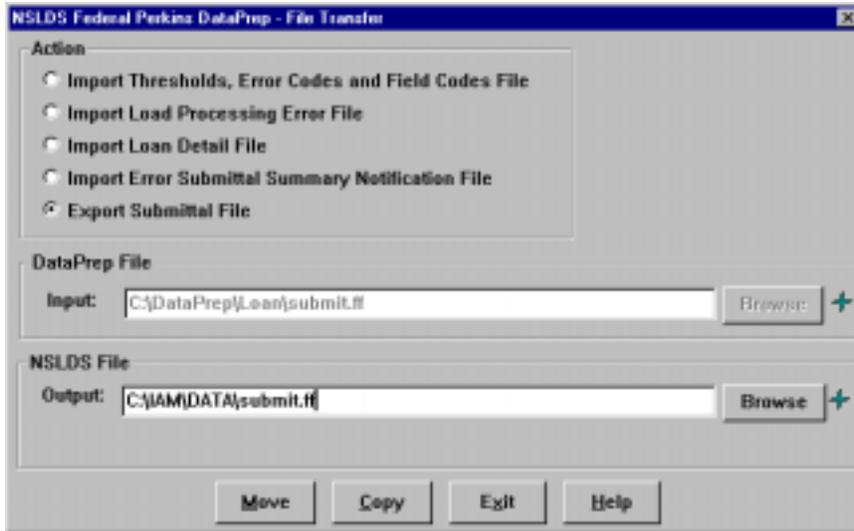
Figure 8–3, File Transfer Dialog Box

5. Click Move to move (or Copy to copy) the Submittal file from your Current folder to the folder where you put files before sending them to NSLDS by Title IV WAN. If the move (or copy) is successful, DataPrep displays the following message:
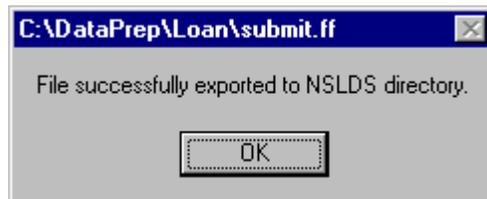
You can then use the EDConnect software supplied by ED to transmit your Submittal file to NSLDS.

8.1.4 Submitting by Title IV WAN

Once you have transferred your Submittal file (submit.ff) to a folder where EDConnect software is able to find it, you are ready to transmit the file to NSLDS using EDConnect software and the Title IV WAN. If you chose the default installation for EDConnect, you will send the Submittal file from C:\IAM\DATA. You must transmit it as **message class SHSLDSIN**.

For full instructions on how to transmit a file using Title IV WAN, see the EDConnect for Windows User's Guide available on ED's Information for Financial Aid Professionals web site *(www.ifap.ed.gov).*

If some problem with DataPrep or NSLDS prevents you from transmitting your Submittal file successfully, contact the NSLDS CSC at (800) 999–8219.

If your problem is with the EDConnect software or Title IV WAN transmission lines, contact the Title IV WAN CSC at (800) 615–1189.

Message Classes
Use this message class to send Submittal files to NSLDS:

- **SHSLDSIN**

NSLDS uses these message classes to send files to you:

- **TEFFILOP**—TEF File
- **SLDERROP**—Load Process Error File
- **SLNDTLOP**—NSLDS Loan Detail File
- **SHSNTFOP**—Error Submittal Summary Notification File

8.1.5 Submitting by Cartridge or Tape

By special arrangement with NSLDS, you can send your Submittal file to NSLDS by cartridge or tape rather than using the Title IV WAN. To do so, you must contact the Customer Service Center at (800) 999–1212 and make the necessary arrangements. You should be prepared to give your NSLDS ID number, the format you will be using, and the reason for the exception.

Tape Format

When you send your Submittal file on cartridge or tape, you must use one of these formats:

- Cartridge input conforming with IBM 3480 or 3490E standard label tape cartridges, EBCDIC format

- IBM 6250 BPI standard label tapes, EBCDIC

- IBM 1600 BPI standard label tapes, EBCDIC

Submittal File Naming Convention

The Submittal file must be named as follows:

For single schools: *NSLINPTP.SCgggggg.Bbb.Dmmdd*

For servicers or multiple schools: *NSLINPTP.SS.hhhhhh.Dmmdd*

Where:

NSLINPTP	=	A constant name indicating a NSLDS data set follows (if you cannot use this name, see instructions in box at right)
SC	=	School Code follows
gggggg	=	6-digit numeric school code for your school
SS	=	A constant indicating a Servicer Code follows
hhhhhh	=	6-character servicer code (see Appendix B–7)
B	=	A constant indicating a School Branch follows
bb	=	The last two digits of your OPE ID school branch code indicating the branch (if no branch code, use 00)
D	=	A constant indicating a date follows
mmdd	=	Month and day data set was transferred to tape or cartridge

(i)

NSLINPTP Naming Convention
If you cannot use the submittal file name *NSLINPTP*, you may change the first node to any value, provided that it is a valid data set node name and does not end in *S*. Note that there must be at least one character in the name you choose for this node.

Example of school cartridge or tape:

NSLINTP.SC001111.B00.D1122

Example of servicer or multiple school cartridge or tape:

NSLINTP.SS.SRVNAM.D1122

External Label for Cartridges or Tapes You Send NSLDS

The external label for any cartridge or tape you send NSLDS must supply the following information:

- Internal Volume Serial Number
- Creation Date
- Data Provider Name
- Blocksize
- Logical Record Length
- Record Format
- Number of Records

Internal Label for Cartridges or Tapes You Send NSLDS

Each cartridge or tape you send NSLDS must have a standard label as defined by the IBM OS/390 LE Version 2.4 or higher operating system. Schools using other systems must use a tape copy utility that has the appropriate tape label creation option.

If you do not use the correct internal label format, NSLDS will send a Submittal Error Notification file to your Title IV WAN mailbox indicating that your label was invalid.

Where to Send Cartridges and Tapes
Data providers are strongly encouraged to transmit their data using the Title IV WAN. However, by special arrangement with NSLDS, you may instead send your Submittal file by cartridge or tape. Be sure to send cartridges or tapes in time to meet your scheduled submission and address them to:

Computer Sciences Corporation
NSLDS Project
Attn: Tape Library–2nd Floor
71 Deerfield Lane
Meriden CT 06450

Phone: (203) 317–5137

8.2 Receiving Files

8.2.1 Receiving Files by Title IV WAN

Unless you make special arrangements to receive files by cartridge or tape, NSLDS sends you files by Title IV WAN using the following message classes:

- **Message Class SHSNTFOP**—Error Submittal Summary Notification File. NSLDS sends you this file if it fails to receive your Submittal file, or the file you send contains file-level errors that prevent NSLDS from processing it.

- **Message Class SLDERROP**—Load Process Error File. NSLDS send you this file within 48 hours after successfully loading your Submittal file onto the database.

- **Message Class TEFFILOP**—Thresholds, Error Codes and Field Codes File. NSLDS sends this file within 48 hours after successfully loading your Submittal file onto the database.

- **Message Class SLNDTLOP**—NSLDS Loan Detail File. NSLDS sends you this file by special arrangement only.

For full instructions on how to receive a file using EDConnect Software and the Title IV WAN, see the EDConnect for Windows User's Guide available on ED's Information for Financial Aid Professionals web site *(www.ifap.ed.gov).*

If some problem with DataPrep or NSLDS prevents you from receiving files from NSLDS, contact the NSLDS CSC at (800) 999–8219.

If your problem is with the EDConnect software or Title IV WAN transmission lines, contact the Title IV WAN CSC at (800) 615–1189.

ⓘ
Send by Cartridge, Receive by Title IV WAN If you send cartridges or tapes to NSLDS but want to receive files by Title IV WAN, call the NSLDS CSC at (800) 999–8219 to make the necessary arrangements.

ⓘ
Help! If you have problems with **DataPrep or NSLDS**, contact the NSLDS CSC at (800) 999–8219. If you have problems with **EDConnect or Title IV WAN**, contact the Title IV WAN CSC at (800) 615-1189.

8.2.2 Receiving Files by Cartridge or Tape

If you have made special arrangements with NSLDS to send your Submittal file on cartridge or tape instead of using the Title IV WAN, NSLDS will return output files to you in the following formats:

- If you send your Submittal file using a cartridge conforming to the IBM 3490E standard label tape format, all outputs from NSLDS will be sent using the 3480 format.

- If you send your Submittal file using a 3480 cartridge, you will receive your Load Process Error file in the same 3480 cartridge format.

- If you sent your Submittal file using either of the two permitted tape formats—IBM 6250 BPI standard label format or IBM 1600 BPI standard label tape format—your Load Process Error file will be in the same format as the Submittal file you sent.

Load Process Error File Naming Convention

The Load Process Error File data set will be named as follows:

For single schools:
     NSLDS.OFFaaaa.RPERRFI.SCbbbbbb

For Servicers or Multiple Schools:
     NSLDS.OFFaaaa.RPERRFI.SSccccccc

Where:

NSLDS	=	A constant name indicating a NSLDS data set follows
OFF	=	A constant indicating media type follows
aaaa	=	CART for 3480 cartridge; or TAPE for 6250 or 1600 tape
RP	=	A constant indicating cartridge/file content
ERRFI	=	ERRFI for Load Process Error File
SC	=	A constant indicating a school code follows
bbbbbb	=	6-digit School Code
SS	=	A constant indicating a servicer code follows
cccccc	=	6-character Servicer Code

Example of a school Load Process Error file:

     NSLDS.OFFTAPE.RPERRFI.SC123400

Example of a servicer Load Process Error file:

     NSLDS.OFFTAPE.RPERRFI.SSSRVNAM

Loan Detail File Naming Convention

The Loan Detail file data set will be named:

NSLDS.OFFaaaa.bbbb.ccyymmdd

Where:

NSLDS	=	A constant name indicating a NSLDS data set follows
OFF	=	A constant indicating media type follows
aaaa	=	CART for 3480 cartridge; or TAPE for 6250 or 1600 tape
bbbb	=	Variable four character field used to help identify the provider
ccyymmdd	=	Year, month and day data was sent to tape/ cartridge

Example of a School Loan Detail file:

NSLDS.OFFCART.UTAH.19990930

DataPrep Software File Naming Convention for OS390/LE

The NSLDS Load process adheres to file naming conventions used by the DataPrep software, and we strongly recommend that you retain this naming convention. In particular, the second and last nodes in the data set names contain identifying information (Version/Release/Levelset Date) to assist in tracking and identifying the software in use. See Appendix G (DataPrep JCL for OS390/LE) for more information.

External Label for Cartridges or Tapes from NSLDS

The external label for any cartridge or tape NSLDS sends you will contain the following:

- Data provider contact's name
- Data provider name
- Internal Volume Serial Number
- Number of cartridges/tapes (e.g., 1 of 2)
- "Privacy Act of 1974 (As Amended)"

- File name (see above file naming convention)

Example:

```
John Johnson
Alpha State University
VOLSER : 320653 ; 1 OF 1
PRIVACY ACT OF 1974 (AS AMENDED)

NSLDS.OFFTAPE.RPERR.SSSRVNAM
```

Internal Label for Cartridges or Tapes from NSLDS

Any cartridge or tape NSLDS sends you will have a standard label as defined by the IBM OS/390 LE Version 2.4 or higher operating system. Schools using other systems must use a tape copy utility that has the ability to read the standard tape label.

Chapter 9: The NSLDS Load Process

The day before your Submittal file is scheduled for loading onto NSLDS, NSLDS checks whether it has received your Submittal file. If it hasn't, it sends you an Error Submittal Summary Notification file reminding you that your submission is due and that it will still be processed if it is received within your submittal window. If NSLDS does not receive a Submittal file from you within that window, it sends you another Error Submittal Summary Notification file informing you that your Submittal file cannot be processed that month and that you must send a new Submittal file the following month.

Once it receives your Submittal file, NSLDS performs the following edits:

- File-Level Edits
- Domain-Level Edits
- Record-Level Edits
- Load-Level Edits

NSLDS performs **file-level edits** to determine whether there are errors in the Submittal file that prevent it from being processed at all. Such errors can include:

- Sending the wrong file
- Files that are incorrectly formatted
- Data that was corrupted during transmission to NSLDS

If your Submittal file contains file-level errors, NSLDS sends you within one or two days an Error Submittal Summary Notification file which contains an error message (or messages) explaining why NSLDS was unable to process your submittal. NSLDS then takes no further action, so it is up to you to create a successful Submittal file and send it to NSLDS within your processing window.

After it verifies that your Submittal file does not contain any file-level errors, NSLDS performs domain-level and record-level edits on each record within the file. **Domain-level edits** check for records that contain non-numeric characters or spaces in a numeric field, invalid dates (other than all zeros), missing identifiers, or missing new identifiers. **Record-level edits** check for duplicate records and for records that violate reasonability rules or Perkins program regulations. If NSLDS detects either a domain-level error or a record-level error in a record, it writes the error to the Load

---

⚠

Submittal Window
Your submittal window runs from 14 days before your Submittal file is scheduled for processing to 15 days after. If NSLDS has not received your Submittal file by 1 p.m. Central Time the day before the scheduled load, it sends you an Error Submittal Summary Notification file. It sends another if your submittal window expires without a Submittal file arriving. Your Database Extract file cannot have been extracted more than 14 days before the scheduled load date.

⚠

Check Your Mailbox Early
It's important that you check your Title IV WAN mailbox a day or two after transmitting your Submittal file. If it encounters a problem reading the file or some other error that prevents an update, NSLDS will notify you through **message class SHSNTFOP** that you must correct and retransmit the Submittal file.

Process Error file but does not perform any further processing on the record.

If records pass domain- and record-level edits, NSLDS performs **load-level edits** that check for invalid codes, and for any date sequence errors or identifier conflicts that would be caused by loading those records onto the NSLDS database. Records that pass the load-level edits are then loaded onto NSLDS and update the database.

For more information about edits, see the Federal Perkins Data Dictionary (Appendix A), which describes all the edits applied to each field in a Perkins record, and Appendix B, which lists all the error messages generated by DataPrep and the Load process.
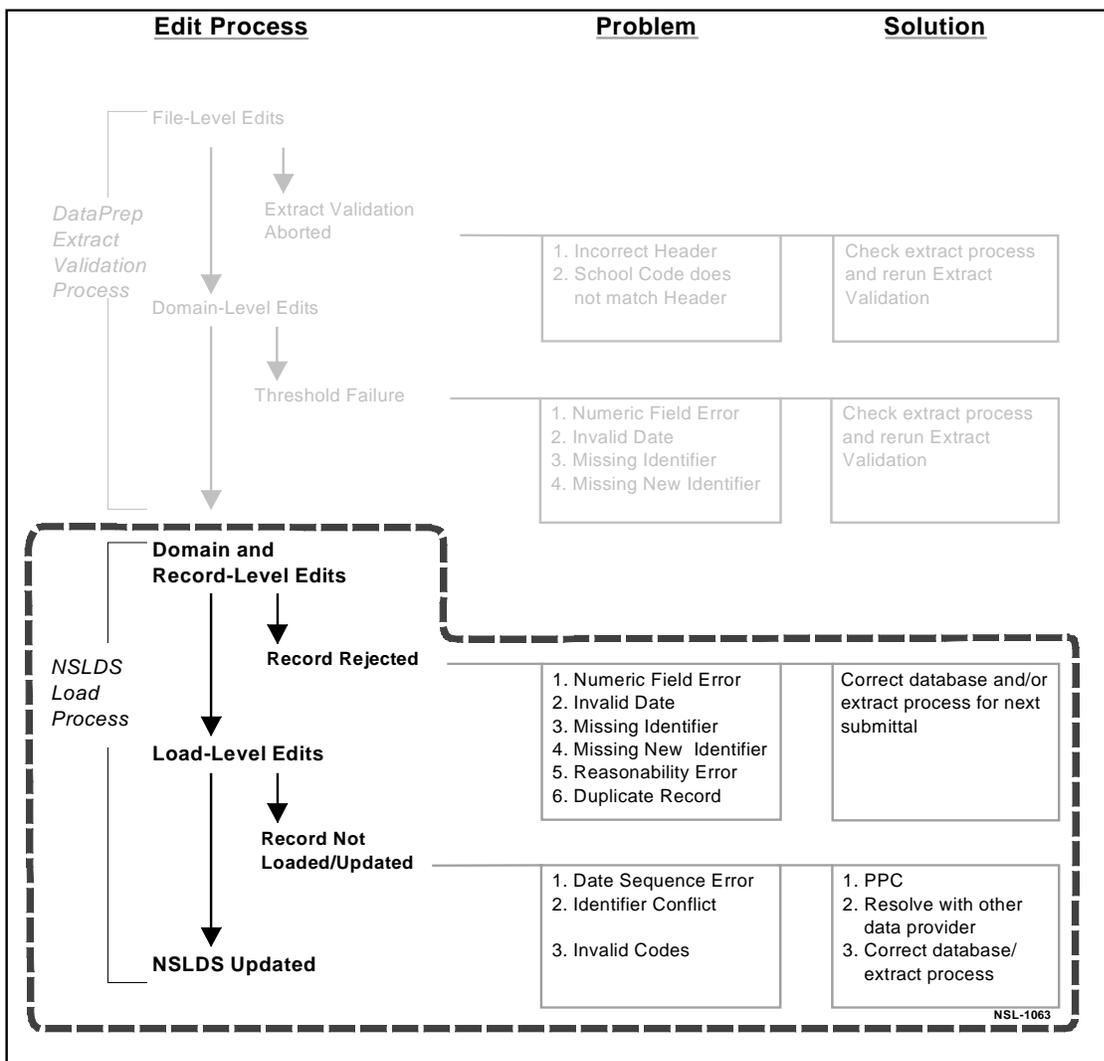
Figure 9–1, NSLDS Load Process

9.1 File-Level Edits

File-level edits check whether NSLDS has received a Submittal file on schedule, and whether it will be able to process that file as a whole. Among the errors NSLDS checks for are:

- File submittal date too early
- Submittal file not received
- File submittal date too late
- Invalid Header record
- No data in Submittal file
- Missing or invalid Trailer record
- Invalid OPEID
- Duplicate files
- Invalid date in Submittal Date field of Header record
- School Code in Detail record does not match code in Header record

If your Submittal file fails any file-level edit, NSLDS will not process the file and will, instead, send you an Error Submittal Summary Notification file.

9.2 Domain-Level Edits

Domain-level edits check individual records for the following errors:

- Non-numeric characters or spaces in a numeric field
- Invalid dates (other than all zeros)
- Missing identifiers
- Missing new identifiers

DataPrep applies the same domain-level edits to your Database Extract file as part of Extract Validation, but it does so only to calculate your domain-level error rate and to determine whether that rate exceeds the threshold established by ED. As long as it stays below that threshold, DataPrep creates a Submittal file (Section 7.2.2) even though some of the records in the file contain domain-level errors.

Why Perform Domain-Level Edits Twice?
If DataPrep has already performed domain-level edits as part of Extract Validation, why does NSLDS perform them again as part of the Load process? DataPrep performs domain-level edits to determine whether your Database Extract file exceeds the domain error thresholds established by ED. If it stays below those thresholds, DataPrep creates a Submittal file, even though some of the records in that file contain domain-level errors. The Load Process, on the other hand, performs domain-level edits to determine whether the individual records within the Submittal file meet NSLDS standards and should be loaded onto the database.

The Load process, on the other hand, applies domain-level edits to determine whether individual records within your Submittal file should be loaded onto the database. If a record contains a domain-level error, NSLDS writes it to the Load Process Error file but does not process it any further. This means that load-level edits are not applied to records that have failed domain-level edits.

Records that pass domain- and record-level edits are then edited for load-level errors before being loaded onto the database.

9.3 Record-Level Edits

Record-level edits check the Submittal file as a whole for duplicate records and then each individual record for reasonability errors. If a record contains a record-level error, NSLDS writes it to the Load Process Error file but does not process it any further. This means that load-level edits are not applied to records that have failed record-level edits.

Records that pass domain- and record-level edits are then edited for load-level errors before being loaded onto the database.

9.3.1 Duplicates

NSLDS sorts the records in the Submittal file and compares sequential rows to determine if the first 47 bytes of the record—the loan identifiers—match. If any two Detail records have the same loan identifiers, it rejects both records as duplicate records. If you have populated the Data Provider Loan ID field for each record, you will be able to determine which record should be reported under those identifiers for the next submission. No record will pass this duplicate edit process if another record on the same submission has the same loan identifiers. Neither duplicate record will update the database since NSLDS has no way of knowing which loan record is correct.

> ⚠️
>
> **Duplicate Records**
> If two Detail records have the same loan identifiers, both records will be rejected since NSLDS has no way of determining which record is correct. You will have to resubmit the record in a later submission. Duplicate loan records will have an Error Code of 1423 (Identifiers must be unique on each detail record) on Field Code 225 (Date of First Disbursement).

9.3.2 Reasonability Edits

Reasonability edits check that data is contained in proper fields according to specific edit criteria. Such edits include checking that required fields have been filled, such as the Date Entered Repayment field or a Cancellation Amount on a loan that has a Cancellation type.

Reasonability edits also check all date and amount fields on each record to ensure that the data they contain is both reasonable and in compliance with Perkins program regulations. For example, if a loan is reported as a PU loan (Perkins Loan) with a Date of First Disbursement of 19820115 (January 15, 1982), it will be rejected since Perkins loans did not exist in 1982. Reasonability edits ensure data integrity within individual records.

9.4 Load-Level Edits

NSLDS only applies load-level edits to records that have already passed domain- and record-level edits. *Records that fail domain- or record-level edits are written to the Load Process Error file but not processed further by NSLDS.* This means that you cannot assume that records that failed domain- or record-level edits would otherwise have passed load-level edits and been loaded onto the database.

Records that pass both domain- and record-level edits, but fail load-level edits, are written to the Load Process Error file.

Records that pass domain-, record-, and load-level edits are loaded onto NSLDS and update the database.

9.4.1 Identifier Edits

NSLDS reviews the student and loan identifiers in the records you submit against those of records on the database. If the Student's SSN in an individual record does not match an SSN on NSLDS, either current or in history, the student is considered a new student. If the record then passes all the remaining edits, NSLDS creates a new student and assigns a new loan to that student on the basis of the data you submitted.

If the Student's SSN on a record you submitted matches an SSN on the NSLDS database, NSLDS uses Identifier Match Criteria to match the loan identifiers on the record to the identifiers for a loan currently on the system. If it matches an existing Perkins loan record on four criteria—Student's SSN, Original School, Loan Type, and Date of First Disbursement—the record you submitted is considered an attempted update. If all other edits are successful, the record updates the NSLDS database.

If a record you submitted does *not* match on the loan identifiers (Original School, Loan Type, and Date of First Disbursement), but *does* match on the Student's SSN, NSLDS uses Identifier Match Criteria to match the student identifiers on the record to the identifiers for a student currently on the system. If a match is made and successive edits are passed, NSLDS creates a new loan record for the existing student on the basis of the data you submitted.

If the record you submitted does match a current Student's SSN but a student match cannot be made based on the Identifier Match Criteria, NSLDS rejects the record. If that occurs, you must resolve the identifier conflict by contacting the data provider(s) whose data conflicts with yours.

If you submit a record that causes a student identifier conflict, NSLDS writes a record to the Load Process Error file. The error record contains the following information from your Submittal file:

- Student's SSN you supplied
- Date of Student's Birth you supplied
- Student's First Name you supplied

In addition, the error record contains the following information for the student record that conflicts with yours:

- Error Code
- Data Provider Code
- Data Provider Name
- Existing Student's SSN
- Existing Date of Student's Birth
- Existing Student's First Name
- Existing Student's Last Name
- Data Provider City
- Data Provider State

This information will help you resolve the conflict with the data provider for the record already on NSLDS.

For a more detailed discussion of the Identifier Match Criteria for student matches, see the discussion of the Student's Social Security field (positions 9–17 in the Detail record) in the Federal Perkins Data Dictionary.

Correcting Student Identifier Conflicts
Submitting records that match an existing record on Student's SSN but not on the other student identifiers (Date of Student's Birth and Student's First Name) causes an identifier conflict. To correct this error, you must resolve the conflict with the data provider whose data conflicts with yours.

9.4.2 OPEID Edits

NSLDS reviews original and current school codes in the records you submit against the most current ED data. If the OPEID code on a record does not exist in the NSLDS database, NSLDS rejects the record and does not update the database.

9.4.3 Validate Codes

NSLDS reviews all code fields to ensure that the codes they contain are acceptable to NSLDS. See Appendix B for complete lists of the following codes:

- Loan Type
- Loan Status
- Enrollment Status
- Deferment Type
- Deferment Type Usage
- Cancellation Type
- Perkins Commercial Servicer

Correcting Invalid Codes
NSLDS rejects records submitted with invalid codes. To correct code errors, you must correct either your database or your extract process.

9.4.4 Date Sequence Edits

In addition to storing the current values for the individual fields that make up a loan record, NSLDS also stores historical (or past) values for selected fields. Often, those historical values are stored as part of an event. This is because changes to some fields are only meaningful if they are accompanied by a change to another field or fields. For example, a new Date of Loan Status is only meaningful if it is accompanied by a new Code for Loan Status. Together they constitute a Loan Status event. While you can update historical values, *you cannot change either current or historical values so that you change the chronological order of events stored in history.*

Therefore, NSLDS reviews records you submit against current and historical values already stored on NSLDS for the same record to ensure that any date changes do not alter the sequence of events. If they do, NSLDS writes the record to the Load Process Error file and does not update the database with it.

Correcting Date Sequence Errors
Records you submit that do not conform to date sequence logic will not update NSLDS. To correct the records already on NSLDS that cause these errors, you may need to submit a PPC record (Section 6.6).

If a record you submit is rejected by NSLDS because it causes a date sequence error, first check that the data you have submitted is correct. If it is, you must submit a PPC record to update the historical data already on NSLDS that is making your record cause a date sequence error.

For a more detailed discussion of how NSLDS stores history and how to update historical data using PPC records, see Section 6.6.

Chapter 10: Generating Reports on Windows-Based PCs

From Extract Validation onward, the NSLDS update process creates a series of data files that you can use to generate reports. These reports will help you verify the contents of your database and of your submissions to NSLDS. If necessary, they will help you fix problems with your database or extract procedures, a topic discussed in detail in Chapter 11.

Using files produced by either the Extract Validation process or NSLDS, DataPrep can generate the following reports:

- **Extract Validation Log Report**—This report is generated from the Extract Validation Log report created by Extract Validation. It is identical in contents to the text displayed by the Extract Validation Process dialog box after Extract Validation is complete.

- **Extract Error Report**—This report is generated from the Extract Error file created by Extract Validation and is available in either summary or detail format.

- **Load Process Error Report**—This report is generated from the Load Process Error file returned to you by NSLDS after it has processed your Submittal file. It is available in either summary or detail format.

- **Extract Loan Detail Report**—This report is generated from the Extract Loan Detail file created by Extract Validation.

- **NSLDS Loan Detail Report**—This report is generated from the Loan Detail file NSLDS can send you, by special arrangement, to identify and resolve error conditions within your database.

- **Error Submittal Summary Notification Report**—This report is generated from the Error Submittal Summary Notification file that NSLDS sends you when your Submittal file is not received on schedule by the NSLDS Data Center or fails to load onto the database.

DataPrep for PCs offers advanced users a particularly rich set of selection and sort options for detail Error reports and Loan Detail reports. These options are discussed at the end of this chapter.

10.1 The Extract Validation Log Report

The information that appears in the Extract Validation Process dialog box after Extract Validation is complete (Figure 7–5) is also written to the Extract Validation Log file, where is it available to you for further examination or storage. From this file you can view or print a report that provides a useful overview of Extract Validation. For a detailed discussion of the report's contents, see Section 7.3.2.

To view or print the Extract Validation Log report, follow these steps:

1. From the DataPrep Main Menu, click Log Report.

Figure 10–1, DataPrep Main Menu with Log Report Selected

2. The Log Report dialog box appears.

Extract Validation Log
The Extract Validation Log file created by DataPrep includes the following information:

- The number of domain-level errors detected
- Whether rejection thresholds have been exceeded
- The number of records in the Database Extract file

The log report can help you identify problems in your system or database.
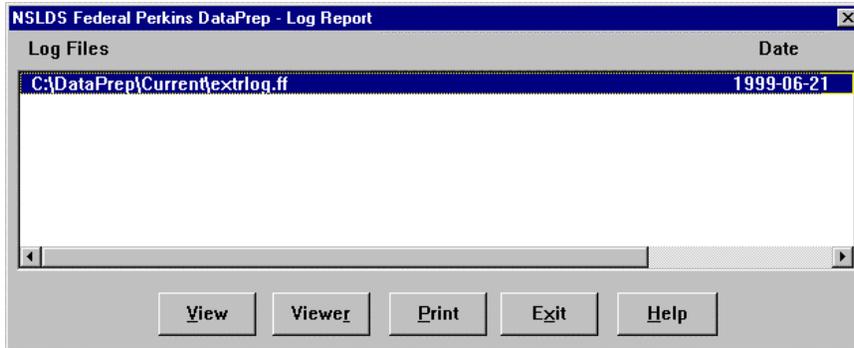
Figure 10–2, Log Reports Dialog Box

3. Select the log file in your Current folder (**C:\DataPrep\
    Current\extrlog.ff**), and click View. DataPrep displays the log
    in your default viewer.
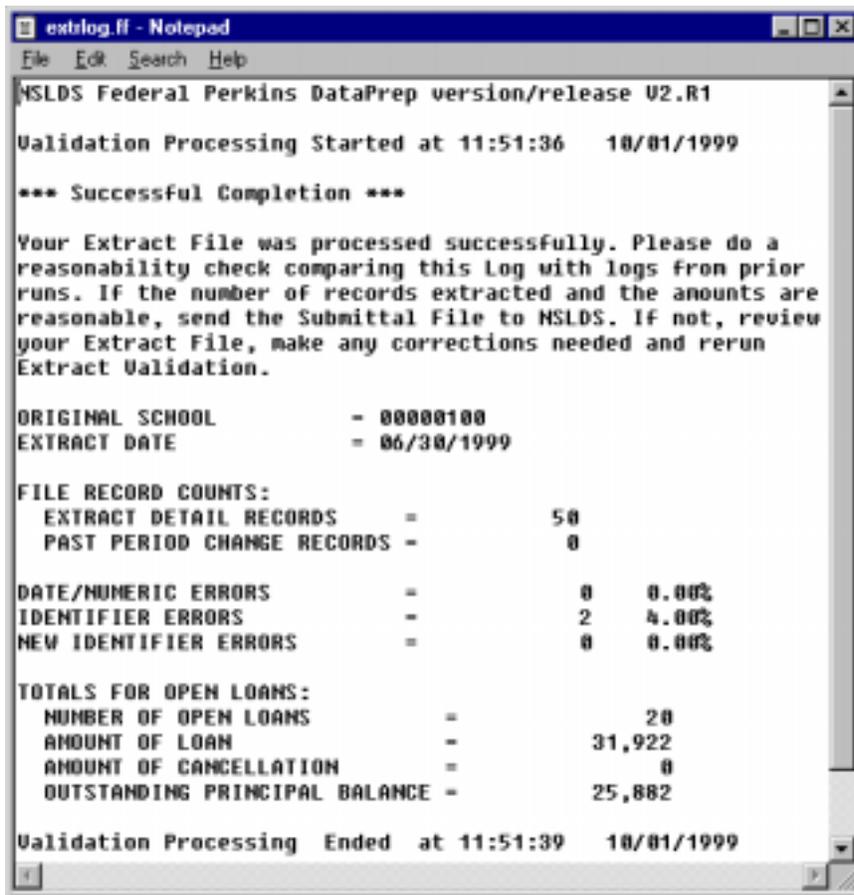
Figure 10–3, Extract Validation Log Report

If you want to print the report, you can do so directly from the
viewer, or you can return to the Log Report dialog box and click
Print.

Viewers
When you installed
DataPrep, it automatically
selected its own built-in
viewer as the default for
viewing and printing reports.
For instructions on how to
change your default viewer,
or how to change your
viewer for an individual
report without changing the
default, see Section 5.2.2.

10.2 Error Reports

The NSLDS update process includes two error reports:

- The **Extract Error report** identifies records that erred out of Extract Validation. It is generated from the Extract Error file produced by Extract Validation, and it will help you identify and correct errors in your Database Extract file.

- The **Load Process Error report** identifies records that erred out of the NSLDS Load process. It is generated from the Load Process Error file NSLDS sends you after it has loaded your Submittal file onto the database, and it will help you identify and correct errors in your Submittal file.

Both reports will help you to identify and correct errors in your database and in your extract process.

You can generate either error report in a summary or detail format. Both summary and detail reports can be sorted by preprogrammed sort parameters, and you can create your own additional sort parameters for detail reports. In addition, you can use selection criteria to limit which records are included in the detail error reports. DataPrep includes a set of preprogrammed selection criteria for detail reports, but you can also create your own, including variable criteria that you assign a value each time you run the report.

10.2.1 Error Files

DataPrep can only generate error reports from error files located in your Current or Backup folders. This does not present a problem in the case of the Extract Error file, which DataPrep automatically creates and places in your Current folder whenever a Database Extract files passes the file-level edits performed by Extract Validation.

However, before you can generate a Load Process Error report, you must use DataPrep's File Transfer utility (Section 5.2.3) to transfer two files to your Current folder:

- The Load Process Error File
- The TEF File

Transferring the Load Process Error File from Tape
If the Load Process Error file is sent to you on tape, you must develop your own internal procedures for transferring it to your PC. Then DataPrep can move or copy it to the Current directory for generating the Load Process Error report.

Retrieving the Load Process Error and TEF Files
We strongly suggest that you retrieve both files a day or two after your Submittal file is loaded into NSLDS. Both files are sent at the same time. This will ensure you have the latest error codes and messages when you generate your Load Process Error report.

NSLDS will send you the Load Process Error file within 48 hours after your Submittal file is processed. The file will be sent via Title IV WAN or tape/cartridge, depending on how you sent your Submittal file to NSLDS. The format of this file has not changed from DataPrep, Version 1, except to add your unique Data Provider Loan ID to the record. The Title IV WAN message class for the Load Process Error file is SLDERROP.

NSLDS will also transmit a new TEF file to you within 48 hours after your Submittal file successfully loads onto the NSLDS database. The TEF file will be transmitted only by WAN, regardless of your submittal medium. Its message class is TEFFILOP.

10.2.2 Generating Summary Error Reports

To generate a summary error report, the following files must be in your Current folder (Section 10.2.1).

For the Summary Extract Error report:

- The Extract Error file created by DataPrep
- The latest TEF file sent to you by NSLDS

For the Summary Load Process Error report:

- The Load Process Error file sent to you by NSLDS
- The latest TEF file sent to you by NSLDS

Once these files are in your Current directory, follow these steps to generate a summary error report:

1. From the DataPrep Main Menu, click Error Report.
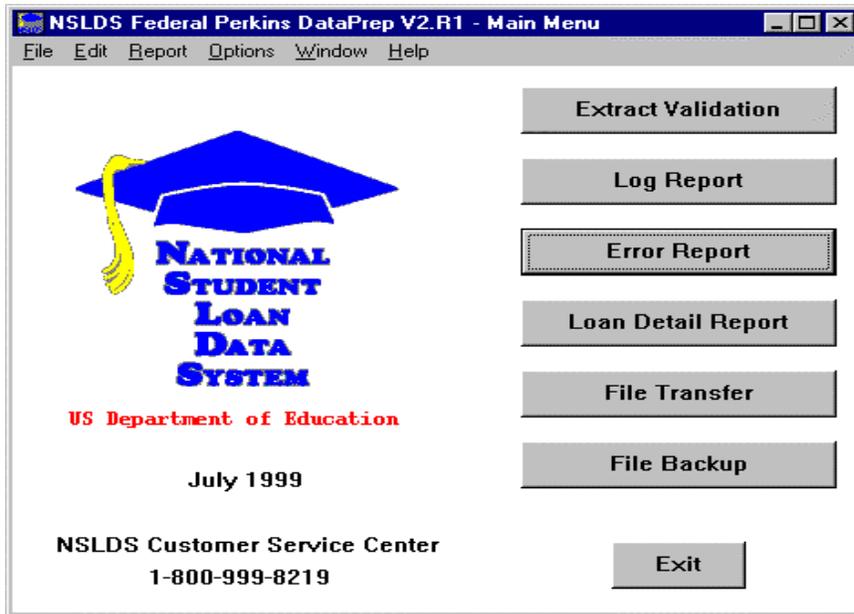
Figure 10–4, DataPrep Main Menu with Error Report Selected

2. The Error Report dialog box appears.
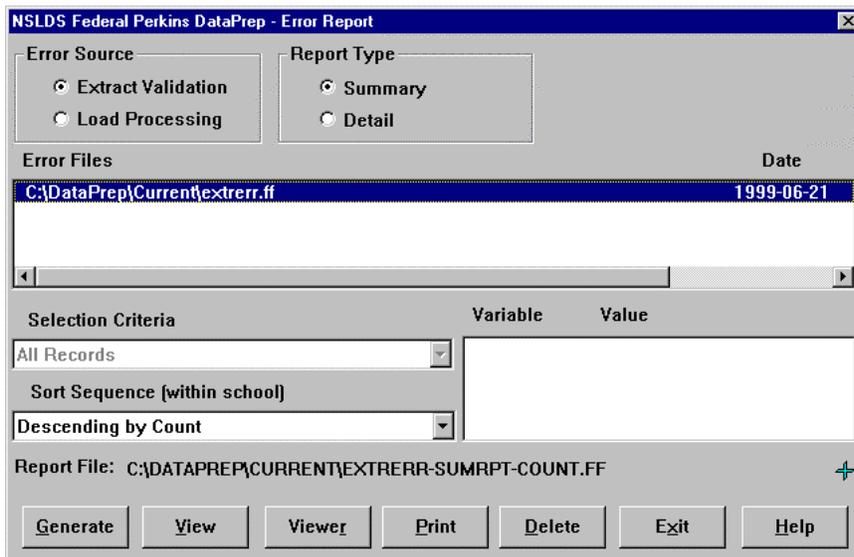
Figure 10–5, Error Report Dialog Box

3. Select Extract Validation or Load Processing as the Error Source.

4. Select Summary as the Report Type.

5. Highlight the error file from which you want to generate a report (here **C:\DataPrep\Current\extrerr.ff**).

> ⚠️
>
> **Extract Error Report or Load Process Error Report**
> The Error Report dialog box allows you to generate either an Extract Error report from your Validated Database Extract file or a Load Process Error report from the Load Process Error file NSLDS sends you after processing your Submittal file. Be sure to specify the correct Error Source for the report you want.

If you double-click on a file listed in the Error Files list, a File Information message box appears showing you the date and time the file was created or last modified and the number of bytes in the file.
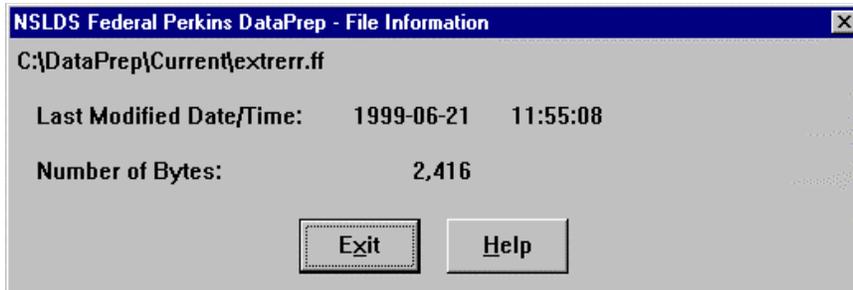
If you do, click Exit to return to the Error Report dialog box.

6. Select a Sort Sequence (Section 10.6). If you select No Sort, the report is sorted in the same order as the error file from which it is generated.

7. When you are satisfied with the options you have selected on the Error Report dialog box, click Generate. A status message appears informing you the report has been generated.
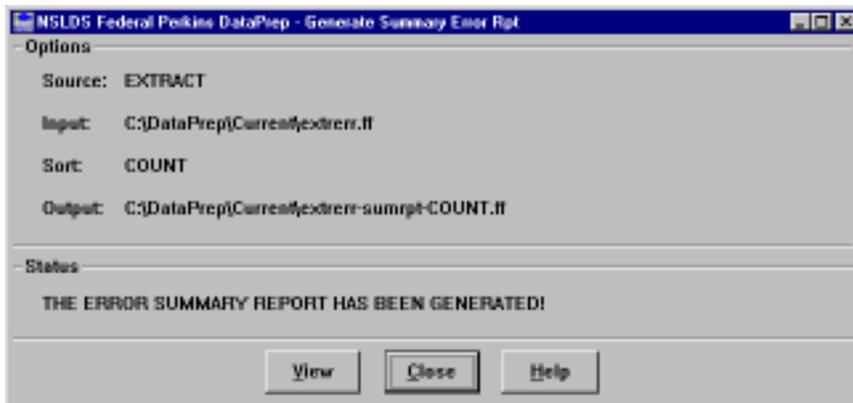
Figure 10–6, Generate Summary Error Rpt Dialog Box

8. Click View. If you chose the options depicted in Figure 10–5, you should see a report that looks something like this when viewed in DataPrep's built-in viewer:

Viewers
Remember that DataPrep's built-in viewer (ut0a.exe) produces a correctly formatted report, while the other viewers may not. If you use one of the other viewers to view or print a report, you may have to adjust the font and size to fit on a page or print your report using landscape rather than portrait format.

Figure 10–7, Summary Extract Error Report

10.2.3 Generating Detail Error Reports

To generate a detail error report, the following files must be in your Current folder.

For the Detail Extract Error Report:

- The Extract Error file created by DataPrep
- The latest TEF file sent to you by NSLDS

For the Detail Load Process Error Report:

- The Load Process Error file sent to you by NSLDS
- The latest TEF file sent to you by NSLDS

Once these files are in your Current directory, follow these steps to generate a detail error report:

1. From the DataPrep Main Menu, click Error Report.
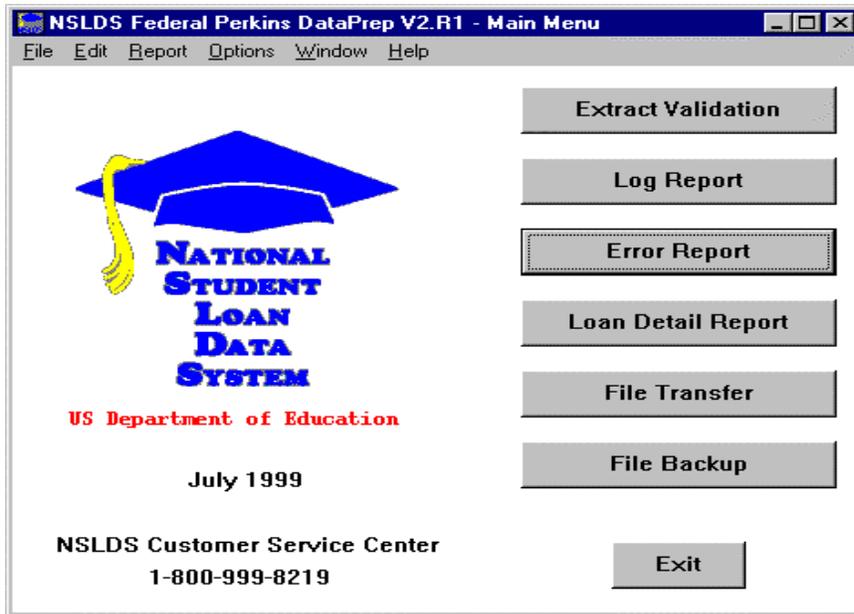
Figure 10–8, DataPrep Main Menu with Error Report Selected

2. The Error Report dialog box appears.
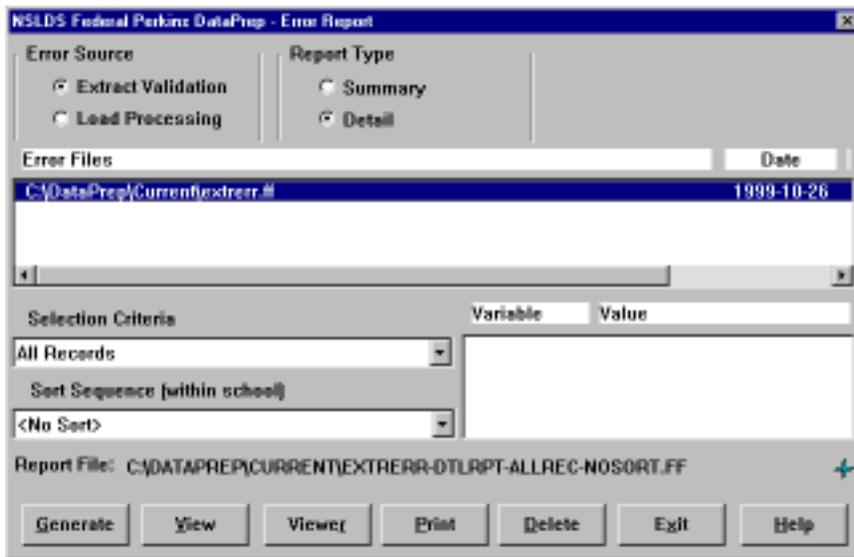
Figure 10–9, Error Report Dialog Box

3. Select Extract Validation or Load Processing as the Error Source.

4. Select Detail as the Report Type.

5. Highlight the error file from which you want to generate a report (here **C:\DataPrep\Current\extrerr.ff**).

⚠

Extract Error Report or Load Process Error Report
The Error Report dialog box allows you to generate either an Extract Error report from your Validated Database Extract file or a Load Process Error report from the Load Process Error file NSLDS sends you after processing your Submittal file. Be sure to specify the correct Error Source for the report you want.

If you double-click on a file listed in the Error Files list, a File Information message dialog box appears showing you the date and time the file was created or last modified and the number of bytes in the file.

NSLDS Federal Perkins DataPrep - File Information   ☒

C:\DataPrep\Current\extrerr.ff

Last Modified Date/Time: 1999-06-21   11:55:08

Number of Bytes: 2,416

E_x_it   _H_elp
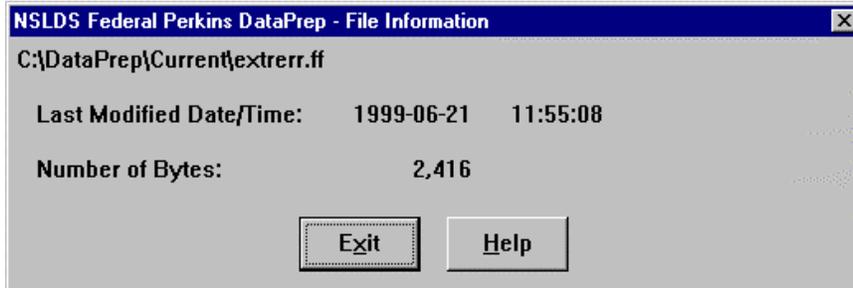
If you do, click Exit to return to the Error Report dialog box.

6. Select a Sort Sequence (Section 10.6). If you select No Sort, the report will be sorted in the same order as the Extract Error file or Load Process Error file from which it was generated.

7. Select one or more Selection Criteria (Section 10.5).

    If you select a selection criteria containing one or more variables, their current values will be shown in the Variables list. You can click on a variable to bring up the Set Variable Value dialog box. Change the variable value to the new required value and click OK.

NSLDS Federal Perkins DataPrep - Set Variable Value   ☒

Name: errcde

Length: 4

Description: Error Code

Value: '1165'

_O_K   _C_ancel   Help

    You should only run a single report using a selection criteria option with variables at a time, since only one set of variable values is stored for a given selection criteria option. In addition, please remember that DataPrep only retains the latest version of

a selected report. Therefore, at any given time, only the report
that was run with the latest variable values will be available.

8. When you are satisfied with the options you have selected on
the Error Report dialog box, click Generate. A status message
appears informing you the report has been generated.

Figure 10–10, Generate Summary Error Rpt Dialog Box

9. Click View. If you chose the options depicted in Figure 10–5,
you should see a report that looks something like this when
viewed in DataPrep's built-in viewer:

Viewers
Remember that DataPrep's
built-in viewer (NSLDS-
V2/ut0a.exe) produces a
correctly formatted report,
while the other viewers may
not. If you use one of the
other viewers to view or print
a report, you may have to
adjust the font and size to fit
on a page or print your
report using landscape
rather than portrait format.

Figure 10–11, Detail Extract Error Report

Figure 10–12, Detail Load Process Error Report

10.3 Loan Detail Reports

Generating loan detail reports is not a routine step in the NSLDS update process. However, loan detail reports are useful for researching and resolving problems with individual loan records that you have already identified from the Extract Error report or Load Process Error report.

There are two loan detail reports:

- The **Extract Loan Detail report** is generated from the Database Extract file, and it allows you to review all or selected records in your file.

- The **NSLDS Loan Detail report** is generated from the Loan Detail file that NSLDS can send you by special arrangement. The Loan Detail file can take the form of a Reconciliation file containing all the loans on NSLDS that you report on, or it can include only loans that meet certain conditions. Like the Extract Loan Detail report, the NSLDS Loan Detail report allows you to view every field of each record it contains. Comparing the contents of the NSLDS Loan Detail report to the contents of your database will help you reconcile any conflicts between your data and that on NSLDS.

> ⚠️
> **Do Not Change the Database Extract File**
> If you view or review your Database Extract file, be certain you do not make any changes to it. The Database Extract file must be a mirror image of your database.

10.3.1 Loan Detail Files

DataPrep looks for Extract Loan Detail files in these folders:

- Extract
- Backup

DataPrep looks for NSLDS Loan Detail files in these folders:

- Loan (or Current)
- Backup

Unless you have transferred your Database Extract file out of your Extract folder, you will not have to transfer any files before creating the Extract Loan Detail file.

However, when you receive the NSLDS Loan Detail file (normally on tape or cartridge), you must load the file onto your computer or network and then use DataPrep's File Transfer utility (Section 5.2.3) to move or copy the file to your Loan (or Current) folder.

The File Transfer dialog box allows you to give version names to NSLDS Loan Detail files. This is useful if you receive more than one Loan Detail file in a single month. If you give a version name to an NSLDS Loan Detail file, DataPrep will assign the file a name of the form *loandtlVersionname.ff,* where:

> *loandtl* is the constant name for Loan Detail files
> *Versionname* is the version name you assign to the file
> *.ff* is the constant for DataPrep files

Do not change such names, as doing so will prevent DataPrep from finding and processing the files.

10.3.2 Generating Loan Detail Reports

To generate a loan detail report, the following files must be in the following folders:

For the Extract Loan Detail report:

- A Database Extract file in the Extract folder

Loan (or Current)
If you selected the default directory paths when you installed DataPrep, DataPrep looks for NSLDS Loan Detail files in the Loan and Backup folders. If you did not specify a directory path for Loan Detail files, DataPrep looks for them in the Current folder (C:\DataPrep\Current). For information about changing default directories, see Section 5.2.1.

For the NSLDS Loan Detail report:

- An NSLDS Loan Detail file in the Loan (or Current) folder

To generate a loan detail report, follow these steps:

1. From the DataPrep Main Menu, click Loan Detail Report.
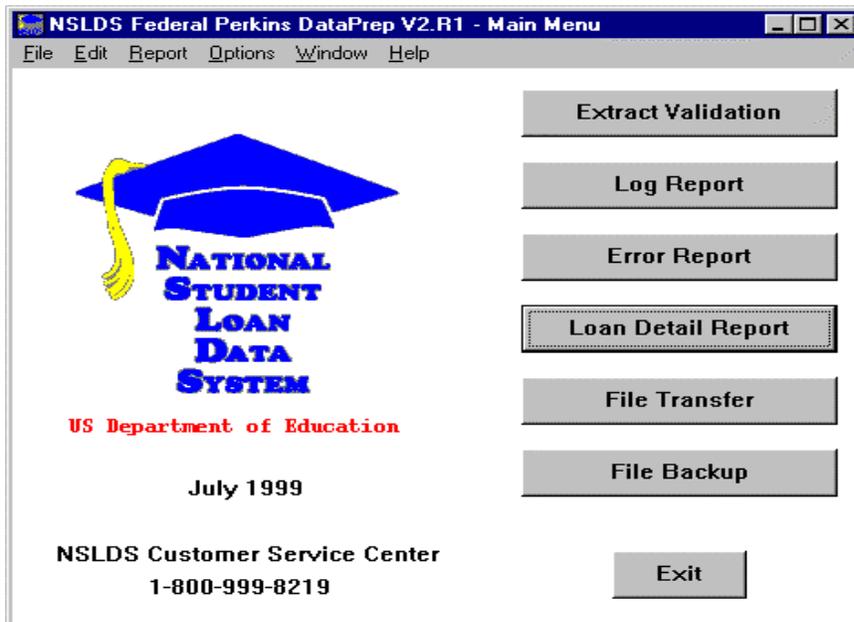
Figure 10–13, DataPrep Main Menu with Loan Detail Report Selected

2. The Loan Detail Report dialog box appears.
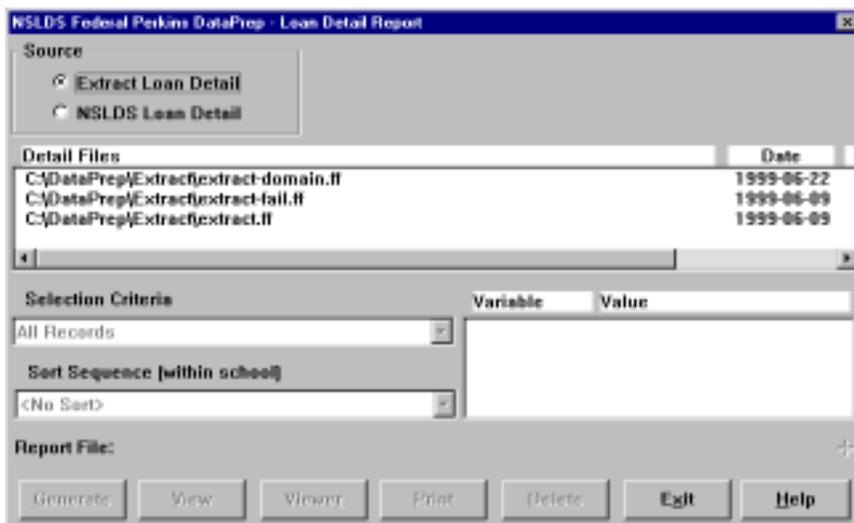
Figure 10–14, Loan Detail Report Dialog Box

3. Select Extract Loan Detail or NSLDS Loan Detail as the Source option.

   There are several ways to see the date and time a file in the Detail Files list was last modified and the number of bytes in the file. This can be useful if you have several Database Extract or NSLDS Loan Detail files and are not sure which one you want to view or print.

   A. Use the horizontal scroll bar to scroll to the right on the Detail Files list.

   B. Double-click the file name, or select a file name in the Detail Files list and then click the blue star to the right of the file name in the Report File section. Either action causes a File Information message to appear.

NSLDS Federal Perkins DataPrep - File Information   ❌

C:\NSLDS\DataPrep\Current\extract.ff

Last Modified Date/Time: 1999-01-21   13:27:06

Number of Bytes: 15,300

[E<u>x</u>it]   [<u>H</u>elp]

---

4. When you know which Database Extract or NSLDS Loan Detail file you want to create an Extract Loan Detail report for, select it in the Detail Files list of the Loan Detail Report dialog box.

5. Select a Selection Criteria (Section 10.5).

   If you select a selection criterion containing one or more variables, their current values will be shown in the Variables list. You can click on a variable to bring up the Set Variable Value dialog box. Change the variable value to the new required value and click OK.

You should only run a single report using a selection criteria option with variables at a time, since only one set of variable values is stored for a given selection criteria option. In addition, please remember that DataPrep only retains the latest version of a selected report. Therefore, at any given time, only the report that was run with the latest variable values will be available.

6. Select a Sort Sequence (Section 10.6). If you select No Sort, the report will be sorted in the same order as the Database Extract file or NSLDS Loan Detail file from which it was generated.

7. Click Generate. DataPrep displays a message notifying you that the report has been successfully generated.
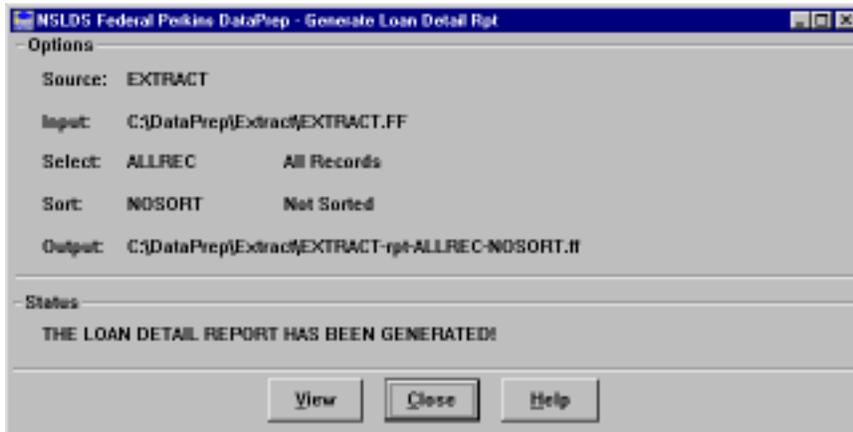
8. Click View to view the Extract or NSLDS Loan Detail report in your default viewer. Viewed in DataPrep's built-in viewer, it should look something like Figure 10–15.

Figure 10–15, Extract Loan Detail Report

From the viewer, you can view or print the report as you please. To change viewers for a specific report or to change your default viewer, see the instructions in Section 5.2.2.

10.4 The Error Submittal Summary Notification Report

10.4.1 The Error Submittal Summary Notification File

If you fail to send NSLDS a Submittal file or send one that cannot be processed, NSLDS will distribute a notification that your Submittal file was not processed. This Notification file will be sent via Title IV WAN message class SHSNTFOP within one or two days from your scheduled load date. If this occurs, you must make the necessary corrections and resubmit as soon as possible. If the time frame within which you are scheduled to submit your data has passed, the submittal will be considered missed for the month. You must then include the corrections and appropriate updates with your next scheduled transmission.

Causes that can prompt NSLDS to send you an Error Submittal Summary Notification file include:

- You sent some file other than a validated Submittal file, such as your Database Extract file. (The Submittal file will be labeled submit.ff, while the Database Extract file will be called extract.ff.)

- You sent a file in an invalid format. For example, the file you sent has no valid header, no 300-byte records, or no trailer record.

- The file got corrupted during either the Title IV WAN transmission process or the cartridge/tape production process.

- NSLDS did not receive your Submittal file during the time frame in which NSLDS can load your data.

The Error Submittal Summary Notification file consists of a Header record, one or more Detail records containing error messages (schools or servicers providing data for more than one institution or branch will receive a Detail record for each school they sent to NSLDS), and a Trailer record. See Appendix F for the complete layout description.

The Detail record(s) will indicate why the Submittal file was rejected and will give you a brief description of the problem through a message code that can be found in Appendix F. Appendix F also lists the actions you must take to correct the error(s).

10.4.2 Generating the Error Submittal Summary Notification Report

If NSLDS sends you an Error Submittal Summary Notification file, use DataPrep's File Transfer utility (Section 5.2.3) to import the file into your Current folder. The Title IV WAN message class for the Error Submittal Summary Notification file is SHSNTFOP.

To generate the Error Submittal Summary Notification report, follow these steps:

1. On the Report menu of the DataPrep Main Menu, click Notification. The Notification Report dialog box appears.
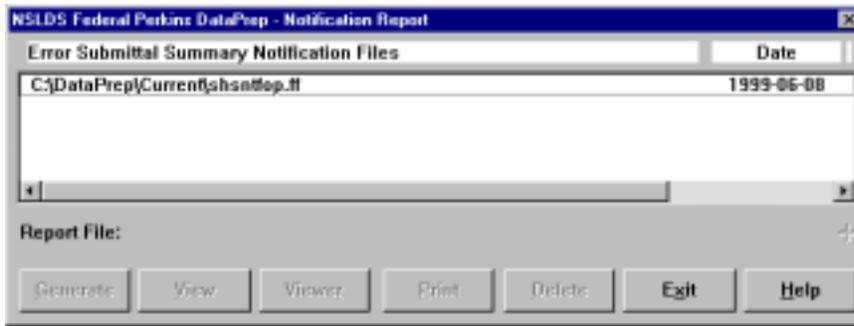
Figure 10–16, Notification Report Dialog Box

2. Select the Error Submittal Summary Notification file
    (**C:\DataPrep\Current\shsntfop.ff**) and click Generate. The
    Generate Notification Rpt dialog box displays a Status message
    telling you the Error Submittal Summary Notification report
    has been generated.

3. To view the report, click View. Your default viewer displays
    the report.

Figure 10–17, Error Submittal Summary Notification Report

10.5 Selection Criteria

DataPrep gives you the option of generating detail error reports and loan detail reports using different selection criteria. Several selection options have been preprogrammed:

- Data Fields in Error
- Identifier Fields in Error
- New Identifier Fields in Error
- No SSN Conflict Records
- Only SSN Conflict Records
- Selected Code for Original School
- Selected Error Code
- Selected Error and Field Code
- Selected Field Code

DataPrep allows you to create new selection criteria, and to change or delete existing selection criteria.

To update selection criteria from the DataPrep Main Menu, begin by clicking Selection Criteria on the Options drop-down menu.
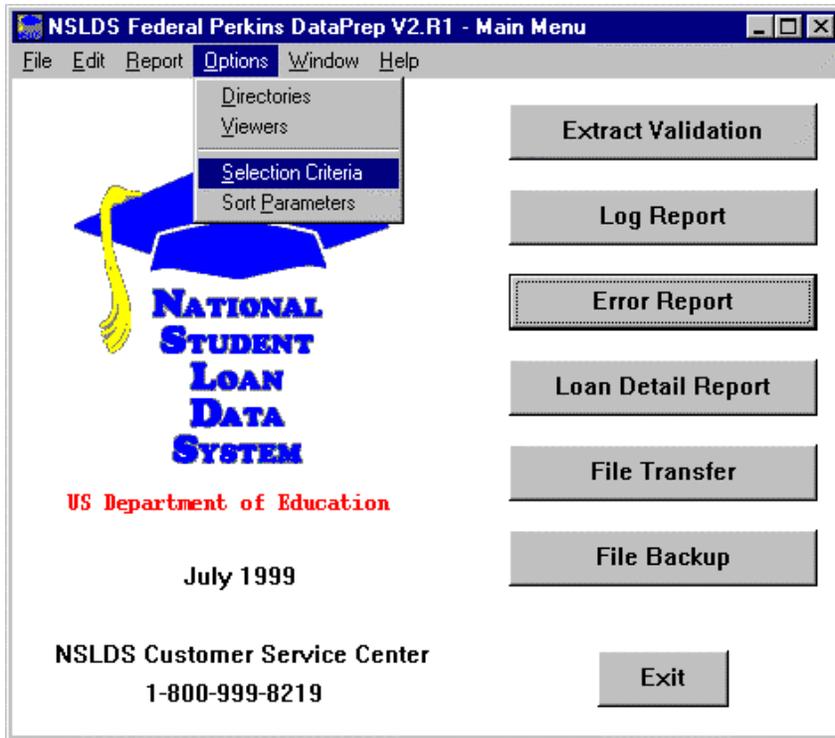
Figure 10–18, DataPrep Main Menu with Selection Criteria
Selected on the Options Menu

The Selection Criteria dialog box displays.
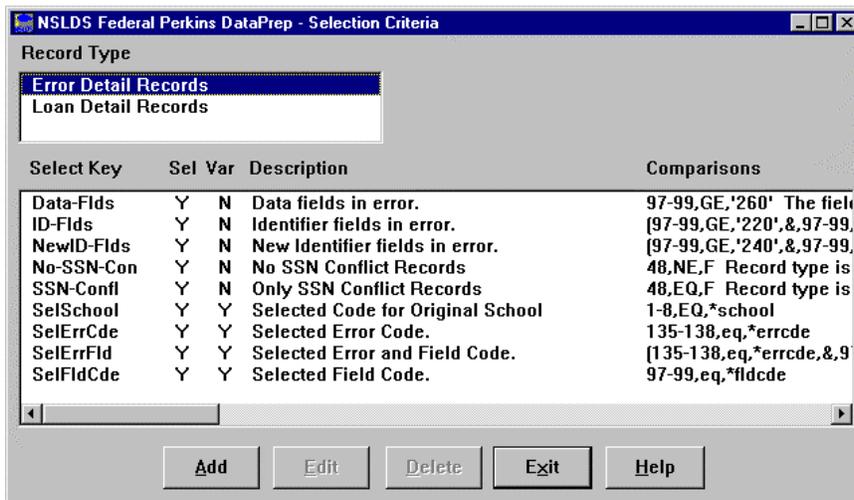
Figure 10–19, Selection Criteria Dialog Box

From this dialog box you can Add, Edit, or Delete any selection
criterion for the following detail reports:

- Extract Error Report
- Load Process Error Report
- Loan Detail Report

Select Error Detail Records or Loan Detail Records as the Record Type to add, edit, or delete selection criteria for that report type.

See Section 9.5.5 for a description of the Selection Criteria Comparison Syntax.

10.5.1 Adding Selection Criteria

To create new selection criteria, follow these steps:

1. From the Selection Criteria dialog box (Figure 10–19), click Add. The Selection Criteria Edit dialog box appears.

Figure 10–20, Selection Criteria Edit Dialog Box

2. Enter up to 10 characters that name the selection criteria in the Sel Key box. The Sel Key generally includes the field name; for example, if you want to select for all loans with an in repayment status, you could use "LoanStatRP" as the Sel Key.

3. Enter up to 35 characters that describe the selection criteria in the Description box, for example, "Loan Status in Repayment." If you select the Available for selection option, this description appears in a dropdown list on the Error Report or Loan Detail dialog box when you go to run a report.

> ⚠️
>
> **Use of Spaces**
> Do not insert any spaces after position numbers. If you do, the program will assume the selection criterion you've specified has ended. If you want to add any comments (for example additional description) you can put comments after a space.

4. Enter the codes that specify which records are to be included in
    the report:

    - Field Position (Refer to Appendix A for field positions)
    - Comparison Operator (e.g., less than, equal to, greater than)
    - Comparison Value

5. Click OK.

One Criterion

To add a selection criterion for all loans with loan status in
repayment, enter these values:

Sel Key	LoanStatRP
Description	Loan Status in Repayment
Comparison	119–120,EQ,RP

Note: Loan Status is position 119–120.
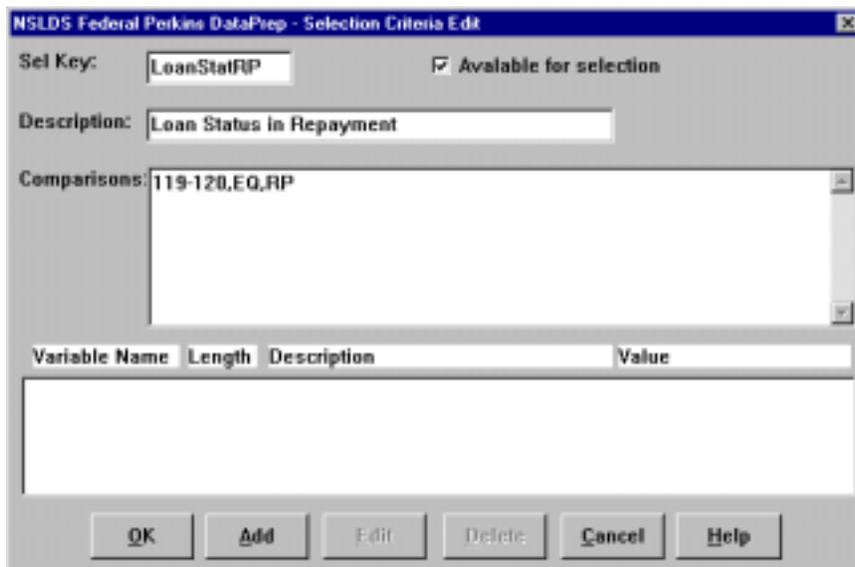
Figure 10–21, Selection Criteria Edit Dialog Box

Two Criteria

To add selection criteria for all loans with loan status in repayment
and a date of first disbursement after January 1, 1998, enter these
values:

Sel Key	RP-Jan1998
Description	Loan in RP and Disbursement>= Jan 1998
Comparison	(119–120,EQ,RP,&,40–47,GE,'19980101')

Notes: 119–120 is the Loan Status position, 40–47 is the Date of First Disbursement position, & is the AND connector, and GE is greater than or equal to. You must surround the comparison with parentheses when including an & sign.

Figure 10–22, Selection Criteria Edit Dialog Box

10.5.2 Editing Selection Criteria

To edit an existing selection criterion, follow these steps:

1. From the Selection Criteria dialog box (Figure 10–19), select the selection criterion you want to edit and click Edit. The Selection Criteria Edit dialog box appears populated by the criterion you selected.
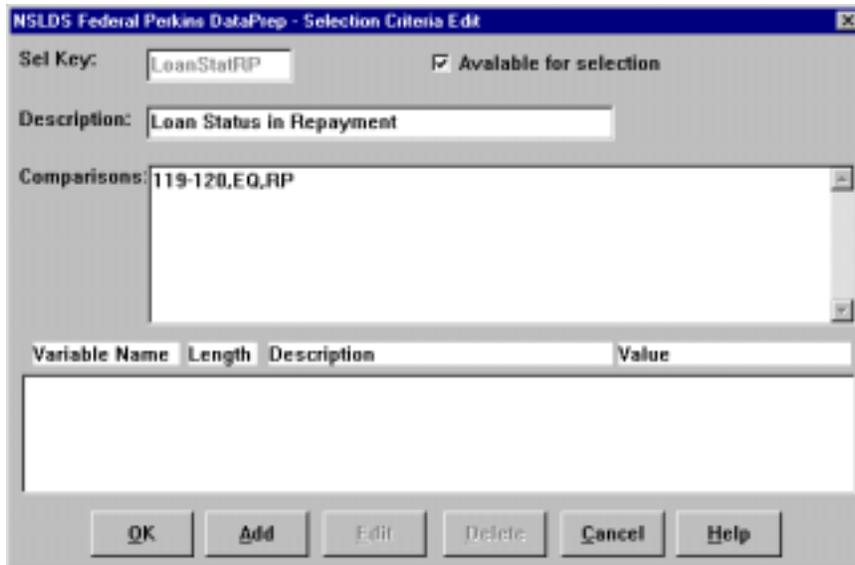
Figure 10–23, Selection Criteria Edit Dialog Box

2. Edit the criterion values as necessary and click OK to return to the Selection Criteria dialog box.

10.5.3 Deleting Selection Criteria

To delete a selection criterion, select it on the Selection Criteria Dialog box (Figure 10–19) and click Delete.

10.5.4 Adding Variable Selection Criteria

Perhaps you want to create an Error report that selects all loans equal to a given value. But rather than establishing that value in advance, you want to set it each time you run the report. You need a report with a variable selection criterion.

To create one, start from the Selection Criteria Edit dialog box (Figure 10–20) and follow these steps:

1. Fill in the fields of the Selection Criteria Edit dialog box as described in Section 10.5.1.

2. Click Add. The Selection Variable Edit dialog box appears.

Adding a Variable Criterion
To create a report with a criterion that varies each time you run the report, fill in the upper portion of the Selection Criteria Edit dialog box. Then click Add to access the Selection Variable Edit dialog box. Fill in its fields to define the variable criterion.

Figure 10–24, Selection Variable Edit Dialog Box

3. Enter a name of up to 10 characters in the Name field.

4. Enter the length of the data element to which the selection variable is to be compared in the Length field.

5. Enter up to 35 characters that describe the variable in the Description field.

6. Enter the initial value of the selection variable in the Value field. The initial value must be a valid value for that field, for example 'RP' for the Loan Status field (positions 119–120).

7. Click OK to return to the Selection Criteria Edit dialog box.

One Variable Criterion

First, enter the following values in the Selection Criteria Edit dialog box:

Sel Key	SelLoanSt
Description	Selected Loan Status
Comparison	119–120,EQ,*LoanStat

Notes: Position 119–120 is the Loan Status field, EQ is equal to, and * indicates that the following is the name of the variable you will set when you select the specific report (for example, RP or FB).
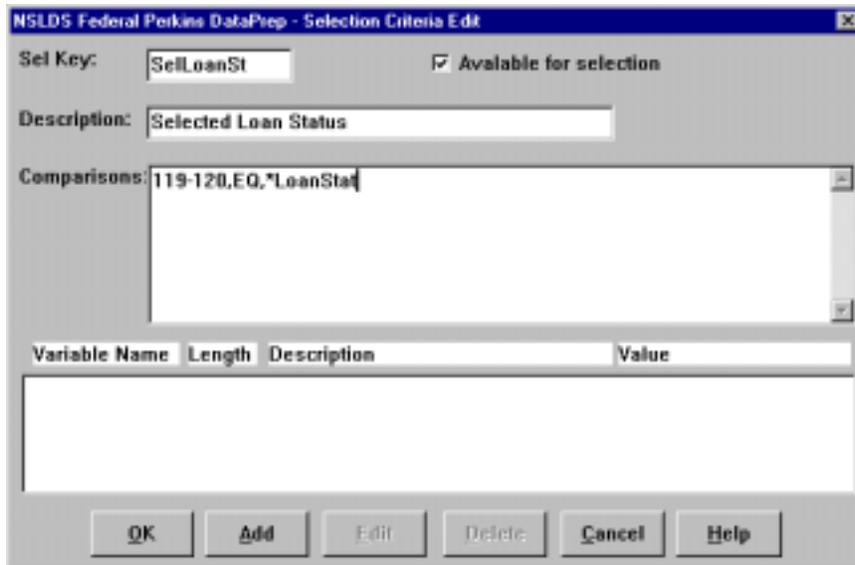
Figure 10–25, Selection Criteria Edit Dialog Box

To add the variable, click Add to bring up the Selection Variable Edit dialog box. Enter the following values:

Name	LoanStat
Length	2
Description	Loan Status Code
Value	'RP'
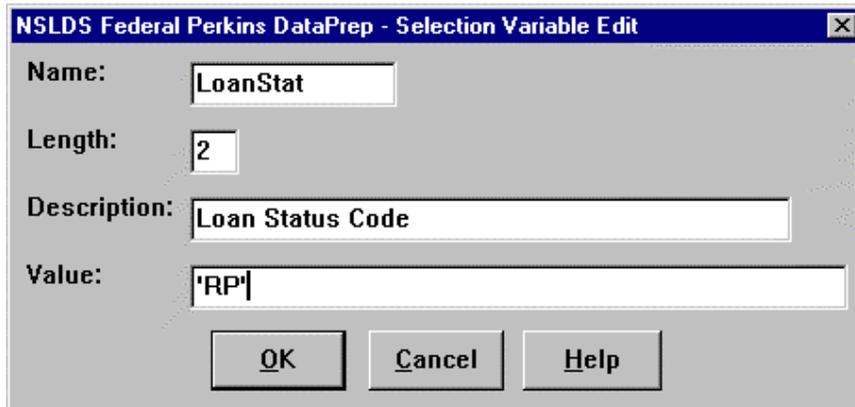
Figure 10–26, Selection Variable Edit Dialog Box

For more information about adding, editing, and creating your own selection criteria, refer to the Help for the Selection Criteria and Selection Criteria Edit dialog boxes and to the discussion of Comparison Syntax that follows.

10.5.5 Selection Criteria Comparisons Syntax

Comparisons

Comparisons are made up of one or more comparison parameters linked using the AND connector within commas (,&,) or the OR connector within commas (,|,), and grouped using parentheses ().

Square brackets ([]) indicate optional items.

[(]comparison1[)]][[,connector2,[(]comparison2[)]]…[,connectorN,[(]comparisonN[)]]][()]
[comments]

( ) pairs	Balanced pairs of parentheses that enclose comparison parameters in order to clarify or to alter the order in which the comparisons are done.
	Without parentheses, the comparisons 'A,|,B,&,C,|,D' would be interpreted as '((A,|,B),&,C),|,D', but you will need to use parentheses if the intent is either '(A,|,B),&,(C,|,D)' or 'A,|,(B,&,C),|,D' or 'A,|,((B,&,C),|,D)'.
comparison1	First comparison parameter.
connector2	Second compare parameter connector. (optional)
	Use ampersand (&) for the AND connector, and use bar (|) for the OR connector.
comparison2	Second comparison parameter (optional)
connectorN	Nth compare parameter connector. (optional)
	Use ampersand (&) for the AND connector, and use bar (|) for the OR connector.
comparisonN	Nth comparison parameter. (optional)
comments	Comments. (optional)
	At least one space between last compare parameter and start of comments.

Comparison Parameters

A comparison parameter is made up of one or more compare parameters linked using the AND connector within commas (,&,) or the OR connector within commas (,|,).

Square brackets ([]) indicate optional items.

compare1[[,connector2,compare2]...[,connectorN,compareN]]

compare1	First compare parameter
connector2	Second compare parameter connector (optional)

Use ampersand (&) for the AND condition, and use bar (|) for the OR condition.

compare2	Second compare parameter (optional)
connectorN	Nth compare parameter connector (optional)

Use ampersand (&) for the AND connector, and use bar (|) for the OR connector.

compareN	Nth compare parameter (optional)

Compare Parameters

A compare parameter is made up of a record character position, a compare condition, and a compare value linked by commas (,).

Square brackets ([]) indicate optional items.

compare => start[-end|:length|:1],condition,string|position|*variable

start	Data Element starting position.

A number from 1 to 640.

end	Data Element ending position (optional).

A number from starting position to 640.

length	Data Element length (optional).

A number from 1 to 1 + 300 - starting position. Defaults to a length of 1 when neither the ending position nor the length is given.

condition	The code identifying the compare condition.

One of the following two-character compare conditions—not case sensitive:

EQ	=	Equal to
NE	=	Not Equal to
GT	=	Greater than
GE	=	Greater than or Equal to
LT	=	Less than
LE	=	Less than or Equal to

string   The character string that is to be compared with the Data Element.

A string of characters whose length is equal to that of the Data Element.

If a string's first character is a number, an asterisk (*), pound sign (#), or its last character is a space, then the string must be enclosed in single quotation marks ('string').

When a quoted string is less than the length of the Data Element, the string is padded out to the correct length using the last character in the string. {You can use ' ' to check for spaces and '0' to check for zeros.}

When a pound sign (#) prefixes a quoted string that is less than the length of the data element, the string is shifted to the right and padded with zeroes. {You could use #'500' to check for the number 000500 in a six character field or for the number 00000500 in an eight character field.}

If you want to include a single quote (') in the comparison string, then you will need to enter two single quotes (").

position   The starting position of a second Data Element within the record that is to be compared with the first Data Element.

A number from 1 to 1 + 300 - length of Data Element.

variable   The variable name that is replaced with a value at report generation time.

The variable name must be prefixed with an asterisk (*) and defined in the Variable Name list.

Examples

105-110,gt,'0'   Amount of Loan is greater than zero.

(58-66,NE,' ',&,58-66,NE,4)   New SSN is not spaces, and it is not equal to current SSN.

*9-17,eq,*ssn*   Student SSN is equal to the variable value.

10.6 Sort Options

Summary Error reports can be sorted by count, error code, or field code. Detail Error reports, however, can be sorted by any sort parameter you select. Sorting allows you to focus on specific types of errors or to distribute sections. DataPrep has provided the following preprogrammed sort parameters:

- Data Provider Loan Identifier
- Error Code
- Field Code
- Student Name (Last, First)
- Student Social Security Number

For the Detail report you can also select No Sort, which means the records in the report will be listed in the same order as they were in the Database Extract file from which the report was generated.

DataPrep allows you to create new sort options, and to change or delete existing sort options.

To update sort options from the DataPrep Main Menu, begin by clicking Sort Parameters on the Options menu.

> **Sorting Reports**
> Summary Error reports can be sorted by count, error code, or field code. Detail reports can be sorted by any parameters you choose. DataPrep has provided preprogrammed sort parameters.
>
> When you sort by count (summary reports only), the report is organized in descending order, so the field with the largest number of errors appears first.
>
> If you select No Sort (detail report only), the report will be sorted in the same order as the file from which it was created.

Figure 10–27, DataPrep Main Menu with Sort Parameters Selected on Options Menu

The Sort Parameters dialog box appears.
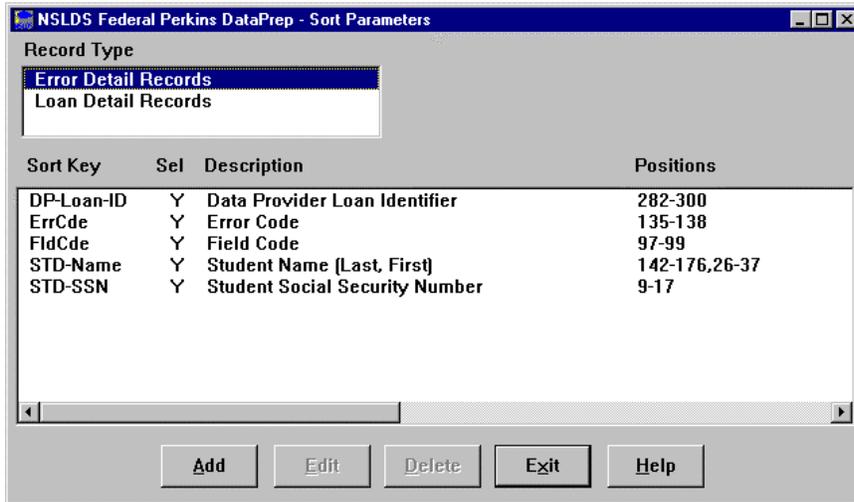
Figure 10–28, Sort Parameters Dialog Box

From this dialog box you can add, edit, or delete any sort option for the following reports:

- Detail Extract Error Report
- Load Process Error Report
- Loan Detail Report

Select Error Detail Records or Loan Detail Records as the Record Type to add, edit, or delete sort options for that report type.

See Section 9.6.4 for a description of the Sort Parameter Positions' Syntax.

10.6.1 Adding a Sort Option

To create a new sort option, follow these steps:

1. From the Sort Parameters dialog box (Figure 10–28), click Add. The Sort Parameter Edit dialog box appears.
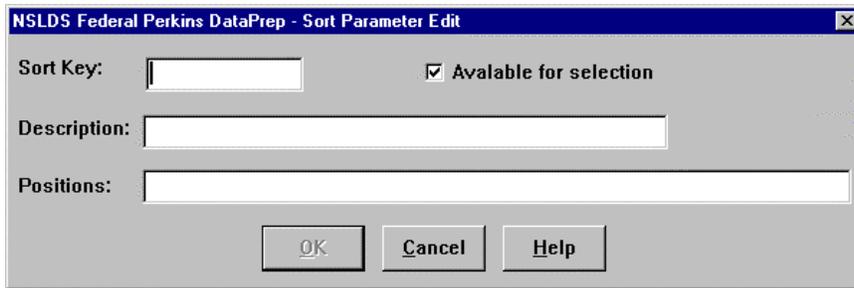
Figure 10–29, Sort Parameter Edit Dialog Box

2. Enter up to 10 characters that name the report in the Sort Key box. The Sort Key generally includes the field name, for example "Field Code".

3. Enter up to 35 characters that describe the sort sequence in the Description box. If you select the Available for selection option, this description appears in the drop down list on the Error Report or Loan Detail Report dialog box when you go to run a report.

4. Enter up to 60 characters that define the positions in the record by which the report will sort in the Positions box. Use commas between fields. Refer to the Federal Perkins Data Dictionary (Appendix A) for a complete account of data fields and the positions they occupy.

5. Click OK.

For example, if you want a report that sorts by Loan Type and Social Security Number, follow these steps:

1. Enter Type-SSN in the Sort Key box of the Sort Parameter Edit dialog box.

2. Enter Loan Type & SSN in the Description box.

3. Enter 38–39,9–17 in the Positions box.

⚠

Use of Spaces
Do not insert any spaces after position numbers. If you do, the program will assume the sort parameter you've specified has ended. If you want to add any comments (for example, additional description), you can put comments after a space.

💡

Available for Selection Option
Check the Available for Selection box if you want the new Sort Parameter to be listed in the Sort Sequence drop down list on the Error Report dialog box.
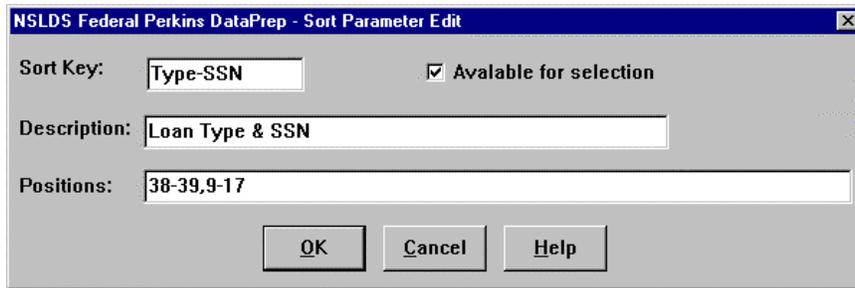
Figure 10–30, Sort Parameter Edit Dialog Box

4. Click OK. The Sort Parameters Dialog Box displays with the new sort parameter that you have just created.
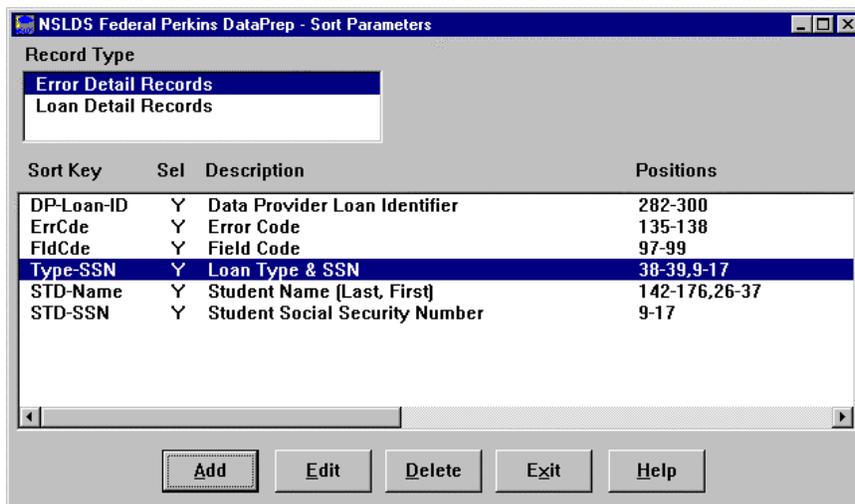
Figure 10–31, Sort Parameters Dialog Box

This sort parameter will now be listed as a sort sequence option on the Error Report or Loan Detail dialog box.

10.6.2 Editing a Sort Option

To edit an existing sort option, follow these steps:

1. From the Sort Parameters dialog box (Figure 10–28), select the sort option you want to edit and click Edit. The Sort Parameter Edit dialog box appears populated by the sort option you selected (in this case, the Type-SSN sort created in Section 10.6.1).
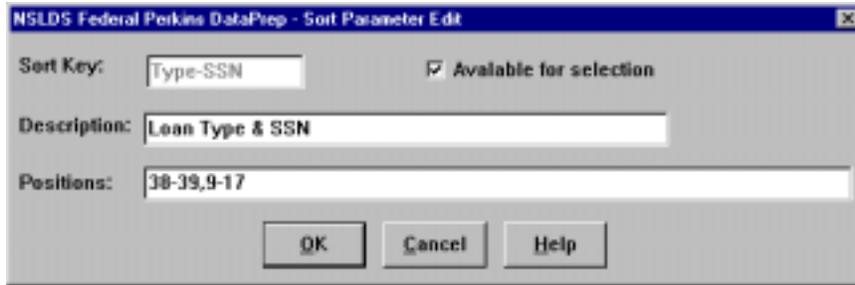
Figure 10–32, Sort Parameter Edit Dialog Box

2. Edit the sort values as necessary and click OK to return to the Sort Parameters dialog box.

10.6.3 Deleting a Sort Option

To delete a sort option, select it on the Sort Parameters dialog box (Figure 10–28) and click Delete.

10.6.4 Sort Parameter Positions' Syntax

Note: Parameters in brackets [ ] are optional.

Positions are made up of one or more position parameters linked together with commas (,).

positions => position1[[,position2]…[,positionN]] [comments]

position1	First data element position parameter
position2	Second data element position parameter (optional)
positionN	Nth data element position parameter (optional)
comments	Comments (optional) {At least one space between last position parameter and start of comments.}

A position parameter is made up of a data element's starting position, and optionally its ending position or length.

position => start[-end|:length|:1]

start	Data element starting position {A number from 1 to 300.}
end	Data element ending position (optional) {A number from starting position to 300.}
length	Data element length (optional) {A number from 1 to 1+ 300 – starting position. Defaults to a length of one when neither the ending position nor length are given.}

Example: 39-73,21-32   Sort by 35-byte field starting in position 39, then by 12-byte field starting in position 21.

Chapter 11: Generating Reports on OS/390 LE Version 2.4 or Higher Mainframes

11.1 Extract Error Report

The JCL for OS/390 LE Version 2.4 or higher executes DataPrep procedures that perform Extract Validation and generate the Extract Error report (Appendix G).

You have the following options for generating the Extract Error report:

- To generate both the summary and detail report, leave the Extract Validation JCL as it appears in Appendix G.

- To generate the detail report, remove the asterisk (*) from the line immediately before this line in the JCL shown on page G–13.

```
PSTEP100 EXEC PGM=UTB300PB
```

- To generate the summary report as well as the detail report, comment out (that is, add an asterisk after the double slashes on) the line before this line:

```
PSTEP100 EXEC PGM=UTB300PB
```

  in the JCL shown on page G–13.

- To prevent DataPrep from generating any report, remove the asterisk from the line immediately before this line in the JCL shown on page G–11:

```
PSTEP070 EXEC PGM=TIRIOVFI
```

11.1.1 Summary Report Sorting

The sort JCL offers three options for sorting the Summary Extract Error report:

- By Error Count
- By Error Code
- By Field Code

⚠️

Main Frame Users: Extract Report Sorting The Summary Extract Error Report for mainframes can be sorted by count, error code, and field code. However, the Detail Extract Error Report for mainframes is *only* sorted by Social Security Number.

Error count is the default, which is why the other two options are commented out by the addition of an asterisk (*) after the two slashes at the beginning of the lines on which they appear.

```
//*
//*          ERROR COUNT ORDER
//           SET SORTPARM=PUTB4001
//*
//*          FIELD CODE ORDER
//*          SET SORTPARM=PUTB4002
//*
//*          ERROR CODE ORDER
//*          SET SORTPARM=PUTB4003
//*
```

If you want to change this default, you must add an asterisk (*) after the two slashes in the JCL line for the error count option

```
//           SET SORTPARM=PUTB4001
```

and delete the asterisk in the JCL line for the sort option you want to use.

For field code order, remove the asterisk from this line:

```
//*          SET SORTPARM=PUTB4002
```

For error code order, remove the asterisk from this line:

```
//*          SET SORTPARM=PUTB4003
```

Whenever you change sort options, remember to select an option by removing the asterisk from that line of JCL and to deselect the other options by adding asterisks after the double slashes at the beginning of those lines of JCL.

11.1.2 Detail Report Sorting

The Detail Extract Error report is automatically sorted by SSN within school. This is the only sorting option available for the Detail report.

If do not want to automatically produce a Detail Extract Error Report, you must change the JCL (see Appendix G).

11.2 Load Process Error Report

Appendix G contains the JCL used to generate the Load Process Error report from the Load Process Error file that you retrieve from NSLDS after each submittal. This JCL also generates the Extract Error Report.

This JCL can be found in the library created with JCLLIB as part of the name. The library member name is PRBB2000.

As with the Extract Error report, you can sort the Summary Load Process Error report in three different ways by changing the SET statement:

- By Error Count
- By Error Code
- By Field Code

See the in-stream documentation in Appendix G. Note that the Detail Load Process Error report can be sorted only by SSN.

Data Sets Deleted
The first step in the JCL will delete any data sets previously created. If you want to save your previous error files, you should rename them.

Sorting the Summary Error Report
You can sort the Summary Error report in any of three ways: error count, error code, or field code. To select a sort option, use the SET statement.

Chapter 12: Using Reports

12.1 Extract Validation Log Report

The Extract Validation Log report is discussed in detail in Section 7.3.2 as part of the Extract Validation process. Use it to verify that a successful Extract Validation has, in fact, produced a Submittal file that passes reasonability checks when compared to previous months' Submittal files.

12.2 Error Reports

12.2.1 Summary Error Reports

Both the Summary Extract Error report and the Summary Load Process report list the following information for each field on your Submittal file containing one or more errors:

- The number of errors that occurred for that field
- The percentage those errors represent of the total number of errors in the file
- The field code
- The error code
- The field name
- The error message

There is one significant difference between the two summary error reports. The Summary Extract Error report summarizes all the domain-level errors in your Submittal file, while the Summary Load Process Error report summarizes all the domain-, record-, and load-level errors in your Submittal file. Thus, the Summary Load Process Error report offers a fuller picture of the types of errors that occur in your Submittal file. However, the Summary Extract Error report identifies domain-level errors earlier in the NSLDS update process, and it is invaluable if you need to lower your rate of domain-level errors beneath the ED-established threshold in order to create a Submittal file at all.

Use the summary error reports to help you quickly spot problem areas in your Database Extract file. Then use detail error reports to research how those problems affect individual loan records. Once you have diagnosed problems in this fashion, you should be able to attack them at the source by updating your database or extract procedures.

Using Summary Error Reports
You can use summary error reports to focus quickly on the types of errors your Submittal file contains.

If a large portion of your errors come from the DOB field, for example, that will show up in the summary error reports. You can then generate detail error reports to show individual records that need to be corrected.
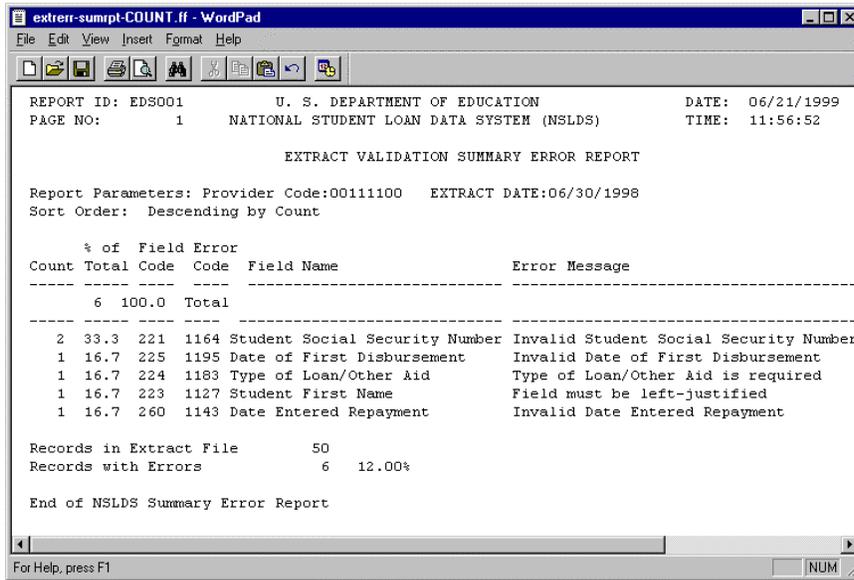
Figure 12–1, Summary Extract Error Report

Figure 12–2, Summary Load Process Error Report

12.2.2 Detail Error Reports

Both the Detail Extract Error report and the Detail Load Process Error report supply the following information for each error in your Submittal file:

- Student's SSN
- Date of Student's Birth
- Student's Last Name
- Student's First Name
- Type of Loan
- Date of Loan
- Loan Status
- School Code
- Data Provider Loan Identifier
- Error Level
- Name of Field in Error
- Value of Field in Error
- Error Message

View the Summary Reports First
We suggest that you generate and view summary error reports before viewing detail reports. The summary reports will quantify the types of errors in your Database Extract file, making it easy for you to spot large problems.

In addition, the Detail Load Process Error report provides the following information for each SSN conflict caused by a record on your Submittal file:

- Student's SSN you supplied
- Date of Student's Birth you supplied
- Student's First Name you supplied
- Error Code
- Error Message
- Existing Student's SSN
- Existing Date of Student's Birth
- Existing Student's First Name
- Existing Student's Last Name
- Data Provider Code
- Data Provider Name
- Data Provider City
- Data Provider State

There is one significant difference between the two detail error reports. The Detail Extract Error report contains all the domain-level errors in your Submittal file, while the Detail Load Process Error report contains all the domain-, record-, and load-level errors in your Submittal file. Thus, the Detail Load Process Error report offers a fuller picture of the types of errors that occur in your Submittal file. However, the Detail Extract Error report identifies

domain-level errors earlier in the NSLDS update process, and it is invaluable if you need to lower your rate of domain-level errors beneath the ED-established threshold in order to create a Submittal file at all.

Use detail error reports to research how problems in your database or extract procedure affect individual loan records. DataPrep's range of selection and sort options (Section 10.5 and Section 10.6) will help you zero in on how general types of problems affect specific loan records. Once you have diagnosed problems in this fashion, you should be able to update your database or extract procedures.

It is essential that you *correct your database or extract procedures* rather than editing or otherwise massaging the Database Extract file. If you don't, the errors will remain in your database and reappear in your next Database Extract file, which will then be out of sync with the correct data loaded onto NSLDS as a result of your previous submittal.

Appendix B contains a detailed list of all error messages, a cross-reference to the fields to which they refer, and the error message associated with each edit applied against a data element. You can also refer to the Field Code and use Appendix A to review the requirements for reporting on the specific field.

Correct Your Database
Use error reports to correct your database or extract procedures, *not the Database Extract file itself.* Editing your Database Extract file to correct errors violates ED policy, which requires your Database Extract file to be an exact image of your database, and perpetuates errors, since any errors that remain on your database get reported to NSLDS again the next month.

Figure 12–3, Sample Detail Extract Error Report

Figure 12–4, Sample Detail Load Process Error Report

12.3 Loan Detail Reports

Both the Extract Loan Detail report and the NSLDS Loan Detail report list in a readable format the value for every field of every record they contain. In the case of the Extract Loan Detail report, the records are those contained in your own database. In the case of the NSLDS Loan Detail report, the records are contained in the NSLDS database. Together, the two reports are useful for researching discrepancies between the data on your database and the data on the NSLDS database.

While error reports are useful for identifying types of errors and specific records with errors in your database, loan detail reports are useful for establishing the full contents of those records that contain errors. DataPrep's select and sort options will help you identify and categorize the records that appear in loan detail reports.

12.4 Error Submittal Summary Notification Report

The Error Submittal Summary Notification report informs you that NSLDS has not received your Submittal file, or that it cannot

process the Submittal file it did receive because of some file-level error. Since Extract Validation will not create a Submittal file at all if it detects any file-level errors in your Database Extract file, most file-level errors that can be remedied by correcting your database or extract process will be caught by Extract Validation and will never appear on an Error Submittal Summary Notification report.

The file-level errors that cause NSLDS to send you an Error Submittal Summary Notification file usually result from one of the following:

- Some problem with your submittal schedule
- Transmitting the wrong file or wrong Submittal file to NSLDS
- Data corruption while the file was being transmitted

The remedies to these types of errors usually involve meeting your submittal schedule, modifying your file-handling procedures, or simply retransmitting your Submittal file. They do not normally involve correcting your database or extract procedures.

12.5 Error Types

12.5.1 File-Level Errors

File-level errors that result from faulty data in your database or flawed extract procedures should be caught by Extract Validation and prevent DataPrep from creating a Submittal file. Such errors will cause Extract Validation to generate an error message that identifies what went wrong and suggests how you might be able to correct it. You must remedy such errors and rerun Extract Validation in order to create a Submittal file.

File-level errors that prevent NSLDS from processing your Submittal file are normally the result of faulty file handling or data corruption during transmission. Often, these problems can be resolved by re-sending your Submittal file or by sending the correct Submittal file to NSLDS.

12.5.2 Domain-Level Errors

There are four types of domain-level errors:

1. Numeric Field Errors
2. Invalid Date Errors

3. Missing Identifiers
4. Missing New Identifiers

DataPrep checks for domain-level errors as part of Extract Validation, and NSLDS checks for them again as part of the Load Process.

If the rate of domain-level errors in your Database Extract file exceeds the threshold established by ED, DataPrep will not create a Submittal file. However, it will create an Extract Error file that you can use to generate Extract Error reports and correct your database before creating a new Database Extract file and rerunning Extract Validation. Even if your error rates are below the thresholds, you can still generate Extract Error reports and get a head start on correcting any domain-level errors Extract Validation does identify in your Submittal file.

While Extract Validation will process records with domain-level errors as long as your error rate remains below the threshold, the Load Process will not load such records onto NSLDS. Instead, it will write them to the Load Process Error report, which you should use to correct your database or extract procedure.

Numeric Field Errors

A numeric field error occurs when a field requiring all numeric characters is populated by some other character or space. This type of domain error can indicate extraction of the wrong data, an incorrect result in a calculated field, truncated data, incorrect field length, or some other type of data problem. The Extract Error report will identify the data that erred, and you can use either the Summary Report or the Detail Report to identify the data in your system needing correction or to trace it back to the source of the corruption. You can also use the Extract Loan Detail report to review the entire record.

Invalid Date Errors

An invalid date error occurs when an invalid date appears in a field requiring a date. This can be caused by an incorrect character in the date field (for example, a non-numeric character) or a date that is not a calendar date (for example, 19980230—February 30th is not a valid date).

An invalid date error will *not* occur if the date is valid, regardless of whether or not it is reasonable. For example, a student date of birth of 19980228 will pass this domain-level edit, although clearly 1998 is not a reasonable birth date for a current student. That record-level error will be picked up later when NSLDS processes your Submittal file.

You should note that a date field with all zeros will pass the domain edit, but it may err in the load process if a date is required.

Missing Identifiers

Identifier errors occur when one or more loan or student identifier fields are left unpopulated. Examples of identifier errors are Loan Type with spaces or Date of Student's Birth with zeros. These create a loan record with an invalid format. Identifier errors often occur either when there is data missing from your database or when your extract process is not working properly. It is essential you review the cause of this error so it does not continue to occur.

Missing New Identifiers

New Identifier errors occur when one or more of the loan or student new identifiers are populated by valid data, but the remaining new identifiers are not. This occurs if you try to perform an Identifier change but fail to fill in all of the New Identifiers. New identifier errors indicate an identifier change process that is not occurring properly, so it is essential you review the cause of the error.

12.5.3 Record-Level Errors

NSLDS first checks for record-level errors as part of the Load process. Individual loan records that contain record-level errors are not loaded onto the database and are, instead, written to the Load Process Error report. You can then use that report to correct your database or extract procedure before extracting the records again the following month.

There are two types of record-level errors:

1. Duplicate Records
2. Reasonability Errors

Correcting Record-Level Errors
There are two types of record-level errors: duplicate records and reasonability errors.

To correct them, you must correct the data in your database. When you next extract the data using DataPrep, the new Submittal file should have the corrected information. Once that data has passed the edits described in Chapter 8, NSLDS will load it onto the database.

Duplicate Records

If two Detail records in the same Submittal file have the same loan identifiers, NSLDS rejects them both because it has no way of telling which is correct. Remedy problems with duplicate records by removing duplicates from your database or by checking your extract process for any step that may be creating duplicate records even though they don't exist in your database. The Loan identifier that DataPrep allows you to assign to individual loans can help you track duplicate records and identify their cause.

Reasonability Errors

Reasonability errors result from data that doesn't make logical sense. To correct these errors you must correct the information in your database. When you next run Extract Validation, the Submittal file produced by DataPrep should contain the corrected data. Once that data has passed the edits, NSLDS updates its database to reflect the corrected, and reasonable, data.

The following are two examples of Reasonability Errors:

1. **Loan Type equals PU (Federal Perkins Loan). Date of First Disbursement submitted equals 19810120 (January 20, 1981)**—This is not reasonable since the Perkins Loan Program did not exist until 1987. (Date of First Disbursement must be at least 19870101.) Therefore, you must correct your database to reflect that either the loan type equals NU, National Direct Student Loan (NDSL), or the date.

2. **Date of First Disbursement equals 19950905. Date of Birth submitted for student equals 19910713**—A student cannot have received a Perkins loan and be only 4 years old. Correct the information in your database as needed. (Date of birth must be at least 12 years before Date of First Disbursement.)

Reasonability errors usually require that you make changes to the respective field(s) in your database before your next extract.

For example, the Load Process Error report might contain a record with the typographical error 20960125 (January 25, 2096) in the Date of Disbursement field instead of the correct 19960125 (January 25, 1996). NSLDS would reject this date as being in the future. In your next Submittal file, you must

    resubmit the record that contained the error with a valid Date of Disbursement.

However, they can also require changes to your extract process.

    For example, you might extract a record with a valid Cancellation Date but a Cancellation Amount of zeros, even though the correct Cancellation Amount is in your database. Although the Cancellation Date is valid, it will err out of NSLDS because the record that contains it fails the companion field edit on Cancellation Amount. To fix this error, you must change your extract process so it extracts Cancellation Amount along with Cancellation Date.

12.5.4 Load-Level Errors

Load-level errors occur when records in your Submittal file contain data that conflicts with the data already in NSLDS. When there is a load-level error, the entire record is rejected. NSLDS checks for load-level errors during the Load process and writes records that contain them to the Load Process Error report.

To correct load-level errors, you must correct the information in your database before you create your next Submittal file. Normally, you must resubmit corrected data in Detail records. However, if you need to change historical (rather than current data) in NSLDS, you must resubmit corrected data in a PPC record.

There are four types of load-level errors:

1. Identifier Conflicts
2. OPEID Code Errors
3. Invalid Code Errors
4. Date Sequence Errors

Identifier Conflicts

Identifier conflicts occur when a new loan record is submitted for a Student's SSN already on the NSLDS database, but a student match cannot be made based on the Identifier Match Criteria (Section 9.4.1). This kind of error can be caused by a number of factors: typos, a student reporting two different first names to two different data providers, (for example, a student who uses a middle name as a first name), two different students mistakenly using the same SSN, or even fraud. Regardless of the reason for the conflict,

you must resolve the conflict for the record to load successfully onto NSLDS.

Loan records erring due to identifier conflicts should be compared with the data the record erred against in the load process. The Load Process Error report will show the conflicting identifiers and the data provider that supplied them. You should check to see what the conflict is and if it results from something that should be corrected on your database.

If it appears your data is accurate but it conflicts with data from another data provider anyway, you'll have to contact the other provider and resolve the conflict before NSLDS can be updated. You can find contact information for the other data provider on the Organization Contact pages of the NSLDS web site *(www.nsldsfap.ed.gov).* When you contact the other data provider(s), you might have to compare your data for the student with theirs to determine which is correct. To correct name or DOB information on NSLDS, use the identifier change process described in Section 6.5.2.

OPEID Errors

NSLDS reviews original and current school codes in the records you submit against the most current ED data. If the OPEID code on a record does not exist in the NSLDS database, NSLDS rejects the record and does not update the database.

Invalid Codes

NSLDS reviews all code fields to ensure that the codes they contain are acceptable to NSLDS. See Appendix B for complete lists of the following codes:

- Loan Type
- Loan Status
- Enrollment Status
- Deferment Type
- Deferment Type Usage
- Cancellation Type
- Perkins Commercial Servicer

Correcting Invalid Codes
NSLDS rejects records submitted with invalid codes. To correct code errors, you must correct either your database or your extract process.

Date Sequence Edits

In addition to storing the current values for the individual fields that make up a loan record, NSLDS also stores historical (or past) values for selected fields. Often, those historical values are stored as part of an event. This is because changes to some fields are only meaningful if they are accompanied by a change to another field or fields. For example, a new Date of Loan Status is only meaningful if it is accompanied by a new Code for Loan Status. Together they constitute a Loan Status event. While you can update historical values, *you cannot change either current or historical values so that you change the chronological order of events stored in history.*

Therefore, NSLDS reviews records you submit against current and historical values already stored on NSLDS for the same record to ensure that any date changes do not alter the sequence of events. If they do, NSLDS writes the record to the Load Process Error file and does not update the database with it.

If a record you submit is rejected by NSLDS because it causes a date sequence error, first check that the data you have submitted is correct. If it is, you must submit a PPC record to update the historical data already on NSLDS that is making your record cause a date sequence error.

For more detailed discussions of how NSLDS stores history and of how to update historical data using PPC records, see Section 6.6.

> **Correcting Date Sequence Errors**
> Records you submit that do not conform to date sequence logic will not update NSLDS. To correct the records already on NSLDS that cause these errors, you may need to submit a PPC record (Section 6.6).

Chapter 13: Final Thoughts

We hope this Data Provider Instructions manual has helped you learn how DataPrep functions. We also hope its description of how DataPrep interacts with NSLDS gives you a useful overview of the entire NSLDS update process.

If you have any questions, use the full-featured Help system. The Help system documents all DataPrep's functions and includes material not contained in this manual. It is your best source for detailed information about specific DataPrep functions.

If you still have questions about using DataPrep or about the NSLDS update process, please call the CSC at **(800) 999-8219** between the hours of 8 a.m. and 8 p.m. Eastern Time, weekdays except Federal holidays.

In addition, if you have any suggestions about how this manual can be improved, please call the CSC and let them know.