NAVISION® Financials





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PREFACE

This book is the user manual for the Merge Tool.

The manual is divided into two chapters: Getting Started, and Working with the Merge Tool. Each chapter starts with a short introduction and an overview of the chapter contents. This enables you to decide quickly whether the chapter contains the information you are looking for.

In this manual, you will often see command words with the names of menus, menu items and buttons which tell you how a special window is opened or a function executed. If it is not a window which is already open, the entire sequence is written down, for example, "Click ▼ Setup, Merge Setup." Calls from the menu bar (such as Edit, Insert New) are identified accordingly.

You can use either the mouse or the keyboard to choose a menu item or to execute any other operation in Navision Financials. When there is an access key for a command, it is indicated by an underscored letter; you execute the command by holding down the ALT key and pressing the access key. You can read more about keyboard commands in the Introduction to Navision Financials manual.

You should also be familiar with the symbols and typographical conventions used in the Navision Financials manuals. In the list below you can see how various elements of the program are distinguished by highlighting an symbols:

Appearance	Element
CTRL	Keys on the keyboard. They are written in small capitals.
<u>D</u> esign	Menu items and buttons in windows. They always start with a capital letter, and the access key is underlined.
Code	Field names. They appear in medium bold and start with a capital letter.
Import Version	Names windows, boxes and tabs. They appear in medium bold italics and start with a capital letter.

Appearance	Element
NF-2.00	Text that you must enter, for example: "enter <i>Yes</i> in this field". It is written in italics.
fin.flf	File names. They are written with Courier font and lowercase letters.
↑ ↓ * ☆ *) ⊼ ▼	Special symbols that can be seen in the windows on the screen.

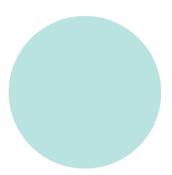
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Chapter 1Getting Started

This chapter discusses the structure of the Merge Tool and provides instructions for installing and setting up versions of Navision Financials.

The chapter contains the following section:

· Merge Tool Setup

1.1 MERGE TOOL SETUP

Quick Start

You should read all of this document to understand the Merge Tool and to be able to troubleshoot if you run into problems. However, if you want to start off quickly by trying to upgrade a customer version to the newest Navision Financials version, this is what you have to do:

- Make sure you have the latest version of Navision Financials installed on your computer.
- **2** Start Navision Financials, and create the database MergeTool.fdb.
- 3 Restore the backup into the database. There will now be a company in the database with the base versions from the local country version of Navision Financials.
- 4 Set up your screen resolution in the *Merge Setup* table.
- 5 See "Working with the Merge Tool" on page 6 of this manual for guidelines on the various tasks you can do with the Merge Tool, particularly the section called "Types of Object Files."

Basic Structure of the Merge Tool

The Merge Tool is a Navision Financials utility designed to help Navision Solution Centers document, compare, upgrade and maintain modified customer solutions. This tool can also be used for implementing or upgrading add-on solutions in a modified customer version.

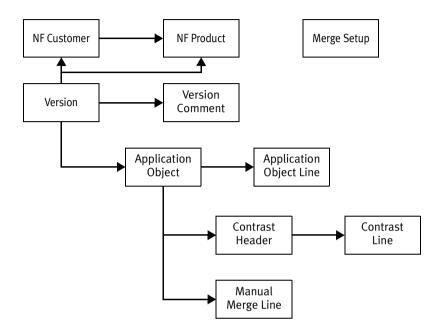
The Merge Tool uses the text format of Navision Financials objects to compare and merge versions. Understanding what happens during merging requires knowledge of the text format for Navision Financials objects.

Here are descriptions of the tables in the Merge Tool:

Table	Description
Merge Setup	In this table, you can set up the various system parameters for the Merge Tool.

Description
In this table, you can name the customer versions read into the Merge Tool. The table is used for accessing all the versions that have been created for a specific customer.
In this table, you can name the Navision Financials products that are read into the Merge Tool. Normally you will only have one product in each company, so all the versions will have the same Navision Financials product code. This table also contains text constants specific for each country version.
In this table, you can view all the versions that are read into the Merge Tool. This table contains some historical information about previous versions and indicates which version is the base version.
In this table, you can add additional comments to a version. Comments must be entered manually. The Merge Tool does not create comments.
In this table, you can view all the application objects for a version.
This table contains the text lines for the application objects.
When two objects are compared and there is a difference, a record of the difference is created in this table.
When two objects are compared and there is a difference, the lines that differ are stored in this table.
During the merging process, when manual adjustments must be made about which lines to include, you can use the <i>Manual Merge Lines</i> table to view the lines from the different versions.

You can see how the tables in the Merge Tool are connected in the following illustration:



Chapter 2The Merge Tool

This chapter describes the setup information and the tasks that can be performed with the Merge Tool. These tasks include importing and exporting a version, comparing versions, exporting a log of differences, and merging and making manual adjustments to a merged version.

The chapter contains the following section:

· Working with the Merge Tool

2.1 Working with the Merge Tool

Types of Object Files

It is very important that you import the correct objects into the Merge Tool. In the table below, you can see what you must import for the various types of objects.

There are four different types of object files:

- · Base version
- New add-on
- · New version add-on
- Customer version

	New Base Version	New Add-On	New Version of Add-On	New Customer Version
What to Import	Import only objects from the new version to do the merge faster	Import only changed and new objects	Import only changed and new objects	Import only changed and new objects

Example

An example of what to import in the different versions can be seen in the following table:

	NF Version	NB Version	NB Version	Version ABC2
	Only the	Only the	Only the	Only the
What to	objects with	objects that	objects that	objects that
Import	version list	contain	contain NB in	contain ABC or
	NF1.20.02	NB1.00 in the	the version list	all add-ons.
	must be	version list	must be	Versions in the
	imported	must be	imported	version list
		imported		must be
				imported

EXAMPLE

An example of what should be entered in each field of each version can be seen in the following table:

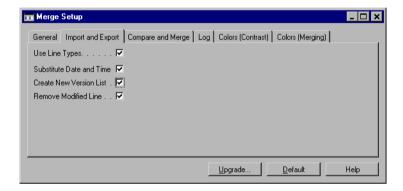
	Version 1.20B	Version 1.00	Version 2.00	Version ABC
Description field	NF Service Pack NF Version 1.20B	Add-on 1.00	Add-on 2.00	Customer ABC's version
Base Version field	Yes	No	No	No
Previous Version field	NF 1.20.01		NB1.00	ABC1
Based on Version field		NF 1.20	NF 1.20	NF 1.20
NF Product Code field	NF	NF	NF	NF
NF Customer Code field		NAVIBANK	NAVIBANK	ABC

To optimize the performance of the compare and merge, carefully select what to import from each version. If too many objects are imported for each version, it will take much longer to compare and merge.

Setup

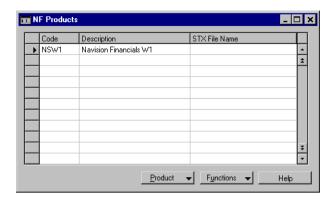
Default values and setup parameters for the processes run with the Merge Tool can be defined in the *Merge Setup Card* window.

To view or edit these values, click Setup ▼, Merge Setup.



A version must have a product code assigned to it to allow naming the Navision Financials products that are read into the Merge Tool. Normally you have only one product in each company so all the versions have the same Navision Financials product code. Fixed texts in the code are defined in the Merge Setup window, and it is possible to import them.

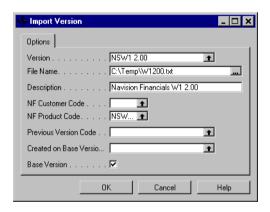
To view or edit these values: click Setup ▼, NF Products.



Importing a Version

To create a version, you will need to make a text export of the objects from the customer's version of Navision Financials and import them to the version. To import:

- 1 Click Versions ▼, Functions, Import. The Import Version window opens.
- 2 Click the *Options* tab.



3 Fill in the fields on the *Options* tab as follows:

Field	Comments
Version	Enter the name of the version you are importing. You can enter the code manually. You can also click the AssistButton 1 to either select an existing version code or enter a new one. The imported new version must not already exist in the database.
File Name	Enter the data path and name of the file that was exported from Navision Financials containing text versions of the objects. You can enter the file name manually or use the AssistButton 1.
Description	The text you enter here will be written to the Description field of the version.
NF Customer Code	If you want the version you are importing to be associated with a customer, then enter the relevant customer code here. You can enter the code manually. You can also click the AssistButton † to either select an existing version code or enter a new one. The code you enter here will be written to each imported application object.
NF Product Code	If you want the version you are importing to be associated with a product code, then enter that code here. You can enter the code manually. You can also click the AssistButton † to select an existing version code or you can enter a new one. The code you enter here will be written to each imported application object.
Previous Version Code	You can use the Previous Version Code field to give an order to search for an older version. This field can be used for the base product, add-on and customer versions. It must be filled in if there is a previous version. For example, if you import Navision Financials 2.00A, then you must fill in the Previous Version Code field with the version code for Navision Financials 2.00.
Created on Base Version	This field is used only for add-on and customer versions. Here you can indicate the base version of Navision Financials manually or click the AssistButton † to select a version to which modifications were originally made.
Base Version	Place a ✓ in this field if you are importing a version that comes from Navision Software.

Carefully select which objects to import. If too many unmodified objects are imported, all the functions in the Merge Tool will take longer to run and

require a larger database. (Version 2.00 contains around 1400 objects, but a typical add-on will normally modify only 50.)

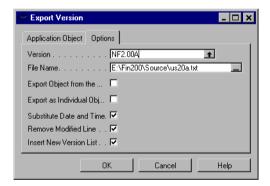
Fill in the fields on the *Options* tab carefully because merging with this version will depend on the information entered in these fields.

Exporting a Version

After you upgrade an add-on or a customer version, only the objects that have been merged will need to be exported. This file must then be imported into the targeted Navision Financials database. Limiting the number of objects in the export will decrease the amount of objects that must be compiled.

To run the import:

- 1 Click Versions ▼, Functions, Export. The *Export Version* window appears.
- 2 Click the *Options* tab.



3 Fill in the fields on the tab as follows:

Field	Comments
Version	Enter the name of the version you are exporting. You can enter the code manually or click the AssistButton † to select a version code.
File Name	Enter the data path and the name of the file to be created by this export. This file will be in the necessary format to be imported into Navision Financials.

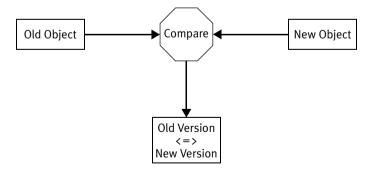
Field	Comments
Export Object from Base	Place a vin this field if you want the base version objects to be exported with the object file. The base object of a version is indicated in the Created on Base Version field in the Version Card window.
Export as Individual Object	Place a v in this field if you want each object to be exported to a separate file. Each file will be named according to its object type and object number and written to the path entered in the File Name field.
Substitute Date and Time	Place a in this field if you want the new date and time that were entered during the merge to be written to the exported objects.
Remove Modified Line	Place a ✓ in this field if you want the modified property of the objects to be removed.
Insert New Version List	Place a in this field if you want the version list object property to be updated.

When exporting a version, carefully consider which objects should be included.

Comparing Two Versions

A comparison is always performed between two objects.

Here is an illustration of what happens when two versions are compared:

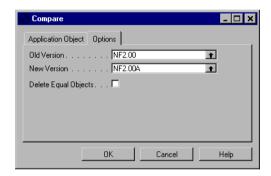


As the two versions of each object are compared, a contrast header is created for each version.

If the old version is a base version, the previous versions will be searched for objects that do not exist in the current base version.

To compare:

- 1 Click Versions **▼**, F<u>u</u>nctions, <u>C</u>ompare.
- 2 On the Application Object tab, the Object Type and Object Number fields contain default values. You can enter filter criteria for these fields in the Filter column to delimit the objects to be compared.
- 3 Click the *Options* tab.



4 Fill in the fields on the tab as follows:

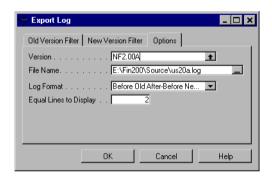
Field	Comments
Old Version	Enter the name of the earlier version you want to compare against. You can enter the code manually. You can also click the AssistButton † to either select an existing version code or enter a new one.
New Version	Enter the name of the later version you want to compare. You can also click the AssistButton † to either select an existing version code or enter a new one.
Delete Equal Objects	Enter a if you want the program to delete objects that are exactly the same as the objects they are compared to.

Exporting the Log of Changes

After two versions have been compared, the log of changes can be exported. The log is based on the contrast header and contrast lines, which were created when you compared versions.

To export:

- 1 Click Versions ▼, Functions, Export Log.
- 2 On the Old Version Filter and New Version Filter tabs, the Object Type and Object Number fields contain default values. If you want to delimit the export, enter the filter criteria for these fields in the Filter column.
- 3 Click the *Options* tab.



4 Fill in the fields on the tab as follows:

Field	Comments
Version	Enter the name of the version you are exporting. You can enter the code manually or click the AssistButton $lack t$ to select a version code.
File Name	Enter the data path and the name of the file to be created by this export.
Log Format	Select an option to determine the log format. As a default, the field contains the option you entered in the Log Format field on the Log tab in the Merge Setup window.

Field	Comments
Equal Lines to Display	Here you can enter the number of equal lines to be displayed before and after the changes. As a default, the field contains the option you entered in the Log Format field on the Log tab in the Merge Setup window.

If the number of equal lines in the code is less than the required number, only the equal lines will be displayed.

Setting New Object Properties

You can adjust properties on objects that have been imported into a version with the Set New Objects Properties function. This function is intended to be used when manual changes have been made to the objects in a customer's version.

The objects must have been compared to the previous version of the customer solution or to the base version if it is the first version of the customer version in the Merge Tool. To set new object properties, follow this procedure:

- 1 Click Versions ➡, Functions, Set New Object Properties.
- 2 On the Application Object tab, the Object Type and Object Number fields contain default values. You can enter filter criteria for these fields in the Filter column to delimit the objects to be changed in a version.
- 3 Click the *Options* tab.



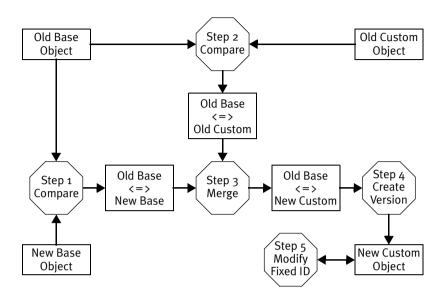
4 Fill in the fields on the tab as follows:

Field	Comments
Version	Enter the name of the version containing the objects with properties you want to change. You can enter the code manually or click the AssistButton to select a version code.
Adjust Against	Here you choose whether to use the base version or a previous version as a point of reference for the adjustment.
New Date	Enter the date you want the objects to have.
New Time	Enter the time you want the objects to have.
New or Added Version List	Enter the description you want to add to the object version list.

Merging Versions

The merge process uses three existing versions to create a fourth, new version. It will automatically handle many code changes, but there are situations where the developer is required to make manual changes. For example, the Merge Tool cannot handle conflicts if there are changes in the same part of code in different versions. The Merge Tool will decrease the amount of work required to enter the same changes again in the newest version of the objects released from Navision Software, an add-on developer or manual changes done in the customer's solution.

The following illustration shows the steps performed to merge three versions.



The comparison between three versions is the same as a comparison between two versions. If the comparison already has been performed, then in order to enhance performance the result from the last comparison will be used.

Merging is performed in five steps by the Merge Tool, but the user is only required to run one batch job to carry out all these steps.

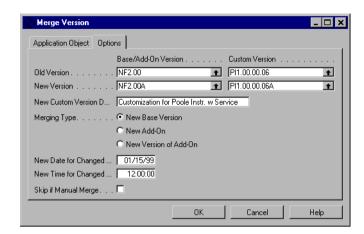
If an object already exists in the new custom version, it will be skipped during the merge. If an object is merged incorrectly, it can be deleted in the new custom version, and the merge can be repeated. The various merging types (new base version, new add-on and new version of add-on), how they are used, and which objects are copied can be seen in the following table:

	New Base Version	New Add-On	New Version of Add-On
Purpose	Upgrades customer's version to new base version	Implements new add-on in customer's version	Upgrades add-on in customer's version

	New Base Version	New Add-On	New Version of Add-On
Example	Upgrade customer from 1.20 base version to 2.00 base version.	Implement Navibanking in customer version.	Upgrade Navibanking from version 1.00 to 1.10.
Objects Copied	Objects existing only in the custom version are copied to the new custom version. The text for the version list can be made by adding the version list from the custom version to the version list from the new base version.	Objects existing only in the new version and the custom version are copied to the new custom version. The version list from the objects is combined with the new version list.	Objects existing only in the new version and the custom version are copied to the new custom version. The version list from the new version is substituted by the new version list if the object exists in the custom version.

To merge:

- 1 Click Versions **▼**, F<u>u</u>nctions, <u>M</u>erge Version.
- 2 On the Application Object tab, the Object Type and Object Number fields contain default values. You can enter filter criteria for these fields in the Filter column to delimit the objects to be changed in a version.
- 3 Click the *Options* tab.



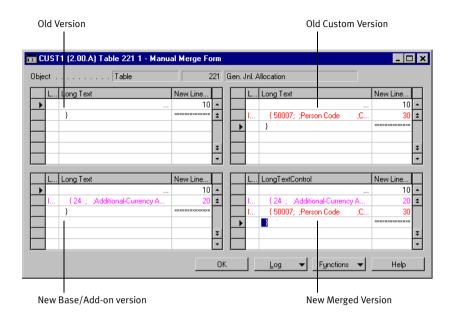
4 Fill in the fields on the tab as follows:

Field	Comments
Old Base/Add- On Version	Enter the name of the base/add-on version upon which the merge will be based. You can enter the code manually or click the AssistButton † to select a version code.
Old Custom Version	Enter the name of the object that should be merged with the new base/add-on version. You can enter the code manually or click the AssistButton • to select a version code
New Custom Version	Enter the name of the new version to be created and the new version that you want to merge. You can enter the code manually or click the AssistButton • to select a version code.
New Base/Add-On Version	Enter the name of the object that should be merged with the custom version. You can enter the code manually or click the AssistButton ★ to select a version code
New Custom Version Description	The text you enter here will be written to the Description field on the version card of the version created by the merge.

Field	Comments
Merging Type	The Merging Type field controls how objects are copied between versions and how the version list in the objects is maintained. This field has three options: New Base Version New Add-On New Version of Add-On See the table on page 16 for details about these three options.
New Date for Changed Objects	The date you enter here will be written to the objects of the new version.
New Time for Changed Objects	The time you enter here will be written to the objects of the new version.
Skip If Manual Merge	Place a in this field if you do not want to make a manual merge and do not want the manual merge form to appear.

The **Skip If Manual Merge** field is intended for running through all the objects that can be merged without any considerations from the programmer. The remaining objects can be merged in a second run.

The *Manual Merge Form* window appears when a conflict is encountered during the merge. The four subforms show the lines from each of the versions.



By assigning line numbers to the displayed line, a new version can be created. It is also possible to insert new lines if manual adjustments to the code are necessary. To do this, click Functions, Custom Lines, Assign Line Number, and run this batch job.

If merging is so complicated that assigning line numbers is too time consuming, then a log can be printed and the changes can be made afterwards in the text file or in Navision Financials later.

Manual Changes Required after Merging Objects

After merging objects, you must export them and import them into Navision Financials. If the text file contains one or more syntax errors, it cannot be imported into Navision Financials. The line number and object where the error occurred will be shown. This object can then be modified in the text file or deleted in the new custom version and merged again.

One common mistake with manually merged lines is that the number of left and right brackets {} do not match. This could cause some unexpected errors from Navision Financials during the object import.

During merging, conflicting control IDs will be fixed automatically, but controls placed in the same area on a form or report will not be corrected. The Overlapping Control report performs a check on each object and prints a description of the objects and controls that must be modified manually.

Because merging can change already existing objects, you will need to test both the new functionality and the existing functionality.

After all the objects have been imported, compiled and manually changed, a new version should be imported into the Merge Tool for future use.

An Example of Merging a Customer Solution

This section contains a practical example of how a merge can be performed. In this example, a customer solution based on Navision Financials 2.00 will be updated with a Navision Financials Service Pack. As with most customer solutions, this one includes modifications to the base product and custom objects. In this example, modifications have been made to objects in the Sales & Receivables, Purchases & Payables and Inventory application areas. The goal of the merge is to produce a version of the customer solution containing the service pack changes.

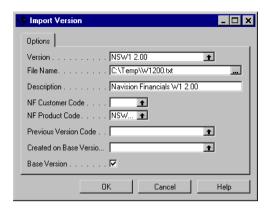
All the versions will have an NF Product Code of FIN-2.00.

Because the customization was based on Navision Financials 2.00, it will be the base version for this merge.

First, go into an unmodified version of the product and export all the objects in text format. For this merge, only the base objects that are part of the customization must be exported, but because this version may be the base version for other add-ons and customer modifications, you may want to export all the objects.

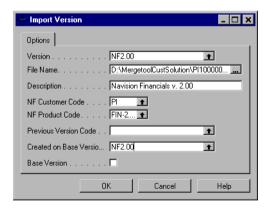
To import this version, follow this procedure:

- 1 Click Versions ▼, Functions, Import. The *Import Version* window appears.
- 2 Click the *Options* tab.
- 3 Fill in the fields as shown in the following picture, and click OK.

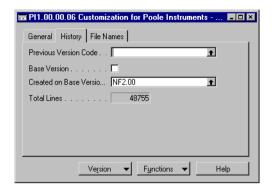


Placing a ✓ in the **Base Version** field causes the program to use Version NF2.00 as the base version for the merge.

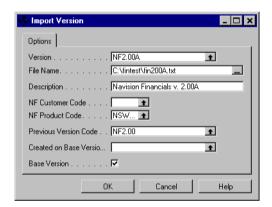
Now you must export the customized objects from the customer solution and import them using the options shown in the next illustration. Because only base application objects are affected by this particular merge, you can choose to export only those objects, or you can export the entire customization in order to handle future version tracking and modifications.



Because the customization is based on Navision Financials 2.00, the base version that you imported is entered in the **Created on Base Version Code** field. The information you entered is written to the version record and can be seen in the **Version Card** window.

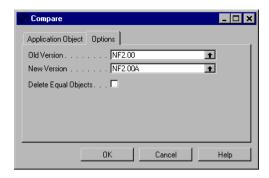


The third version for this merge will be the Navision Financials objects that comprise the service pack. These will be only those 2.00 objects modified as part of the service pack. You enter the name of the base version that you just created in the **Created in Base Vesion Code** field. Fill in the fields in the **Version Card** window as in the following picture:



The next step is to compare versions. Because you are comparing two versions, the comparisons needed for this merge will be between base and service pack (NF2.00 and NF2.00A) and base and customization (NF2.00 and PI1.00.00.06). Complete the following steps to run the first comparison:

- 1 Click Versions ▼, Functions, Compare. Do not set any filters on the *Application Object* tab.
- 2 Click the *Options* tab and fill in the fields as shown in the following picture:



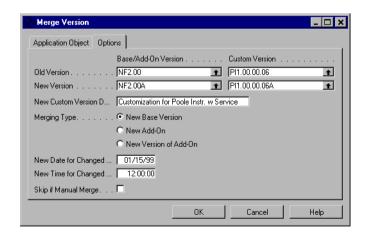
3 Click OK.

Repeat this process for version codes NF2.00 and Pl1.00.00.06.

The data will now be ready to merge.

To merge, follow this procedure:

- 1 Click → Versions and go to the custom version.
- **2** Select Functions, Merge Version. The *Merge Version* window appears. Do not set any filters on the *Application Object* tab.
- 3 Click the *Options* tab and fill in the fields as shown in the following picture:



4 Click OK.

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. LongTextControl

:Additional-Currency A

F<u>u</u>nctions

{ 50007; ;Person Code

New Line.

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During the merge, you may have to make manual merges. When this situation occurs, the *Manual Merge Form* window appears:

New Line...

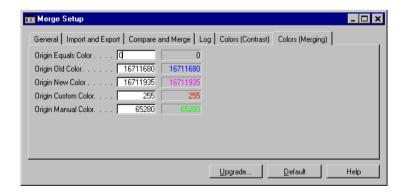
The lines in the window that are to be merged manually are color coded. To understand what these color coded lines mean, see the color codes for manual merge lines in the *Merge Setup* window.

To open the *Merge Setup* window:

1 Click Setup ▼, Merge Setup.

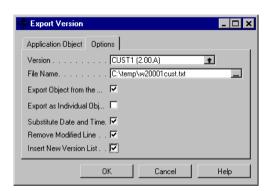
.. Long Text

2 Click the Colors (Merging) tab.



Based on the color codes and lines in question, you can edit the line of the new version in the *Manual Merge Form* window as appropriate and then continue.

After the merge is complete, you can export the new version, import it into your Navision Financials customized database, and compile and test all the modified objects.



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