

# LS Nav 2018 (11.03)

## Installation Guide

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# Installation Guide LS Nav

This release can be used for localizations and demonstrations.

In this version, the POS is only supported on the 32 bit Dynamics NAV Windows client. Note that the 64 bit client is now the default client when opening NAV. We recommend setting up the 32 bit client in the LS Nav Start tool for the POS.

The following products are available from the [LS Retail Portal](#) for download: Demand Plan, DD Web Monitor, LS Omni, Kitchen Display System, and LS Data Director. Please refer to the readme files located in the setup directory for direct links and a matching version for the current LS Nav release.

If you are upgrading from an older version of LS Nav, you need to update the Microsoft Dynamics NAV license file (fin.flf) to run this version. This also applies to partner development licenses.

**Note:**

In these instructions references to software versions are in generic form and always refer to the latest version.

**Example:**

In January 2017 *LS Nav xx.xx* stands for *LS Nav 10.01*.

## Files in This Version

### LS Nav Setup File

- W1\_LS\_Nav\_xx.x.exe. File that extracts all following files.

### Demonstration Database Backup

- w1-ls-nav-xx-x-release.bak. A SQL backup of the demonstration database.

**Tip:** The .bak file is compatible with Microsoft SQL Server 2014.

### Documentation

Documents related to LS Nav and this release:

- Installation Guide LS Nav xxxx (xx.xx).pdf (this file)
- LS Nav xxxx (xx.xx) CU Incident List.pdf
- LS Nav xxxx (xx.xx) Incident List.xlsx
- Release Notes LS Nav xxxx (xx.xx).pdf
- Older documentation

### Objects

- w1-ls-nav-xx-x-all-ls-marked-objects.fob. This file contains all LS Nav objects (including modified Microsoft Dynamics NAV standard objects).

- w1-ls-nav-xx-x-changed-objects.fob. This file contains all LS Nav changed objects (including modified Microsoft Dynamics NAV standard objects).
- w1-ls-nav-xx-x-all-ls-and-standard-objects.fob. This file contains all LS Nav objects (including modified Microsoft Dynamics NAV standard objects) and all standard Microsoft Dynamics NAV objects).
- TXT.zip contains all LS Nav objects in .txt format.

### **Objects \ Uninstall**

- Uninstall\_LS\_Nav.ps1
- Uninstall LS Nav Guide.docx

### **Objects \ Upgrade**

This directory contains objects to upgrade from previous version. For further information see the *readme.txt* file.

### **Objects \ Auto Test**

This directory contains objects for the LS Nav auto tests. For further information see the *How to Run the LS Nav Auto Tests.pdf* file.

### **Online Help**

- LS Nav Online Help xx.x.xxx.exe

### **Setup \ LS Nav Rapid Installer**

Installer to install LS Nav from scratch, includes Dynamics NAV application and other components.

### **Setup \ LS Nav Rapid Start**

Latest Rapid Start packages.

### **Setup \ LS Nav Toolbox**

- LS Nav xx.x.xxx Client Components.exe
- LS Nav xx.x.xxx Service Components.exe

### **Setup \ LS Printing Station**

Latest release of LS Print Station.

## **Setup**

### **Installation**

#### **Prerequisites**

Before installing LS Nav, make sure that you meet the following prerequisites:

- You have administrative privileges on the machines where you plan to install the application.
- You have the necessary permissions and licenses to install Microsoft Dynamics NAV application objects and to create users.
- You have a working knowledge of Microsoft Dynamics NAV and Microsoft SQL Server, including how to create a new database, restore a SQL database backup, and install Microsoft Dynamics NAV application objects (.fob files).

- Microsoft Dynamics NAV 2018 is installed.
- Microsoft SQL Server is installed.

LS Nav is distributed in a single executable file, W1\_LS\_Nav\_xx.x<sup>1</sup>.exe. Before you start the actual installation, you should run this application. This will uncompress the installation files and store them in an installation directory on your hard drive. The default path for these files is C:\LS Retail\LSxx.x.

### Microsoft Dynamics NAV Application Objects Added or Modified by LS Nav

LS Nav consists of more than 3500 Microsoft Dynamics NAV application objects. This figure includes more than 150 Microsoft Dynamics NAV standard application objects that are modified by LS Nav. You can see which objects are modified and installed by LS Nav by doing the following:

1. Start the Microsoft Dynamics NAV Development Environment, and connect to a LS Nav database.
2. Open the Object Designer and put a filter containing \*LS\* on the Version List column. This will give you a list of all application objects created or modified by LS Nav. If you wish to view modified Microsoft Dynamics NAV standard objects only, you can add a filter on the ID column where ID < 50000.

As mentioned above, LS Nav consists of modified Microsoft Dynamics NAV standard application objects as well as objects that are only used by LS Nav. Objects that are exclusive to LS Nav can be found in the following object numbering ranges:

Range	From ID	To ID
Range 1	1000700	1000999
Range 2	1001200	1001499
Range 3	10011950	10012949
Range 4	10014500	10016999
Range 5	10032985	10034984
Range 6	10036985	10038984
Range 7	52099144	52100143
Range 8	70014000	70014199
Range 9	99001450	99001899

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<sup>1</sup>Note: In this guide references to software versions are in generic form and always refer to the latest version.

Range 10	99008700	99009699
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**Note:** Not all objects within the ranges are used.

### Installing LS Nav in a New Database

Follow these steps to install LS Nav in a new database:

1. Start the Microsoft SQL Server 2014 Management Studio, and connect to the server.
2. Restore the w1-ls-nav-xx-x<sup>1</sup>-release.bak backup file in a new database. You can find the backup in the installation directory.
3. Open the Microsoft Dynamics Administration client, and define a service which connects to the database created.
4. Install the required toolboxes. See the Toolbox Installation Guide for more information.
5. Open the Microsoft Dynamics Development Environment, and compile all objects in the database.
6. Build the Server Application Objects.
7. Open the Microsoft Dynamics NAV Windows Client, and add the current user, followed by any additional users.
8. Restart the service.
9. The installation is done. You can now start to use LS Nav.

**Tip:** The .bak file is compatible with Microsoft SQL Server 2014.

The Service Components need to be installed on the machine where the service tier is located.

The Client Components need to be installed on each machine that will run the POS.

### Installing LS Nav in an Existing Database

You might also want to install LS Nav into an existing Microsoft Dynamics NAV database. Please note that LS Nav is based on the Microsoft Dynamics NAV 2018 world-wide edition, and installing LS Nav in a Microsoft Dynamics NAV database that has been localized for other countries may not work as expected.

**Important:** When installing into an existing database only the application objects are installed - no demo data is installed as part of this routine. You are advised to install into a new database as described in the previous section if you plan to follow the training material or use the database for demonstrations.

Follow these steps to install LS Nav into an existing Microsoft Dynamics NAV database:

1. Open the Microsoft Dynamics Administration client, and define a service which connects to the database where you plan to install LS Nav.
2. Open the database in the Microsoft Dynamics NAV Development Environment.

---

<sup>1</sup>Note: In this guide references to software versions are in generic form and always refer to the latest version.



3. Import the w1-ls-nav-xx-x-all-ls-marked-objects.fob (LS Nav (xx.x)<sup>1</sup> release), which is located in the Objects directory. This will install all Microsoft Dynamics NAV objects required to run LS Nav.
4. Install the required toolboxes. See the Toolbox Installation Guide for more information.
5. Compile all objects in the database.
6. Open the Microsoft Dynamics NAV Windows Client, and add the current user, followed by any additional users.
7. Build the Server Application Objects in the Microsoft Dynamics NAV 2017 Development Environment.
8. Restart the service.
9. The installation is done. You can now start to use LS Nav.

**Note:** The Service Components need to be installed on the machine where the service tier is located.

The Client Components need to be installed on each machine that will run the POS.

## Uninstall

### Uninstall the LS Nav xx.x Client Components

Follow these steps to uninstall the LS Nav xx.x Client Components:

1. Open the Windows Control Panel, and start the Programs and Features application.
2. Browse to the Client Components entry, and select the Uninstall button.
3. The Client Components will now be removed from the machine.

### Uninstall the LS Nav xx.x Service Components

Follow these steps to uninstall the LS Nav xx.x Service Components:

1. Open the Windows Control Panel, and start the Programs and Features application.
2. Browse to the Service Components entry, and select the Uninstall button.
3. The Service Components will now be removed from the machine.

### Uninstall LS Nav from a Microsoft Dynamics NAV Database

To uninstall LS Nav, run Power Shell ISE as administrator, and open the UninstallLS\_NAV.ps1 and set the parameters as follows:

<b>\$StdDBServer</b>	SQL Server\Instance containing the Standard NAV Database.
<b>\$StdNAVdb</b>	Standard NAV Database name
<b>\$LSDatabaseServer</b>	SQL Server\Instance containing LS Retail database
<b>\$LSDbName</b>	LS Retail NAV Database name
<b>\$LSNavServerName</b>	Server running the Service Tier for LS Retail Database

<sup>1</sup>Note: In this guide references to software versions are in generic form and always refer to the latest version.

<b>\$LSServiceInstance</b>	NAV Service Instance running on LS Retail Database
<b>\$LSMgmtPort</b>	NAV Service Instance Management Port No (7045 is default)
<b>\$WorkPath</b>	Path in the file system for the script to keep object files
<b>\$RTCPPath</b>	Path to the Role Tailored Client executable
<b>\$ServiceTierPath</b>	Path to the Service Tier executable

Then run the script.

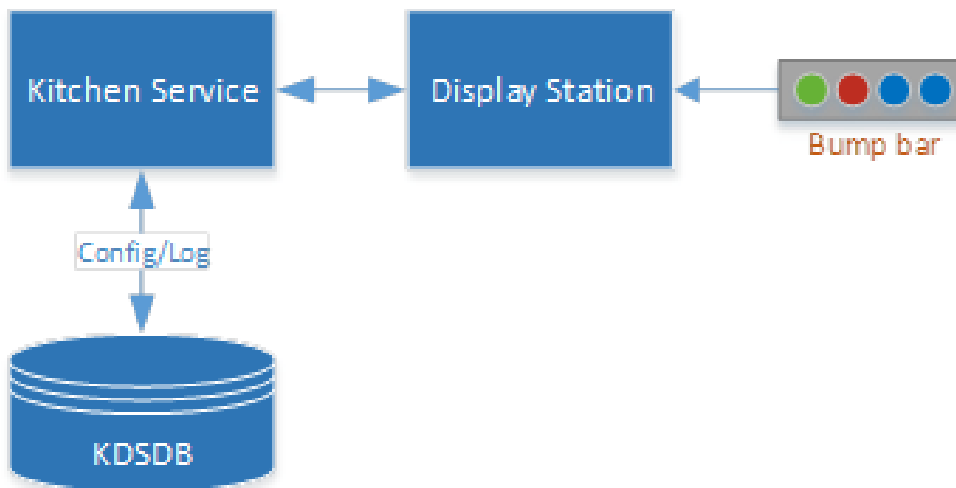
**Note:** The uninstall script does not remove external LS Nav components, such as the Tool-box, Data Director, KDS, and Dual Display.

### Database Compilation

When compiling the database, you may get one or more compilation errors. This is to be expected, since the full Microsoft Dynamics NAV application depends on a number of external components that may not be present on your machine. These components handle tasks such as Microsoft Outlook integration or cryptographic services.

The application will compile all LS Nav objects.

### LS KDS System Requirements



The LS KDS system has the following components:

Component	Description	Requirements
-----------	-------------	--------------

<b>Kitchen Manager</b>	Windows Service	Windows 10 2 GB memory (4 GB preferred)
<b>KDS DB</b>	Kitchen database for <ul style="list-style-type: none"> <li>• KDS configuration - loaded on startup</li> <li>• KDS logs</li> </ul> We recommend having the KDS DB (on SQL Express) on the same computer that runs the KDS server.	MS SQL Express 2014 or higher
<b>Kitchen Display Station</b>	Windows executable (can run on same machine as Kitchen Manager service).  It is possible to run multiple instances on same machine and/or on multiple machines with display stations that connect to the same service.  The screen can be connected to a computer with a VGA display port or an HDMI port to the computer running the Kitchen Display Station program. The computer running this program must be on the same network as the KDS server (can be a domain or a work group), so it can communicate with the Kitchen Service on the KDS server (Windows Service).	Windows 10 2 GB memory (4 GB preferred)
<b>Bump bars</b>	Connects to a KDS computer to control a display station. Must return an alpha key or numeric keys.	USB interface

## System Requirements

LS Nav has the same system requirements as standard Microsoft Dynamics NAV.

**Tip:** For a full description of the system requirements, see the standard [System Requirements for Microsoft Dynamics NAV 2018](#) on the microsoft.com website.

## Security Hardening Guide for LS Nav

LS Nav falls within the Microsoft Dynamics NAV security.

Some security issues that need to be kept in mind when installing the LS Nav solution:

- LS Nav communicates with external POS devices (slip printer, customer display, barcode scanner, scale and so on) by OCX drivers adhering to the OPOS international standard. The communication is initiated by the user NAV client by opening and closing the OPOS communication. We feel this is a relatively low risk factor for the

system as long as the PC machine is properly protected according to the Microsoft Dynamics NAV Hardening Guide.

- It is necessary to define a NAV user for running NAV Application Servers. The NAV Application Server service runs as the NT Authority \ Network Service account by default, and this allows it to access NAV Database Server locally. However, on a network you must ensure that the NAV Application Server service is running as a Windows domain account that is recognized by the NAV Database Server, if you want it to have access to the database server. This account should not be administrator, neither in the domain nor on any local machine.

**Tip:** Please consult the Security documents regarding Microsoft Dynamics NAV on the [Microsoft Partner Source](#) website.

## Clear Data Tables That Are Not Included in the Customer's License

Before the customer's license is activated in the database, it is necessary to check for and delete all data from tables that are not included in the license to prevent possible permission errors. This can be done by running the **LS Retail Modules** page that is located in the **Administration** menu.

The page shows what modules are available. Select the **Included in License** field for the modules that are in the customer's license, and click **Check Data Usage** on the **Home** action menu.

The system now counts entries in all LS Retail tables outside the modules included in the customer's license.

Click **Used Tables outside License** to view the result of the check. This opens a page displaying a list of tables outside the modules included in the license. Click **Clear data** in the **Actions** menu to empty those tables.

**Note:** This needs to be done for every company in the database.

The process can be repeated by clicking **Initialize** on the **LS Retail Modules** page.

## Online Help Installation

The LS Nav Online Help can either be accessed through the website <http://help.lsnv.ls-retail.com/> or it can be installed on a local computer.

**Note:**

In these instructions references to software versions are in generic form and always refer to the latest version.

**Example:**

In January 2017 *LS Nav xx.xx* stands for *LS Nav 10.01*.

## Local Setup

This section describes how to install the Dynamics NAV Help server and install Online Help.

The local setup uses the Help Server provided with the Dynamics NAV install and is in the form of multiple html (.html) files, images and style sheets.

Follow these steps to install:

1. When installing Dynamics NAV Server, also select to install the **Help Server** component in the customized installation. The help server can be installed afterwards, by running the Dynamics NAV installation and selecting **Add or remove components**.
2. Run **Online Help.exe** to extract the LS Nav help files into the help server directory. By default it is located at
  - C:\inetpub\wwwroot\DynamicsNAVxxxHelp<sup>1</sup>
3. If the Dynamics NAV Windows client is located on a different computer than the server, you must also follow the steps in the **Remote Setup below** section.
4. Now the help is accessible by running the Dynamics NAV Windows client and pressing F1.

## Remote Setup

This section describes the steps needed to configure a Windows Client to point to a remote Dynamics NAV Help Server. To do that, use the online help hosted by LS Retail.

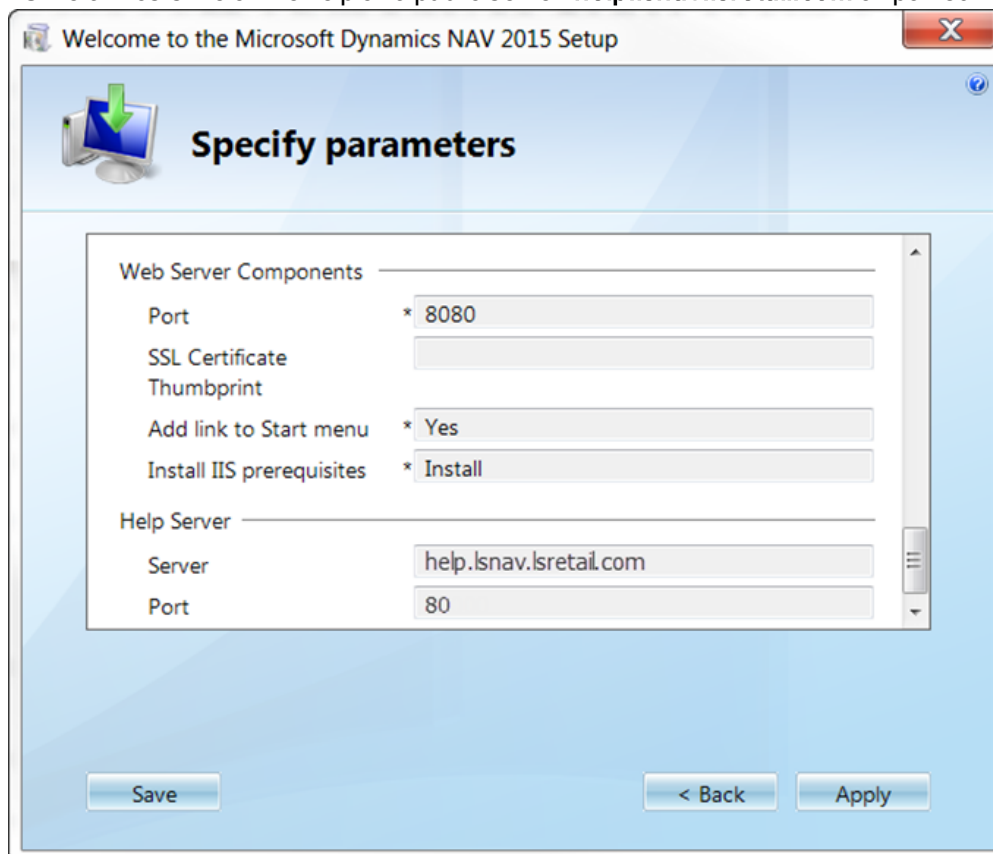
Follow these steps to set up:

- When installing Dynamics NAV Windows client, select **Custom setup**. On the **Specify parameters** screen, locate the **Help Server** section and fill the **Server** and **Port** configuration with the appropriate parameters.

---

<sup>1</sup>Note: In this guide references to software versions are in generic form and always refer to the latest version.

- LS Retail hosts the online help on a public server: **help.lsnav.lsretail.com** on port 80.



- Alternatively, you can edit the user's Windows client configuration file to point to a different help server. The file is located in
  - %appdata%\Microsoft\Microsoft Dynamics NAV\xxx<sup>1</sup>

Edit the **HelpServer** and **HelpServerPort**:

```
<add key="HelpServer" value="help.lsnav.lsretail.com" />
<add key="HelpServerPort" value="80" />
```

## Older Documents

According to LS Retail Nav's documentation policy, all user guides, from version 8.0 (February 2015) and onwards, are published as online help documents to use with a Microsoft Dynamics NAV help server. This means that from that version, user guides are no longer available as PDF files but exclusively as online help.

Documents dating before version 8.0 are available in a separate *Older Documents* folder in the installation package.

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<sup>1</sup>Note: In this guide references to software versions are in generic form and always refer to the latest version, for example 1001.

## Toolbox Installation

The LS Nav Toolbox contains a set of components that allow you to run LS Nav.

The components are divided into **Client Components** and **Service Components**.

**Client Components** include:

- **LS Nav Class Libraries (DLLs)** for the Dynamics NAV Windows Client.
- **OPOS Components** (OPOS Control Objects and LS Nav OPOS Class Libraries). *Optional.*
- **LS Start** (Application designed to help you run and maintain LS Nav POS). *Optional.*
- **LS Dual Display** (Application that runs on a secondary Display for the POS Customer). *Optional.*
- **LS Nav Components** (Application to install the components into a NAV Database).
- **LS Hardware Station** (Application for LS Nav Web POS to communicate with OPOS hardware). *Optional.*

**Service Components** include:

- **LS Nav Class Libraries (DLLs)** for the Dynamics NAV Service Tier.

**Note:**

In these instructions references to software versions are in generic form and always refer to the latest version.

**Example:**

In January 2017 *LS Nav xx.xx* stands for *LS Nav 10.01*.

**See Also**

Client Components Installer on the next page

Service Components Installer on page 13

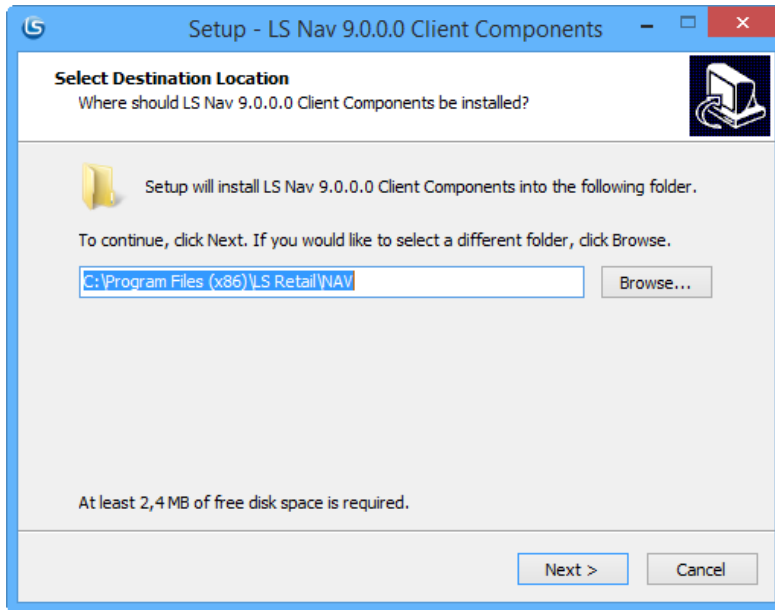
Install Options (Silent Install) on page 14

Installing Into a Database (Control Add-Ins Table) on page 15

## Installing the Toolbox

The Toolbox consists of two installer files, one for the *Windows Client, Development Environment* and optionally the *Service Tier* (installed in a database), the other for the *Service Tier* only (installed on a file system).

## Client Components Installer



1. Select a location for the LS Nav application files.

**Note:** Class Library Files (DLLs) that are used by an LS Nav application are installed into the **Add-ins** folder where the *Dynamics NAV Windows Client* is installed.

2. Next, select the Dynamics NAV version to install for. Also select whether to install the **LS Nav Start**, **Dual Display** and **LS Hardware Station** applications.
3. Finally, select the **OPOS Components** checkbox to install **OPOS Components (Common Control Objects and LS Nav Classes)**.

**Note:** The installer will discover the Dynamics Nav versions installed on the system, and automatically check the installed versions when the installation starts.

The files installed into the main installation folder are the **LS Nav Start** application, the **LS Nav Dual Display** application, and **OPOS Components**. The **LS Hardware Station** is installed one folder above the main installation folder.

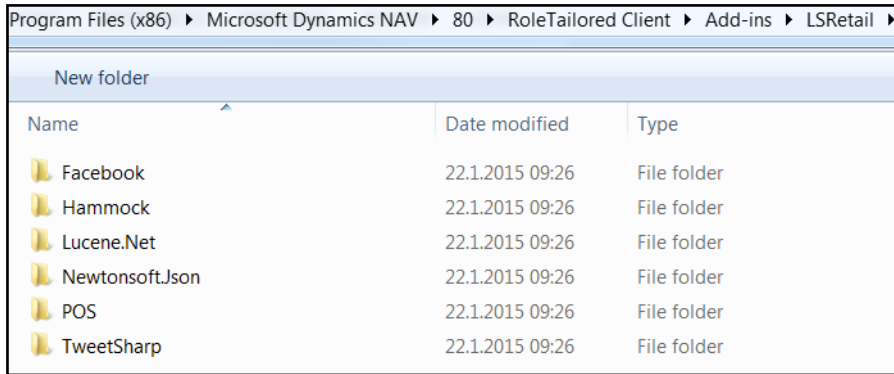
Computer > Windows7_OS (C:) > Program Files (x86) > LS Retail > NAV >			
Name	Date modified	Type	
Dual Display	28.4.2014 15:55	File folder	
LSStart	28.4.2014 15:55	File folder	
OPOS	28.4.2014 15:55	File folder	

For more information on these applications and components, refer to the appropriate documentation.

**Note:** When using an OPOS scale, the codeunit 90001850 POS Weighing Utility needs to be imported after installing the toolbox. The codeunit POSWeighingUtil.fob is found under C:\Program Files (x86)\LS Retail\NAV\OPOS.

The **Class Library** files are installed into the **Add-ins** folder where the **Dynamics NAV Windows Client** is installed.

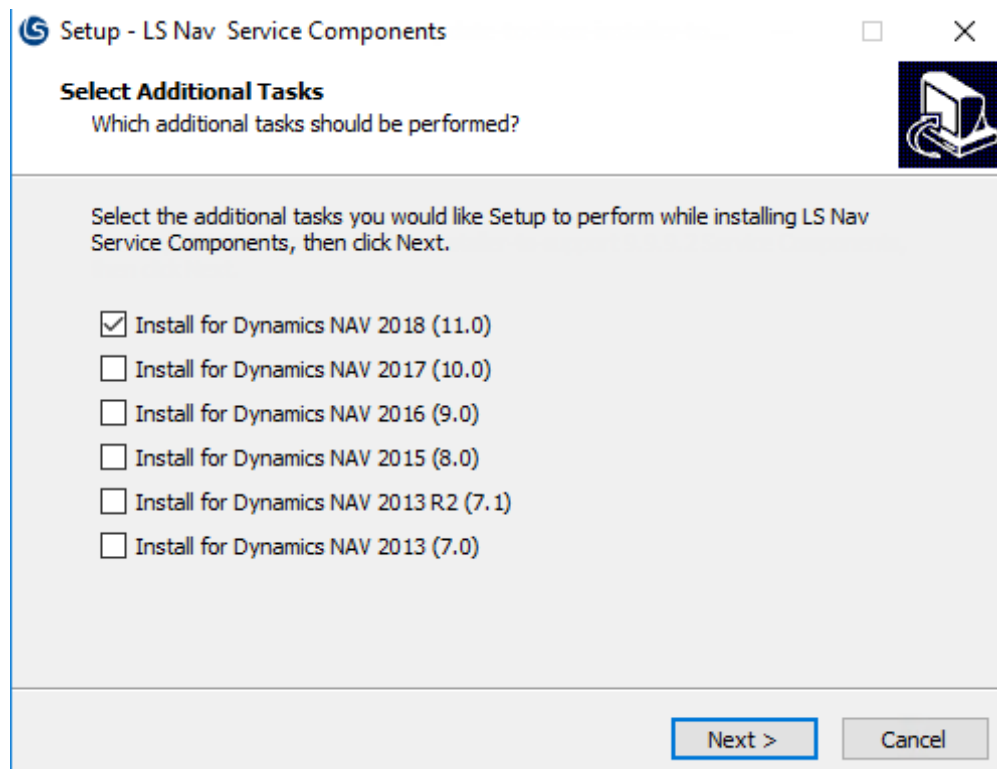




The Class library files are grouped into sub-folders depending on their main purpose. Third party components are grouped separately, and LS Nav POS Class libraries are grouped into the main POS sub-folder.

The usage and capabilities of these POS Class libraries are not documented specifically, but they are used throughout the LS Nav Application, **POS** and **Back Office**, to extend the capabilities of the application beyond the standard Dynamics NAV functionality.

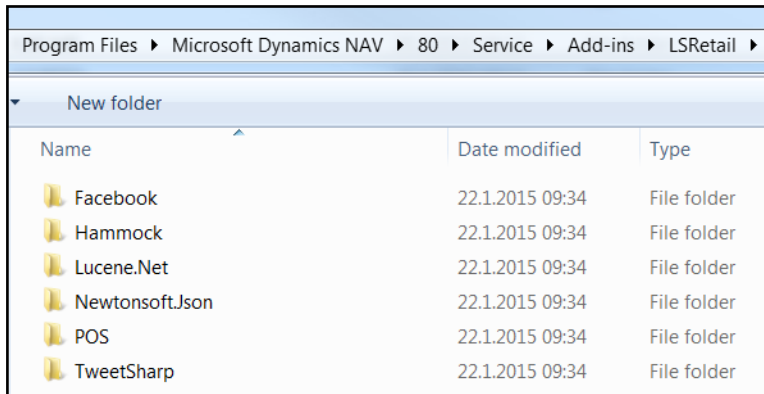
### Service Components Installer



- Select the Dynamics NAV Version to install the components for.

**Note:** Class Library Files (DLLs) that are used by an LS Nav application are installed into the **Add-ins** folder where the Dynamics Nav Service is installed.

**Note:** The installer will discover the Dynamics Nav versions installed on the system, and automatically check the installed versions when the installation starts.



Name	Date modified	Type
Facebook	22.1.2015 09:34	File folder
Hammock	22.1.2015 09:34	File folder
Lucene.Net	22.1.2015 09:34	File folder
Newtonsoft.Json	22.1.2015 09:34	File folder
POS	22.1.2015 09:34	File folder
TweetSharp	22.1.2015 09:34	File folder

The Class library files are grouped into sub-folders depending on their main purpose. Third party components are grouped separately and LS Nav POS Class libraries are grouped into the main POS sub-folder.

The usage and capabilities of these POS Class libraries are not documented specifically, but they are used throughout the LS Nav Application, **POS** and **Back Office**, to extend the capabilities of the application beyond the standard Dynamics NAV functionality.

### Install Options (Silent Install)

The **LS Nav Toolbox** uses Jordan Russell's *Inno Setup* software (<http://www.jrssoftware.org/>). This setup software is capable of performing the install silently as well as selecting what tasks to perform. For more information visit [http://unattended.sourceforge.net/InnoSetup\\_Switches\\_ExitCodes.html](http://unattended.sourceforge.net/InnoSetup_Switches_ExitCodes.html).

Using the /TASKS option you can select what to install.

/TASKS=[comma separated list of components names]

Client components:

- Nav100
- Nav90
- Nav80
- Nav71
- Nav70
- Start
- DualDisplay
- Opos
- HardwareStation

Service Components:

- Nav100
- Nav90
- Nav80
- Nav71
- Nav70

The following command line shows how to install the Client Components silently for *Nav 8.0*, install **LS Nav Start** application and **OPOS** Components.

```
C:\>"LS Nav 8.0 Client Components" /VERYSILENT /TASKS=NAU80,Start,OPOS
```

### Installing Into a Database (Control Add-Ins Table)

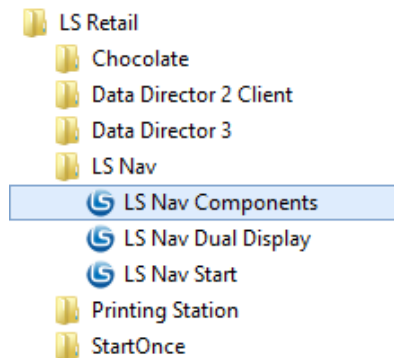
Microsoft Dynamics NAV offers the option of installing Client Extensions (Add-Ins and .net assemblies).

The LS Nav Toolbox now includes a setup application called *LSNavComponent.exe* to install the LS Nav Component into a Dynamics NAV database.

**Note:** If this is done, then, for a production environment, it is not necessary to install the Components into the Add-In folders of the Service Tier or the Role Tailored Client.

The *LSNavComponents.exe* can be used as a Windows application or as a console application.

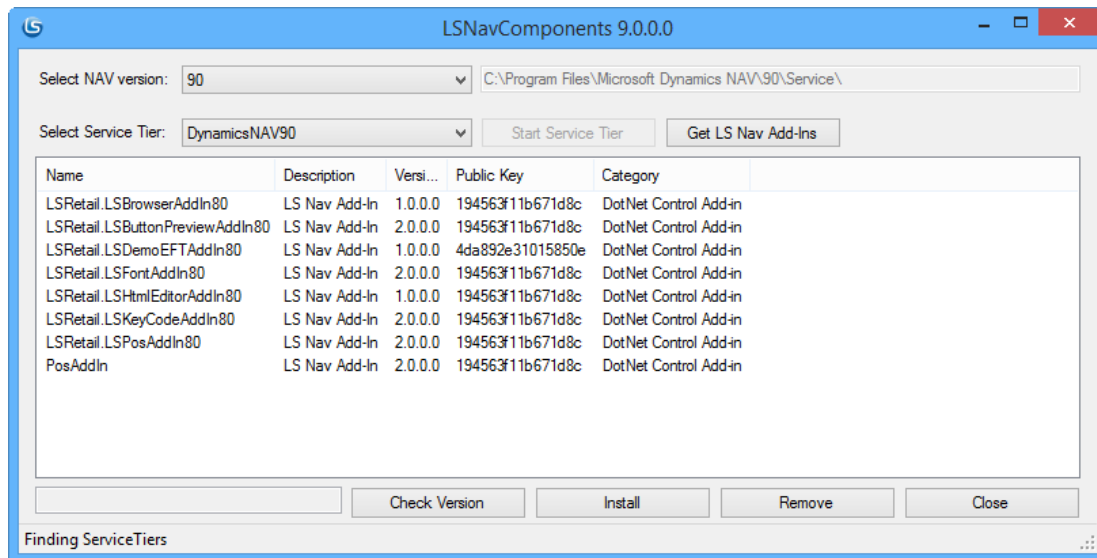
**Note:** The application must run with **ADMINISTRATOR** privileges.



To run it as a Windows application, simply run the LS Nav Components application, as administrator, from the Start Menu (shown in picture).

On startup, the application finds the installed Dynamics NAV version and discovers the Service Tiers installed for the latest NAV Application. If a Service Tier is found, it will select it and fetch the installed components into the list.

You now can select Versions or Service Tiers to install into.



To check which version the LS Nav Components are installed on the selected Service Tier, use the **Check Version** button and the version text will be shown in the text box to the left of the button.

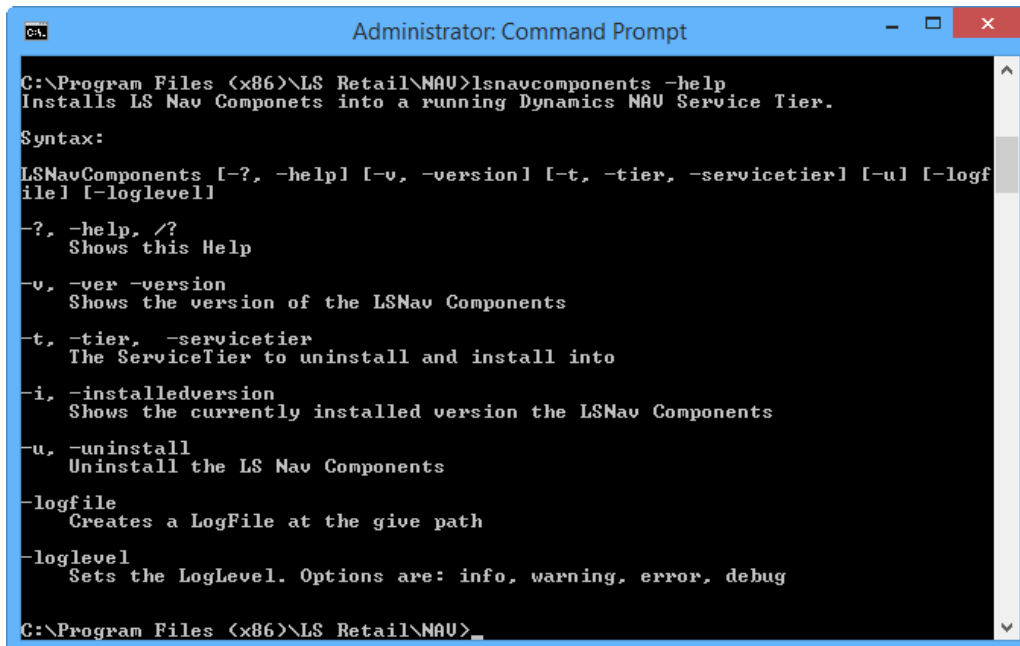
**Note:** The Web Service (SOAP Service) needs to be enabled on the Service Tier and an LS Nav application installed (RetailWebServices) for the Check Version function to work.

Click the **Install** button to install the NAV Components. This will first remove the existing components from the server/database, then insert the new ones (embedded in the install application).

You can use **Check Version** again to verify that the new Components were installed.

The *LSNavComponents.exe* application also has a console application feature.

From a command line type: "`lsnavcomponents -help`".



```

Administrator: Command Prompt
C:\Program Files <x86>\LS Retail\NAU>lsnavcomponents -help
Installs LS Nav Componets into a running Dynamics NAV Service Tier.

Syntax:
LSNavComponents [-?, -help] [-v, -version] [-t, -tier, -servicetier] [-u] [-logfile] [-loglevel]

-?, -help, /?
  Shows this Help

-v, -ver -version
  Shows the version of the LSNav Components

-t, -tier, -servicetier
  The ServiceTier to uninstall and install into

-i, -installedversion
  Shows the currently installed version the LSNav Components

-u, -uninstall
  Uninstall the LS Nav Components

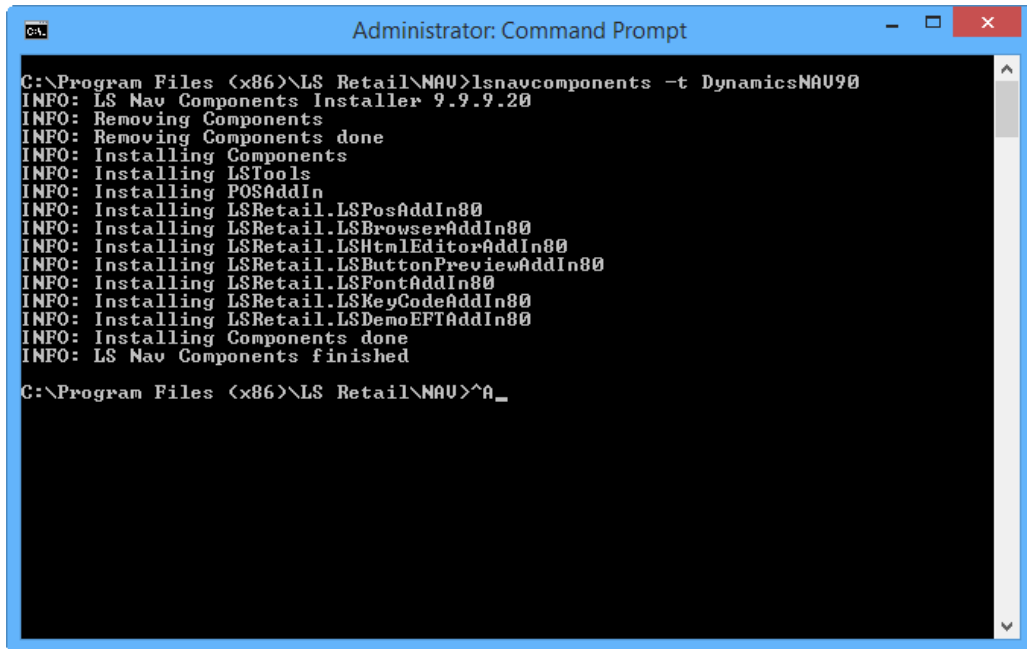
-logfile
  Creates a LogFile at the give path

-loglevel
  Sets the LogLevel. Options are: info, warning, error, debug

C:\Program Files <x86>\LS Retail\NAU>

```

To install the components type: “lsnavcomponents -t DynamicsNAV90”.



If an output line does not start with “ERROR:” then all is fine.

- The -u parameter uninstalls the components,
- -v displays the version installer components,
- -i shows the version of the installed components in the selected service tier.

## Web POS Installation

The Web POS is a low footprint POS that runs in a web browser and is available for new installations that use EPSON EPOS Print API for printing and scanning. Scanning is also available via keyboard input. The Web POS can be used for Fashion, Supermarket, and Electronics terminals.

To install the Web POS there are four main steps described in the linked topics:

- Installing Microsoft Dynamics NAV for Web POS on the next page
- Toolbox Installation on page 11
- Installing LS Nav in a New Database on page 4 / Installing LS Nav in an Existing Database on page 4

The Web POS has been tested on the following browsers:

- Google Chrome 60.0 for Windows
- Mozilla Firefox 55.0 for Windows
- Safari for iOS 10.3.2 on iPad

### Known issues

- Safe management has not been implemented.
- Printing inventory for item in Inventory Lookup throws an error.
- Web POS does not yet support LS Hospitality.

**See Also** (topics in LS Nav Online Help)

[How to: Set up LS Hardware Station](#)

Printing with EPSON TM-Intelligent Printer on Web POS

How to Run the Web POS on the facing page

## Installing Microsoft Dynamics NAV for Web POS

To install Microsoft Dynamics NAV 2017 for Web POS, find the download on the Microsoft web site, <https://mbs.microsoft.com/customersource/Global/NAV/downloads/product-releases>.

Make sure to install the **Service Tier**, **Development Client**, **Windows Client**, and **Web Client**.

Refer to the Microsoft Dynamics NAV documentation for further information (<https://msdn.microsoft.com/en-us/dynamics-nav/deployment>).

## Importing Control Add-in for Web POS

1. To import the LS Nav Web POS Add-in manually in the Dynamics NAV Windows- or Web Client, open the **Control Add-ins** page and click **New**. Enter the following data in the new line:
  - **Add-in Name:** LSRetail.NAV.Web.POS
  - **Public Key Token:** 194563f11b671d8c
  - **Version:** 1.0.0.0
  - **Category:** JavaScript Control Add-in
  - **Description:** LS Nav POS
2. An additional Control Add-in should now be imported along with the original Web POS Add-in. It should have the same data as the Web POS Add-in, except the name *LSRetail.NAV.Web.POS.DeviceDialog*. The resulting data will then be:
  - **Add-in Name:** LSRetail.NAV.Web.POS.DeviceDialog
  - **Public Key Token:** 194563f11b671d8c
  - **Version:** 1.0.0.0
  - **Category:** JavaScript Control Add-in
  - **Description:** LS Nav POS Device Communication Add-in
3. Select the new *LSRetail.NAV.Web.POS* line and click **Import**. Choose *LSNavWebPOS.[\*].zip* to import the LS Nav Web POS Add-in resource file. The [\*] represents the Add-in version number.
4. Select the new *LSRetail.NAV.Web.POS.DeviceDialog* line and click **Import**. Choose *LSNavWebPOSDeviceDialog.[\*].zip* to import the Device Dialog Add-in resource file.

**Note:** Both zip files are installed with the LS Nav Client Components Toolbox and are located, by default, in [Program Files (x86)]\LS Retail\NAV.

HOME		ACTIONS	
New	Manage	Control Add-in Resource	Show Attached Page

VIEW - CONTROL ADD-INS + new				
Add-in Name	Public Key Token	Version	Category	Description
Interactive Timeline Visualization Add-in	...	31bf3856ad364e35	JavaScript Control Add-in	Interactive visualization for a timeline of events
LSRetail.LSBrowserAddin	...	194563f11b671d8c	JavaScript Control Add-in	
LSRetail.LSBrowserAddin80	...	194563f11b671d8c	JavaScript Control Add-in	
LSRetail.LSBrowserAddin80	...	194563f11b671d8c	JavaScript Control Add-in	LS Nav Add-in
LSRetail.LSButtonPreviewAddin80	...	194563f11b671d8c	JavaScript Control Add-in	LS Nav Add-in
LSRetail.LSDemoEFTAddin80	...	4da892e31015850e	JavaScript Control Add-in	LS Nav Add-in
LSRetail.LSFontAddin80	...	194563f11b671d8c	JavaScript Control Add-in	LS Nav Add-in
LSRetail.LSHTMLEditorAddin80	...	194563f11b671d8c	JavaScript Control Add-in	LS Nav Add-in
LSRetail.LSKeyCodeAddin80	...	194563f11b671d8c	JavaScript Control Add-in	LS Nav Add-in
LSRetail.LSPosAddin80	...	194563f11b671d8c	JavaScript Control Add-in	LS Nav Add-in
LSRetail.NAV.Web.POS	...	194563f11b671d8c	JavaScript Control Add-in	LS Nav POS
LSRetail.NAV.Web.POS.DeviceDialog	...	194563f11b671d8c	JavaScript Control Add-in	LS Nav POS Dialog Communication Add-in

## How to Run the Web POS

When you have installed the Web Client as described in Web POS Installation on page 17, you can run the Web POS in a browser. The setup for the Web POS is almost the same as for the Windows POS: you can use the same profiles except for the Hardware Profile. The Web POS uses the LS Hardware Station to run OPOS devices and you can read about how to set up LS Hardware Station in the LS Nav Online Help.

To run the Web Client, open a browser and enter *hostname:port/service*. If you used default settings in the setup, you can use *localhost:8080/DynamicsNAV110*.

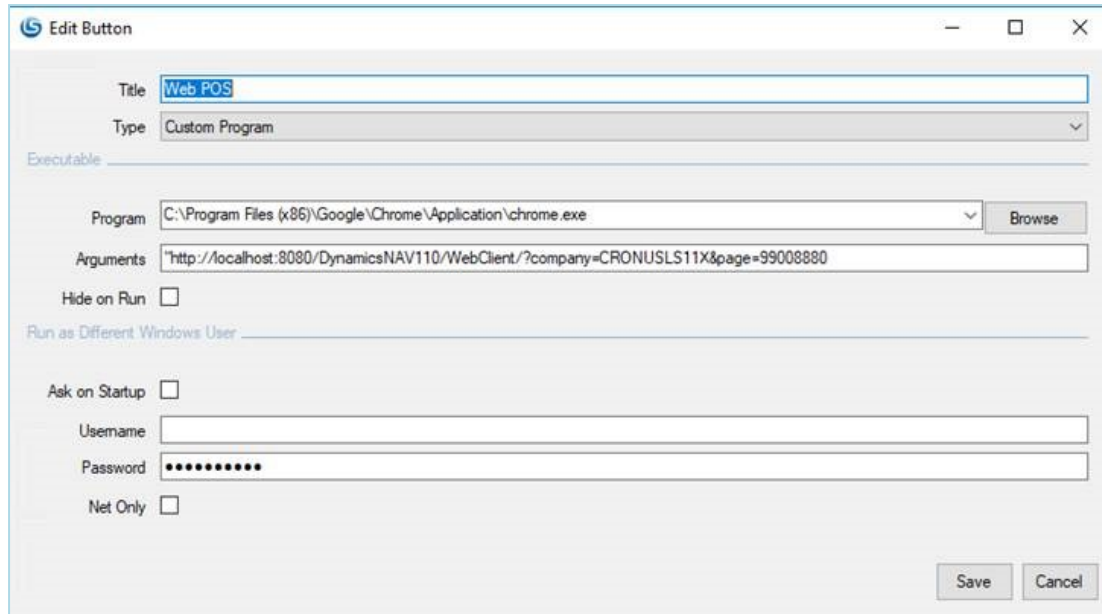
To run the Web POS, set your terminal in the **Retail Users** page and then select **Run Web Client** using the search function in the top right corner of the Web Client.

### Running the Web POS with LS Nav Start

The Web POS can be run with the LS Nav Start tool. To do that create a new button with the following settings:

- **Type:** Custom Program
- **Program:** Path to your browser
- **Arguments:** URL to the Web POS with quotation marks. Replace host name, port, and service with relevant values - "*http://hostname:port/service/webclient/?page=99008880*"

**Note:** If you want to run the Web POS in full screen and kiosk mode, you can add `-kiosk --start fullscreen` at the start of the path in the **Arguments** field like this: `-kiosk --start fullscreen "http://hostname:port/service/webclient/?page=99008880"`



## See Also

How to: Prevent Log Off on POS (topic in LS Nav Online Help)

Web POS Installation on page 17

How to: Set Up LS Hardware Station (topic in LS Nav Online Help)

## LS Nav Auto Tests

### Prerequisites

The LS Nav Auto Tests can only be run in a CRONUS LS demo database. The tests must be run from the CRONUS LS company. Some of the LS Nav Auto Tests use the setup data in that company, for example Store No. S0001, POS Terminal P0001, and so on.

If you wish to test the Data Director jobs, make sure that the Data Directory you want to use is set up on the same computer that runs the tests.

If your Data Director is running on a different computer, you must overwrite the line that assigns a value to the `DistrServerName` variable in function `InitSetup` in code unit 52099146 "Setup - Replication AT". Also, if you want to test the Web Request jobs, ensure that the "Enable Soap Services" is set.

### Installation

#### Objects needed

Before you can run the LS Nav Auto Tests, you must import objects from the newest version of the `w1-ls-nav-xx-xx-tests.fob` file which is located in the LS Nav Release package (in the directory `Objects\Auto Tests`).



In addition, you must install the three standard fob files found in the TestToolKit folder on the Dynamics NAV xxxx (Year) setup CD, for example  
 E:\NAV.10.0.18197.W1.DVD\TestToolKit.

These are the files that need to be imported:

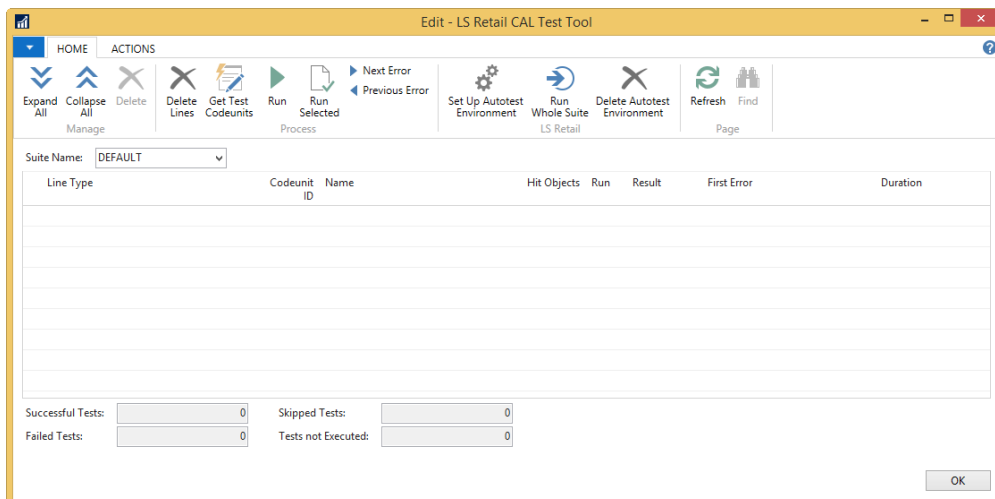
- w1-ls-nav-xx-xx-tests.fob (From the LS Nav release package)
- CALTestCodeunits.W1.fob (From \TestToolKit in the Dynamics NAV xxxx (Year) installation)
- CALTestLibraries.W1.fob (From \TestToolKit in the Dynamics NAV xxxx (Year) installation)
- CALTestRunner.fob (From \TestToolKit in the Dynamics NAV xxxx (Year) installation).

## Running

### 1. Open the LS Retail CAL Test Tool page

To run the LS Nav Auto Tests you must open the Object Designer, find Page 52099300 “LS Retail CAL Test Tool”, and run it.

This is what the page looks like:



### 2. Set up the Auto Test Environment

Start by setting up the Auto Test Environment:

Click the **Set Up Auto Test Environment** action. This will create or update the LS Retail Test Suites. It will then insert two new Companies, ToCompany and SubCompany. These companies are empty, that is all tables are empty. They will be used in the Data Director tests which are in Test Suites DD and DD2.

When these companies have been created, the system copies the current company to a new company called CRONUS ToCompany. This company is used in the Web Request or Web Service tests in Test Suite WR.

**Note:** In this version of the LS Nav Auto Tests, some of the replication tests in suites DD and DD2 might require some tables to be empty in the ToCompany, which is used as a destination company. So if you want to run the replication tests again, you must set the Auto Test Environment up again.

### 3. Run the Auto Tests

Now you are ready to run the LS Nav Auto Tests:

In the **Suite Name** field, select the Test Suite you want to run (DD, DD2, LSRETAIL or WR).

**Note:** Currently, you must run all the tests in the whole suite. Some of the tests can be run individually, but the DD, DD2, and WR tests might encounter problems.

## Troubleshooting

### Where to look for errors

If a test does not run successfully, you get an error in the **First Error** column. By clicking the error you can see when the error occurred, because this shows the lines of the CAL Test Result log file.

In case of the replication jobs in suites DD and DD2, please check if the Data Director is running on the same server as the SQL database server. If this is not the case, you must change the **DistrServerName** line in function **InitSetup** in codeunit 52099146 **Setup - Replication AT**. Also, open the Data Director Monitor, connect to the correct Data Director, and make sure that there are no replication jobs in error. Don't forget to check the Event Viewer.