Configuring and Using Third-Party Tools

SuiteFactory 7.x

1 Introduction

This document describes how to configure and use the Third-Party Tools functions in SuiteFactory.

2 Overview

SuiteFactory provides an NC Editor that supports editing the content of DNC Files that are formatted as ordinary text. The NC Editor cannot correctly display the content of any DNC File that has any other format, such as Mazatrol CMT files. The NC Editor also cannot be used to display or edit the content of Controlled Documents in SuiteFactory installations that license SuiteDocs or SuitePacs.

Third-Party Tools functions in SuiteFactory allow customer sites to view and edit the content of individual documents using any third-party tool that is capable of displaying and editing the content.

3 Background

MS Windows associates a **file type** with every object in a file system. Windows that display file system contents usually provide a **Details** mode that displays the type of each file system object under the heading "type".

In the case of file system objects that are files, the presumed file type of the file is determined by the file's **extension**, which is the portion of the file's name that follows the last "." (dot) character in the file name. Commonly-known extensions include "exe" (standalone executable files), "dll" (shared executable libraries), "ocx" (ActiveX user interface controls), "doc" (MS Word documents), "xls" (Excel documents), and so on.

Windows applications register their associated file types and the types of actions they support on data files during as part of their installation process. When a use **opens** a data file (or requests another action on the file from the file's context menu, such as "edit" or "print"), Windows looks up the file's file type, looks up the appropriate application for the requested action, and starts the application in the appropriate way to perform the action.

SuiteFactory retains the file extension of all imported DNC Files and Controlled Documents as the value of the property "File Type", which is displayed under the column name "Type" in each document management window. Authorized users can change the value of the property "File Type" by using the menu item or toolbar button named "Properties".

Whenever SuiteFactory exports the content of a selected DNC File or Controlled Document, it guarantees that the name of the exported data file ends with the value of the File Type property following the last "." (dot) character. This allows SuiteFactory to copy the content of a selected document to a data file and then command Windows to open the data file using the registered application for the data file's file type.

However, some applications, especially legacy applications, do not register associations with file types that they can edit. This lack of file type association makes it impossible to automatically open the data files for the application automatically. Also, some file types can be opened by more than one application, but only one of those applications can be registered as the native application for a given action.

Applications that do not register associations with file types, and alternate applications for file types always provide at least one of the following two methods for selecting and opening a data file, and almost always provide both methods:

Command-line argument:
With this method, the user must supply at least one command-line argument to the application that specifies the name of the target data file.

If an application provides this method, SuiteFactory can support opening documents for viewing or checking out documents for editing with this application by configuring the application as a Third-Party Tool and explicitly selecting the application from the list of configured Third-Party Tools.

Internal interactive command:
With this method, the user invokes a user interface function that permits either selecting a target file or typing the name of a target file.

If an application provides only this method of specifying a data file to open, then SuiteFactory cannot support opening document in this application. The only possible way to modify the content of a data file by using that application is to: (a) copy (export) the data file to a folder outside of SutieFactory, (b) use the application to open, edit, and save the data file, and (c) import the edited file into SuiteFactory as a new DNC File or Controlled Document.

4 Third-Party Tools Functions

SuiteFactory User Runtime provides several functions for working with Third-Party Tools. There are two groups of functions:

- Configuration

- Viewing, Editing and Maintenance Functions

4.1 Configuration

Authorized users can access the menu item "Configure 3rd-Party Tools…" under the top-level menu

"Configure". The function is also available on the main tool bar as the button bearing the icon . Invoking this function displays the configuration window, which looks like Figure 1: Configure 3rd-Party Tools window on page 3. The configuration provides several functions:

Apply: Save changes to the set of User Groups whose members have access to the selected 3rd-Party Tool.

Reset: Abandons changes to the set of User Groups whose members have access to the selected 3rd-Party Tool.

New: Selects an executable file to add to the set of configured 3rd-Party Tools that are available on this computer, and then invokes the Properties window for the tool (See Figure 2: 3rd-Party Tools properties window on page 4.)

Delete: Deletes selected 3rd-Party Tool from the containing list of 3rd-Party Tools for a particular computer.

Properties: Displays the Properties window for the selected 3rd-Party Tool. (See Figure 2: 3rd-Party Tools properties window on page 4.)

Select All: Selects all User Groups in the list of User Groups whose members have access to the selected 3rd-Party Tool.

Deselect All: Deselects all User Groups in the list of User Groups whose members have access to the selected 3rd-Party Tool.
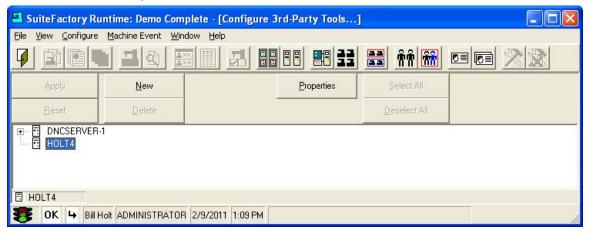

Figure 1: Configure 3rd-Party Tools window

4.1.1   Third-Party Tools Properties

Individual third-party tools have arbitrary requirements for how to open then and specify a data file to load and display. The Third-Party Tools Properties window allows you to configure how SuiteFactory satisfies the requirements for a selected tool. (See Figure 2: 3rd-Party Tools properties window on page 4.)
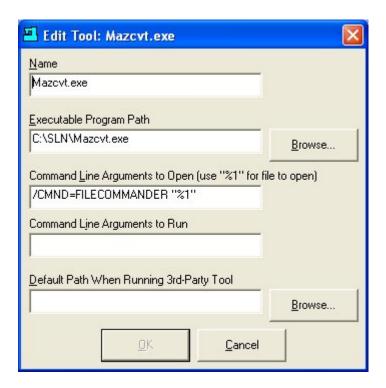
Figure 2: 3rd-Party Tools properties window

The properties include:

Name:
> The name to display for this tool in all pick-lists of available third-party tools on the selected computer. This property cannot be blank.

Executable Program Path:
> The absolute local path to the executable file for the third-party tool. This property cannot be blank.

Command Line Arguments to Open (use "%1" for file to open):
> The complete specification of command line arguments required to instruct the third party tool to open a named data file.
>
> This property cannot be blank. This property MUST contain the two-character sequence "%1", which marks the position in the text in which SuiteFactory must insert the absolute path name of the data file to open.

Command Line Arguments to Run:
> The complete specification of command line arguments required to instruct the third-party tool to open without opening an existing data file.
>
> This property may be blank.

Default Path When Running 3rd-Party Tool:
> The absolute path to set as the default path for the third-party tool when starting it without naming a data file to open.
>
> This property may be blank.

5 Viewing, Editing and Maintenance Functions

When the active SuiteFactory database is licensed to use Third-Party Tools and the logged-in SuiteFactory user has the appropriate rights, the Manage DNC Files, Manage Controlled Documents and Manage Packets windows present a top-level menu named "Tools" that contains items for those functions for which the user has access. The functions are also presented on the lower of the two function toolbars.

The functions and their toolbar icons are:

Copy and Open with 3rd-Party or Native Application (icon =)

> This function presents a dialog to the user asking how to open the selected document (DNC File or Controlled Document). If there are no configured Third-Party Tools, the user is prompted to confirm opening the selected document with the native application for its file type. If there is at least one configured third-party too, then the user must select how to open the selected document as shown in Figure 3: Select Third-Party Tool on page 7. The user may choose to open the selected document either with its native application or with the selected third-party tool from the list of configured third-party tools.
>
> After the user select the third-party tool and accepts it, SuiteFactory copies the content of the selected document to a local cache folder and then invokes the appropriate application to open the copy.
>
> This function does not provide a mechanism to replace the original content of the selected document with edited content: the primary purpose of this function is to display the content of the select document when SuiteFactory is not capable of displaying it.

Delete Copied Files (icon =)

> This function allows the user to purge the local cache folder that contains copies of the content of DNC Files or Controlled Documents that were copied by previous invocations of the function "Copy and Open with 3rd-Party or Native Application" within the active document management window. This helps to reduce disk space that is occupied by stale data files.
>
> The main SuiteFactory User Runtime window presents an identically-named menu item in menu "Configure" and a corresponding toolbar button bearing the icon . Invoking this function purges all local cash folders for all document types.
>
> These menu options and buttons are enabled only when the local cache folder is not empty.

Check Out and Edit with 3rd-Party or Native Application (icon =)

> This function allows the user to check out the selected DNC File or Controlled Document for editing. Depending on the user's rights, the user may be able to choose whether to check out the selected original document, copy the selected document to a new version of the same name and check out the new version, or copy the selected document to a new document name and check out the new document. The user also selects whether to edit the checked-out copy with the native application for the document's file type or to select one of the configured Third-Party Tools for this computer.
>
> This menu option and toolbar button is enabled only when the selected document is valid for the function. For example, a DNC File that is currently queued for sending to or for receiving from a machine to is not valid for this function.
>
> When the user accepts the selected check-out options, SuiteFactory completes the check-out operation by completing these steps:
>
> 1.   If requested, copies the selected original document to a new version or to a new name.

2. Takes the content of the document to check out (which may be the original document, the new version, or the copy to a new name) and copies it to a local cache folder. (This local cache folder is distinct from the local cache folder for the function "Copy and Open with 3rd-Party or Native Application".)

3. Marks the document as "checked out" in the SuiteFactory database, which blocks using the document for any other purpose while it remains checked out.

4. Records the full path of the checked-out file in the local cache folder in the SuiteFactory database.

Edit Checked-Out File (icon =):

This function allows the user to re-open a checked-out copy of the selected document for editing with the user's choice of the native application or a selected third-party tool. Any changes saved to the checked-out copy by prior editing sessions with any editing tool remain in effect.

This function is enabled only if the selected document is marked as having been checked out.

Check In Edited File (icon =):

This function allows the user to commit changes that have been saved to the checked-out copy of the selected document. This function permanently replaces the content of the selected document with the content of the checked-out copy, and then marks the selected document as not being checked out. After completion of this function, the selected document is available for any ordinary use.

This function is enabled only when the selected document is marked has having been checked out.

Abandon Edits and Check In (icon =):

This function allows the user to undo checking out the selected checked-out document.

If the checked-out document was an original document (that is, it was not copied from a different version or a different name as part of the action of checking it out), this function simply marks the document as not being checked out, and the document becomes available for any ordinary use.

If the document was copied from a different version or a different name as part of the action of checking it out, the user must choose whether to simply mark the document as not being checked out or whether to delete the checked out document from the database. (Note that the choice of deleting is available ONLY for those checked-out documents were copied from a different version or a different name as part of the action of checking them out.)
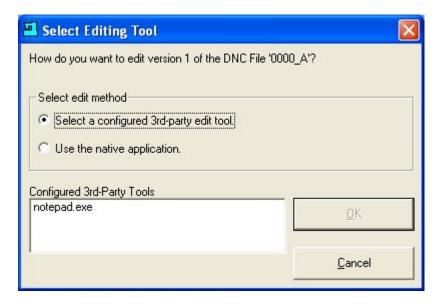
Figure 3: Select Third-Party Tool