

Entire Connection

Host Printer Manager

Version 9.1.2

October 2019

This document applies to Entire Connection Version 9.1.2 and all subsequent releases.

Specifications contained herein are subject to change and these changes will be reported in subsequent release notes or new editions.

Copyright © 1984-2019 Software AG, Darmstadt, Germany and/or Software AG USA, Inc., Reston, VA, USA, and/or its subsidiaries and/or its affiliates and/or their licensors.

The name Software AG and all Software AG product names are either trademarks or registered trademarks of Software AG and/or Software AG USA, Inc. and/or its subsidiaries and/or its affiliates and/or their licensors. Other company and product names mentioned herein may be trademarks of their respective owners.

Detailed information on trademarks and patents owned by Software AG and/or its subsidiaries is located at <http://softwareag.com/licenses>.

Use of this software is subject to adherence to Software AG's licensing conditions and terms. These terms are part of the product documentation, located at <http://softwareag.com/licenses/> and/or in the root installation directory of the licensed product(s).

This software may include portions of third-party products. For third-party copyright notices, license terms, additional rights or restrictions, please refer to "License Texts, Copyright Notices and Disclaimers of Third-Party Products". For certain specific third-party license restrictions, please refer to section E of the Legal Notices available under "License Terms and Conditions for Use of Software AG Products / Copyright and Trademark Notices of Software AG Products". These documents are part of the product documentation, located at <http://softwareag.com/licenses> and/or in the root installation directory of the licensed product(s).

Use, reproduction, transfer, publication or disclosure is prohibited except as specifically provided for in your License Agreement with Software AG.

Document ID: PCC-HOSTPRINT-912-20191006

Table of Contents

Preface	v
1 About this Documentation	1
Document Conventions	2
Online Information and Support	2
Data Protection	3
2 General Information	5
About Host Printer LU Support	6
About the Host Printer Service	6
3 Getting Started	9
Starting the Host Printer Manager	10
Elements of the Application Window	11
Using Help	15
Quitting the Host Printer Manager	15
4 LU1 (SCS) Control Characters	17
5 Transparency Mode	19

Preface

The Host Printer Manager can only be used by an Entire Connection administrator.

This section provides the following information:

General Information

Getting Started

LU1 (SCS) Control Characters

Transparency Mode

1 About this Documentation

- Document Conventions 2
- Online Information and Support 2
- Data Protection 3

Document Conventions

Convention	Description
Bold	Identifies elements on a screen.
Monospace font	Identifies service names and locations in the format <i>folder.subfolder.service</i> , APIs, Java classes, methods, properties.
<i>Italic</i>	Identifies: Variables for which you must supply values specific to your own situation or environment. New terms the first time they occur in the text. References to other documentation sources.
Monospace font	Identifies: Text you must type in. Messages displayed by the system. Program code.
{ }	Indicates a set of choices from which you must choose one. Type only the information inside the curly braces. Do not type the { } symbols.
	Separates two mutually exclusive choices in a syntax line. Type one of these choices. Do not type the symbol.
[]	Indicates one or more options. Type only the information inside the square brackets. Do not type the [] symbols.
...	Indicates that you can type multiple options of the same type. Type only the information. Do not type the ellipsis (...).

Online Information and Support

Software AG Documentation Website

You can find documentation on the Software AG Documentation website at <http://documentation.softwareag.com>. The site requires credentials for Software AG's Product Support site Empower. If you do not have Empower credentials, you must use the TECHcommunity website.

Software AG Empower Product Support Website

If you do not yet have an account for Empower, send an email to empower@softwareag.com with your name, company, and company email address and request an account.

Once you have an account, you can open Support Incidents online via the eService section of Empower at <https://empower.softwareag.com/>.

You can find product information on the Software AG Empower Product Support website at <https://empower.softwareag.com>.

To submit feature/enhancement requests, get information about product availability, and download products, go to [Products](#).

To get information about fixes and to read early warnings, technical papers, and knowledge base articles, go to the [Knowledge Center](#).

If you have any questions, you can find a local or toll-free number for your country in our Global Support Contact Directory at https://empower.softwareag.com/public_directory.asp and give us a call.

Software AG TECHcommunity

You can find documentation and other technical information on the Software AG TECHcommunity website at <http://techcommunity.softwareag.com>. You can:

- Access product documentation, if you have TECHcommunity credentials. If you do not, you will need to register and specify "Documentation" as an area of interest.
- Access articles, code samples, demos, and tutorials.
- Use the online discussion forums, moderated by Software AG professionals, to ask questions, discuss best practices, and learn how other customers are using Software AG technology.
- Link to external websites that discuss open standards and web technology.

Data Protection

Software AG products provide functionality with respect to processing of personal data according to the EU General Data Protection Regulation (GDPR). Where applicable, appropriate steps are documented in the respective administration documentation.

2 General Information

- About Host Printer LU Support 6
- About the Host Printer Service 6

About Host Printer LU Support

The host printer LU support in Entire Connection is an emulation for host printer LUs.

A host printer is a Logical Unit (LU) defined on the mainframe. The LU definition is made in VTAM. Among other specifications, this definition also contains the LU name and LU type. Entire Connection supports LU1 and LU3 type host printers. Each host application can use this LU for printing, referring the printer by the LU name.

A gateway (TN3270E) is responsible for creating the link between the Logical Unit on the host and the Entire Connection host printer session.

When an Entire Connection host printer session is opened, it connects the LU via the appropriate gateway and activates it. As soon as print data are available, the LU starts the bind process. Entire Connection then receives the necessary data for this print job and the print data. Entire Connection automatically recognizes the type of Logical Unit. The print data are sent to the print destination specified in the properties of the host printer session. The print destination can be a local printer, a network printer, a file, or a user program. See *Host Printer Sessions* in the *Overview of Object Properties*.

If an error occurs while receiving data, Entire Connection sends a sense code to the Logical Unit so that the host application can stop the print process.

After successful completion of the print data transfer to the Entire Connection host printer session, the LU unbinds the host printer session and waits for new print data.

The host printer LU support consists of two elements:

- Host printer service. This is the host printer LU emulation.
- Host Printer Manager. This is the application for monitoring and managing host printer sessions.

About the Host Printer Service

Host printer LU support is implemented as a Windows service. It can be started and stopped using **Administrative Tools > Services** in the Windows Control Panel.

The **Software AG Entire Connection Host Printer Service** can be started in one of the following ways:

- When the service is set to automatic startup, it is automatically started when Windows is started. This is the default setting when you install Entire Connection.
- When the service is set to manual startup, choose the **Start** command in the list of services (in the Control Panel).

- When the Host Printer Manager is started, it is automatically started.

The Host printer service is stopped when you shut down Windows or when you choose the **Stop** command in the list of services (in the Control Panel). It is not stopped when you log off and then log on with another user ID.

If you want to use network printers:

The setup program installs the host printer service using the system account. If you want to use network resources such as network printers, you must change the service definition in order to use a user account instead of the system account. This user account must have the appropriate access rights for the network resources. To change the account parameters, you have to access **Services** in the Windows Control Panel.

3 Getting Started

- Starting the Host Printer Manager 10
- Elements of the Application Window 11
- Using Help 15
- Quitting the Host Printer Manager 15

Starting the Host Printer Manager

The Host Printer Manager provides the functionality for monitoring and managing the host printer sessions.

You can only invoke the Host Printer Manager when you have chosen the setup type **Complete** during installation (or the setup type **Custom** with the option **Host Printer LU Support**). The Host Printer Manager as well as the host printer service are *not* installed with the setup type **Typical** (default).

If you do not specify otherwise during installation, an Entire Connection folder automatically appears in the **All Programs** folder of the Start menu after Entire Connection has been installed. It contains the shortcuts for the Entire Connection components, including the Host Printer Manager.

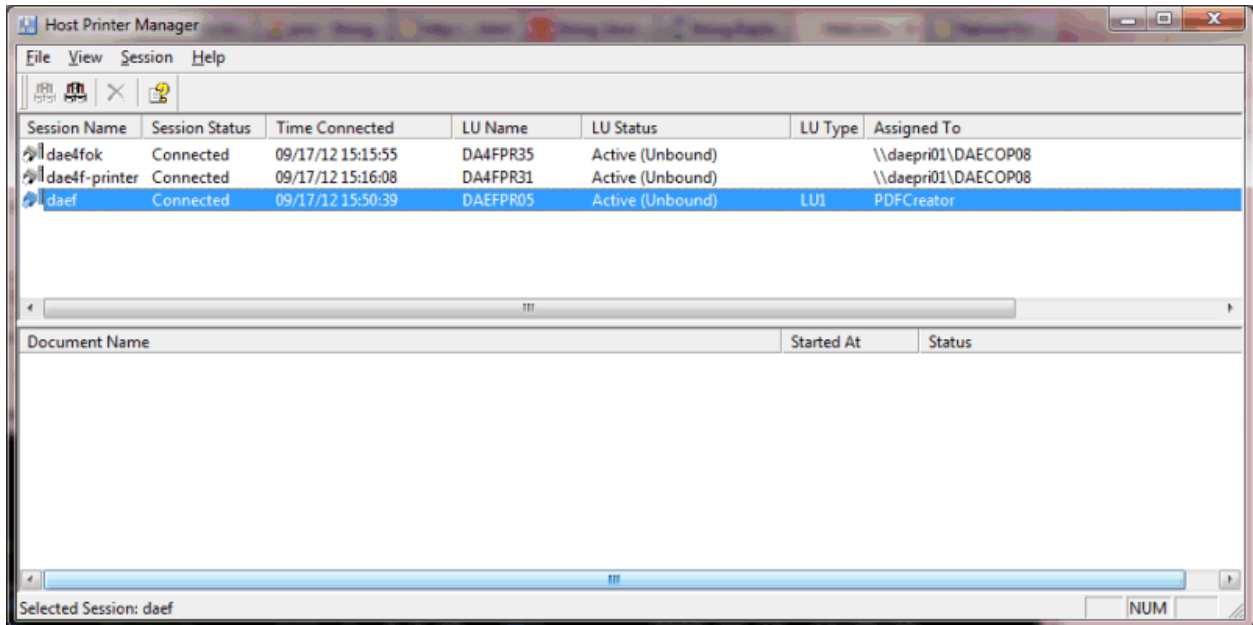
> To start the Host Printer Manager

- From the Start menu, choose **All Programs > Software AG Entire Connection *n.n.n* > Host Printer Manager**.

You automatically log on as an administrator.

The **Host Printer Manager** application window appears. You can now open and close a printer session or delete a document as described below.

Elements of the Application Window



The application window contains two panes. To modify the size of a pane, move the mouse pointer over the border separating the panes until the pointer changes, showing two arrows pointing into opposite directions. Then drag the border using the mouse until one of the panes has the desired size.

The following topics are covered below:

- Menu Bar
- Toolbar
- Status Bar
- Defined Sessions
- Print Data for the Selected Session





Menu Bar

The following menus are available:

File	Using the commands in this menu you can delete documents or quit the Host Printer Manager.
View	Using the commands in this menu, you can show or hide the toolbar or status bar.
Session	Using the commands in this menu, you can open or close a session.
Help	When you choose Online Documentation from this menu, you access the Entire Connection documentation . When you choose About from this menu, information about the Host Printer Manager is shown. When you choose Software AG on the Web from this menu, you can check the Software AG web site for the latest information on products or events.

Toolbar

You can execute the most important Host Printer Manager functions using the toolbar. The toolbar buttons represent the following menu commands:

-  **Open Session** (Session menu)
-  **Close Session** (Session menu)
-  **Delete Document** (File menu)
-  **Online Documentation** (Help menu)

> To switch the toolbar display on and off

- From the **View** menu, choose **Toolbar**.

When the toolbar is displayed in the application window, a check mark is shown next to this menu command.

Status Bar

The status bar is used to display system messages and help texts for the currently selected menu command or toolbar button.

> To switch the status bar display on and off

- From the **View** menu, choose **Status Bar**.

When the status bar is displayed in the application window, a check mark is shown next to this menu command.

Defined Sessions

The upper pane of the application window shows all sessions that have been defined using the **Host Printer Session** dialog box and the currently connected associated printer sessions. It is possible to use multiple instances of the same associated printer session. If the same display session is opened multiple times, a printer session is created for each display session. When a display session is disconnected, the associated printer session is also disconnected and is no longer shown in the list. For general information on host printer sessions, see *About the Object Types* in the *Configuration Manager* section.

The **LU Name** column shows the name of the LU for the printer. For associated printer sessions, the shown name is composed of the display session name followed by the name of the printer session in brackets. Example: "MyIbm<prt07>".

The LU type is only shown when the first print job has arrived. This can either be LU1 or LU3.

When you create a new host printer session after the host printer service has been started, you first have to stop the service and start it again so that the session is displayed in the above application window.

As long as you only modify the parameters of an existing host printer session and do not change its name, you need not stop the service. In this case, it is sufficient when you close the session and then open it again (see the description below). The session is then started with the modified parameters.

The session status can be one of the following:

Status	Description
Connected	The session is active. "Unbound" in the LU Status column indicates that the session is waiting for print data. "Bound" indicates that the session is currently processing print data.
Not connected	The session is not active and therefore print data cannot be processed.
Error	When an error occurs (e.g. transmission error, protocol error or when the connection is interrupted by the host), an entry is added to the log queue that can be viewed by the Windows Event Viewer.
Reconnecting	When an error has occurred and a number of tries has been defined in the Host Printer Session dialog box, Entire Connection tries to reconnect to the printer LU (in intervals of 5 minutes). This status is only shown for a split second before the status "Connected" or "Error" is shown again.
User intervention	When the connection to the host could not be established after the defined number of tries, this status indicates that the administrator has to fix this error.

➤ To open a session

- 1 In the upper pane of the application window, select the session you want to open.

- 2 From the **Session** menu, choose **Open Session**.

Or:

Choose the following toolbar button:



Note: An associated printer session is created and opened by a display session. Therefore, the command **Open Session** is not available for associated printer sessions (it is always dimmed).

> To close a session

- 1 In the upper pane of the application window, select the session you want to close.
- 2 From the **Session** menu, choose **Close Session**.

Or:

Choose the following toolbar button:



Note: An associated printer session is closed and deleted by the display session. Therefore, the command **Close Session** is not available for associated printer sessions (it is always dimmed).

Print Data for the Selected Session

The lower pane of the application window shows the print data for the session that is currently selected in the upper pane. This is the print data for which the print destination **Printer** has been defined.

Normally, documents are automatically deleted when they have been printed. When an error occurs, however, the administrator has the possibility to delete the corresponding documents.

> To delete a document

- 1 Select the desired document in the lower pane.
- 2 From the **File** menu, choose **Delete Document**.

Or:

Choose the following toolbar button:



Using Help

The complete Entire Connection documentation is available as an HTML help file.

> To access the documentation

- From the **Help** menu, choose **Online Documentation**.

Or:

Press F1.

Or:

Choose the following toolbar button:



Quitting the Host Printer Manager

When you quit the Host Printer Manager, the host printer service is not stopped.

> To quit the Host Printer Manager

- From the **File** menu, choose **Exit**.

Or:

Choose **Close** from the Control menu.

Or:

Click the corresponding standard button in the title bar.

4 LU1 (SCS) Control Characters

SNA character string (SCS) control characters are responsible for printing formatted text. Entire Connection supports the following SCS control characters:

Function	Character	Description	Comment
BEL	0x2F	Bell	Will be ignored.
CR	0x0D	Carriage Return	
FF	0x0C	Form Feed	
GE	0x08	Graphical Escape	Not supported, will be ignored.
HT	0x05	Horizontal Tab	
RS	0x1E	Record Separator	Handled as New Line.
LF	0x25	Line Feed	
NL	0x15	New Line	
NUL	0x00	Print Null or Blank	Must be configured in Setup.
NFF	0x3A	Necessary Form Feed	Handled as Form Feed.
VT	0x0B	Vertical Tab	
NNL	0x06	Necessary New Line	Handled as New Line.
TRC	0x35	Transparency	Starts a transparency block with EBCDIC to ASCII.
ATRC	0x36	Absolute Transparency	Starts a transparency block without any translation.

All other characters are translated from EBCDIC to ASCII (except in Absolute Transparency mode).

The translation function uses the translate tables chosen in the **National** property page for the host printer session.

5 Transparency Mode

Entire Connection supports two independent methods to transfer transparent data from the host application to the printer:

- You can combine two printable characters to one printer control character (only supported for the print destination **Printer**).
- You can use a SCS control character. This does not depend on the specified print destination. Each transparency block must consist of 2 bytes of header information and a data block of at least one byte. The second byte of the header shows the number of transparent data bytes carried in this block. In transparency mode, SCS control characters within a transparency block are ignored. The figure below shows how Entire Connection expects the data structure to print in this transparency mode.

