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Documentation in transition

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Presentation outline

- Introduction
- Changes of content
- Changes of markup language, tooling & publication methods
- Handling metadata- previous approach x current approach & future plans

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Introduction

- Who am I
- Which documentation do I maintain

System administrator's guide for Red Hat Enterprise Linux 7
https://access.redhat.com/documentation/en-us/red_hat_enterprise_linux/7/html-single/system_administrators_guide/

Kernel administration guide for Red Hat Enterprise Linux 7
https://access.redhat.com/documentation/en-us/red_hat_enterprise_linux/7/html/kernel_administration_guide/

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Changes of content

- **Feature-based** (previously) –> **User story-based** (now)

- **Feature-based**
  (comprehensive description of a particular feature, all aspects and attributes of a feature, reference-style content, similar to manual pages)

- User-story based
  (action-oriented docs, focused on completion of a particular goal, e.g. a cookbook recipe; capture also prerequisites, important circumstances, steps in the correct order to accomplish the desired goal)

- Nice comprehensive comparison, incl. purpose of both documentation types, their pros and cons provides R. Krátký in **Documentation based on user stories**, see https://opensource.com/article/17/6/documentation-based-user-stories

Examples of feature x user story-based docs

Feature- based

Network tunables in Kernel administration guide
https://access.redhat.com/documentation/en-us/red_hat_enterprise_linux/7/html/kernel_administration_guide/listing_of_kernel_parameters_and_values#network_interface_tunables

User story-based

Getting started with system administration in System administrator's guide
https://access.redhat.com/documentation/en-us/red_hat_enterprise_linux/7/html/system_administrators_guide/ch-getting_started

Common template:
As <type of user>, I want <what?>, so that <why?>

Here:
As a system administrator, I need to perform several tasks just after the operating system has been installed successfully so that the OS is prepared for a user.

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Why and how prepare user story-based docs

Purpose:

- better meet customers needs

- help to reach customers their goals

- based on input from various stakeholders (feedback from customers via product management, content strategists, support engineers or directly)

How:

- **a new story written from scratch** (e.g. **Accessibility**, last year presentation, https://www.nic.cz/files/nic/Technical_Writers_Workshop_2017/RedHat-Accessibility.pdf)

- **rework the existing content** (convert the parts that are useful into user stories and remove the rest; as a side effect reduces the amount of content to be developed and maintained; e.g. Getting started with system administration – particular parts already existed as stand-alone chapters, so I choose only things important just after system installation to make basic OS functions work)

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Modular content

3 types of modules:

- **Concept**
  - descriptions and explanations needed to understand the product, typically intro parts
- **Procedure**
  - how to do something; gives step-by-step instructions
- **Reference**
  - some kind of reference data, e.g. list of additional resources, exhaustive list of options …
- Modules together form assemblies, assembly typically represents a user story; side effect of modules = reusability
- For more info on modular documentation in RH see presentation from 2017 by Aneta Šteflová & Robert Krátký; **Going modular: turning legacy docs into user story-based content**, https://www.nic.cz/files/nic/Technical_Writers_Workshop_2017/RedHat-Going-modular.pdf)

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Changes of markup language/ tooling & publication method

- Markup language: **DocBook XML → Asciidoc**
- Previously: **DocBook XML**; content saved in *xml* files; one chapter = one xml file
  (DocBook XML = semantic markup language)
- Now: **Asciidoc**; content saved in *adoc* files; one module = one adoc file; assembly is a file including links to required modules
  (AsciiDoc = human-readable document format, semantically equivalent to DocBook XML)

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DocBook XML

```
<section id="sec-Network-access-after-installation-nmcli">
<title>Managing Network Connections After the Installation Process Using nmcli</title>
<para>Run the following commands as the <systemitem>root</systemitem> user to manage network connections using
    <para>To create a new connection:</para>
    <screen>~]# <command>nmcli con add</command> <option>type</option> <replaceable>type of the connect
ifname</option> <replaceable>ifname</replaceable> <option>interface-name</option> <replaceable>the name of the
<option>gw4 address</option> <replaceable>gateway address</replaceable></screen>
    <para>To modify the existing connection:</para>
    <screen>~]# <command>nmcli con mod</command> <option>"con-name"</option></screen>
    <para>To display all connections:</para>
    <screen>~]# <command>nmcli con show</command></screen>
    <para>To display the active connection:</para>
    <screen>~]# <command>nmcli con show --active</command></screen>
    <para>To display all configuration settings of a particular connection:</para>
    <screen>~]# <command>nmcli con show</command> <option>"con-name"</option></screen>
    <para>For more information on the <application>nmcli</application> command-line utility, see <ulink url=
configure_ip_networking#sec-Using_the_NetworkManager_Command_Line_Tool_nmcli">Red Hat Enterprise Lin
</section>
<section id="sec-Network-access-after-installation-nmtui">
<title>Managing Network Connections After the Installation Process Using nmtui</title>
<para>The <application>NetworkManager</application> text user interface (TUI) utility, <application>nmtui</app
<application>NetworkManager</application>.</para>
<para>For more information about installing and using the <application>nmtui</application> text interface tool
networking_guide/ch-configure_ip_networking#sec-Using_the_Text_User_Interface_nmtui">Red Hat Enterprise&n
</section>
<section id="sec-Networking-Cockpit">
<title>Managing Networking in Cockpit</title>
<para>In <application>Cockpit</application>, the <guibutton>Networking</guibutton> menu enables you:</para>
<itemizedlist>
  <listitem>
    <para>To display currently received and sent packets</para>
  </listitem>
  <listitem>
    <para>To display the most important characteristics of available network interfaces</para>
  </listitem>
```

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Asciidoc

```
log_martians:: Log packets with impossible addresses to kernel log.
+
[options=header]
|==================
| Type | Default
| Boolean | 0
|==================
+
--
Enabled if one or more of [filename]`conf/{all,interface}/log_martians` is set to TRUE +
*Further Resources*

* https://access.redhat.com/solutions/27840[What is the kernel parameter net.ipv4.conf.all.log_martians for?]
* https://access.redhat.com/solutions/25157[Why do I see "martian source" logs in the messages file ?]
--

[[accept_redirects]]
accept_redirects:: Accept ICMP redirect messages.
+
[options=header]
|==================
| Type | Default
| Boolean | 1
|==================
+
--
*accept_redirects* for the interface is enabled under the following conditions:

- Both [filename]`conf/{all,interface}/accept_redirects` are TRUE (when forwarding for the interface is enabled
- At least one of [filename]`conf/{all,interface}/accept_redirects` is TRUE (forwarding for the interface is di

*Further Resources*

- https://access.redhat.com/solutions/301743[How to enable or disable ICMP redirects]
--

[[forwarding]]
forwarding:: Enable IP forwarding on an interface.
+
[options=header]
|==================
| Type | Default
| Boolean | 0
```

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Asciidoc

```
The following procedure does not affect existing files on the USB storage device unless they have the same path names as the files that you copy onto i
commands as the `root` user:

. Install the [package]*syslinux* package if it is not installed on your system. To do so, as root, run the [command]`yum install [package]*syslinux*pa

. Install the [application]*SYSLINUX* bootloader on the USB storage device:
+
[subs="attributes"]
----
#{nbsp}syslinux /dev/sdX1
----
+
...where _sdX_ is the device name.

. Create mount points for `boot.iso` and the USB storage device:
+
[subs="attributes"]
----
#{nbsp}mkdir /mnt/isoboot /mnt/diskboot
----

. Mount `boot.iso`:
+
[subs="attributes"]
----
#{nbsp}mount -o loop boot.iso /mnt/isoboot
----

. Mount the USB storage device:
+
[subs="attributes"]
----
#{nbsp}mount /dev/sdX1 /mnt/diskboot
----

. Copy the [application]*ISOLINUX* files from the `boot.iso` to the USB storage device:
+
[subs="attributes"]
----
#{nbsp}cp /mnt/isoboot/isolinux/* /mnt/diskboot
----

. Use the `isolinux.cfg` file from `boot.iso` as the `syslinux.cfg` file for the USB device:
+
[subs="attributes"]
----
#{nbsp}grep -v local /mnt/isoboot/isolinux/isolinux.cfg > /mnt/diskboot/syslinux.cfg

----

. Unmount `boot.iso` and the USB storage device:
```

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Tooling & publication methods

- **Publican → Pantheon**

- **Publican** = open source publishing tool based on DocBook XML
  - for more info see **Publican documentation** at https://sourceware.org/publican/en-US/index.html
  - conversion into rpm packages (common format for shipping software in Red Hat)
  - cons and problems:
    - a lot for work on command line to prepare the docs
    - need to run build and check its output
    - long building time → rebuilds not so flexible
    - compatibility issues due to more complicated structure and flexible content of the web

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- **Pantheon** = Red Hat internal tool
  - titles built from selected directory in a repository
  - 3 views (preview, stage, production)
  - 2 branches

  - pros:
    - user friendly (GUI)
    - build automatically prepared by Pantheon when after any change of the text
    - simple publishing by clicking a button in GUI
    - quick and flexible republishing

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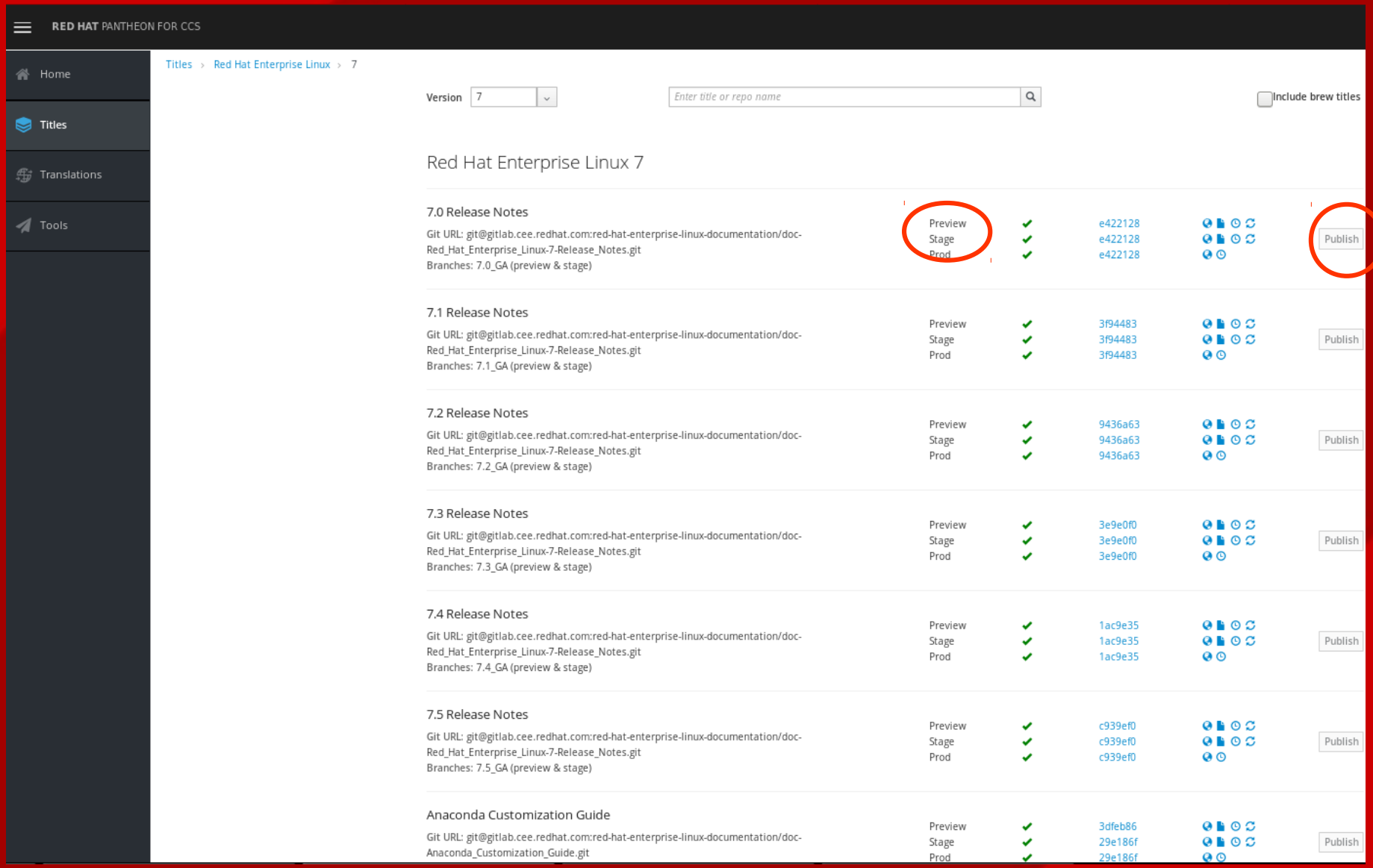
Pantheon


RED HAT PANTHEON FOR CCS
Home
Titles
Translations
Tools
Titles › Red Hat Enterprise Linux › 7
Version 7
Enter title or repo name
Include brew titles
Red Hat Enterprise Linux 7
7.0 Release Notes
Git URL: git@gitlab.cee.redhat.com:red-hat-enterprise-linux-documentation/doc-Red_Hat_Enterprise_Linux-7-Release_Notes.git
Branches: 7.0_GA (preview & stage)
Preview e422128
Stage e422128
Prod e422128
Publish
7.1 Release Notes
Git URL: git@gitlab.cee.redhat.com:red-hat-enterprise-linux-documentation/doc-Red_Hat_Enterprise_Linux-7-Release_Notes.git
Branches: 7.1_GA (preview & stage)
Preview 3f94483
Stage 3f94483
Prod 3f94483
Publish
7.2 Release Notes
Git URL: git@gitlab.cee.redhat.com:red-hat-enterprise-linux-documentation/doc-Red_Hat_Enterprise_Linux-7-Release_Notes.git
Branches: 7.2_GA (preview & stage)
Preview 9436a63
Stage 9436a63
Prod 9436a63
Publish
7.3 Release Notes
Git URL: git@gitlab.cee.redhat.com:red-hat-enterprise-linux-documentation/doc-Red_Hat_Enterprise_Linux-7-Release_Notes.git
Branches: 7.3_GA (preview & stage)
Preview 3e9e0f0
Stage 3e9e0f0
Prod 3e9e0f0
Publish
7.4 Release Notes
Git URL: git@gitlab.cee.redhat.com:red-hat-enterprise-linux-documentation/doc-Red_Hat_Enterprise_Linux-7-Release_Notes.git
Branches: 7.4_GA (preview & stage)
Preview 1ac9e35
Stage 1ac9e35
Prod 1ac9e35
Publish
7.5 Release Notes
Git URL: git@gitlab.cee.redhat.com:red-hat-enterprise-linux-documentation/doc-Red_Hat_Enterprise_Linux-7-Release_Notes.git
Branches: 7.5_GA (preview & stage)
Preview c939ef0
Stage c939ef0
Prod c939ef0
Publish
Anaconda Customization Guide
Git URL: git@gitlab.cee.redhat.com:red-hat-enterprise-linux-documentation/doc-Anaconda_Customization_Guide.git
Preview 3dfeb86
Stage 29e186f
Prod 29e186f
Publish

Changes of metadata handling

- Previously
  - multiple xml files → author, revision history, entities (eg. product, version, year...), book info (title, subtitle, abstract), + “controlling” file (order of chapters, i.e. order of xml files included)

```
[mdolezelova@dhcp-4-234 ~/RH_BOOKS/7-SysAdmin/en-US (master)]$ls
Access_Control_Lists.xml                  Configuring_PTP_Using_ptp4l.xml    Mail_Servers.xml                  Product_Subscriptions_and_Entitlements.
Accessibility.xml                         Configuring_the_Date_and_Time.xml  Managing_Services_with_systemd.xml  ReaR.xml
Access_Labs.xml                           Feedback.xml                       Managing_Users_and_Groups.xml     Red_Hat_Support_Tool.xml
Author_Group.xml                          File_and_Print_Servers.xml         Manually_Upgrading_the_Kernel.xml Revision_History.xml
Automatic_Bug_Reporting_Tool_ABRT.xml     FTP.xml                            OpenLMI.xml                       RPM.xml
Automating_System_Tasks.xml               Gaining_Privileges.xml             OpenSSH.xml                       Samba.xml
Book_Info.xml                             Getting_Started.xml                OProfile.xml                      stash
Cloud_Deployment_Planner.xml              icons                              pom                               System_Administrators_Guide.ent
Configuring_NTP_Using_ntpd.xml            images                             Preface.xml                       System_Administrators_Guide.xml
Configuring_NTP_Using_the_chrony_Suite.xml Keyboard_Configuration.xml        Printer_Configuration.xml         System_Monitoring_Tools.xml
[mdolezelova@dhcp-4-234 ~/RH_BOOKS/7-SysAdmin/en-US (master)]$gedit Author_Group.xml  Revision_History.xml  System_Administrators_Guide.xml System_Adminis
```

Otevřít — Book_Info.xml — ~/RH_BOOKS/7-SysAdmin/en-US

Revision_History.xml × System_Administrators_Guide.xml × System_Administrators_Guide.ent ×

```
<?xml version='1.0' encoding='utf-8' ?>
<!DOCTYPE bookinfo PUBLIC "-//OASIS//DTD DocBook XML V4.5//EN" "http://www.oasis-open.org/docbook/xml/4.5/docbookx.dtd">
<bookinfo>
  <title>System Administrator's Guide</title>
  <subtitle>Deployment, Configuration, and Administration of &MAJOROSVER;</subtitle>
  <productname>Red Hat Enterprise Linux</productname>
  <productnumber>7</productnumber>
  <abstract>
    <para>
      The <citetitle pubwork="book">System Administrator's Guide</citetitle> documents relevant information regarding the deployment, configuration,
    system administrators with a basic understanding of the system.
    </para>
    <para>
    <note>
      <para>
        To expand your expertise, you might also be interested in the <ulink url="http://www.redhat.com/en/services/training/rh124-red-hat-system-admini
      Administration I (RH124)</ulink>, <ulink url="http://www.redhat.com/en/services/training/rh134-red-hat-system-administration-ii?cr=cp|tr|pdtxt|00004
      url="http://www.redhat.com/en/services/training/rh254-red-hat-system-administration-iii?cr=cp|tr|pdtxt|00004">Red Hat System Administration III (RH25
      training/rh199-rhcsa-rapid-track-course?cr=cp|tr|pdtxt|00004">RHCSA Rapid Track (RH199)</ulink> training courses.
      </para>
    </note>
    </para>
    <para>
If you want to use Red Hat Enterprise Linux 7 with the Linux Containers functionality, see <ulink url="https://access.redhat.com/docu
      version=7">Product Documentation for Red Hat Enterprise Linux Atomic Host</ulink>. For an overview of general Linux Containers concept and their curr
      Enterprise Linux 7, see <ulink url="https://access.redhat.com/documentation/en-us/red_hat_enterprise_linux_atomic_host/7/html/overview_of_
      Hat Systems</ulink>. The topics related to containers management and administration are described in the <ulink url="https://access.redhat.com/docume
      managing_containers/">Red Hat Enterprise Linux Atomic Host 7 Managing Containers</ulink> guide. <!--If you want to use Identity Manag
    </para>
  </abstract>
```

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Changes of metadata handling

- Now
  - multiple adoc files; info on the whole book/title (not on particular modules this time)

    (revision history, entities, local attributes (title, subtitle, abstract), “controlling file” = master.adoc)

    annotations to single modules - only internal info for writers

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Ideas for future metadata handling

- annotation, key words, context for every module
  → customer searches based on keywords

  - automatic generation of suitable documentation for every customer on Red Hat Customer Portal = flexible customer content
  - based on:
    - customer's subscriptions (purchased products)
    - docs read by the customer up to now –> building on up to now customer's experience

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Thanks for your attention!