

Microcontent Migration

Making the Move to New Content Opportunities

Josh Anderson, CPTC

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Who I Am

- Associate Information Architect at Precision Content
- Sessional Instructional Assistant at the University of Toronto
- Master of Information from the University of Toronto
- Certified Professional Technical Communicator (CPTC)
- Grew up in Chicagoland





About Precision Content

We are experts in structured content.

We're a full-service, end-to-end technical communications consultancy, technology innovator, and systems integrator offering professional services, training, and technology.



Areas of Expertise

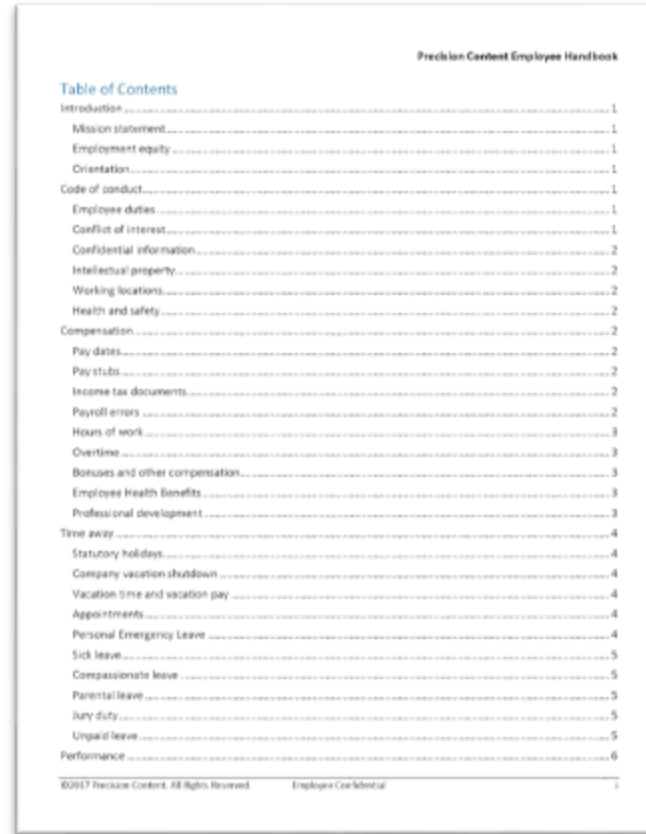
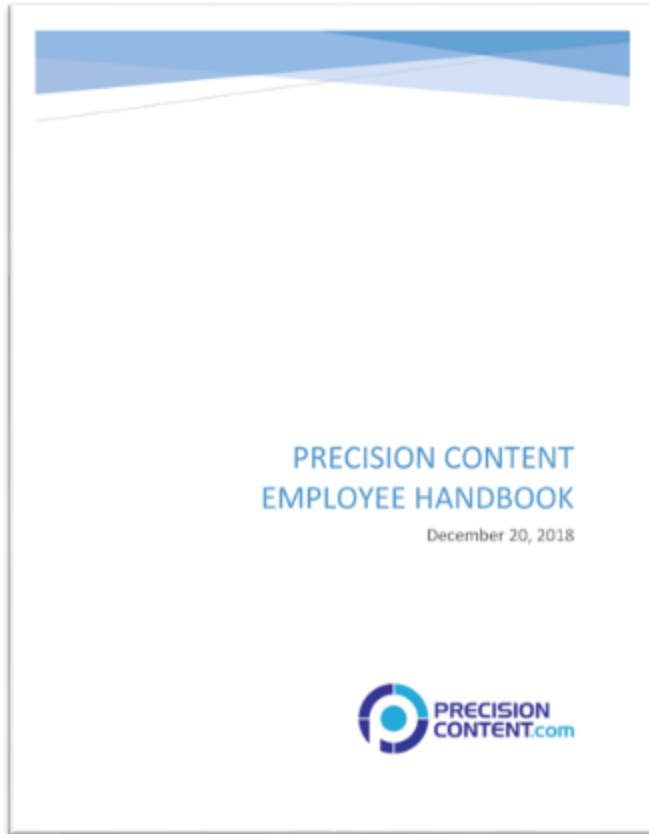
Precision Content is home to thought leaders and expertise in the areas of

- structured authoring methods
- content lifecycle management
- DITA/XML design and implementation
- information architecture
- content strategy,
- and structured content delivery.



Introduction to the problem

- Our employee handbook was unstructured, out-of-date, and unable to be easily published in the formats we desired





What we *could* do with our handbook vs. what we wanted to be able to do

- Things we could do
 - Print the Word document
- Things we wanted to be able to do
 - Make collaboration easier
 - Reuse some topics
 - Track old revisions of specific topics
 - Load topics into a component content management system (CCMS)
 - Future-proof the content
 - Use variables to provide specific names rather than roles within the handbook (e.g., “Chris” instead of “COO”)

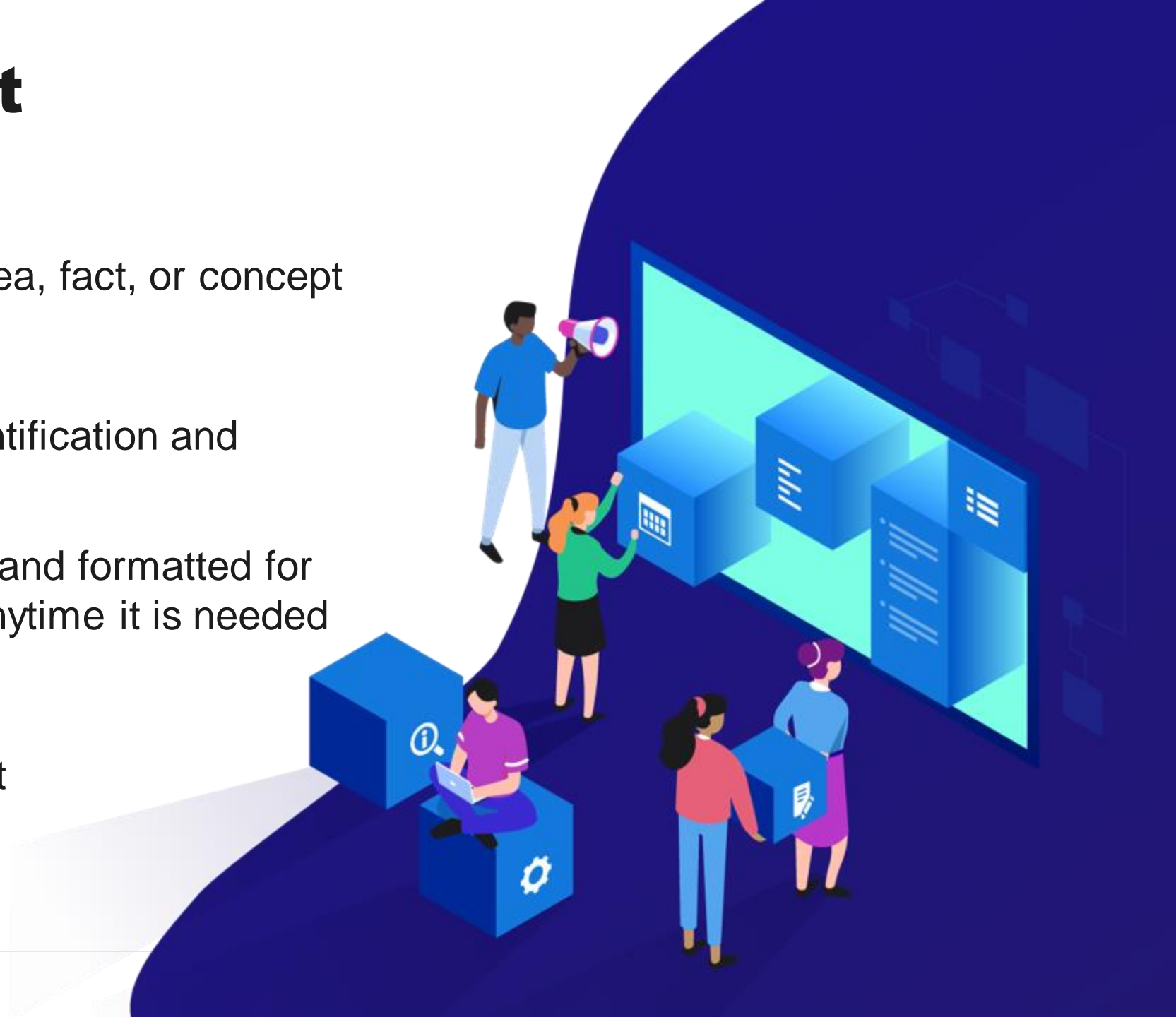


Microcontent

Is content that is

- about one primary idea, fact, or concept
- easily scannable
- labelled for clear identification and meaning, and
- appropriately written and formatted for use anywhere and anytime it is needed

It's not microcontent just because it's small!





Four Principles of Intelligent Microcontent



Focus



Function



Structure

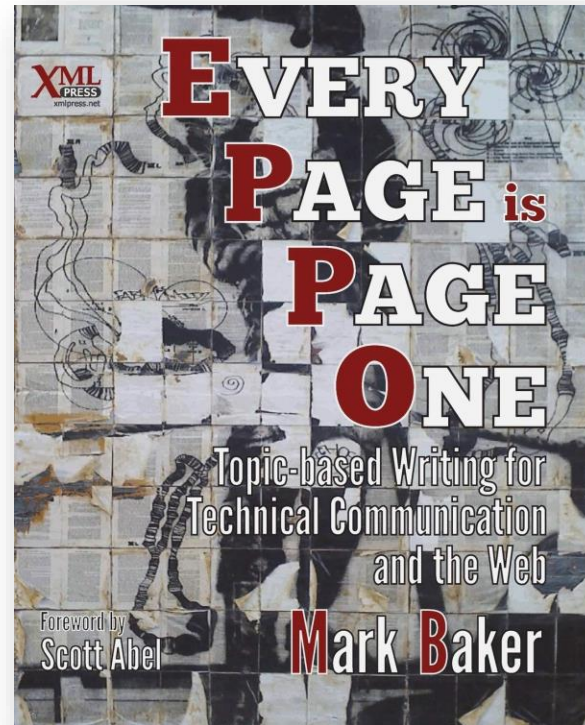


Context



Focus

- Microcontent must be about only one subject
- Allows content to operate as building blocks of information
- "Every Page is Page One"





Focus

- Where would you look for information about unplanned absences?
- Unfocused content has a poor “information scent”



Compensation.....
Pay dates.....
Pay stubs.....
Income tax documents.....
Payroll errors.....
Hours of work.....
Overtime.....
Bonuses and other compensation....
Employee Health Benefits.....
Professional development.....
Time away.....
Statutory holidays.....
Company vacation shutdown.....
Vacation time and vacation pay.....
Appointments.....
Personal Emergency Leave.....
Sick leave.....
Compassionate leave.....
Parental leave.....
Jury duty.....
Unpaid leave.....



Focus

Information about hours of work



Information about lunch breaks



Requirement for planned absences



Requirement for unplanned absences



Hours of work

The typical office hours for PRECISION CONTENT are 9 a.m. to 5 p.m. Monday through Friday inclusive (excluding holidays). Core hours are between 10:30 a.m. and 3:30 p.m. During core hours employees are expected to be reachable at their desk outside of their lunch break. For example, an employee can work 6:30 a.m. to 3:30 p.m. All employees are expected to work 8 hours per day, inclusive of a paid lunch break of one hour. All employees are encouraged to take a physical break from their workstation, every day during their lunch break.

Employees may also be expected to work such other hours as may be requested or required, from time to time. Employees hired on a part time basis will have schedules determined on a case by case basis.

Employees are required to notify Martina Piasecki, in advance, of planned days away from the office. Unplanned absences from the office should be reported to Rob Hanna or Chris MacMillan, and to Martina Piasecki as soon as can be reasonably be expected.



Function

- Microcontent must be typed to identify user intent
- Precision Content information types
 - Reference
 - Task
 - Concept
 - Process
 - Principle
- "Information is what information does"





Function

Reference information

Work hour expectations

Full-time employees are expected to work 37.5 hours per week. Unless otherwise stipulated in your employment contract, your core hours are between 10:30 am and 3:30 pm Eastern Time. During core hours, you should be reachable at your desk outside of your lunch break.

their lunch break. For example, an employee can work 6:30 a.m. to 3:30 p.m. All employees are expected to work 8 hours per day, inclusive of a paid lunch break of one hour. All employees are encouraged to take a physical break from their workstation, every day during their lunch break.

Employees may also be expected to work such other hours as may be requested or required, from time to time. Employees hired on a part time basis will have schedules determined on a case by case basis.

Employees are required to notify Martina Piasecki, in advance, of planned days away from the office.

Principle information

Unplanned absence guideline

In the case of emergencies or unplanned absences, you should attempt to notify your team and project manager as well as anyone else who will be affected by your absence.



Structure

- Microcontent must use predictable patterns and language
- Structured authoring
 - Systematic labelling
 - Modular, topic-based architecture
 - Constrained writing environments
 - Separation of content and form



What it means to be “unstructured”

Working locations

PRECISION CONTENT is flexible on an employee's work location if the location allows them to perform their expected duties. If an employee is not able to perform their expected duties at their location the employee must discuss their location with Chris MacMillan prior to making any changes. An example of a location that requires further discussion is one that does not have reliable internet access, or a location that does not allow for employees to attend expected meetings with employees or clients. The employee must notify Martina Piasecki of any changes to their work location for any periods exceeding one business day.

title Work

primaryblock

shortdesc

shortdesc

Work locations

Precision Content values flexibility and allows you work virtually as long as you are able to perform your

Rules for changing your work location

Abstract:

Short Description: Although Precision Content allows you to choose your work location, there are circumstances in which you must discuss your work location with [President and Co-founder], [Managing Director and Co-founder], or [Accounting and HR Administrator].

Short Description: If you are unable to perform your expected duties at your location, then you must contact [Co-founders] to discuss alternate arrangements. Precision Content can arrange work space for you with either Regus or Spaces. An example of a location that requires further discussion is one that does not have reliable internet access.

Short Description: If you experience a change in your work location for any period exceeding one business day, you should notify [Accounting and HR Administrator].

Change History List:

If you decide to change work location to outside of Canada, your insurance benefits will only remain valid for 60 continuous days.

Internet service is capable of streaming online video conferences in Content applications and services. If faster service is required, please contact your service provider at your own expense.

Work should be conducted in a quiet and private manner. Sensitive information should not be discussed or conducted in your work space.

Location

When you change your work location, there are circumstances in which you must discuss your location with Chris McMillan, or Martina Michalek:

If you are unable to perform your expected duties at your location, then you must contact Rob Hanna for alternate arrangements. Precision Content can arrange work space for you if you are unable to work at a location that requires further discussion is one that does not have reliable internet access.

If you experience a change in your work location for any period exceeding one business day, you must notify [Accounting and HR Administrator].

If you decide to change work location to outside of Canada, your insurance benefits will only remain valid for 60 continuous days.



Structure

Topic title begins with noun

Employee Health Benefits

PRECISION CONTENT offers employee health benefits through Sun Life Financial. Full-time employees who have been employed by PRECISION CONTENT over three months become eligible for employee health benefits. PRECISION CONTENT pays a portion of the monthly premiums.

Employees can find specific details about their coverage at Customer Care 1-800-361-6212.

Employees must contact Customer Care to set up access to the client sign-in page.

<https://www.sunnet.sunlife.com/signin/mysunlife/home.wca>

Topic title begins with verb

Set up benefits

Purpose

To activate your health benefits, you need to follow the procedure.

Procedure

Attention If you don't complete the procedure within 30 days of becoming eligible, you will be required to provide proof of good health.

1. Fill out the Group Benefit Enrollment Form , and email it to the Accounting and HR Manager.
2. Send a hard copy of the form to the Accounting and HR Manager.

Related links

- ⇒ [Group Benefit Enrollment Form](#)
- ⇒ [Sun Life client sign in page](#)



Context

- Microcontent must be easily relatable to other content
- Microcontent is designed to fit within a larger ecosystem of information





Context

- ▼ **Your work environment**
 - <> <title> Your work environment
 - ▼ *Work environment*
 - ▼ *Work hour expectations*
 - Time tracking requirement*
 - Work hour limits*
 - Overtime policy*
 - Time-in-lieu policy*
 - Use time-in-lieu for time off*
 - ▶ *Work locations*
 - Home internet requirement*
 - Work space requirement*
 - Rules for changing your work location*
 - In-person company meeting policy*
 - Collaboration tool requirement*

```
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2   <title>Your work environment</title>
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5       <topicref format="dita" href="HRFT_PRI_T0ADF4_00_TimeTrackingRequirement.dita" scope="local" type="principle"/>
6       <topicref format="dita" href="HRFT_PRI_W09446_00_WorkHourLimits.dita" scope="local" type="principle"/>
7       <topicref format="dita" href="HRFT_REF_00F30E_00_Overtime.dita" scope="local" type="reference"/>
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11    <topicref format="dita" href="HRFT_REF_W0506B_00_WorkingLocations.dita" scope="local" type="reference">
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14      <topicref format="dita" href="HRFT_PRI_R0C1E8_00_RulesForChangingYourWorkingLocat.dita" scope="local" type="principle"/>
15      <topicref format="dita" href="HRFT_PRI_I0F93A_00_In-PersonCompanyMeetingPolicy.dita" scope="local" type="principle"/>
16      <topicref format="dita" href="HRFT_PRI_C08EB2_00_CollaborationToolRequirement.dita" scope="local" type="principle"/>
17    </topicref>
18  </topicref>
19 </map>
```



Four Principles of Intelligent Microcontent



Focus



Function



Structure



Context



Making the Migration



Stakeholder interviews

- We identified other topics we would want through stakeholder interviews
- Who we interviewed:
 - HR Director
 - President
 - Accounting and HR Manager
 - Managing Director





Reuse analysis

- We analyzed our content for places where we could leverage DITA's reuse features
- The employee handbook content set was small enough that we could do this easily
- For large content sets, reuse analysis should be done programmatically





How DITA's reuse features work

Request vacation

Purpose
These are the steps for requesting vacation.

Change History List: Add history entry

Procedure



1. At least two weeks prior to the first day of vacation, email your request to your project manager or supervisor for approval.
2. Enter a leave request in Upland.
 - a. Log in your Upland account and select Leave Request Manager.

Upland user interface. The Leave Request Manager window displays.
 - b. In the Leave Request Manager window, select the Create Leave Request button.
Result: The Create Leave Request form displays.
 - c. In the form, fill in the Reason, Summary, Start Date, and End Date field.


Request a leave of absence

Purpose
These are the steps for requesting a leave of absence.

Change History List: Add history entry

Procedure

1. Get approval from your supervisor or project manager of your leave of absence.
2. Enter a leave request in Upland.
 - a. Log in your Upland account and select Leave Request Manager.

Upland user interface. The Leave Request Manager window displays.
 - b. In the Leave Request Manager window, select the Create Leave Request button.
Result: The Create Leave Request form displays.
 - c. In the form, fill in the Reason, Summary, Start Date, and End Date field.


We reused "leave request" task information



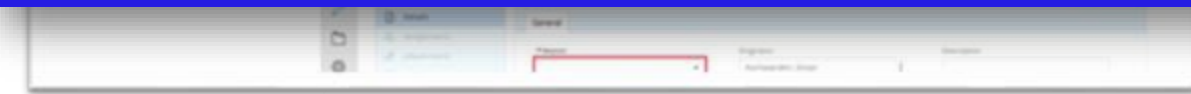
How DITA's reuse features work



```

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  <cmd class="- topic/ph task/cmd ">Enter a leave request in Upland</cmd>
  <substeps id="substeps_5009" class="- topic/ol task/substeps ">
    <substep id="substep1" class="- topic/li task/substep ">
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        Leave Request Manager.</cmd>
      <info class="- topic/itemgroup task/info ">
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          <alt class="- topic/alt ">Upland user interface.</alt>
        </img></p>
      </info>
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        <p class="- topic/p ">The Leave Request Manager window displays.</p>
      </stepresult>
    </substep>
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      <cmd class="- topic/ph task/cmd ">In the Leave Request Manager window,
        select the Create Leave Request button.</cmd>
      <stepresult class="- topic/itemgroup task/stepresult ">
        <p class="- topic/p ">The Create Leave Request form displays.</p>
      </stepresult>
    </substep>
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        Start Date, and End Date field.</cmd>
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          <alt class="- topic/alt ">The Create Leave Request form.</alt>
        </img>
      </info>
    </substep>
  </substeps>
</step>

```



```

<taskbody class="- topic/body task/taskbody ">
  <steps class="- topic/ol task/steps ">
    <step class="- topic/li task/step ">
      <cmd class="- topic/ph task/cmd ">Get approval
        from your supervisor or project manager of your
        leave of absence.</cmd>
    </step>
    <step conref="HRFT_TSK_R03F0A_00_RequestVacation.dita#task_5009/step_2"
      class="- topic/li task/step ">
      <cmd class="- topic/ph task/cmd "/>
    </step>
  </steps>
</taskbody>

```

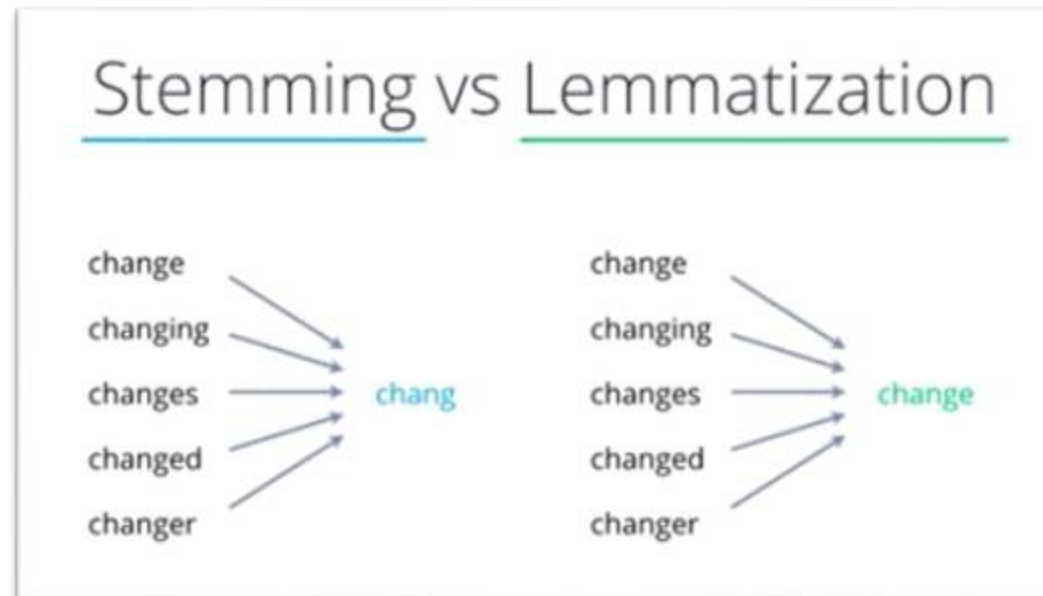
- b. <substep> <cmd> In the Leave Request Manager window, select the Create Leave Request button. <cmd>
- <stepresult> Result: <p> The Create Leave Request form displays. </p> <stepresult> <substep>
- c. <substep> <cmd> In the form, fill in the Reason, Summary, Start Date, and End Date field. <cmd>





Reuse analysis methods

If you want ...	then the solution is a ...
exact matches	custom XQuery script with hash functions
fuzzy matches	third party content analysis tool such as DCL, Stilo





What does the reuse analysis script do?

- 1 Generate a database from the content set
- 2 Map text strings to the number of times they appear
- 3 Gather information of each text string
(such as its file name, manual name, and word count, etc.)
- 4 Generate a report in CSV format



Grouping content

Opting-into employee benefits

Income tax documents

Employee referral bonus amounts

Pay date

Bonuses

Terminations

Policies for resolving payroll errors

Refer an employee

Employee benefit eligibility

Resignations

Employee referral bonus pay schedule

Opting-out of employee benefits

Exit interviews

Pay stubs



Grouping content

Employee information

Opting-into employee benefits

Employee referral bonus amounts

Terminations

Policies for resolving payroll errors

Employee benefit eligibility

Resignations

Opting-out of employee benefits

Payment information

Income tax documents

Pay date

Bonuses

Refer an employee

Employee referral bonus pay schedule

Exit interviews

Pay stubs



Grouping content

Opting-into employee benefits

Income tax documents

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Pay date

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Terminations

Policies for resolving payroll errors

Refer an employee

Employee benefit eligibility

Resignations

Employee referral bonus pay schedule

Opting-out of employee benefits

Exit interviews

Pay stubs



Grouping content

Employee exit

Employee benefits

Payroll and compensation

Opting-into employee benefits

Income tax documents

Employee referral bonus amounts

Pay date

Bonuses

Terminations

Policies for resolving payroll errors

Employee referral policy

Refer an employee

Employee benefit eligibility

Resignations

Employee referral bonus pay schedule

Opting-out of employee benefits

Exit interviews

Pay stubs



Columns in our outline

- Section
- Person
- Heading Level
- Information Type
- Purpose
- Map Name
- File Name
 - Scope
 - Type
 - Variant





Example topic in our outline

Section	Work hour limits
Person	Pei
Heading Level	H3
Information Type	Reference
Purpose	Give the maximum hours employees can work per day.
Map Name	HRFT_MAP_Y58BCD_00_YourWorkEnvironment.ditamap
File Name	HRFT_REF_W09446_00_WorkHourLimits.dita



How we tackled this as a team

- For each topic in our outline, we created a DITA file in our component content management system (CCMS)
- We divvied our topics among the three of us using DITA maps
- Each team member edited and rewrote content in Oxygen XML Editor
- Our CCMS let us set up automatic workflows





Content suitable for a CCMS...

- Has a lifecycle
- Receives incremental changes
- Has a required workflow
- Is the responsibility of a team
- Is assembled from smaller pieces
- Has statuses that need to be tracked (e.g., draft, expired, active)
- Will be reused
- Could be translated



How information types inform writing style

- Semantic structure of topics and blocks
- Rules for titles
- Rules for short descriptions
- Writing style for voice and tense
- Specific authoring models



Strategic rewrites

In-person office meetings

Employees living less than 60 km from the PRECISION CONTENT headquarters at 7111 Syntex Dr. Mississauga are expected to be able to attend meetings as needed at headquarters or other facilities any work day at their own expense.

Employees living between 60-120 km from the PRECISION CONTENT headquarters at 7111 Syntex Dr. Mississauga are expected to be able to attend meetings as needed at headquarters or other nearby facilities up to twice per month at their own expense.

Employees living beyond 120 km from the PRECISION CONTENT headquarters at 7111 Syntex Dr. Mississauga are expected to be able to attend meetings, including training, as needed at headquarters or other nearby facilities up to six times per year at their own expense. These employees are required to submit receipts for food and lodging to receive reimbursement for other related travel expenses.

Employees required to travel more frequently to the PRECISION CONTENT headquarters than otherwise stipulated are required to submit expense claims for mileage at \$0.555/km for reimbursement of travel expenses.

Travel distance is always calculated by Google Maps using the most direct route to PRECISION CONTENT headquarters. Highway tolls for trips to the office are not reimbursable.

In-person company meeting policy

You are required to attend in-person company meetings from time-to-time. The time and location of in-person meetings will be provided to you as soon as available.

- The expected frequency of in-person meetings is based on the distance between your location and the meeting location.
- Depending on the distance of travel, Precision Content may reimburse reasonable travel, meal and lodging expenses.

Applicability

Based on your location, the expected frequency of your in-person meetings may differ.

Table 2: Expected frequency of in-person meetings

If you live...	You are expected to attend in-person meetings...
less than 60 km from the meeting location,	on any workday at your own expense.
60 - 120 km from the meeting location,	up to twice per month at your own expense.
120 - 500 km from the meeting location,	up to six times per year at your own expense.
beyond 500 km from the meeting location,	as needed at the expense of Precision Content.

Related links

⇒ [In-person meeting expense reimbursement policies](#) on page 50



Issue tracking

- We then moved our issues into a spreadsheet
- Here, we categorized issues by nature and status

September 2021 Outstanding Issues List ^R • Last Modified: 23m ago

File Home Insert Draw Page Layout Formulas Data Review View Developer Help Acrobat

AutoSave On

A1 No.

No.	Issue	Nature of the issue	Status	Page	Notes
1	Unbold the abstract	OTT	Resolved	9	
2	Indent tables to align with the text	OTT	Resolved	9	
3	Change autotitle in related links block from "In this section" to "Related links"	OTT	Blocked	10	The text:style-name value for Related links is "_3c_title_3e_20_in_20_3c_block_3e_"
4	Delete the automatic text in related links block that says "This section contains the following topics:"	OTT	Blocked	10	
5	Turn hyperlinks blue	OTT	Resolved	10	Next step: save this file you have open AS
6	Prepend an arrow icon to all hyperlinks	OTT	Blocked	10	Update, Sep 2 at 11am. If I use the fixed te
7	Add chapter title "Your work environment" between "Corporate culture" and "Work hour expectations" topics	DITA	Resolved	11	Fix navtitles in DITA
8	Remove short description on related links	OTT	Unresolved	11	You can find the template here: This PC >
9	Remove "Statement" autotitle from Principle topics	OTT	Blocked	11	
10	Indent substeps	OTT	Resolved	12	Currently they are indented at the same level as steps
11	Indent images to align with substeps	OTT	Resolved	13	
12	Add "Expected result" autotext inline for "Result" element text in Procedure topics	OTT	Unresolved	13	
13	Fix orphans/widows	OTT	Resolved	14	A table header row starts on page 14 but the table continues on page 15. Don't break up tables across pages.
14	2 column layout needs to be indented and aligned with text	OTT	Unresolved	26	
15	Indent bulleted list inside steps	OTT	Resolved	37	
16	Remove white space after processes and tasks	?	Unresolved	43	
17	Fix "Error: reference source not found" showing up in place of page number	DITA	Unresolved	45	
18	Remove related links from chapter page	DITA	Unresolved	57	
19	All topics should have a left-indented H1	DITA	Unresolved	66	You should achieve this by reorganizing the DITA
20	Make "Results of risk assessments" a block under the "Workplace violence and harrassment risk assessment" topic	DITA	Resolved	66	
21	Delete redundant topic "Retained document confidentiality policy"	DITA	Resolved	69	



Content governance

- Originally, there wasn't a clear strategy in place for updating or maintaining the content
 - All content updates were sent to one specific employee
- What we needed from a governance strategy
 - Regularly scheduled revisions
 - Clearly defined roles



Yearly meetings

- We established yearly meetings with HR and senior leadership
- Changes to the employee handbook can be proposed at any time
- Every year, we review the proposals and choose which ones to implement
- Changes can happen immediately if they are the result of federal or provincial law



Unlocked benefits of microcontent

- Content is ready to be quickly transformed into other formats
- We can “Create Once, Publish Everywhere” (COPE)
- Topics can be reused rather than rewritten
- Our content can act as a “single source of truth”
- The CCMS allows for much smoother collaboration
- Automated workflows makes governing the content lifecycle easier
- Our content is now written according to a (micro)content standard
- Our microcontent can fuel AI-powered conversational interfaces



Microcontent to Chatbot

PCAS_CO_C7898A_00_category-table.dita x 4

concept conbody block p ul li p

Category table

Definition

A category table is a table used to describe the attributes of non-comparable items.

Structure of a category table

A category table lists

- the items being compared down the left side of the table, and
- the attributes of the items across the top of the table.

Rationale

We read across the page from left to right. This left to right structure allows the user to

- find the item they want information about, and then
- read the corresponding attributes and values for that item.

Example

This table describes items from a house inventory.

Item	Material	Size (length x width x height)	Colour	Number
Kitchen chair	Faux leather	20"(l) x 20"(w) x 42"(h)	Black	8
Kitchen table	Mahogany	96"(l) x 42"(w) x 36"(h)	Dark brown	1
Sofa	Velour	78"(l) x 40"(w) x 40"(h)	Red	2

Girish 2:36 AM
PcInfo What is category table

PcInfo 2:36 AM
A category table is a table used to describe the attributes of non-comparable items.

This was helpful Not Helpful

Reply

Girish 2:37 AM
PcInfo Can you show me example of category table

PcInfo 2:37 AM
This table describes items from a house inventory.

Item	Material	Size (length x width x height)	Colour	Number
Kitchen chair	Faux leather	20" x 20" x 42" (l) x (w) x (h)	Black	8
Kitchen table	Mahogany	96" x 42" x 36" (l) x (w) x (h)	Dark brown	1
Sofa	Velour	78" x 40" x 40" (l) x (w) x (h)	Red	2

See less

This was helpful Not Helpful

Reply



Microcontent to PowerPoint

PCAS_CO_C7898A_00_category-table.dita x 4

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CATEGORY TABLE

A category table is a table used to describe the attributes of non-comparable items.

Example

Item	Material	Size (length x width x height)	Colour	Number
Kitchen Chair	Faux leather	Sm120"(l) x 20"(w) x 42"(h)	Black	8
Kitchen table	Mahogany	96"(l) x 42"(w) x 36"(h)	Dark brown	1
Sofa	Velour	78"(l) x 40"(w) x 40"(h)	Red	2





Conclusion

By paying close attention to the

- focus
- function
- structure, and
- context

of the content, we have improved its usability and potential.





Thank you!



Come work with us at
PrecisionContent.com/careers

