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## cielo24 Services and Products

### TABLE OF CONTENTS

<b>Services and Products</b>	<b>2</b>
PRODUCTS	2
SERVICES	2
Platform Access and Portfolio	3
Customer Edit Tool	3
Interactive Player Wrapper	4
Speaker Identification	4
Lyric Transcription	4
Custom Glossaries	4
SERVICE OUTPUTS	5
Captions	5
Transcripts	5
Audio Description Files	5
Live Transcripts	5
Keywords/Adwords	5
FEATURES	5
Accuracy	5
Compliance	6
Integrations	7
Formatting	8
Training & Customer Support	8
<b>Caption Methodology and SLA</b>	<b>10</b>
<b>Company History</b>	<b>10</b>

## Services and Products

Available products and services include, but are not limited to, the following:

### PRODUCTS

- **Captions and Transcripts**

- Mechanical - AI-based captioning and transcription designed to provide indexing, keyword extraction, and enhanced search visibility. Mechanical transcription is very fast, but not sufficient for compliance or accommodation.
- Standard Compliance - Our Standard Compliance offering returns captions and transcripts for the purpose of disability accommodations, increased accessibility, and enhanced learning outcomes for students. In that respect, it is designed for educators. Content is usually lecture-driven or included in the coursework.
- Professional/Broadcast - Our Professional Service (Broadcast) adds another human QC review in the workflow. It is utilized by customers who are brand sensitive, distribute broadcast-quality content, or who require some type of custom workflow. For educators, this professional level service is employed for marketing videos, student recruitment videos, student orientation videos, and in some cases, for classroom material with an extraordinary amount of technical content.
- Live - cielo24 offers Live Captioning as part of our suite of services, provided by a professional fulfillment partner. There are two service levels for Live Captioning: CART (True Verbatim) and Typewell (Clean Verbatim). Services can be embedded in a third-party platform (like Zoom or other conferencing platforms) or via a separate browser experience. A transcript is available after the live event, though we recommend post-production (VOD) processing for content that will be redistributed on-demand.
- Audio Description - cielo24 offers Standard and Extended Audio Description products to support accessible video content for the blind and low-vision. The Standard AD product utilizes existing gaps in dialogue and audio to provide plot-relevant descriptions of visual elements. Upon completion, the video descriptors are integrated with the audio transcript for screen reader synthesis. Turnaround times can be customized at the point of order, and delivery options will vary based on the video player(s) in use. Standard Audio Description files are returned in WebVTT format but can also be selected as plain text files or any of our supported file types at no additional cost. For audio descriptions, we can also

include a synthesized MP3 file as stand-alone audio or integrated with the existing audio.

- o Extended Audio Description - cielo24 offers Extended Audio Description. Complicated media with little to no natural pauses, highly technical media or media that contains heavy visual content may qualify for Extended Audio Description.

Unlike Standard Audio Description, Extended Audio Description does not have to be constrained to the natural pauses of a video. Extended descriptions allows you to pause the video content in order to make room for description, as needed. This may be available upon request, depending on technological variables, including video player in use on client-side.

- o Foreign Language Transcription and Translation - cielo24 provides native language transcription and translation to more than 31 languages covering over 95% of all video content created today. Additional languages may be available upon request. Currently supported languages include, but are not limited to, the following:

Arabic	Finnish	Portuguese
Chinese -	French	(Brazil)
Mandarin	French	Portuguese
(Traditional)	(Canada)	(Portugal)
Chinese -	German	Russian
Mandarin	Greek	Spanish
(Simplified)	Hebrew	Spanish (Spain)
Chinese -	Hindi	Slovak
Cantonese	Indonesian	Swedish
(Traditional)	Italian	Thai
Czech	Japanese	Turkish
Danish	Korean	Vietnamese
Dutch	Norwegian	
English	Polish	

- o Data  
Machine and human-generated AdWords, keywords, indices.

## SERVICES

- **Platform Access and Portfolio**

Each user account will have full access to the platform from anywhere via browser and to all tools within the platform.

- **Customer Edit Tool**

cielo24 provides clients with an easy to use, intuitive editor to make any desired changes to caption file outputs. When the desired service level is achieved, caption and transcript files are available to the customer either for download and publication or for additional editing using our Customer Edit Tool.

Customer Review (Edit) allows you to review and edit captions for a video before return. The edit tool is simple to use:

- When Customer Review is enabled, click the “Review” button under ‘Action’ in your Portfolio on any job that is ready for review.
- Once the review is complete click ‘Approve’ to auto return
- The editing tool and workflow can occur at any time- before final caption approval and/or accessed retroactively to auto-update published captions.

- **Interactive Player Wrapper**

cielo24 has an interactive transcript player leveraging cielo24 proprietary media data, available for select integrations for a visual representation of the data, and is available at no additional charge. This widget gives you the ability to search within videos, among many other functionalities, including:

- An interactive transcript experience. The transcript is time-stamped and synchronized to the video frame.
- Ability to display cielo24 media intelligence, including topics, keywords, and AdWords.
- Multi-language support for native captions and foreign language subtitles.
- Content search with heat map including words, topics, keywords, and entities.
- Speaker search by color-coded heat map and time stamps for videos with multiple speakers identified
- Complete customization, including custom settings like social sharing and transcript download.
- Configurable social sharing of selected videos down to the specific caption across sites like Facebook, Twitter, and LinkedIn.
- Ability to download and print transcripts, including speakers and time stamps.
- Customer-defined branding and controls

- **Speaker Identification**

An additional human-powered QC pass that adds specific user-supplied names to the transcript and caption files. (The user can also perform this task with our Customer Edit tool at no additional cost.)

- **Lyric Transcription**

An extra human-powered ‘music’ workflow that transcribes music lyrics.

- **Custom Glossaries**

Our software platform facilitates the dissemination of information to the transcriptionist through custom guidelines, glossaries, and/or notes at an account or job level. Any additional customization can be managed via the customer support channel to include proper instructions or specifications to transcriptionists for media transcription.

For media containing very technical or field-specific terminology, we offer the ability for the University to upload a glossary of terms for our transcriptionists to refer to. Custom glossaries can be uploaded at the account level, or per specific job. If a custom glossary is not provided, our highly-trained transcriptionists refer to Google to search for difficult terms.

## SERVICE OUTPUTS

- **Captions**

Captions are available for content association in DFXP, SRT, Echo, QT, SBV, TPM, WebVTT, Plain Text, SCC, TTML file formats.

- **Transcripts**

Available for users as timecode .TXT and JSON element list as well as .DOC, PDF, and HTML.

- **Audio Description Files**

Standard Audio Description files are returned in WebVTT format but can also be downloaded as plain text files or any of our supported file types at no additional cost. For both standard and extended audio descriptions, we can also include a synthesized MP3.

- **Live Transcripts**

Live transcripts return in a word document (.doc) file.

- **Keywords/Adwords**

Keywords are available as a plain text (.txt) file.

## FEATURES

- **Accuracy**

cielo24's primary vertical is higher education, and as such, we process content across all education disciplines meeting the required accuracy guidelines. Through our exhaustive quality assurance process and the ability to provide notes and glossaries for our transcriptionists on both a per-job and/or account basis, we consistently deliver the requested quality level regardless of content discipline.

In addition to extensive transcriptionist training and management, robust quality assurance is also built into the transcription workflow to exceed 99% accuracy output. The quality control process each job traverses for text and timing includes up to four independent quality reviews.

In addition to real-time quality sampling performed by highly qualified transcriptionists, we also employ a "Gold Standard" process of evaluating transcriptionists. Dummy jobs are fed into the system to automatically evaluate their transcriptionist work relative to a "Gold Standard" known version. We utilize these templates at scale to evaluate the transcriptionists objectively.

Once work is complete, we regularly sample the delivered output to measure product quality. Utilizing a Word Error Rate (WER) calculation, we determine the number of errors (omissions, substitutions, deletions) relative to the total word count to confirm an account is receiving the desired accuracy rate. Each job processed on our platform undergoes multiple quality control (QC) steps to ensure text and timing accuracy, per the customer's desired output specified via API call at job submission.

Inputs from both the human review process and automated scoring allow us to curate and ensure sustained quality continually.

cielo24 makes every effort to return captions and transcripts faithful to the submitted content. However, some structural items may make the process more challenging. While we never charge extra for difficult audio, it could delay the return of your completed files. Examples may include:

- Poor audio quality
- Several speakers talking over another (Crosstalk)

- o Audio clarity (silent or low volume audio)
  - o Accented speakers
  - o Heavy background noise
  - o Difficult or uncommon technical terms
  - o Difficult or uncommon names
- **Compliance**

Our Standard and Professional products exceed the true-to-video compliance accuracy rate through rigorous quality control processes including full end-to-end human edit. Caption files may undergo up to three separate QC review passes, utilizing a mix of automation and human quality checks.

cielo24 delivers highly accurate compliance-ready captioning products customizable by job depending on the use case. Please see the table below for product categories:

Product	True-to-Video Accuracy Rate	Use Case
Machine/ASR Product	82%+ (heavily dependent on source content quality)	Indexing/Search
Standard Compliance Product (Human Curation)	99%+	Compliance and accessibility solution primarily for video course content
Professional/Broadcast Product (Human Curation)	99.5%+	Broadcast, Marketing, Highly Technical content

- o **Commitment to Quality:** Quality commitments depend on services ordered. Accuracy is calculated using the DARPA Word Error Rate (“WER”) methodology based upon clean input audio spoken by individuals with little to no accent. Words that are not intelligible are excluded from SLA quality calculation.

- cielo24 will use best efforts to research all unique communication (words/phrases) for message accuracy. For those words/phrases that cannot be properly identified, cielo24 will replace the word(s) or phrase(s) with "[UNKNOWN]".
  - **Technical Content:** To provide additional context and consistency for highly technical content, such as mathematical or scientific equations, cielo24 offers the ability to upload a custom glossary of terms to cover complex scientific terms or names. If a custom glossary is not provided, our highly trained transcriptionists refer to Google's search engine to search for complex terms.

- **Integrations**

cielo24 supports web-based uploads, FTP uploads, and all integrations noted under “cielo24 supported integrations” below. In addition to our integration with major online video platforms and lecture capture systems as described above, cielo24 supports the ingress of any HTML5 compatible media. In addition, any media hosted on sites such as Vimeo or Youtube can also be submitted directly through the cielo24 Portfolio. Media files can always be uploaded directly.

cielo24 Supported Integrations:

- |                         |               |                      |
|-------------------------|---------------|----------------------|
| ● Kaltura KMS/KAF & KMC | ● Mediasite   | ● Wistia             |
| ● Panopto               | ● JWPlayer    | ● Vimeo              |
| ● Echo360 ESS & ALP     | ● Brightcove  | ● Zoom               |
| ● YouTube               | ● edX         | ● Microsoft Teams    |
| ● mRSS                  | ● Vidyard     | ● Skype for Business |
| ● Collective/Kontiki    | ● VoiceThread | ● Collaborate        |
|                         | ● Polycom     |                      |

- **Formatting**

cielo24 offers a vast selection of format options for caption and transcription file outputs. Desired file format can be selected on download including:

- SRT
- DFXP
- JSON (Elementalist)
- Echo
- QT



- o SBV
- o TPM
- o WebVTT
- o Plain Text
- o SCC
- o TTML
- o SAMI

There is no cost associated with the download of a file type, nor is there any limitation on the number of file types the University may download.

- **Training & Customer Support**

cielo24 utilizes a multi-prong approach to customer onboarding, support, and account management. From the point the contract is awarded to cielo24, our Implementation Team will work closely with Oregon State University to further document and understand all requirements for quality, accuracy, turnaround time, user/account moderation, and technical integration.

The Implementation Team will manage the onboarding process to ensure all requirements are met and required integrations are fully operational before transitioning the account to the ongoing Support and Customer Success teams.

For day-to-day support activities, cielo24 employs a tiered support structure to allow for near-real-time responses to any technical or quality issues. We employ a robust automated ticketing system, accessed via email. All customer issues are tracked through to resolution with rapid response times and frequent communication.

Additionally, once implementation is completed, Oregon State University will be assigned a dedicated Customer Success Manager who will proactively manage any issues to ensure all service levels are met in accordance with the agreement. The Customer Success Manager serves as the voice of Oregon State University concerning feature requests, complex issue resolution (escalated beyond the day-to-day support process), and new requirements for services or quality levels.

Technical support is included in the contract with the University. Training materials will be immediately available through the cielo24 helpdesk and knowledge base resources. Additionally, we will identify specific integration and training areas in the implementation process and provide an initial overview training session as a part of the onboarding process.

cielo24 is more than happy to provide training per business unit (agency) or in aggregate

as desired. Similarly, cielo24 will provide marketing support and a bespoke centralized landing page with instructional material and resource links for Oregon State University to use internally.

cielo24 provides training for uploading requests, viewing requests, editing jobs, distribution of caption files, and administrative tasks. Online tutorials are provided to the client for instruction on the usage of these tools. All cielo24 clients have access to the cielo24 Knowledge Base as well as online tutorials for user integrations and the use of the cielo24 Portfolio.

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## Caption Methodology and SLA

Unlike competitors who utilize human effort sparingly with AI captions, our product is produced using human intelligence end-to-end, leveraging technology to drive speed and scale while maintaining the highest levels of human quality. The cielo24 workflow is triggered when a caption request is placed either through our API architecture, prebuilt integration with an OVP, through the cielo24 Portfolio Management Console, or by way of direct access to cloud-based storage such as Dropbox and Google Drive.

Depending on the workflow and quality level selected, jobs may undergo up to three separate QC review passes, utilizing a mix of automation and human quality checks. Jobs achieve the desired output quality level based on the number of passes they go through and the level of quality sampling applied to the account. Our Standard Compliance and Professional products both exceed a 99% true-to-video accuracy rate by going through additional full-text editing and quality control phases. At each step of the workflow, the job is reviewed, scored, and edited by higher-skilled transcriptionists as part of the internal checks-and-balances system.

cielo24 has taken a novel approach to create data files that can be accessed, consumed, and displayed in every video player and hosting platform through seamless integrations for ordering and return. The process delivers an accessible solution for all users- In other words, if you can

upload video, you can access our services. Our rigorous QC process ensures core functionality is never at risk with product updates and changes.

Our SLA is guaranteed. If minimum accuracy requirements are not met satisfactorily, the job will be re-worked at no cost to the University until no further improvement can reasonably be made.

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## Company History

cielo24 is a venture-backed, privately held company. Founded in 2012, cielo24 provides captions, transcripts, media data, media intelligence, and indexing to higher education institutions worldwide. Headquartered in Santa Barbara, California, cielo24 has grown into a geographically dispersed team of professionals focused on delivering accessibility solutions to large and small clients across all industries. By leveraging unique technologies to drive scale and efficiency, cielo24 provides on-demand captioning solutions at low cost that ensure our mission of making media accessible to all is within reach, regardless of budget.

