

Automated Laboratory Processes

CCLAS 6



**Release
Notes**

Version 2024-m06

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Introduction

CCLAS 6 is a LIMS for the modern laboratory, with a simple and intuitive web interface that can be easily personalised by end users. User-friendly charts, icons and colour-coding put key data at the forefront, enabling lab operators and managers to readily see issues that require immediate attention. CCLAS 6 supports different industrial sectors and laboratory sizes. CCLAS 6 caters for advanced registration, analysis, reporting and invoicing functionality.

This document includes release notes for CCLAS 6, version 2024-m06.

Further Information

More information on your product can be found:

- in your installed Help file.
- in the Datamine Knowledge Base:
<https://datamine.freshdesk.com/en/support/solutions>.
- from members of the Datamine LinkedIn, Facebook and Twitter group pages and forums.
- on Datamine's website: www.dataminesoftware.com

Product Downloads

The latest versions of Datamine products, and release notes for other versions of CCLAS 6 and supporting applications, can be downloaded from the support website:

- <https://www.dataminesoftware.com/support-portal-and-downloads/>

CCLAS 6 2024-m06 Release Notes

2024-m06 base

This maintenance release contains enhancements to the following functional areas:

- Authentication
- Workbook readonly security
- Change of reporting details in workbook
- Check analysis by template sample
- Invoice change protection for locked jobs
- Each invoice to have a locale
- Revamping of the Pre-analysis Operations processes in the Operations section of the Online Help.

New Features

Registration of Check Analysis from Workbook using Template Samples

CCLAS-5239 Check Analysis to be defined by Sample Templates

Created Date: 19/01/2024 Case Number: 96737

- **CCLAS-5315 Scheme version analyte to have a Lower/Upper Template Sample Code**

Created Date: 5/02/2024 Case Number: 96737

When Maintaining Scheme Version Analytes on the **CCSCHMVERANA—Scheme Version Analyte Detail** screen, a scheme version analyte (SVA) can have a **Lower Template Sample Code** and **Upper Template Sample Code**, default empty, selected from a drop-down list populated with **Sample Code** and **Sample Name** pairs where the sample is in scope (an org-scope SVA can only link to org-scope template samples, and a lab-scope SVA can link to an org-scope or lab-scope SVA), a template, approved for export, and is active. The fields also support lookup by launching the **CCSAMP—Sample Search** application to return one selected template sample code to the field.

The following properties are added to the ccSchemeVersionAnalyte DTO to support this functionality:

- Editable properties: Add **lowerTemplateSampleCode**, **lowerTemplateSampleCodeLabCode**, **upperTemplateSampleCode** and **upperTemplateSampleCodeLabCode**
- Non-editable properties: **lowerTemplateSampleName** and **upperTemplateSampleName**

On submit, **LowerTemplateSampleCode**, **lowerTemplateSampleCodeLabCode**, **upperTemplateSampleCode** and **upperTemplateSampleCodeLabCode** are persisted without any further validation.

- **CCLAS-5451 Scheme Save As to default Lower/Upper Template Sample Code**

Created Date: 21/02/2024 Case Number: 96737

When Maintaining Schemes to create a scheme from another scheme, then any new scheme version analyte in the new scheme inherits the **Lower Template Sample Code** and **Upper Template Sample Code** from the source scheme version analyte.

- **CCLAS-5453 Create new scheme version to default Lower/Upper Template Sample Code**

Created Date: 21/02/2024 Case Number: 96737

When Configuring Versions of a Scheme to create the next version of a scheme, then any new scheme version analyte in the new scheme version inherits the **Lower Template Sample Code** and **Upper Template Sample Code** from the source scheme version analyte.

- **CCLAS-5452 Scheme version analyte Save As to default Lower/Upper Template Sample Code**

Created Date: 21/02/2024 Case Number: 96737

When Maintaining Scheme Version Analytes to create a scheme version analyte from another scheme version analyte, then the new scheme version analyte inherits the **Lower Template Sample Code** and **Upper Template Sample Code** from the source scheme version analyte.

- **CCLAS-5316 Enabled scheme version analyte to default Lower/Upper Template Sample Code and allow update restriction**

Created Date: 5/02/2024 Case Number: 96737

When Maintaining Schemes to enable an org-scope scheme for use in a laboratory, then any new scheme version analyte in the enabled scheme inherits the **Lower Template Sample Code** and **Upper Template Sample Code** from the org-scope scheme version analyte.

- **CCLAS-5409 For a lab-enabled scheme version analyte, restrict the editing of Lower/Upper Template Sample Code via preference**

Created Date: 14/02/2024 Case Number: 96737

When Maintaining Scheme Version Analytes in an enabled-scope scheme, then, given normal security checks, the **Lower Template Sample Code** field and/or **Upper Template Sample Code** field are editable only where the **ALLOW_SCHEMEVERSIONANALYTE_EDITABLE_PROPERTIES** contains "lowerTemplateSampleCode" and/or "upperTemplateSampleCode", respectively, in the comma-separated list of properties.

When Maintaining Scheme Version Analytes in an org-scope or lab-scope scheme, then, given normal security checks, the **Lower Template Sample Code** field and/or **Upper Template Sample Code** field are editable.

- **CCLAS-5317 Sample scheme analyte to have a Lower/Upper Template Sample Code**

Created Date: 5/02/2024 Case Number: 96737

When Maintaining Sample Tests on the **CCREGNSMPLSCHANA—Sample Scheme Analyte Detail** screen, a sample scheme analyte (SSA) can have a **Lower Template Sample Code** and **Upper Template Sample Code** that defaults as follows:

- For an org-scope test added to an org-scope sample, then these fields come from the org-scope scheme version analyte.
- For an org-scope test added to a lab-scope sample, then these fields come from the enabled-scope scheme version analyte.
- For a lab-scope test added to a lab-scope sample, then these fields come from the lab-scope scheme version analyte.

These template samples be cleared, updated, or selected from a drop-down list populated with **Sample Code** and **Sample Name** pairs where the sample is in scope, a template, approved for export, and is active. The fields also support lookup by launching the **CCSAMP—Sample Search** application to return one selected template sample code to the field.

The following properties are added to the ccSampleSchemeAnalyte DTO to support this functionality:

- Editable properties: Add **lowerTemplateSampleCode**, **lowerTemplateSampleCodeLabCode**, **upperTemplateSampleCode** and **upperTemplateSampleCodeLabCode**
- Non-editable properties: **lowerTemplateSampleName** and **upperTemplateSampleName**

On submit, **LowerTemplateSampleCode**, **lowerTemplateSampleCodeLabCode**, **upperTemplateSampleCode** and **upperTemplateSampleCodeLabCode** are persisted without any further validation.

- **CCLAS-5318 Job SaveAs to default the Lower/Upper Template Sample Code for a sample scheme analyte**

Created Date: 5/02/2024 Case Number: 96737

When Registering Jobs from Template (or other) Jobs, then any new sample scheme analyte in the new job inherits the **Lower Template Sample Code** and **Upper Template Sample Code** from the source sample scheme analyte.

- **CCLAS-5351 CopySample to default the Lower/Upper Template Sample Code for a sample scheme analyte**

Created Date: 6/02/2024 Case Number: 96737

When Copying a Sample in a Job, then any new sample scheme analyte in the new sample inherits the **Lower Template Sample Code** and **Upper Template Sample Code** from the source sample scheme analyte.

- **CCLAS-5352 CreateComposite to default the Lower/Upper Template Sample Code for a sample scheme analyte**

Created Date: 6/02/2024 Case Number: 96737

When Maintaining Composite Samples to create a composite sample, then any new sample scheme analyte in the new sample inherits the **Lower Template Sample Code** and **Upper Template Sample Code** from the source sample scheme analyte.

- **CCLAS-5353 CreateSampleFromTemplate to default the Lower/Upper Template Sample Code for a sample scheme analyte**

Created Date: 6/02/2024 Case Number: 96737

When Adding a Group of Samples using a Template Sample to a Job, then any new sample scheme analyte in the new samples inherits the **Lower Template Sample Code** and **Upper Template Sample Code** from the source sample scheme analyte.

- **CCLAS-5414 AddTestsFromSamples to default the Lower/Upper Template Sample Code for a sample scheme analyte**

Created Date: 15/02/2024 Case Number: 96737

When Adding Tests to a Sample using a Template Sample, then any new sample scheme analyte in the new sample schemes inherits the **Lower Template Sample Code** and **Upper Template Sample Code** from the source sample scheme analyte.

- **CCLAS-5358 Append/Overwrite QC to default the Lower/Upper Template Sample Code for a sample scheme analyte**

Created Date: 6/02/2024 Case Number: 96737

When Creating QC Samples using QC Masks by appending or overwriting QC samples for a lab-scope job, then:

- Any new sample scheme analyte in a created duplicate, replicate or spike QC sample inherits the **Lower Template Sample Code** and **Upper Template Sample Code** from the source sample scheme analyte.
 - Any new sample scheme analyte in a created blank or standard QC sample inherits the **Lower Template Sample Code** and **Upper Template Sample Code** from the enabled-scope scheme version analyte (SVA) if the sample scheme links to an org-scope scheme, or from the lab-scope SVA if the sample scheme links to a lab-scope scheme.
- **CCLAS-5360 CreateBatch and adding scheme/template QC to default the Lower/Upper Template Sample Code for a QC sample scheme analyte**

Created Date: 6/02/2024 Case Number: 96737

When Creating QC Samples using QC Masks by appending batch QC using registered sample scheme QC masks or template sample scheme QC masks, then:

- Any new sample scheme analyte in a created replicate or spike QC sample inherits the **Lower Template Sample Code** and **Upper Template Sample Code** from the source batch sample scheme analyte.
 - Any new sample scheme analyte in a created blank or standard QC sample inherits the **Lower Template Sample Code** and **Upper Template Sample Code** from the enabled-scope scheme version analyte (SVA) if the batch sample scheme links to an org-scope scheme, or from the lab-scope SVA if the batch sample scheme links to a lab-scope scheme.
- **CCLAS-5361 QCModify to default the Lower/Upper Template Sample Code for a QC sample scheme analyte**

Created Date: 6/02/2024 Case Number: 96737

When Maintaining Batch Samples to add QC samples to a job scheme in a registered or batch job using the **CCQCSM—QC Sample Modification** application, then:

- Any new sample scheme analyte in a created duplicate, replicate or spike QC sample inherits the **Lower Template Sample Code** and **Upper Template Sample Code** from the source sample scheme analyte.
- Any new sample scheme analyte in a created blank or standard QC sample inherits the **Lower Template Sample Code** and **Upper Template Sample Code** from the enabled-scope scheme version analyte (SVA) if

the sample scheme links to an org-scope scheme, or from the lab-scope SVA if the sample scheme links to a lab-scope scheme.

- **CCLAS-5362 Report result sets/views to include the Lower/Upper Template Sample Code for a sample scheme analyte**

Created Date: 6/02/2024 Case Number: 96737

When Generating Reports from Report Requests, then the **Lower Template Sample Code** and **Upper Template Sample Code** are included in the **RSSampleSchemeAnalyte** result set and **vSSA** normalised result set.

Refer to the core reporting result sets for views and DTOs associated with the jobs, samples, tests, products, QC types, etc, required for a job report for Configuring Job Report Templates.

- **CCLAS-5320 Workbook Analyte and SVA objects to include Lower/Upper Template Sample Code and expose on lower panel**

Created Date: 5/02/2024 Case Number: 96737

When Managing the Workbook Environment to show the analysis detail lower panel, that is, the **CCWKOPPANE—Workbook Open Panel Detail** screen, and a workbook cell is selected, then the associated sample scheme analyte's **Lower Template Sample Code** and **Upper Template Sample Code** are exposed for editing on the, and may be updated or cleared.

These template samples be cleared, updated, or selected from a drop-down list populated with **Sample Code** and **Sample Name** pairs where the sample is in scope, a template, approved for export, and is active. The fields also support lookup by launching the **CCSAMP—Sample Search** application to return one selected template sample code to the field.

If these fields are updated, they are only updated in the workbook session memory, and persisted only upon submit. On submit, **LowerTemplateSampleCode**, **lowerTemplateSampleCodeLabCode**, **upperTemplateSampleCode** and **upperTemplateSampleCodeLabCode** are persisted without any further validation.

Note: The only content that is persisted immediately upon update are the sample scheme notes; all other changes are held in the workbook session memory and only persisted upon submit.

The following properties are added to the workbook Analyte and SchemeVersionAnalyte DTOs to support the registration of tests from a template sample for lower or upper check analysis functionality:

- Editable properties: Add **lowerTemplateSampleCode**, **lowerTemplateSampleCodeLabCode**, **upperTemplateSampleCode** and **upperTemplateSampleCodeLabCode**
- Non-editable properties: **lowerTemplateSampleName** and **upperTemplateSampleName**
- **CCLAS-5321 TriggerCheckAnalysis workbook service for samples of selected sample scheme analytes with a critical detection limit failure and Check Workflow Status**

Created Date: 5/02/2024 Case Number: 96737

The new **TriggerCheckAnalysis** workbook service operates on selected workbook cells and registers check analysis where required, used for Preparing for Check Analysis in a Workbook Session.

When a result is entered, such that, a sample scheme analyte's **Detection Limit Status** proceeds to *Lower Failure* or *Upper Failure* and the **Workflow Status** proceeds to *Check*, the new TriggerCheckAnalysis workbook service is used to set the **Detection Limit Status** to *Ignored Lower Failure* and the **Workflow Status** to *Analysed*, and any test from sample scheme analyte's **Lower Template Sample Code** or **Upper Template Sample Code**, respectively, is registered on the sample where it is not already registered and where there is no scheme version conflict within the job, and each new sample scheme analyte's **Workflow Status** is set to *Repeat*.

The TriggerCheckAnalysis workbook service accepts the following inputs:

- Selected SSAs in the Workbook grid
- DetectionLimitCheckType = LowerChecksOnly, UpperChecksOnly, BothLowerAndUpperChecks

TriggerCheckAnalysis workbook service logic:

1. The service can proceed even where the job is locked by another user or the cell is locked (for example, due to the SSA's **Workflow Status** or the existence of a **Spreadsheet Formula**).

Note: This behaviour is consistent with other workbook services that change workflow statuses, for example, **Activate Upper Scheme**. If a specific customer wants to protect against this, then the Groovy script used to call this service needs to detect the job lock status and bypass the **TriggerCheckAnalysis** workbook service, where required.

2. If the user does not have the **ALLOW_CHECK_ANALYSIS** application preference (Boolean, default false) enabled, then the service does not proceed, and an error is raised: *User has no permission to perform Trigger Check Analysis.*

Note: Where this service is called by a Groovy script associated with a workbook main or right-click menu option, then the error needs to be trapped by the script so that it can be displayed on the Workbook Status bar.

3. Determine the SSAs with a lower template sample code that are to be triggered:
 - a. Where the SSA is selected in the workbook
 - b. Where the `DetectionLimitCheckType` = (*LowerCheckOnly* or *BothLowerAndUpperCheck*) and SSA's **Detection Limit Status** = *LowerFailure* and SSA's **Workflow Status** = *Check*
→ use the SSA's **Lower Template Sample Code** to register further analysis
4. Determine the SSAs with an upper template sample that are to be triggered:
 - a. Where the SSA is selected in the workbook
 - b. Where the `DetectionLimitCheckType` = (*UpperCheckOnly* or *BothLowerAndUpperCheck*) and SSA's **Detection Limit Status** = *UpperFailure* and SSA's **Workflow Status** = *Check*
→ use the SSA's **Upper Template Sample Code** to register further analysis
5. For each distinct sample in both sets of determined SSAs:
 - a. Determine the unique set of template samples to be registered on the sample

Note: The service does not validate Lower Template Sample Code and Upper Template Sample Code, but just will not register any check analysis if the template code is not found.

- b. If the sample contains a particular version of a scheme where a determined template SS has the same scheme with a different version, then the service does not proceed and an error is raised.
- c. For each determined template sample:

- I. Use a service similar to AddTestsFromSamples to register the SSs and SSAs from the template sample to the sample

Note: This service is different to AddTestsFromSamples in CCREGN—Job > Create Sample as it has to operate on selected SSAs in workbook, however, the logic to add the SSs/SSAs to the samples IS THE SAME

- II. This existing process caters for the case where a scheme or analyte in the template sample is already registered on the sample; that is, it will not register it again. Therefore, we need to:
 - i. Set any existing SSA's **Workflow Status** to *Repeat* ONLY if their current **Workflow Status** is in (*Not Started, Not Analysed* or *No Result*)
 - ii. Set any newly registered SSA's **Workflow Status** to *Repeat*

Note: If the newly registered SSA has a **Spreadsheet Formula**, then the SSA does NOT have its **Workflow Status** set to *Repeat* since the formula could be executed and result in a true value, in which case **Workflow Status** is set to *Analysed*, or not be resolved, in which case, **Workflow Status** is set to *Not Started* Only SSA without any formula have their **Workflow Status** set to *Repeat*.

6. For each determined SSA with a lower template sample that was triggered, set the SSA's **Detection Limit Status** to *IgnoreLowerFailure* and SSA's **Workflow Status** to *Analysed*
 7. For each determined SSA with an upper template sample that was triggered, set the SSA's **Detection Limit Status** to *IgnoreUpperFailure* and SSA's **Workflow Status** to *Analysed*.
- **CCLAS-5323 TriggerCheckAnalysis service provided via a Groovy script linked from a Workbook right-click menu option**

Created Date: 5/02/2024 Case Number: 96737

The following script allows the TriggerCheckAnalysis workbook service to be launched from a right-click menu option, for example **Trigger Check Analysis**.

Trigger Check Analysis workbook right-click menu option

```
import com.mincom.cclas.domain.job.JobRepository
import com.mincom.cclas.domain.preference.PreferenceService
import com.mincom.cclas.model.sample.scheme.analyte.Analyte
import com.mincom.cclas.model.sample.scheme.analyte.AnalyteReading
import com.mincom.cclas.util.SpringBeanUtil
import com.mincom.cclas.workbook.dialog.Callback
import com.mincom.cclas.workbook.dialog.Dialog
import com.mincom.cclas.workbook.dialog.InputDialog
import com.mincom.cclas.workbook.script.AbstractWorkbookScript
import com.mincom.cclas.workbook.session.WorkbookSession
import com.mincom.ellipse.app.security.SecurityToken
import com.mincom.ellipse.errors.Error
import com.mincom.ellipse.service.m2000.ccworkbook.CCWorkbookService
import com.mincom.ellipse.types.m2000.instances.CCWorkbookDTO
import com.mincom.ellipse.types.m2000.instances.UID
import com.mincom.ji.cqrs.Messages

import static
com.mincom.ellipse.security.SecurityTokenServiceLocator.getSecurityTokenService

/*
    May 2024
    Written by Datamine Software. Requires release 2024-m06 or above to work
    TriggerCheckAnalysis.groovy (As a Workbook Script)
    Purpose: Allows Workbook users to select specific Workbook Analytes/Cells and
    request that the Check Analysis Test(s) are added to the selected Samples
    TODO: This script SHOULD check that the Workbook Session is NOT READONLY.
    This script will check that the current user has the Preference ALLOW_CHECK_
    ANALYSIS enabled, otherwise reject
    This script will check that a Production Job is selected, otherwise reject.
    This script will confirm that at least one cell is selected, otherwise reject
    This script will confirm that no more than 1000 cells are selected, otherwise
    reject
    This then prompt for critical inputs:
    - Checks for Lower Limit Failures, or Upper Limit Failures or Both
    This script will call the Workbook Session service to:
    - For the selected Analytes that match the requested Upper and/or Lower
    Check Analysis
        If Cell Workflow Status = 'CHECK' and Cell DL Status = 'Upper Failure or
        Lower Failure'
            - Mark the Analyte WFS = 'Analysed'
            - Mark the Analyte Internal DL Status = 'Ignored Lower Failure' or
            'Ignored Upper Failure' as required.
            - Create a Batch Queue tasks for any Workbook Cells that have the required
            Workflow and Internal DL Status combinations, that will add the required Schemes
            and Analytes to the current Samples.
        For each selected Sample, it will create a single Batch Queue task for that
        Sample.
```

```
    The user will be reminded that the Workbook Session should be saved at this
    point
    Error Handling:
    If no Analytes are selected, then display an Error (in the Workbook status
    bar).
    If > 1000 Analytes are selected, then display an Error (in the Workbook status
    bar).
    If User is not permitted to run this service, then display an Error (in the
    Workbook status bar).
    If any errors are returned from the service, these will be notified to the user
    (in the Workbook status bar).
        For example,
            Error: ??????????????????????
*/

class TriggerCheckAnalysis extends AbstractWorkbookScript {
    private List<Analyte> selectedAnalytes
    // Define the allowable selections of the Check Analysis, Presumes that the
    user 'knows' the difference and can select intelligently, otherwise just set the
    default to 'Both'
    // to adjust the order, please bear in mind the integer is pair with the string
    exclusively: 1 = lower, 2 = upper, 3 = both
    private static Map<Integer, String> detectionLimitCheckTypeMap = [
        3: 'Both Lower And Upper Checks',
        2: 'Upper Checks Only',
        1: 'Lower Checks Only'
    ]

    @Override
    void initialise(WorkbookSession session) {
    }

    @Override
    void execute(WorkbookSession session, List<Analyte> analytes,
    List<AnalyteReading> readings, List<Object> parameters) {
        selectedAnalytes = analytes
        session.workbookUI.statusBar.statusBar1Text = " "
        if (selectedAnalytes == null || selectedAnalytes.size() <= 0) {
            returnMessage(session, "No analytes selected for Check Analysis.")
            return
        }
        if (selectedAnalytes.size() > 1000) {
            returnMessage(session, "Maximum 1000 analytes can be selected for Check
    Analysis.")
            // Note the new service will also check this max as well, so you cannot
            bypass this check.
            return
        }
    }
}
```

```
        if (!isAllowCheckAnalysis()) {
            returnMessage(session, "User has no permission to perform Trigger Check
Analysis.")
            return
        }
        // From the first selected Analyte, determine its Job Type, and reject if a
Labbatch Job
        Analyte analyte = selectedAnalytes.get(0)
        boolean isJobLabBatched = jobRepository().isJobLabBatched
(analyte.getOrganisationCode(), analyte.getLaboratoryCode(), analyte.getJobCode())
        if (isJobLabBatched) {
            returnMessage(session, "Lab Batched Job is not allowed to perform
Trigger Check Analysis.")
            return
        }
        // Prepare the Dialog for the types of Checks to be requested.
        InputDialog inputDialog = session.workbookUI.newInputDialog("Trigger Check
Analysis", dialogDetailCallback())
        List<String> dropdownValues = detectionLimitCheckTypeMap.collect { it.value
}
        // Set the default to be the 'Both' type
        inputDialog.addComboInput("DET_LIM_CHECK_TYPE", "Detection Limit Check
Type", dropdownValues, dropdownValues.get(0))
        inputDialog.show()
    }

    private Callback dialogDetailCallback() {
        return new Callback<InputDialog>() {
            @Override
            void onClick(InputDialog dialog, WorkbookSession session, Dialog.Flags
flag) {
                if (flag.toString().equals("OK")) {
                    String detectionLimitCheckType = dialog.getValue("DET_LIM_
CHECK_TYPE")
                    Integer detectionLimitCheckTypeKey =
getDetectionLimitCheckTypeKey(detectionLimitCheckType)
                    if (detectionLimitCheckTypeKey != 0) {
                        Messages messages = session.triggerCheckAnalysis
(selectedAnalytes, detectionLimitCheckTypeKey)
                        if (messages.hasAnyErrors()) {
                            Error firstError = messages.getErrors().get(0)
                            // if error is hit, then return the error message on
the status bar and jump out from this method
                            returnMessage(session, firstError.getMessageText())
                            return
                        } else {
                            // if no error, then persist the workbook
                            persistWorkbook(new UID(session.workbook.id))
                        }
                    }
                }
            }
        }
    }
}
```

```
        }
        returnMessage(session, "Processing to register check analysis
is via the system batch queue. The sheet has been saved.")
        // it could be handy that if the user wanted to see the Batch
Queue task being completed, another menu option could launch the MSEJEX Search
application with the required search criteria.
        //TODO: Potentially offer to the user the option to launch the
MSEJEX search app
    }
}
}

static void returnMessage(WorkbookSession session, String message) {
    session.workbookUI.statusBar.statusBar1Text = "<font color='#FF0000'
size='12'>" + message + "</font>"
}

private static boolean isAllowCheckAnalysis() {
    return preferenceService().fetchAsBoolean("ALLOW_CHECK_ANALYSIS").orElse
(false);
}

static Integer getDetectionLimitCheckTypeKey(String value) {
    for (entry in detectionLimitCheckTypeMap.entrySet()) {
        if (entry.value == value) {
            return entry.key
        }
    }
    return 0
}

private static void persistWorkbook(UID workbookId) {
    CCWorkbookDTO workbookDTO = new CCWorkbookDTO();
    workbookDTO.getWorkbookId().setValue(workbookId.getValue());
    SecurityToken securityToken = getSecurityTokenService().getSecurityToken()
workbookService().updateWorkbookContent(securityToken, workbookDTO, true);
}

private static CCWorkbookService workbookService() {
    SpringBeanUtil.getBean(CCWorkbookService.class)
}

private static PreferenceService preferenceService() {
    SpringBeanUtil.getBean(PreferenceService.class)
}

private static JobRepository jobRepository() {
```

```
        SpringBeanUtil.getBean(JobRepository.class)
    }

    void onError(WorkbookSession session, Exception exception) {
        session.workbookUI.statusBar.statusBar1Text = "<font color='#FF0000'
size='12'>" + exception.getMessage() + "</font>"
    }
}
```

- **CCLAS-5326 Job promote to include/exclude Lower/Upper Template Sample Code for sample scheme analytes**

Created Date: 5/02/2024 Case Number: 96737

When Promoting Entities to Use a New Scheme Version and one or more jobs are selected in the **CCREGN—Search Job** screen and the **Promote** grid flow is selected, then the **CCREGN—Promote to Latest Scheme Version Dialog Box** includes the sample scheme analyte's **Lower Template Sample Code** and **Upper Template Sample Code**.

The **PRODUCTION_PROMOTION_OVERRIDE_LIST**, **INTERNAL_PROMOTION_OVERRIDE_LIST** and **PROMOTION_OVERRIDE_LIST** application preferences used to preserve the values of template sample scheme analyte properties in production, internal and other types of jobs, respectively, can include **lowerTemplateSampleCode** and **upperTemplateSampleCode** sample scheme analyte properties in the comma-separated list of protected properties.

- **CCLAS-5422 Sample Approve for Export to check any lower/upper template samples linked from SSAs are also approved**

Created Date: 15/02/2024 Case Number: 96737

When Using a Central Library for the testing environment and approving template samples for export, then the approval process checks that, for any **Lower Template Sample Code** and **Upper Template Sample Code** referenced by any of its sample scheme analytes, that the template sample is also approved for export, otherwise an error is raised: *A linked lower/upper template sample <Sample Code, Sample Name> must be approved for export first.*

Note: This validation is similar to ensuring that linked schemes, products, specifications and biofields are approved for export first.

Note: After a template sample is approved for export, if additional content is added that is NOT approved, then this is considered an 'abuse of the normal process'. Users can always ensure that all content is approved for export by unapproving and re-approving any related entity.

- **CCLAS-5328 Libman Export batch process to handle new SVA and SSA properties (and linked sub-properties)**

Created Date: 5/02/2024 Case Number: 96737

When Using a Central Library for the testing environment and exporting scheme version analytes and template sample scheme analytes, then the export includes each scheme version analyte's and sample scheme analyte's **Lower Template Sample Code** and **Upper Template Sample Code**, respectively.

Note: This process does not reach down to child entities related to the lower/upper template samples as these are, themselves, included in the export already, in their own right.

- **CCLAS-5330 Libman upload of a scheme/version to handle SVA and SSA Lower/Upper Template Sample Code**

Created Date: 5/02/2024 Case Number: 96737

When Using a Central Library for the testing environment and distributing entities across the web, then the upload includes each scheme version analyte's and sample scheme analyte's **Lower Template Sample Code** and **Upper Template Sample Code**, respectively.

- **CCLAS-5438 Libman import of a sample to handle SSA Lower/Upper Template Sample Code (and linked sub-properties)**

Created Date: 19/02/2024 Case Number: 96737

When Using a Central Library for the testing environment and importing template sample scheme analytes, then the import includes each sample scheme analyte's **Lower Template Sample Code** and **Upper Template Sample Code**.

Note: Importing a template sample can only happen after any schemes on the sample are imported first, otherwise an error is raised.

- **CCLAS-5421 Libman import of a scheme to handle SVA Lower/Upper Template Sample Code (and linked sub-properties)**

Created Date: 15/02/2024 Case Number: 96737

When Using a Central Library for the testing environment and importing scheme version analytes, then the import includes each scheme version analyte's **Lower Template Sample Code** and **Upper Template Sample Code**.

Locale Definable per Invoice

CCLAS-5238 Allow Locale to be selectable per invoice to allow invoice reports in the required language

Note: Locales in CCLAS 6 are compared using case-insensitivity, but are persisted in mixed case, for example, en_US, fr_FR.

- **CCLAS-5283 A job invoice and an invoice can have a locale**

Created Date: 24/01/2024 Case Number: 173061

A job invoice and an invoice can have a locale. Locale is added to the ccJobInvoice and cclInvoice DTOs as an editable property.

The job invoice's **Locale** is used to set the invoice's **Locale**, which is, in turn, used to extract the invoice line item notes in the required language. Both the job invoice's and invoice's **Locale** is mandatory.

When Maintaining Job Invoices in Registration, a job invoice's **Locale** is displayed in the grid of the **Invoicing** tab on the **CCREGN—Job Detail** screen as read-only and can only be updated using the row flow that runs the **Change Locale** service.

If a job invoice is copied from another job invoice and the destination **Client Code** is the same as the source **Client Code**, then the **Locale** is copied from the source job invoice. Otherwise, a job invoice's **Locale** defaults to the client's **Locale**. When the new job invoice is displayed in the **Invoicing** tab, the default **Locale** is displayed in the grid by default and is persisted upon submit. Where no default **Locale** is available, such that, no **Locale** is displayed in the grid for the job invoice, then an error is raised upon submit.

For the web service, if **Locale** is provide for a new job invoice, then it is persisted into the created job invoice, and if **Locale** is not provided for a new job invoice, then the client's **Locale** is persisted into the new job invoice, and if the client does not have a **Locale**, then an error is raised: *A job invoice requires a locale that is provided in the job invoice or inherited from the client.*

Note: Mandatory fields on the back-end and web service are: **Client Code** and **Locale**, and **Price Book** if **Quote Code** is supplied.

When Maintaining Invoices an invoice's **Locale** is displayed in the invoice header on the **CCINV—Invoice Detail** screen as read-only.

- **CCLAS-5526 A job invoice's Locale is mandatory (both on create and update)**

Created Date: 2/04/2024 Case Number: 173061

Where a client does not have a **Locale**, when an attempt is made to create a job for the client, given that a default job invoice would be created as well, then an error is raised: *A job invoice requires a locale that is provided in the job invoice or inherited from the client.*

Effectively, ALL clients used for job registration and job invoice creation MUST have a **Locale**. This also has implications when a new client is created (via integration or manual creation) that a **Locale** should be provided for job invoicing.

Use the following SQL query to locate clients that do not have a **Locale** defined:

```
select CODE, NAME, LABORATORY_CODE from cclaspp.CCCLIENT
where (LOCALE = ' ' or LOCALE_FULL_CAPS=' ');
```

- **CCLAS-5310 Invoice CreateDraft to extract invoice line item notes based on the invoice's locale**

Created Date: 31/01/2024 Case Number: 173061

When an invoice is set or reset to draft, each invoice line item's **Base Price Notes** and **Block Price Notes** are sourced from the base or i18n **Base Price Notes** and **Block Price Notes** contained in the price book schedule or quote, based on the invoice's **Locale**.

A merged multiple-job draft invoice can be created from multiple initial invoices, that is, from multiple job invoices where the job invoice's **Client Code**, **Project Code**, **Contact Code**, **Locale**, **Currency** and **Ignore Tax** are common.

- **CCLAS-5440 Invoice MergeInvoices to extract invoice line item notes based on the invoice's locale**

Created Date: 20/02/2024 Case Number: 173061

The **MergeInvoices** service used for **Drafting Invoices** in a merge-by-job mode operates as per CCLAS-5310.

- **CCLAS-5441 Invoice CombinelInvoices to extract invoice line item notes based on the invoice's locale**

Created Date: 20/02/2024 Case Number: 173061

The **CombineInvoices** service used for **Drafting Invoices** in a combine-by-job mode operates as per CCLAS-5310.

- **CCLAS-5309 Add a preference to be used to select job invoice locale**

Created Date: 31/01/2024 Case Number: 173061

The INVOICE_LOCALES application preference is introduced to restrict the choice of locales for job invoices so that unsuitable locales cannot be accidentally selected:

- Type = String
- Scope = Instance
- Description = List of Adjustable Locales for Invoices
- Format = CSV of Locales
- Is System = False | True
- Is Active = False
- Default is empty.

- **CCLAS-5284 Job Update to have the ChangeLocale service available from a job invoice row flow, for initial invoices only**

Created Date: 24/01/2024 Case Number: 173061

For a job invoice with an **Invoice Status** of *Initial*, the job invoice's **Locale** can be updated using the **ChangeLocale** service, available via the **Change Locale** row flow when **Maintaining Job Invoices in Registration**.

The ChangeLocale service is secured. The core rights CCINV and CCREGN INVOICE are updated to have the CCJOBINVOICE:CHANGELOCALE resource. Any custom rights covering these areas must have this resource manually added to them.

The ChangeLocale service displays the **Change Locale** dialog box that prompts the new **Locale**. Where the **INVOICE_LOCALES** application preference is defined and active, then the list of available locales are those in the application preference setting's comma-separated list intersected with active system languages, as configured in the **DLAN** table code in the **MSETBL—Table Code Service** application, otherwise the list of available locales is empty, that is, the locale cannot be changed. (The drop-down list content is in mixed case, for example, en_US, fr_FR, regardless what case the application preference setting uses, and is persisted in mixed case.)

Note: The **ChangeLocale** service changes the locale across all job invoices associated with the related invoice.

CCLAS-5312 Copy JobInvoice, Job SaveAs and CreditInvoice to default locale

Created Date: 31/01/2024 Case Number: 173061

When Registering Jobs from Template (or other) Jobs, then the **Locale** of each job invoice in the new job defaults to the related job invoice's **Locale** in the source job.

When Maintaining Job Invoices in Registration to create a job invoice from another job invoice, then the **Locale** of the new job invoice, and related invoice, defaults to the **Locale** of the source job invoice.

When Transmitting, Booking, Rejecting, Paying and Crediting Production Invoices and a booked invoice is credited, then the **Locale** of the credit note defaults to the **Locale** of the credited invoice.

- **CCLAS-5442 Invoice preview should display the Notes column from the locale-based notes in the invoice/job invoice**

Created Date: 20/02/2024 Case Number: 173061

When previewing an invoice whilst Maintaining Invoices, whether it be an invoice comprised of a single job invoice or multiple job invoices in combined or merged mode, then the invoice line items no longer display in the client's **Locale**, but display in the invoice's **Locale**.

Where there is no i18n translation of a **Base Price Note** and **Block Price Note** for an invoice line item, then the preview will show nothing in that field, therefore, it is necessary to ensure proper translations are in place in price schedules. Surcharges, rebates and taxes are different, in that, where there is no i18n translation in the price adjustment or tax's **Invoice Note**, then the note falls back to the system locale.

- **CCLAS-5370 Invoice Reprice to extract invoice line item notes based on the invoice's locale**

Created Date: 8/02/2024 Case Number: 173061

When repricing a draft or edited invoice whilst Maintaining Invoices, whether it be an invoice comprised of a single job invoice or multiple job invoices in combined or merged mode, then the **Reprice** service ensures that the invoice line items no longer display in the client's **Locale**, but display in the invoice's **Locale**.

- **CCLAS-5371 Invoice Change Price Mode to extract invoice line item notes based on the invoice's locale**

Created Date: 8/02/2024 Case Number: 173061

When changing the pricing mode of a merged invoice whilst Maintaining Invoices, whether it be an invoice comprised of a single job invoice or multiple job invoices in combined or merged mode, then the **ChangeMode** service ensures that the invoice line items no longer display in the client's **Locale**, but display in the invoice's **Locale**.

- **CCLAS-5449 Invoice Reconstruct to ensure invoice line item notes are based on the invoice's locale**

Created Date: 20/02/2024 Case Number: 173061

When Reconstructing Job Invoices from an Invoice, whether it be an invoice comprised of a single job invoice or multiple job invoices in combined or merged mode, then the **Reconstruct** service ensures that the invoice line items no longer display in the client's **Locale**, but display in the invoice's **Locale**.

- **CCLAS-5369 Adding invoice line items to extract notes based on the invoice's locale**

Created Date: 8/02/2024 Case Number: 173061

When appending or inserting an invoice line item whilst Editing Invoices, whether it be an invoice comprised of a single job invoice or multiple job invoices in combined or merged mode, then the **AppendLineItem** and **InsertBeforeLineItem** services, respectively, ensure that the invoice line items no longer display in the client's **Locale**, but display in the invoice's **Locale**.

- **CCLAS-5306 Generate Invoice to respect the invoice's locale**

Created Date: 31/01/2024 Case Number: 173061

When generating the invoice document for an invoice whilst Maintaining Invoices, then the invoice line items are extracted for the report in the invoice's **Locale**, and the LANGUAGE variable for the report, available in the DSC, is set to the invoice's **Locale**.

- **CCLAS-5446 EST and WIP invoice reports to respect the invoice's locale**

Created Date: 20/02/2024 Case Number: 173061

When Generating WIP and Estimate Job Invoices, then the invoice line items are extracted for the report in the invoice's **Locale**, and the LANGUAGE variable for the report, available in the DSC, is set to the invoice's **Locale**.

When recalculating the work-in-progress and estimate amounts for multiple invoices, or recalculating the work-in-progress for an Invoice, whilst Maintaining Invoices, then the invoice line items are extracted for the report in the invoice's **Locale**, and the LANGUAGE variable for the report, available in the DSC, is set to the invoice's **Locale**.

- **CCLAS-5448 EST and WIP job costs to continue to respect system locale**

Created Date: 20/02/2024 Case Number: 173061

When Generating WIP and Estimate Job Costs, then the job cost line items are extracted for the report in the system's **Locale**, and the LANGUAGE variable for the report, available in the DSC, is set to the system's **Locale**.

- **CCLAS-5512 Use Invoice Locale for Surcharge, Rebate and Tax descriptions in invoice items on invoice Release**

Created Date: 22/03/2024 Case Number: 173061

When Releasing Invoices, whether it be an invoice comprised of a single job invoice or multiple job invoices in combined or merged mode, then the **Release** service ensures that surcharges, rebates and taxes no longer display in the client's **Locale**, but display in the invoice's **Locale**. Where there is no i18n translation in the price adjustment or tax's **Invoice Note**, then the note falls back to the system locale.

Notes:

There is no actual definition of the system locale but rather the presumption that the primary entries in the price schedules for the **Base Price Note** and **Block Price Note** are extracted for the job cost WIP and estimate and WIP reports. For most users this is the en_US locale.

If WIP and estimate job cost reports are to include locale-based notes, then the report templates need to be modified to locate the alternative locale strings from the price schedules instead of using the default notes that are stored in the job cost WIP and estimate database views.

Enhancements

Authentication

CCLAS-5386 Provide useful error messages to the user when AAD rejects a login attempt

Created Date: 12/02/2024 Case Number:

Where a user attempts Logging in to a Laboratory and the login details are passed to the corporate Azure Active Directory (AAD), if any of the following error conditions are raised by AAD, then the indicated message is returned to the CCLAS 6 user:

- *Server returned error in RSTR - ErrorCode: FailedAuthentication. FaultMessage: ID3242: The security token could not be authenticated or authorized.*
Password or User Account is not valid
- *Request was throttled according to instructions from STS. Retry in 86791 ms. Subsequent login attempt failed. Wait for 2 minutes to retry*
- *Server returned error in RSTR - ErrorCode: InvalidSecurity. FaultMessage: An error occurred when verifying security for the message.*
Supplied Password contains invalid characters (including €, £)
- *Server returned error in RSTR - ErrorCode: RequestFailed. FaultMessage: MSIS7069: The specified request failed.*
The login request has failed, with returned error number MSIS7069

Note: The AAD setting **aad.message.mapping.cust** must be set to your company code. Contact Datamine to know what this code is.

CCLAS-5390 On AAD login, if user's Principal Name is not located, then return error

Created Date: 12/02/2024 Case Number:

Where a user attempts Logging in to a Laboratory and the login details are passed to the corporate Azure Active Directory (AAD), if the following error condition is raised by AAD, then the indicated message is returned to the CCLAS 6 user:

- *Unable to find UserPrincipalName for [USER].*
Azure Active Directory Account is not defined for User

Security

CCLAS-4932 Publish a Workbook ReadOnly Right

Created Date: 22/11/2023 Case Number: 177194

When Maintaining Security Roles to set CCLAS Core Roles and Rights for users, the new CCWKBK READ_ONLY core right is available to permit read-only access to a workbook session. This right provides the user with the essential application and service permissions to allow a workbook to be opened and reviewed for any **Data Mode** (*Raw results mode, Weight/Volume mode, Dilution mode, Final results mode*), but to not allow submit to persist changes to sample schemes or sample scheme analytes, including:

- Clearing or changing a result in a cell
- Releasing or validating a result
- Updating results by manipulating readings via the lower panel
- Updating sample scheme or sample scheme analyte notes via the lower panel.

This right alone does not make the workbook cells read-only, but denies the update services of the workbook session. Workbook menu items or scripts that change content other than sample scheme or sample scheme analyte details may still proceed for the user.

Note: If a previous non-core version of this right exists, then it should be removed and the core right inserted. If the CCWKBK READ_ONLY right already exists prior to this release and it is flagged as core right, then it will be automatically removed and reinserted during upgrade.

Workbook

CCLAS-5500 Service to Change Reporting Details in CCWKOP Update SSA grid, in memory only, persisted upon submit

Created Date: 14/03/2024 Case Number: 144522

A sample scheme analyte's (SSA's) reporting details can be changed in the **CCWKOP—Open Workbook** application, opened in either or Inverted mode.

The **Change Reporting Details** workbook service, available in the Workbook Session API, can be called from a script that is triggered from a custom workbook right-click menu option.

Note: The original intention was to have the new Change Reporting Details workbook service pop up a dialog for the user to select/enter the new reporting details, however, due to an interface limitation (which will be addressed in the HTML5 interface), where a service contains a modelled dialog, if the service is run from a Workbook right-click command, then the process lacks the capability to retain selected analyte information post-dialogue initiation.

A script available from Datamine and located in the **Customisation Guide** under **In-service Scripts > Workbook Functionality > Examples > Example—Change reporting details**, allows the selected workbook cells to be passed to the service and allows the user to enter the new reporting details via a dialog, with its drop-down widgets pre-populated based on the first selected workbook cell.

The service applies the change reporting details logic in the same way as in other Change Reporting Details services available from the **Tests** grid in the **CCSAMP—Sample Detail**, **CCSAMPMULTIEDIT—Update Multiple Samples Detail**, **CCRPTR—Report Request Detail** and **CCRPTRMULTIEDIT—Report Request Sample Multiple Edit Detail** screens, except that the changes are held in the workbook memory and only persisted upon submit. Refer to Maintaining Sample Tests and Maintaining Tests for a Report Request processes in the Online Help.

Whilst the Updating Sample Scheme Analyte Reporting Details in Workbook process is really a custom solution based on a core service, it is presented in the Online Help so that the laboratory analyst knows this functionality is possible.

Invoicing

CCLAS-3541 Reject Change Pricing Mode on an invoice if any related job is locked

Created Date: 3/07/2023 Case Number: 136427

Where an invoice is a merged grouped-by-job or combined-job invoice and any related job is locked by another user, when Maintaining Invoices and the **Change Pricing Mode** service is run either interactively or by the system batch queue, then the service rejects the action.

CCLAS-3547 Reject Merge Invoices and Combine Invoices if any related job is locked

Created Date: 27/09/2022 Case Number: 136427

Where selected invoices are initial invoices and any related job is locked by another user, when Drafting Invoices and the **Merge Invoices** or **Combine Invoices** service is run either interactively or by the system batch queue, then the service rejects the action.

CCLAS-3542 Reject Delete for an invoice if any related job is locked

Created Date: 27/09/2022 Case Number: 136427

Where an invoice exists and any related job is locked by another user, when [Maintaining Invoices](#) and the **Delete** service is run either interactively or by the system batch queue, then the service rejects the action.

Online Help

The Pre-analysis Operations processes in the Operations section of the Online Help have completed the revamping process, such that, process topics contain all required information for the process and activity topics only contain the steps to perform the activity.

Defects

Test Configuration

CCLAS-5859 Range Table Search Grid repeats rows on pagination boundary

Created Date: 29/05/2024 Case Number: 196493

When Maintaining Range Tables and searching for range tables, then records at the pagination limit (the twentieth record, fortieth record, etc) are no longer displayed twice, but now display only once.

Reporting

CCLAS-3645 Create Report Requests should set RRS and RRSA Report Name and Report Description from JS and JSA, regardless of them being empty

Created Date: 24/11/2022 Case Number: 139988

When Creating Report Requests from Job Report Stakeholders in the **CCRPTR—Search Report Request** screen using the **Create Report Requests** grid flow, then each report request scheme and report request scheme analyte inherits **Report Name** and **Report Description** from the job scheme and job scheme analyte, respectively, regardless of whether they are empty or not.

Previously, if a job scheme or job scheme analyte's **Report Name** or **Report Description** was empty, then it was populated from the master scheme version or scheme version analyte instead of from the job scheme or job scheme analyte. This was problematic if the user intended to clear these fields in the job and have cleared fields passed to a created report request, and cleared fields passed to the eventual report.

Invoicing

CCLAS-5366 Cannot credit a combined invoice when price adjustments exist (so gives incorrect values in invoice line items)

Created Date: 8/02/2022 Case Number: 183140

Where an authorised combined-by-job invoice contains rebates and/or surcharges, when the invoice is credited, then the process no longer fails due to a database constraint error as it attempts to insert the credit note's invoice line items from the invoice, but now includes those items in the credit note, as expected. Refer to Transmitting, Booking, Rejecting, Paying and Crediting Production Invoices.

Getting Help for CCLAS

Related processes...

- [Logging in to a Laboratory](#)
 - [Using the Screen Interface](#)
 - [Using the Home Page](#)
 - [Custom Business Processes](#)
-

Overview

This section describes where you can access help for your CCLAS 6 installation.

Online Help

The CCLAS 6 Online Help that is available from the CCLAS 6 application is divided into information for:

- Glossary—Contains a list of terms.
- Operations—Covers the processes involved in day-to-day operation of the laboratory, from registration through to reporting and invoicing.
- Configuration—Covers the processes involved in configuring the laboratory for analytical work.
- System—Covers the processes involved in setting up your CCLAS system, including screen personalisations.
- Appendices—Contain references useful for understanding various CCLAS processes.
- Screens—Contains descriptions of CCLAS screens, fields and flows.

Help About

The Help About information provides details pertinent to your CCLAS 6 installation:

- Details of the CCLAS 6 application:
 - Release—The CCLAS 6 release name
 - Version No.—The build number.
 - Build Date—The build date.
 - Reference—The repository commit ID

- Database Schema Version—The version the database schema, to ensure it aligns with the **Application Schema Version**.
- Application Schema Version—The version the application schema, to ensure it aligns with the **Database Schema Version**.
- Datamine Software—Details on how to connect with Datamine Software.

Customer Support

Datamine's commitment to customer service provides our customers with access to a skilled and responsive support team. The global customer support team ensures all customer questions and issues are addressed in a timely manner and escalated as required to ensure resolution.

You should always contact Datamine Support if you have an issue. Do not contact individual members of Datamine for support because your issue may not be responded to in a timely manner if that person is unavailable.

Datamine provides global support for CCLAS 6. If you are a licensed CCLAS 6 user, you can request support via the Support Portal (<https://www.dataminesoftware.com/support/>).

Before contacting support, you should perform some basic troubleshooting of the issue. This allows you to gather information on the issue to pass on to the support team. Providing detailed information assists the support team to find the cause and resolution to your issue. The required information includes:

- Name of site
- Name of contact person for this issue and the contact details
- Name of application with the issue
- Time at which the issue occurred or was noticed
- The application involved, for example, CCSCHM, CCREGN
- A detailed description of the issue and what the expected results should have been
- A detailed description of any related incident, for example, server failure
- Actions taken to resolve the issue, if any
- The current status of the system.

Screen captures or other content pertinent to the issue, for example, reports, should be provided where possible.

We also welcome feedback about this documentation.

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