
Projects (cs.pcs): 15.4.1

Release 15.4.1.17

CONTACT Software

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What's New in *CONTACT Projects* 15.4.1?

1.1 Checklist

The checklist refers to changes that require or are recommended for manual actions before or after the update.

The access rights of project folders now have an impact on the assignment of documents (from SL 4) The access rights of project folders now have an impact on the assignment of documents to a folder, but not on the document itself (from SL 4). Relationship access profiles `CheckCreateFolderDoc` and `CheckDeleteFolderDocument` have been replaced by `cs.pcs: Folder: Document Assignments`. The relationship access profiles `CheckCreateFolderDoc` and `CheckDeleteFolderDocument` and their configuration remain in the system as unassigned elements. After the update, you must delete these elements manually.

Document Templates in Project Structures Before updating: If you use documents as templates in project structures, you must prepare the data for the new database schema. More information can be found in *Document Templates in Project Structures* (page 2)

Default roles of a project Check customer-specific code for the use of the property `cs.pcs.projects.default_roles`. If necessary, change the code as described in *Default roles of projects can be customized in derived classes* (page 1).

Update Script for Favorites We recommend that you run the update script manually, as described in *Project: Update Script for Favorites* (page 2)

Cost Center If you have used the cost center attribute and want to continue using it, add it manually to the GUI *Project: Cost Center* (page 2)

1.2 Default roles of projects can be customized in derived classes

From *CONTACT Projects* 15.4.1 default roles are now customizable in powerscript.

Default value has been moved from `cs.pcs.projects.default_roles` to `cs.pcs.projects.Project.default_roles`.

Each project role that is defined, can be used as a default role in a derived class similar to the following lines:

```
from cs.pcs.projects import Project

class MyProject(Project):

    default_roles = ['Projektmitglied', 'Projektassistent']
```

Currently, there is a legacy mode included. The previous definition `cs.pcs.projects.default_roles` points to the new definition `cs.pcs.projects.Project.default_roles`. It is strongly recommended to check and adapt existing code. The legacy mode will be removed in a future version.

Note: It is strongly recommended to check and adapt existing code regarding the default roles definition immediately.

1.3 Project: New from template

When a project is created from a template, the values of parent project and template flag are no longer copied.

1.4 Projects API manual

Now there is an additional manual partly describing customization via PowerShell Projects API.

1.5 Projects admin manual

Now there is an additional manual partly describing customization Administration Manual.

1.6 Project: Update Script for Favorites

An additional manual update script named `cs.pcs.projects.updates.v15_4_1.update_favorites.py` for data migration of favorites is added. This script will change all occurrences of `subject_name` to `mapped_subject_name_de` for the classes Task, Issue, Checklist and ChecklistItem.

1.7 Project: Cost Center

Attribute `cost_center` is removed from user interface, but still existing within data dictionary.

1.8 Project: Coverage of Roles

Project roles do now indicate if they are covered by at least one person and if they are used as a responsible role for any of the projects tasks.

Note: Later changes to indirect assignments to the project role by an intermediary role assignment are not evaluated.

1.9 Document Templates in Project Structures

Documents or document templates can be used as templates in projects. So far, documents could only be created from the exact index that was assigned to the business object. From Service Level 4, documents can always be created from the currently valid index of the assigned template. You can configure the behavior for the assignment of business object and template using the checkbox *Always Use this Index*. More information on this topic can be found in section Document Templates in Project Structures of the user manual.

So far, document index was a part of the the primary keys. This made it possible to assign several index of a document as templates. From now, the document index is no longer part of the primary key of the assignment class. This means that it is no longer possible to assign multiple index of a document number.

Important: Before updating, you must ensure that only one index of a document is assigned to a business object as a template.

The script `check_uniqueness_of_pcs_doctemplate_assignments.py` supports you in preparing the data. The script is located in the folder `cs\pcs\projects_documents\updates\v15_4_1` of *CONTACT Projects*. Run the script in a console using PowerShell.

The script can display the number of assignments, if the assignments are not match to new database schema.

The script can modify the data to match the new schema. If at least one non-obsolete document is assigned, its most recent index is maintained. If only obsolete documents are assigned, their most recent index is retained. All assignments to other index are removed.

For more information, run the script using the command line argument `--help`

For a complete overview of the business objects to which a document can be assigned as a template, refer to the section `<pcs_user_en:cdbwinusrman-pcs-doctemplates-processing-context>`.

Note: If the update is performed and the data does not match the new database schema, you get an error when compiling one of the classes `cdbpcs_prj2doctmpl`, `cdbpcs_task2doctmpl`, `cdbpcs_doc2cl` or `cdbpcs_doc2cli`.

1.10 Automatically generated view for responsible of persons or roles

An automatically generated view `pcs_sharing_subjects_all` provides the names for persons and roles that are displayed in business objects, e.g. project tasks, issues, in the field *Responsible*.

For more information refer to the section Organizational Context of the admin manual.

What's New in cs.pcs 15.4.0?

2.1 Checklist

The checklist refers to changes that require or are recommended for manual actions before or after the update.

The access rights of project folders now have an impact on the assignment of documents (from SL 19)

The access rights of project folders now have an impact on the assignment of documents to a folder, but not on the document itself (from SL 4). Relationship access profiles `CheckCreateFolderDoc` and `CheckDeleteFolderDocument` have been replaced by `cs.pcs: Folder: Document Assignments`. The relationship access profiles `CheckCreateFolderDoc` and `CheckDeleteFolderDocument` and their configuration remain in the system as unassigned elements. After the update, you must delete these elements manually.

2.2 New time scheduling features

cs.pcs 15.4.0 comes with new features regarding time scheduling such as scheduling with gaps or constraints (early start, etc.). For details please refer to the regarding chapter in the user manual.

Note: From cs.pcs 15.4.0, tasks get the additional property *Automatic Calculation*.

The combination of the values *Bottom-Up Values As Target Value* = Yes and *Automatic Calculation* = No is not meaningful. The results of the bottom-up aggregation and automatically calculated dates are distinguished by the properties of the target and bottom-up dates.

During the update, the *Automatic Calculation* property is set to No for existing tasks. This ensures that the update does not change any date of the existing tasks. On the other hand, the non-meaningful combination of the values of both properties is accepted for existing tasks.

The bottom-up date values for projects and tasks will be aggregated by target date values and also by bottom-up date values of its subtasks. Projects, that are already finished, will not be effected by this change.

2.3 New Microsoft Project Interface

There's a new interface for importing and exporting projects via the Microsoft Project XML format. For details please refer to the regarding chapter in the user manual.

Note: The existing - API based - interface to Microsoft Project is now deprecated and will only be supported until CONTACT Elements Platform 15.1. Lately with the update to a CONTACT Elements

Platform Version > 15.1 customers must also update to the new Microsoft Project interface.

What's New in cs.pcs 15.3.0?

3.1 Checklist

The checklist refers to changes that require or are recommended for manual actions before or after the update.

The access rights of project folders now have an impact on the assignment of documents (from SL 27)

The access rights of project folders now have an impact on the assignment of documents to a folder, but not on the document itself (from SL 4). Relationship access profiles `CheckCreateFolderDoc` and `CheckDeleteFolderDocument` have been replaced by `cs.pcs: Folder: Document Assignments`. The relationship access profiles `CheckCreateFolderDoc` and `CheckDeleteFolderDocument` and their configuration remain in the system as unassigned elements. After the update, you must delete these elements manually.

3.2 New Status Logic

The status logic for projects, project tasks, issues, and checklists has been comprehensively overhauled. This includes status constraints, and follow-up status changes. Make sure to thoroughly check if everything is working as expected, especially if any customizing exists for `cs.pcs`.

When updating a customized system, you can leverage the acceptance tests found in `cs.pcs/tests/accepttests/change_status*.feature`. Start off by simply running the tests to see which ones are failing and need your attention. The tests can be run using the `cdctest` command.

3.3 Freeze and Resume Projects

Running projects can now be “frozen” (paused), which causes its elements to not be shown in the Task Manager. While a project is frozen, none of its data will be writeable except by its managers.

3.4 MS Project and Time Schedules

From now on, every project can be managed either in the system or in Microsoft Project, which denies the opposing system writing access to the project. In case of Microsoft Project being the editor, a primary time schedule must be set. The primary time schedule may be opened using a new entry in the project's context menu. Additionally, a global Microsoft Project time schedule template can be specified.

3.5 Internationalization

CONTACT Elements 15 and its applications contain many newly translated and updated terms. The following paragraphs list all affected elements in this application, while details concerning the actual conversion (called “internationalization” for simplicity) can be found in each product’s release notes.

3.5.1 Renamed Powerscript State and Transition Classes

Classes derived from `cdb.objects.State` and `cdb.objects.Transition` have been renamed. Please check your custom modules for any usage of these classes, and update them accordingly.

Parent Class	Old Classname	New Classname
cs.pcs.projects.Project	CREATED	NEW
	INPROCESS	EXECUTION
	CANCELED	DISCARDED
	CLOSED	COMPLETED
	CREATED_INPROCESS	NEW_EXECUTION
	TO_CREATED	TO_NEW
	CANCELED_INPROCESS	DISCARDED_EXECUTION
cs.pcs.projects.tasks.Task	CREATED	NEW
	WAITING	READY
	INPROCESS	EXECUTION
	CANCELED	DISCARDED
	CLOSED	COMPLETED
	TO_CREATED	TO_NEW
	TO_WAITING	TO_READY
cs.pcs.projects.checklists.Checklist	FINISHED_INPROCESS	FINISHED_EXECUTION
	CREATED	NEW
	WAITING	EVALUATION
	CANCELED	DISCARDED
	RATED	COMPLETED
	RATED_TO_WAITING	COMPLETED_TO_EVALUATION
	CREATED_TO_WAITING	NEW_TO_EVALUATION
cs.pcs.projects.checklists.ChecklistItem	CANCELED_TO_WAITING	DISCARDED_TO_EVALUATION
	CREATED	NEW
	WAITING	READY
	RATED	COMPLETED
	CANCELED	DISCARDED
	RATED_TO_WAITING	COMPLETED_TO_READY
	FINISHED	COMPLETED
cs.pcs.projects.issues.Issue	TO_CANCELED_OR_FINISHED	TO_DISCARDED_OR_COMPLETED
	TO_NOT_FINISHED	TO_NOT_COMPLETED
	CREATED	NEW
	ANALYSIS	EVALUATION
	INPROCESS	EXECUTION
	VERIFICATION	REVIEW
	CANCELED	DISCARDED

The following classes have been removed, and had their logic replaced by other means:

- cs.pcs.projects.tasks.Task
 - FINISHED_OR_CANCELED_TO_INPROCESS
 - INPROCESS_TO_WAITING
 - CREATED_TO_WAITING

– INPROCESS_TO_FINISHED

3.5.2 Translated Relationship Access Profiles

The following Relationship Access Profiles have been renamed:

Checkpunkte Renamed to Checklist Items

Checklisten Renamed to Checklists

Projektaufgaben Renamed to Project Tasks

Aufgabenbeziehungen Renamed to Task Dependencies

Terminplanobjekte Renamed to Time schedule objects

Please rename any usages in custom relationships accordingly.

3.5.3 Translated Catalogs

The following catalogs previously not supporting multiple languages are updated as detailed in the product release notes:

- Task Category (cdbpcs_task_category)
- Checklist Category (cdbpcs_cl_cat)
- Effort Category (cdbpcs_effort_cat)
- Task Dependency (cdbpcs_tr_types)

Also, classes using these catalogs are updated:

- Task (cdbpcs_task)
- Checklist (cdbpcs_checklist)
- Checklist Item (cdbpcs_cl_item)
- Effort (cdbpcs_effort)
- Task Dependency (cdbpcs_taskrel)

3.5.4 Internationalized Catalogs

The following catalog classes have been internationalized:

- Project Roles Catalog (cdbpcs_role_def) (description and name)
- Project Specific Role (cdbpcs_prj_role) (description and name)
- Responsible (cdbpcs_resp_brows) (description and subject_name)
- Role Assignment (cdbpcs_subject_base and its class hierarchy) (role_name and subject_name)
- Risk Class (cdbrm_risk_class) (name)
- Project Category (cdbpcs_project_cat) (name_ml)
- Open Issue Done (cdbpcs_iss_val) (name)
- Open Issue Priority (cdbpcs_iss_prio) (name)
- Open Issue Category (cdbpcs_iss_cat) (name)
- Checklist Item Evaluation (cdbpcs_rat_val) (rating_value)
- Folder Type (cdb_folder_type) (name)

- Performance Type (cdbpcs_effort_activity_type) (name)
- Time Range (cdbpcs_time_schedule_timerange) (name)
- Manual Light Evaluation (cdbpcs_rat_val_lights) (rating_value)

Along with their usages in the following classes:

- Project (cdbpcs_project)
- Task (cdbpcs_task)
- Open Issue (cdbpcs_issue)
- Checklist (cdbpcs_checklist)
- Checklist Item (cdbpcs_cl_item)
- Folder (cdb_folder)
- Effort (cdbpcs_effort)

Note: The attribute description has been removed from the class Project Specific Role (cdbpcs_prj_role). Catalogs now show the descriptions from the class Project Roles Catalog (cdbpcs_role_def).

The attribute `subject_name` of catalog class `cdbpcs_resp_brows` has also been internationalized, along with the following classes:

- Task (cdbpcs_task)
- Checklist (cdbpcs_checklist)
- Checklist Item (cdbpcs_cl_item)
- Open Issue (cdbpcs_issue)
- Resource Schedule (cdbpcs_resource_schedule)
- Time Schedule (cdbpcs_time_schedule)

3.5.5 Translated Status Names

Status names have been internationalized for the classes:

- Project (cdbpcs_project)
- Status Protocol Project (cdbpcs_prj_prot)
- Task (cdbpcs_task)
- Status Protocol Task (cdbpcs_task_prot)
- Checklist (cdbpcs_checklist)
- Status Protocol Checklist (cdbpcs_cl_prot)
- Checklist Item (cdbpcs_cl_item)
- Status Protocol Checklist Item (cdbpcs_cli_prot)
- Open Issue (cdbpcs_issue)
- Status Protocol Open Issue (cdbpcs_iss_prot)
- Effort (cdbpcs_effort)
- Resource Schedule (cdbpcs_resource_schedule)

- Time Schedule (cdbpcs_time_schedule)

Note: The attribute `cdb_status_txt` has been removed from the class Change Log (Details) (cdbpcs_iss_log).

3.5.6 Translated Catalog Values

The following catalog's values have been newly translated:

- Folder Type (cdb_folder_type)
- Billable (cdbpcs_billable)
- Checklist Category (cdbpcs_cl_cat)
- Performance Type (cdbpcs_effort_activity_type)
- Effort Category (cdbpcs_effort_cat)
- Open Issue Category (cdbpcs_iss_cat)
- Open Issue Priority (cdbpcs_iss_prio)
- Open Issue Done (cdbpcs_iss_val)
- Project Category (cdbpcs_project_cat)
- Checklist Item Evaluation (cdbpcs_rat_val)
- Manual Light Evaluation (cdbpcs_rat_val_lights)
- Project Roles Catalog (cdbpcs_role_def)
- Task Category (cdbpcs_task_category)
- Time Range (cdbpcs_time_schedule_timerange)
- Task Dependency (cdbpcs_tr_types)
- Risk Class (cdbrm_risk_class)

Keys remain unchanged.

The new translations will be automatically updated.

Note: This does only apply to catalog values not changed by any custom module.

3.5.7 Update Rating Mechanism

The rating mechanism of the classes Checklists (cdbpcs_checklist) and Checklist Item (cdbpcs_cl_item) has been changed:

- The attribute `rating` has been removed. Internally, only the attribute `rating_id` is used now, along with the new “Multi-Language Attribute” `rating_value` for UI purposes.

3.6 Miscellaneous

- The view *My Projects* can now be accessed from any project table.
- The context menu of the classes `cdbpcs_project` and `cdbpcs_task` have been completely re-organized. Please check these context menu items in your custom solution after the update.

- Some Enumerations (cdb_enum) have been removed:
 - Type KO_criterion, along with the catalog cdbpcs_ko_criterion which has been replaced by a checkbox in the dialog cdbpcs_qualitygate_report.
 - Type JaNeinOffenTyp, along with the catalog JaNeinOffenType that has been replaced with the new multi-language catalog cdbpcs_billable.
- The class Gantt Chart Interval (cdbpcs_gantt_iv) including its UI elements has been removed.
- The tables cdbpcs_objstati_br_tab and cdbpcs_objstati_name_br_tab have been removed.

Note: If removed elements have been used in a custom module, those usages have to be updated.

New features in version 10.2.0

The multi-project management functions are the most important new features of `cs.pcs` version 10.2.0. These support the user in distributed planning of projects and make it possible to create versatile views of project structures.

In addition, this version takes apart the package structure in use to date. This version spins off the *cs.pcs.resources* and *cs.pcs.sync* modules into a separate package or removes them completely.

4.1 Adjustments in detail

- **Resource management (`cs.pcs.resources`) spun off**

The resource management module previously included in `cs.pcs` has been spun off into a separate `cs.resources` package. As a result, different actions are needed depending on how the module was used to date:

If the module was used earlier, `cs.pcs` can only be updated together with the installation of the new `cs.resources` resource management package. The import paths for adjustments to Python files remain unchanged in this case.

If, however, the resource management module has not yet been used, the components of the outsourced module are automatically removed.

- **Synchro Links (`cs.pcs.sync`) removed**

The `cs.pcs.sync` module has been removed in this version because the basic functionality is now covered by the `cs.pcs` module with the new functions for multi-project scheduling. Adjustments that relate to the removed module must be removed from the customer-specific Python implementations accordingly. In addition, the `install_requires` relationships of the packages relating to the `cs.pcs.sync` module have to be removed. The removal of the synchro links is also automated..

- **Masks adjusted**

As part of ongoing development, new attributes have been added to some masks. In particular, these changes pertain to the Task and Project masks. Here, both the *Data sheet* (main tab) and the detail information have been adjusted on the additional tabs. The new masks are maintained so that the most important and editable data is on the main tab and all additional information for scheduling and expenditures are now located on the detail tab.

Follow-up work must be carried out on masks with customer-specific adjustments so that the newly added fields can be placed at the desired position.

- **Static time schedule replaced by configurable time schedule**

The previous solution for scheduling is being replaced by a new HTML5-based solution. This new solution is specifically used to support multi-project planning, i.e. multiple projects or project sub-structures can now be packaged together and edited in any number of plans. For more detailed information on the exact functions of the new scheduling solution, refer to the user manual.

- **Expanded task dependencies replace the Synchro Links**

Predecessor/successor relationships between tasks can now also be created across projects. This allows them to replace Synchro Links, which were previously used for cross-project coordination of project tasks. The task dependencies are primarily informative in character, i.e. they notify the user about schedule-related limits being violated or exceeded but do so without preventing associated tasks from being moved.

- **Inserting PSP code into PCS module**

Using this version allows you to create a PSP code automatically for projects and their tasks. The associated operation for this can be called up on projects and also sets the PSP code for all project tasks based on the PSP code of the project. If the field is set elsewhere or is already in use, the operation should be deactivated in the configuration.

- **Inserting PSP code into PCS module**

If the Microsoft Project link is used, the affected *synchronization table* (page 14) must be adapted to enable the correct synchronization of the schedule value. More information on the configuration options and the *synchronization table* (page 14) can be found in the *OfficeLink administration manual* under *Configuration\Project\Server*.

Note: A description for the standard configuration values can be found in the *synchronization table* (page 14). Please note that the table contents specified here are an excerpt of the information to be synchronized and must be adjusted where appropriate to achieve the desired data synchronization. The content of the *synchronization table* (page 14) is **not** changed automatically during an update!

- **Update: DataMigrations**

This update carries out adjustments on the data stock of projects and tasks:

- Existing task dependencies are re-initiated to correspond to the requirements of multi-project management.
- The values for the *duration* of projects and tasks are re-calculated based on the respective data values.
- The schedule-related limit values for moving tasks with dependencies are initiated.

- **Update: MoveReports**

This update corrects the assignment of some existing standard reports and moves them into the modules provided for them.

- **Update: GenerateQualityCharacteristics**

This update creates project KPIs for existing objects. All project KPIs here are transferred to the status *valid* if they previously had the status *editing*. If no object KPIs have been used yet, the KPIs now set to *valid* are calculated for all relevant objects. In order to enable this update to be very extensive when running for large amounts of inventory data, all of the key performance indicators that are not to be used anyway should be set to *invalid* in advance to exclude them from the update.

- **Update: CreateTimeSchedules**

The new scheduling solution mentioned above is based on new scheduling objects (see user manual). This update creates a standard schedule object for any project that has not yet ended. As a result, a schedule object has to be created by hand for completed or canceled projects if necessary. In the future, when creating projects, a standard schedule plan object will be created automatically.

Aktivitäten 4 PCS MSP Syncrel (38 Treffer) x

Um nach einer Spalte zu gruppieren, ziehen Sie die Spaltenüberschrift hierhin.

Relation	Spaltenname	MSP Attributname	DK	Std	->M	<-M
cdbpcs_project	category	Proj_Category	0	1	1	0
cdbpcs_project	cdb_project_id	Proj_Text10	0	1	1	0
cdbpcs_project	description	Proj_Subject	0	1	1	0
cdbpcs_project	end_plan_fix	Proj_Number4	0	1	1	0
cdbpcs_project	end_time_fcast	Proj_ProjectFinish	0	1	1	1
cdbpcs_project	initial_manager	Proj_Manager	0	1	1	0
cdbpcs_project	material_cost	Proj_Number5	0	1	1	0
cdbpcs_project	project_name	Proj_Title	0	1	1	0
cdbpcs_project	puid	Proj_Text9	0	1	1	0
cdbpcs_project	start_time_fcast	Proj_ProjectStart	0	1	1	1
cdbpcs_task	auto_update_time	Manual	0	1	1	1
cdbpcs_task	category	Text28	0	1	1	1
cdbpcs_task	cdb_mpersno	Text20	0	1	1	1
cdbpcs_task	cdb_objektart	Text21	0	1	1	1
cdbpcs_task	cdb_project_id	Proj_Text10	1	1	0	1
cdbpcs_task	cdb_status_bt	Text22	0	1	1	0
cdbpcs_task	cost_center	Text19	0	1	1	1
cdbpcs_task	deadline	Deadline	0	1	1	0
cdbpcs_task	description	Text29	0	1	1	1
cdbpcs_task	division	Text25	0	1	1	1
cdbpcs_task	duration_fcast	Duration	0	1	1	1
cdbpcs_task	early_position	Number17	0	1	1	1
cdbpcs_task	end_plan_fix	Number19	0	1	1	0
cdbpcs_task	end_time_fcast	Finish	0	1	1	1
cdbpcs_task	milestone	Milestone	0	1	1	1
cdbpcs_task	parent_task	Parent	0	1	0	1
cdbpcs_task	percent_complet	PercentComplete	0	1	1	1
cdbpcs_task	position	ID	0	1	1	1
cdbpcs_task	priority	Priority	0	1	1	1
cdbpcs_task	psp_code	WBS	0	1	1	1
cdbpcs_task	start_time_fcast	Start	0	1	1	1
cdbpcs_task	status	Text26	0	1	1	0
cdbpcs_task	subject_id	Text24	0	1	1	1
cdbpcs_task	subject_type	Text23	0	1	1	1
cdbpcs_task	task_id	Text30	0	1	1	1
cdbpcs_task	task_name	Name	0	1	1	1
cdbpcs_task	tuid	UUID	0	1	1	1
cdbpcs_taskrel	cdb_project_id	Proj_Text10	1	1	1	1

Fig. 4.1: Synchronization table

4.1 Synchronization table	14
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