

CNV-2017 Materials - Class Type 001

Approved

| | |
|---------------------|-------------------------------------|
| Status | Approved |
| Owner | HANCOCK-ext, John CLARKE-ext, Steve |
| Stakeholders | |

Purpose

The purpose of this document is to define the conversion approach to upload Materials - Class Type 001 into S/4 HANA as part of the Material Data Migration.

Link to MDS: [DD-FUN-050 Master Data Standard_2017-Material master - Class Type 001](#)

Conversion Scope

The scope of this document covers the approach for converting active Class data linked to Class Type 001 from Legacy Source Systems into S/4HANA following the Material Master Data Design Standard. The Business and S2P Functional Team have decided not to use legacy Classes, but instead to create 4 new Classes linked to Class Type 001. (It is possible that this number may change in the future.)


The 4 new Classes are documented in the MDS on the "Governance" sheet in the "Field Governance Rules" section, in rule #1, Class, as part of the Rule Description.

Click [here to go to the Conversion Spec for 2019](#) to see the full set of relevancy rules for Materials.

List of source systems and approximate number of records

| Source | Scope | Source Approx No. of Records | Target System | Target Approx No. of Records |
|-----------|---|---|---------------|---|
| PF2 & WP2 | 4 new To-Be Classes linked to Class Type 001 has been defined by the Business and the S2P Functional Team. The new Classes will be captured in a DCT. Service Master records that will become Materials in the target are out of scope. See the mail from Simran. Service Master Data Used in 2017 CLASS TYPE 001 in S4H.pdf | WP2: 22,838 (3,001 **) PF2: 5,167 (6 **) ** Linked to relevant materials for info purposes ** No Classes are linked to Service Materials | S4H | 28,005 (3,007 **) ** Linked to relevant materials for info purposes ** No Classes are linked to Service Materials |
| DCT | Linking Classes to Characteristics (2018 Materials - Characteristics of Class Type 001) | Classes: 4 Characteristics: 43 | S4H | 53 |

Jira Task to track the Classes that will be added to CLASS TYPE 001:



PDM-770 - Jira project doesn't exist or you don't have permission to view it.

Profiling

| Legacy System | Total Relevant Materials | Relevant Materials assigned to Classes |
|---------------|--------------------------|--|
| PF2 | 104,484 | 4,224 |
| WP2 | 72,378 | 25,866 |

Top 30 Classes by Legacy system

| Legacy System | CLASS | Material Count |
|---------------|-------|----------------|
|---------------|-------|----------------|

| | | |
|-----|-------------------|-------|
| PF2 | Z_MAT_PL_ARCH | 3,202 |
| | SPARE_PARTS_TC | 989 |
| | Z_ORTEMS | 6 |
| | DANGEROUS_GOOD | 7 |
| | Z_SAD_MM | 7 |
| | Z68-42169 | 1 |
| WP2 | Z_CM_MAT | 6,043 |
| | LIP0020148 | 3,447 |
| | M001 | 2,898 |
| | Z_MAT_PL_ARCH | 2,088 |
| | MATERIAL_SEGMENTS | 935 |
| | LIP0034040 | 842 |
| | Z_MAT_ADDITIONAL | 456 |
| | Z_MAT_CRIT | 418 |
| | LIP0008485 | 343 |
| | CRIT_IND | 333 |
| | LIP0007716 | 226 |
| | LIP0031355 | 210 |
| | LIP0032812 | 120 |
| | LIP0034030 | 94 |
| | LIP0032484 | 82 |
| | LIP0008484 | 81 |
| | LIP0032488 | 78 |
| | LIP0031345 | 69 |
| | LIP0034571 | 69 |
| | LIP0008411 | 68 |
| | LIP0034568 | 61 |
| | LIP0008367 | 60 |
| | LIP0034050 | 60 |
| | M002_H_05_AH | 57 |
| | LIP0008258 | 54 |
| | LIP0034000 | 54 |
| | M002_A_08_AT | 52 |
| | LIP0031324 | 51 |
| | LIP0020168 | 50 |
| | LIP0008394 | 46 |

Predecessor Objects

Material (Characteristics of CLASS TYPE -001) (2018) **Material - Class Type 001 (2017)**.

Additional Information

Multi-language Requirement

Multi language is supported for Materials - Class Type 001. Login via a different language will show the description displayed in the logon language if the language key is maintained.

The following languages are allowed:

- Core languages: EN - English, FR - French, IT - Italian and ZH - Mandarin.
- Additional languages: PT - Portuguese, DE - German and ES - Spanish.

It is now mandatory that a Description is required for each Core and Additional language.

Document Management

Not Applicable

Legal Requirement

Not Applicable

Special Requirements

Not Applicable

Target Design

The technical design of the target for this conversion approach.

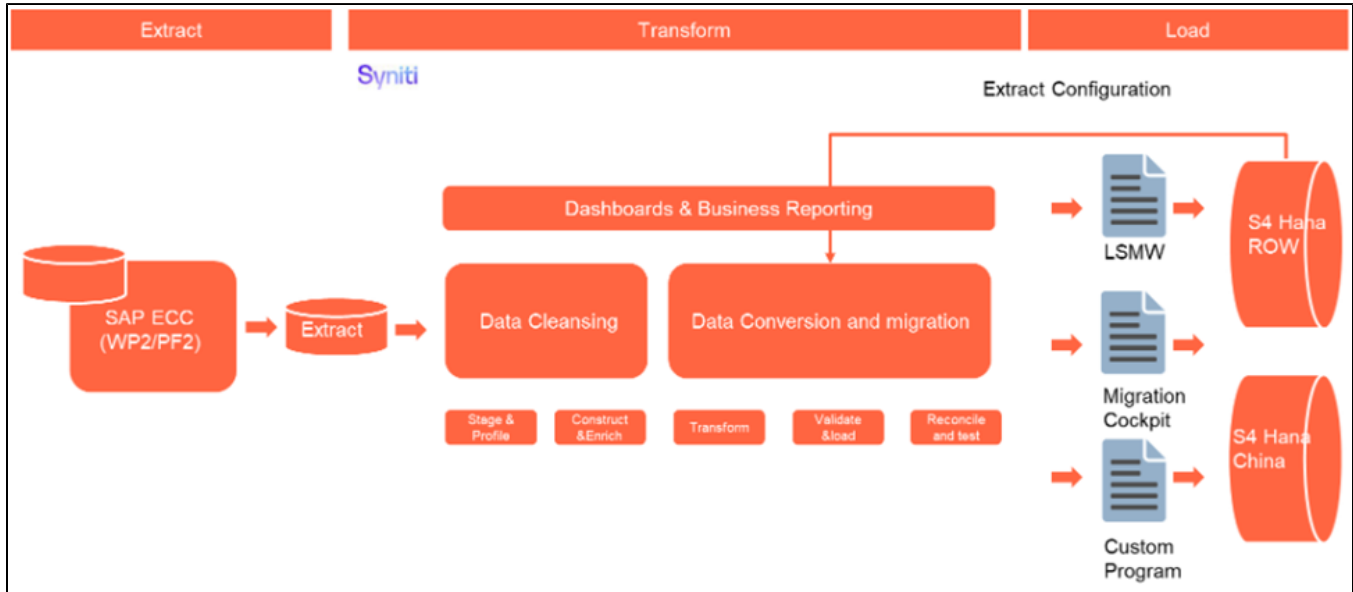
| Table | Field | Field Description | Data Type | Length | Requirement |
|-----------------|------------------|------------------------------------|-----------------|--------|-------------------------|
| KLAH | CLINT | Internal Class Number | NUMC | 10 | Required |
| KLAH | KLART | Class Type | CHAR | 3 | Required |
| KLAH | CLASS | Class | CHAR | 18 | Required |
| KLAH | STATU | Status | CHAR | 1 | System |
| KLAH | LOCLA | Local class | CHAR | 4 | Not Required |
| KLAH | VONDT | Valid from | DATS | 8 | System |
| KLAH | BISDT | Valid to | DATS | 8 | System |
| KLAH | PRAUS | Same classification | CHAR | 1 | System |
| KLAH | ANAME | Created By | CHAR | 12 | System |
| KLAH | ADATU | Created On | DATS | 8 | System |
| KLAH | ANZUO | No of Assignments | CHAR | 1 | System |
| SWOR | CLINT | Internal Class Number | NUMC | 10 | Required |
| SWOR | SPRAS | Language Key | LANG | 1 | Required |
| SWOR | KLPOS | Item Number | NUMC | 2 | Required |
| SWOR | KSCHL | Class Description | CHAR | 40 | Required |
| SWOR | KSCHG | Keyword (Upper Case for Matchcode) | CHAR | 40 | Required |
| Table | Field | Field Description | Data Type | Length | Requirement |
| KSML | CLINT | Internal Class Number | NUMC | 10 | Required |
| KSML | POSNR | Item Number | NUMC | 3 | Required |
| KSML | IMERK | Internal Characteristic | NUMC | 10 | Required |
| KSML | KLART | Class Type | CHAR | 3 | Required |

Data Cleansing

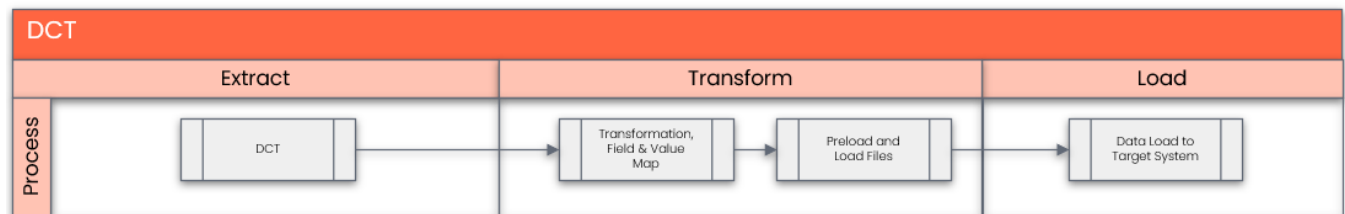
| ID | Criticality | Error Message/Report Description | Rule | Output | Source System | Syniti Report Required |
|----|-------------|----------------------------------|------|--------|---------------|------------------------|
| | | Not Applicable | | | | |

Conversion Process

The high-level process for Classes that will be migrated are represented by the diagram below:



The high level process for Classes that will be captured in a DCT are represented by the diagram below:



| Field Governance Rules | | | | | |
|---|-------------|---|-------------------|-------------------|--|
| These governance rules apply to the individual fields within the data record. | | | | | |
| Rule # | Field Label | Rule Description | Validation Method | Conditional Logic | Cleansing Rule (Also see Data Cleansing section above) |
| 1 | KLAH-KLART | Only records with CLASS TYPE 001 are being migrated. | Upfront Automated | KLART = '001' | |
| 3 | SWOR-SPRAS | The following language are allowed: DE, EN, ES, FR, IT, PT, ZH. | Upfront Automated | | No Class Description in Allowed Languages |

Data Privacy and Sensitivity

Not Applicable

Extraction

Class data for CLASS TYPE 001 that are identified by data entered into a DCT and marked in the DCT for migration. (The DCT also contains data for new Classes that don't exist in the Source Systems.) No data for Service Master records that will become Materials in the target will be extracted.

Extraction Run Sheet

| Req # | Requirement Description | Team Responsible |
|-------|--|------------------|
| 1 | Extract data from source system based on records in the DCT that are marked for migration. | Syniti |

Selection Screen

| Selection Ref Screen | Parameter Name | Selection Type | Requirement | Value to be entered/set |
|----------------------|----------------|----------------|-------------|-------------------------|
| Not Applicable | | | | |

Data Collection Template (DCT)

DCT Rules for Class:

| Field | Field Description | Rule |
|------------------|---|---|
| KLART | Class Type | Read-only field. Default to '001'. |
| CLASS | Class | |
| STATU | Status | Default to '1'. |
| LOCLA | Local class | Default to Blank. MDS changed after CS completed. No longer required. |
| VONDT | Valid from | Default to Today. |
| BISDT | Valid to | Default to '99991231'. |
| PRAUS | Same classification | Default to Blank. |
| SPRAS | Language Key | Default to 'EN'. All Classes must have a description in at least 'EN'. Allow the Description to be captured in multiple languages, with the following languages allowed: DE, EN, ES, FR, IT, PT, ZH. Convert to internal code. |
| KLPOS | Item Number | Read-only field. Counter. Logic moved to Transformation Rules. |
| KSCHL | Class Description | <ul style="list-style-type: none"> • Ensure no duplicate (With other Classes within Class Type 001) and language key. • Ensure populated with Description as per specified Language. • Approach if the description is more than 40 characters: Abbreviate to required length (40 Chars). • Ensure that it does not include any of the below characters: <ul style="list-style-type: none"> ; Semi-colon : Colon :: Double Colon ? Question Mark / Forward Slash @ At sign & Ampersand = Equal Sign + Plus Sign \$ Dollar Sign % Percent Vertical Bar [] Left or Right Square Bracket " Double Quotes |
| KSCHG | Keyword (Upper Case for Matchcode) | Read-only field. Upper case version of KSCHL. Logic moved to Transformation Rules. |

DCT Rules for linking Classes to Characteristics (DCT.KSML)**:

| Field | Field Description | Rule | Tool Tip | zComment | zDelete |
|-------|---------------------|--|--|----------|---------|
| CLASS | Class Name | Mandatory. Use drop-down based on S4H. KLAH-CLASS. | Name used to uniquely identify a class within a class type. | | |
| ATNAM | Characteristic Name | Mandatory. Use drop-down based on S4H. CABN-ATNAM. | Unique technical name identifying the characteristic (e.g. LENGTH, COLOR). | | |

** Load File: [2023-Class to Characteristic Load File.xlsx](#)

Extraction Dependencies

| Item # | Step Description | Team Responsible |
|--------|--|---------------------|
| 1 | The list of Classes will be provided by the Functional Team in the Configuration Document based on the To-Be design. | S2P Functional Team |

Transformation

The Target fields are mapped to the applicable Legacy field that will be its source, this is a 3-way activity involving the Business, Functional team and Data team. This identifies the transformation activity required to allow Syniti Migrate to make the data Target ready:

1. Prepare target-ready data in the structure and format that is required for loading via prescribed Load Tool. This step also produces the load data ready for business to perform Pre-load Data Validation

Transformation Run Sheet

| Item # | Step Description | Team Responsible |
|--------|---|------------------------|
| 1 | Verify that data is extracted from the DCT. | Syniti / S2P Data Team |
| 2 | Verify that data is extracted from both source systems. | Syniti / S2P Data Team |
| 3 | Transformation jobs are ready for execution. | Syniti |
| 4 | Review and Validate Error and Preload Reports | Syniti |
| 5 | Generate Load Files | Syniti |

Transformation Rules

Transformation Rules for Classes:

| Rule # | Source system | Source Table | Source Field | Source Description | Target System | Target Table | Target Field | Target Description | Transformation Logic |
|--------|---------------|--------------|--------------|------------------------|---------------|--------------|--------------|------------------------|---|
| 1 | DCT | KLAH | CLINT | Internal Class Number | S4H | KLAH | CLINT | Internal Class Number | System generated |
| 2 | DCT | KLAH | KLART | Class Type | S4H | KLAH | KLART | Class Type | Copy As-Is (will always be '001') |
| 3 | DCT | KLAH | CLASS | Class | S4H | KLAH | CLASS | Class | Copy As-Is |
| 4 | DCT | KLAH | STATU | Status | S4H | KLAH | STATU | Status | Copy As-Is |
| 5 | DCT | KLAH | LOGLA | Local class | S4H | KLAH | LOGLA | Local class | Copy As-Is. MDS changed after CS completed. No longer required. |
| 6 | DCT | KLAH | VONDT | Valid from | S4H | KLAH | VONDT | Valid from | Copy As-Is |
| 7 | DCT | KLAH | BISDT | Valid to | S4H | KLAH | BISDT | Valid to | Copy As-Is |
| 8 | DCT | KLAH | PRAUS | Same classification | S4H | KLAH | PRAUS | Same classification | Copy As-Is |
| 9 | DCT | KLAH | ANAME | Created By | S4H | KLAH | ANAME | Created By | System generated |
| 10 | DCT | KLAH | ADATU | Created On | S4H | KLAH | ADATU | Created On | System generated |
| 11 | DCT | KLAH | ANZUO | No of Assignments | S4H | KLAH | ANZUO | No of Assignments | System generated |

| | | | | | | | | | |
|----|-----|------|-------|-----------------------|-----|------|-------|------------------------------------|---|
| 12 | DCT | SWOR | CLINT | Internal Class Number | S4H | SWOR | CLINT | Internal Class Number | Copy from target KLAH-CLINT that was generated in Rule 1 |
| 13 | DCT | SWOR | SPRAS | Language Key | S4H | SWOR | SPRAS | Language Key | Copy As-Is. There must be a description for each of the Core and Additional languages. If a language is missing take it from English. |
| 14 | | | | | S4H | SWOR | KLPOS | Item Number | This is a counter and it increments by 1 for each Description in a different language for the same S4H. KLAH-CLINT. |
| 15 | DCT | SWOR | KSCHL | Class Description | S4H | SWOR | KSCHL | Class Description | Copy As-Is. There must be a description for each of the Core and Additional languages. If a language is missing take it from English. |
| 16 | | | | | S4H | SWOR | KSCHG | Keyword (Upper Case for Matchcode) | Upper case version of DCT.SWOR-KSCHL |

Transformation Rules for linking Classes to Characteristics:

| Rule # | Source system | Source Table | Source Field | Source Description | Target System | Target Table | Target Field | Target Description | Transformation Logic |
|--------|---------------|--------------|--------------|---------------------|---------------|--------------|--------------|-------------------------|--|
| 1 | DCT | KSML | CLASS | Class Name | S4H | KSML | CLINT | Internal Class Number | Copy S4H.KLAH-CLINT WHERE DCT.KSML-CLASS = S4H.KLAH-CLASS |
| 2 | | | | | S4H | KSML | POSNR | Item Number | Integer counter starting at 1 and incrementing by 1 for each CLINT. When CLINT changes it starts from 1 again. |
| 3 | DCT | KSML | ATNAM | Characteristic Name | S4H | KSML | IMERK | Internal Characteristic | Copy S4H.CABN-ATINN WHERE DCT.KSML-ATNAM = S4H.CABN-ATNAM |
| 4 | | | | | S4H | KSML | KLART | Class Type | Default to "001" |

Transformation Mapping

| Mapping Table Name | Mapping Table Description | Link |
|--------------------|---------------------------|------|
| Not Applicable | | |

Transformation Dependencies

List the steps that need to occur before transformation can commence

| Item # | Step Description | Team Responsible |
|--------|---|------------------------|
| 1 | Data has been extracted from sources systems | Syniti |
| 2 | Configuration should be completed - (Config documents should be complete) | S2P Functional Team |
| 3 | Value mapping and XREF tables are ready | Syniti & S2P Data Team |
| 4 | Characteristics for Class Type 001 have been loaded into S4H | Syniti |

Pre-Load Validation

Project Team

Completeness

| Task | Action |
|---------------------|---|
| Verify Record Count | The number of records presented after relevancy checks and validation needs to be correct between the DCT and the preload tables in Syniti Migrate. |
| Completeness check | All fields required as per mapping template rules must be completed. Syniti Migrate standard validity reports checking each field must be built. |

Accuracy

| Task | Action |
|---------------------|---|
| Conversion Accuracy | Verify that the data staged in the preload tables are correct in terms of the mapping rules. This will be done via Syniti Migrate standard reports. |

Business

Completeness

| Task | Action |
|------------------------------|--|
| Count and Completeness check | All fields required as per mapping template rules must be completed. Syniti Migrate standard validity reports checking each field must be built. |

Accuracy

| Task | Action |
|---------------------|---|
| Conversion Accuracy | Business team to verify that the data staged in the preload tables are correct in terms of the mapping rules. This will be done via Syniti Migrate reports/SAP reports. |

Load

The load process includes:

1. Execute the automated data load into target system using the appropriate load tool.
2. Once the data is loaded to the target system, it will be extracted and prepared for Post Load Data Validation.

Load Run Sheet

| Item # | Step Description | Team Responsible |
|--------|---|---|
| 1 | Verify data extracted | Data Specialist/Functional - S2P |
| 2 | Verify data combined from both source systems | Data Specialist/Functional - S2P |
| 3 | Stage data for transformations | Syniti |
| 4 | Run transforms | Syniti |
| 5 | Execute pre-load report | Syniti |
| 6 | Validate preload report - release | Data Specialist/Functional - S2P |
| 7 | Prepare and simulate | Syniti |
| 8 | Pre-load verification and approval to load | Functional/Data Owner - S2P |
| 9 | Load to S4 | Syniti |
| 10 | Complete Jira steps, Volumes and Timings | All - where applicable |
| 11 | Execute post-load report | Syniti |
| 12 | Post-load report verification/validation | Data Specialist/Functional/Data Owner - S2P |
| 13 | Object load completion approval | Data Owner - S2P |

Load Phase and Dependencies

Configuration

| Item # | Configuration Item |
|--------|--------------------|
| 1 | TCLA-Class Types |
| 2 | TCLG-Class Groups |
| 3 | TCLU-Class Status |

Conversion Objects

| Object # | Preceding Object Conversion Approach |
|----------|--|
| 1 | Material (Characteristics of CLASS TYPE -001) (2018) |

Error Handling

| Error Type | Error Description | Action Taken |
|------------|--|---|
| Data | Incorrect Language | Fix incorrect data |
| Data | Duplicates | Fix incorrect data |
| Load | Authorization errors | Apply for the applicable authorization permission and retry |
| Load | Technical load failures - If using MC - Simulation errors, etc | Investigate error and rectify. Retry simulation and/or load |

Post-Load Validation

Project Team

Post-Load Steps

| Step Description | Team Responsible |
|--|---|
| Execute post-load report | Syniti |
| Post-load report verification/validation | Data Specialist/Functional/Data Owner - S2P |
| Object load completion approval | Data Owner - S2P |

Completeness

| Task | Action |
|----------------------|--|
| Verify count | The number of records presented in the post-load needs to be compared to the preload – Syniti report |
| Field by field check | Compare source data staged in the preload tables to target data in the load tables. |

Accuracy

| Task | Action |
|-------------|--|
| Verify Logs | Check if there is data that failed to load and perform the necessary actions (e.g. register as post load issue or attempt to load the record again, etc.). |

Business

Completeness

| Task | Action |
|----------------|---|
| Verify Count | The number of records presented in the preload needs to be compared to the post-load Syniti report. |
| Missing data | Check missing data which was supposed to be loaded. |
| Reconciliation | Participate in Post-load walkthroughs. |

Accuracy

| Task | Action |
|---------------------|---|
| Conversion Accuracy | Verify that the data in S/4 HANA was loaded correctly via Syniti Migrate post-load reports. |

Key Assumptions

- Master Data Standard is up to date as on the date of documenting this conversion approach and data load.
- Materials - Class Type 001 is in scope based on data design.

See also

Change log

| Version | Published | Changed By | Comment |
|------------------------|---------------------------|--------------------------|--|
| CURRENT (v. 47) | Dec 01, 2025 17:36 | CLARKE-ext, Steve | |
| v. 46 | Dec 01, 2025 16:35 | CLARKE-ext, Steve | |
| v. 45 | Dec 01, 2025 16:15 | CLARKE-ext, Steve | |
| v. 44 | Dec 01, 2025 16:01 | CLARKE-ext, Steve | |
| v. 43 | Dec 01, 2025 15:53 | CLARKE-ext, Steve | |
| v. 42 | Dec 01, 2025 15:51 | CLARKE-ext, Steve | Added DCT and Transform Rules for KSML |
| v. 41 | Nov 17, 2025 10:32 | CLARKE-ext, Steve | |
| v. 40 | Nov 17, 2025 10:11 | CLARKE-ext, Steve | |
| v. 39 | Nov 13, 2025 13:59 | CLARKE-ext, Steve | |
| v. 38 | Oct 28, 2025 15:35 | CLARKE-ext, Steve | |






[Go to Page History](#)

Workflow history

| Title | Last Updated By | Updated | Status |
|-----------------------------------|-----------------|---------|--------|
| There are no pages at the moment. | | | |

Workflow history

This view shows the 5 most recent entries. The complete workflow log is available from the 'Document Activity' menu item.

| Dec 03, 2025 | Actor | Type | Activity | Version |
|---------------------------|---|-------|--|---------|
| Approved |  JAIN-ext, Gaurav | State | changed state to Approved at 8:15 am | v47 |
| Edited following Approval |  JAIN-ext, Gaurav | State | gave <i>Minor change</i> approval at 8:15 am | |
| Dec 01, 2025 | | | | |
| |  CLARKE-ext, Steve | Edit | updated the page at 3:51 pm | |
| |  CLARKE-ext, Steve | State | changed state to Edited following Approval at 2:51 pm | v42 |
| Nov 17, 2025 | | | | |
| Approved |  JAIN-ext, Gaurav | State | changed state to Approved at 11:55 am | v41 |