



MIGRATION UPGRADE ROADMAP V3R3 TO V5R2

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Modifications made to the document since its last publication are highlighted in [blue](#).

1. INTRODUCTION

1.1 Scope

The objective of this document is to communicate to Lectra PLM Project Manager and Professional Services and other Lectra departments the standard methodology to migrate the PLM last version V3R3spx to [V5R2](#).

Migrating a PLM customer passes necessarily by a project (functional analysis, data migration, customization, reports, interfaces, screens ...). This document provides information to manage this project.

The main goal is to ensure a smooth migration to the new PLM [V5R2](#) version by better assessing the risks and migration time.

1.2 Migration Overview

The migration process could be divided into several phases and steps, from the analysis with customer to the production upgrade. All the phases are involving Lectra team and the customer with their responsibility in terms of actions, and system state.

While the approach is generic, the effort and cost to manage the migration will depend upon the systems involved

The final software used by a client is composed in a standard software and a customize part. The information provided in the document will help to estimate the alignment of the customization and the migration. This should be adapted to take into account each customer's specificities.

1.3 Scope and Limitation

The information provided in this document will help the Professional Services to handle the [V5R2](#) migration project. The scopes covered are the different phases from the analysis to the production implementation, the recommendation for the infrastructure and the main technical evolutions to evaluation the customization development and alignment.

The recommendation is to read the entire document before starting any operation in order to handle correctly the project. The scope is the migration of the PLM software with the PDM and Designer data. The migration of the Workflow V3R3spx to [V5R2](#) must be fully managed through a specific project.

This document doesn't include the following subjects which are described in relevant documentation:

- The migration of Lectra Fashion PLM V1 to [V3R3spx](#).
- The roadmap for the installation of the PLM [V5R2](#).
- Sizing of the infrastructure [V5R2](#).

- PLM configuration and customization.

2. MIGRATION PHASES

The PLM migration project is similar to the standard PLM integration project. As such the Analysis, Development and Validation phases have to be carried out by the Lectra team with the Customer collaboration.

The following table summarizes the different phases of a migration project together with the expected deliverables for each of them the actors:

Phase	Steps	Deliverables	Actors
Release	Preparation	1 – PLM V5R2 2 – Migration Roadmap 3 – Technical documents	Lectra R&D
Analysis	Validation Customization	1 – Acceptance test scenario 2 – Customer IT input 3 – Technical specification 4 – Migration plan	Customer Professional Services Project Manager
Development	Alignment	1 – UI 2 – CBR 3 – Report 4 - ETL	Professional Services
Validation	Migration in Lectra Migration in Customer UAT	Migration time estimate Migration installation guide Validate infrastructure	Professional Services Customer
Production	Migration	Migration report	Professional Services

The next chapters explain some fundamentals, basics for each steps of the PLM migration by considering the different environments and involvements.

3. RELEASE

3.1 System requirements

Please refer to [Lectra_Enterprise_Solutions_V5R2_System_Requirements_en](#).

3.2 Licenses

Note that this PLM release requires new licenses. The licenses used for PLM and Team offers need to be renewed.

- DBV change
- Licensing model

3.3 Prepare all Lectra packages

As soon as the new PLM [V5R2](#) is available, download it with related packages (PLM-Manager, Designer...) and put them on all available environments.

Read carefully the Software Information Bulletin (SIB). The SIB is delivered with the ISO file containing the installer on Soft-server. It contains the information on the enhancements and the bug fixes; but also:

- All versions compatible of software, browsers, clients with the current version,
- Workarounds, advices on RCM if not fully corrected in the current version.

Check the pre-requisite for the installation: Recommended server, client machine, OS, Internet Browser...

3.4 Script and Framework

SDK and ETL Framework are needed for the customization alignment and development.

4. ANALYSIS

The aim of the first phase is to perform the global analysis for the final PLM solution and to write the migration plan. These steps are carried out by Lectra team and should deliver analysis documents.

All these following subjects have to be discussed and planned with the customer to delimit the scope migration.

The hybrid mode has been chosen to pass from V3R3spx to **V5R2**:

- Migration in Project mode for Workflow domain (Process, Tasks, Lifecycle...). The data are treated through Talend ETL. The scope is to define with the Project Manager, Technical experts and the customer.
- Migration in standard mode (Like an upgrade) for all the other domains (PDM, Designer...). The PLM **V5R2** installer is designed to manage the standard data and specific user data.
- It is recommended to upgrade the current PLM V3R3spx to the latest version V3R3spx before the migration to the PLM V5R2.

4.1 Customer Inputs

Before starting the proper analysis phase, the customer should provide his inputs:

- Technical feedback regarding the data volume, new infrastructure, system information (Operating System, Licenses...)
- Internal constraints as the collection period, the availability of each service / user.
- Needs for the specific transformations, CBR & Security & Template Reports & ETL.
- Scope of the Workflow data to transfer from V3 to V5 (if relevant)
- User Acceptance test scenarios to validate the migration solution.
- Availability for the PLM servers and user desktop stations.

4.2 Technical Specifications

The PLM Technical Expert would be the best candidate for this work as he already did it for the implementation and knows very well client configuration.

Taking into account the customer customization, i.e. CBRs, Templates, Reports, ERP interfaces for the alignment on the new PLM version and based on information given in technical sections, the

Lectra team should write the **Migration Specifications** document including:

- The workload estimation for the development phase (customization alignment and new development).
- Infrastructure proposal for the migration.
- The workload Installation on different environments based on Lectra internal installation and the complexity of the customer infrastructure.

The migration must be done with the Windows Server 2008 configuration. So there are two possibilities:

4.2.1 PLM V5R2 on Windows Server 2008

The customer wants to keep the Windows Server 2008 as for PLM V3. In this case run the PLM V5R2 installer on the PLM V3R3spx configuration. The migration procedure is the same as an upgrade of the PLM.

4.2.2 PLM V5R2 on Windows Server 2012 R2

The customer wishes to follow the PLM V5R2 system recommendations: the Windows Server 2012 R2 and Oracle Standard Edition One 11g Release 2 (Patch Set 11.2.0.4).

In this case, the process is to migrate on Windows Server 2008 and then to switch to 2012 R2.

4.3 Infrastructure

To ensure the success of the migration from V3R3spx (latest installed) to V5R2, dedicated environment need to be set up for each phase:

4.3.1 Phase 1 – Pilot

The goal is for customer to familiarize with the new functionalities of V5R2. This environment is also used by key-users and project team to adjust the customization and data migration. This configuration can be used in second step to train the Functional Key User.

- The environment should be near to the production. Standard configuration based on 3 servers (Typical installation).
- Client workstations for installation dedicated to new versions of Modaris and Designer aligned with PLM V5R2.

4.3.2 Phase 2 – Acceptance (UAT also named pr-production)

This environment is used for validation and training phases. Accessed by some end users to validate the version

- The environment should ideally be a replicate of the production environment; however, a smaller environment may be setup if this is prohibitively large / expensive.
- The existing servers could be kept and switch to V5R2 when necessary (if no more upgrade is planned for V3R3spx).

4.3.3 Phase 3 – Production

The V5R2 infrastructures should be duplicated in order to simplify the deployment with zero impact on the V3R3spx production system and reduce the downtime.

For the V5R2 hardware recommendation refer to the document:
[Lectra_Enterprise_Solutions_V5R2_System_Requirements_en.](#)

4.4 Migration Plan

This document is the project plan for the customer migration. The Lectra Project Manager with the help of Professional Services has to write this document. The plan integrates the installation on the different environment with validation phases (pilot, UAT and production) and also the customer training on the new functionalities PLM **V5R2** and desktop software (Designer, Marker...).

This document should address the following issues:

- Migration Project plan and schedule.
- Deliverables and milestones.
- Planning.

4.4.1 Elaborate the plan:

The migration must be planned according to the PLM **V5R2** release date and taking into account the customers and Lectra constraints:

- Customer - The collection period
- Customer/Lectra - The availability of each service / user
- Customer/Lectra - Environments are available

Plan a time frame to achieve this according to the:

- Architecture complexity (Preproduction, Production and others Environments)
- Customization (CBR, ETL, Reports, screens...)

4.4.2 Allocate the resources

- Customer - Functional Key User
- Customer - IT
- Lectra - Technical Expert

Points to take care:

The migration process can take more than one day, and it is not recommended to do this operation on working hours. The reason is that in case of failure or major issue, if we have to reassess the migration we need to restore the database from initial state (before migration started) and user data entered in this lap of time would be lost.

5. TEST AND DEVELOPMENT

Once the analysis is completed, the development activity can start.

5.1 Test environment

By upgrading a server on Lectra Site, the Technical Expert will prepare the test environment.

The objectives of stage are the following:

Familiarize with the migration of PLM **V5R2** with the same Operating System used in by the customer.

- Align and develop customization.
- Tests Report / CBR / ETL / UI / Image Processing
- Validate the Software with customer data:
 - Logs (Wildfly, PDM, Operators) to ensure no error is reported
 - Metrics on products styles etc ... This allows to count products before and the ones created by the migration
 - Functional Testing. The migrated data need to undergo validation from functional representatives able to validated migrated products against original ones. The customer test acceptance scenario is checked here.
- Report the issue to the Lectra R&D and apply workaround and hot fixes (if necessary).

5.2 Customized resources alignment and development

From the previous version of the PLM, the customer has had specific customization domains developed. These domains need to be aligned on the new version of the PLM to feet with the new object model and benefit from optimized API.

These domains are:

- Screen adaptations
- Security configurations
- Custom Business Rules (CBRs)
- Reports
- ETL interfaces

New developments have to be taken in account in this step.

Some parts of V3R3spx customization are compatible with **V5R2**; the major activity consists in removing the link to the Workflow and validating with the new **V5R2** environment.

Pease refer to the technical documentation to have the details of the customization for each domain and the SIB provided with the PLM **V5R2** DVD or published on Soft Server.

5.3 Data model

The Data Model of the **V5R2** PDM includes the new entities for the Calendar Management and **Collection Plan**. All the libraries, products including the spec packages, are processed by the installation procedure.

The customization of the data model extension (customfields, customroles... added by the customer) are automatically taken in account by the installer.

No specific tool or script is needed neither alignment for the PDM and Design Data Model

Important: the WLP must be managed in a specific project.

5.4 Screens configuration

The screens configurations files must be checked. The modifications made on V3R3spx need to be transferred and aligned to **V5R2** files.

Modifications: All the configurations linked to the Workflow links have changed.

The files impacted are on the screens side (Save As, T&A, Tracking zone...) and on search explorers (Search product, Search template...)

For more information, refer to the screen configuration documentation for **V5R2**.

5.5 Search Configuration

The search configuration made via the Excel template and the PLM Manager is automatically managed by the installer. The existing configuration will be kept for **V5R2**.

5.6 Security with Extended Profiles

Edit the security Excel file where the profiles are defined. Remove the configuration on the Workflow Management (Time & Action) and replace with the new key / values to manage the new entities. Profiles set on users and groups have to be manually reloaded, using the PLM Manager.

5.7 Security on data

The **V3R3spx** security configuration is not compatible with **V5R2** as the data model has changed.

Don't use the xml security files to load access rights on data.

5.8 CBR

Install the new version of the SDK Framework and reload the CBR project. All the V3R3spx CBR services are available on **V5R2**

The services working on Workflow entities are replaced by new services to manipulate the Calendar Management.

Check and modify all the CBR working with the Workflow data.

For the deployment, the location of the files has changed: this is managed automatically by the CBR installer of the **V5R2**. The deployment procedure remains as in V3R3spx.

5.9 Reports

There is no important impact on reports. Check if the Workflow data are retrieve in the HQL request. In this case, modify the HQL regarding the new data model.

Run all the reports to check if all the previous data are present in the generated PDF or Excel file.

Establish the alignment and test charge depending on the volume of reports.

5.10 ETL

Use the new mechanism developed for V5: development environment with new Talent components.

Adapt the interface following the information given by the Data Model document.

Validate the ETL interface with customer data.

5.11 File system

No files will be deleted or modified (reprocessed) in the File Repository; nevertheless, new files could be added.

The V3R3spx File Repository can be used directly with no transformation.

5.12 MDL / 3D files

If the customer works with Modaris (MDL or 3D), reprocess the files using the scripts included in the PLM **V5R2** package. The procedure is described in the Installation Guide.

6. VALIDATION

6.1 Objective

The migration on preproduction on customer onsite is very important as this environment will be tested / approved by Functional Key User before upgrading the Production Environment.

The objectives of stage are the following:

- Familiarize with the PLM **V5R2** particularly on new functionalities (Calendar Management, Collection Planning,...)
- Validate the customer data upgrade
- User Acceptance Test by Functional Key User
- Prepare the Migration Infrastructure Installation guide

6.1.1 Solution Validation

Tests must also include all related packages:

- File Directory Watcher
- PLM-Manager
- Designer (if any)
- Reports (Standards, Customs)
- ETL
- ERP Interface (If any)

6.1.2 Performance Validation

The objective here is to estimate the global time for the migration and validates the migration plan with the customer.

6.1.3 Validation result

The Production upgrade must be done only after Functional Key Users acceptance:

→ **Go / NoGo**

Note: the data created during this validation phase are not kept for the production migration

6.2 Procedure

The standard PLM **V5R2** installer integrates the scripts to migrate the V3R3spx data to **V5R2**. This means that all the standard data including the PDM customization and Marker, Designer, Pattern Dev 3D, are managed by the installer and automatically upgraded. No specific interface or script will be provided or will be necessary.

Exceptions for the Workflow with Line Planning, the data are not treated by the installer. No Workflow products are created and no process/line plans will be attached to the PDM products.

The migration of the Workflow V3R3spx must be managed in project mode by the project team, the customer, Professional Services and the PLM Support team.

6.2.1 Windows Server 2008

If the customer wants to keep the Windows Server 2008 as for PLM V3R3, the migration procedure is the same as an upgrade process of the PLM.

- Make a backup.
- Deactivate the Workflow Software.
- Upgrade each server (Database, Reports and Frontals) following the **V5R2** Installation Guide.
- Install the customization
- Reprocess the MDL files if needed.

6.2.2 Windows Server 2012 R2

If the customer wishes to follow the PLM **V5R2** system recommendations which are the Windows Server 2012 R2 and Oracle Standard Edition One 11g Release 2 (Patch Set 11.2.0.4), in this case, the process is to migrate on Windows Server 2008 configuration and then switch to 2012 R2.

Example of the installation on V3R3spx infrastructure:

- Make a backup.
- Deactivate the Workflow Software.
- Upgrade the V3R3spx database server, export the database and save the dump file.
- Do the fresh install on typical mode with Windows Server 2012 R2 and PLM **V5R2** pointing to the existing File Repository.
- Import the database.
- Install the customization.
- Reprocess the MDL files if needed.

7. PRODUCTION

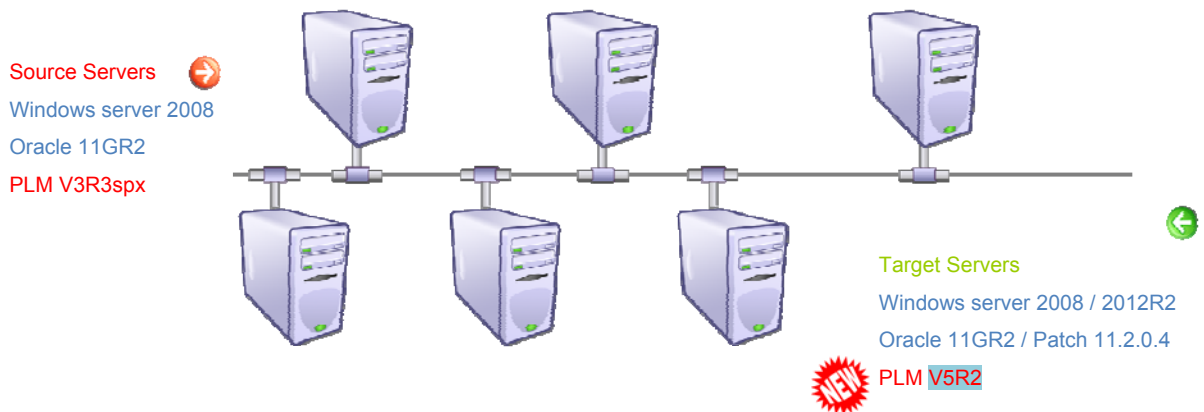
The objective of this final phase is to proceed with the actual Migration. This operation should be managed by Lectra PLM Technical Experts with Customer IT. Migrate and apply all customization.

The upgrade process may vary with Preproduction according to the architecture. But all customization done in the previous environment(s): screens, CBR, reports...will be the same to be applied on the Production

During the Production migration, the system will be unavailable for all users. Recommendations to minimize the production impact:

- The V3 production environment must not be altered, to be able to return back on it if the major issue occurs during the migration and requires a rollback.
- Migration must be achieved in less than 8 hours.
- Choose the scenario that anticipates the actions (OS installation, Oracle ...) to not to put on the critical path the migration day.

The image below represents a sample of the physical architecture



7.1 Windows Server 2008

If the new servers remain on the Windows Server 2008 as for PLM V3R3spx, the migration procedure is the same as an upgrade process of the PLM.

- Make a backup.
- Deactivate the Workflow Software.
- Transfer the old configuration V3R3spx to new servers.
- Upgrade each server (Database, Reports and Frontals) following the **V5R2** Installation Guide.

- Install the customization
- Reprocess the MDL files if needed.

7.2 Windows Server 2012 R2

If the new servers are installed with the Server 2012 R2, the Oracle Standard Edition One 11g Release2 (Patch Set 11.2.0.4) must be used.

The preproduction database server or a temporary server in small configuration is needed with Windows Server 2008 and PLM V3R3spx configuration for the migration.

- Deactivate the Workflow Software.
- Upgrade the V3R3spx with **V5R2** on preproduction database server or on a temporary server.
- Export the database and save the dump file.
- Check or install the Patch Set 11.2.0.4 on Oracle Standard Edition One 11g Release2
- Install PLM **V5R2** on new servers pointing to the existing File Repository following the Installation Guide.
- Import the database.
- Install the customization.
- Reprocess the MDL files if needed.

An installation report must be done, very useful for next's upgrades (can report some issues / checks to be done...).