# [Picture](http://incoopernew/logos/Cooper_horizontal.jpg)

*Technical Design Specification*

PRJ6542– ICS-International Certification System

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## TECHNICAL SPECIFICATION

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| --- | --- | --- | --- | --- | --- | --- |
| Introduction | | | | | | |
| \*Project Number: | PRJ6542 | | **\*Project Name:** | International Certification System | | |
| Functional Spec Number: | 1 | | **\*Project Description:** | This system is used by the Quality Systems department to keep track of which tire brands have certifications to allow them to be sold in foreign countries. | | |
| Technical Spec Number: | 1 | | Date Created: 08/01/2019 Last Update: N/A | | | |
|  | | **Name** | | | **Department** | **Telephone** |
| Author: | | Sujitha Chintala Cheruvu & Pendota, Muralidhar | | |  |  |
|  | | | | | | |

| 2. Glossary |
| --- |
| *Please define any terminology used in the specification that might not be widely understood.* |
| International Certification System   * This is a user interface implemented in .NET to maintain to close a gap between Marketing & Quality by indentifying products that require international certifications by country prior to sale in Oracle database.   The following terms are referenced in this document. Working definitions for each are defined as follows:   |  |  |  | | --- | --- | --- | | **Term** | **Abbreviation** | **Definition** | | Microsoft Team Foundation Server | TFS | Source code control system that will become the primary source code control system used by Cooper Tire IT Developers. | | 3-Tier |  | Code was already implemented in 3 tier architecture. No changes in this. | | Sandcastle |  | A documentation generator from Microsoft that automatically produces MSDN style reference documentation out of reflection information of .NET assemblies and XML documentation comments found in the source code of these assemblies. | |

| 3. Assumptions |
| --- |
| **Project assumptions related to the technical spec:** |
| * Applications are currently running in Windows 10 operating system, which supports applications with .NET Framework 4.6.0 * The TECHINICAL.world database which is in Oracle10g version will be converted to Oracle11g. DBA team will take care of this upgradation * The API call that links to the TRACS schema on TECHINICAL database will be removed by .net team from the application. * The technical issues which occurs while upgrading the Crystal Reports to the latest version, will be resolved , but will not do any functional changes to the Reports. |

| Security |
| --- |
| *Type in a response to each item in the space immediately below it.* |
| **Security authentication:** *Describe how security will be implemented.* |
| N/A – Remains the same for the existing system. |
| **Security monitoring:** *Describe how security monitoring will be implemented.* |
| N/A – Remains the same for the existing system. |

| Data Structure/ Code Definition |
| --- |
| *Type in a response to each item in the space immediately below it.* |
| **Entity Relationship (Tables, Fields, Keys, Constraints, Triggers, etc.):** *Identify specific data structures needed.* |
| N/A – Remains the same for the existing system. |
| **Purging and Archiving:** *Technical requirements for purging and archiving. Records Mgmt/DBAs* |
| N/A – Remains the same for the existing system. |
| **Code definitions:** *Code outline for procedures, packages and functions.* |
| See changes below. |

| 1. **Scope of Work** | |
| --- | --- |
| *List a brief description here of an application change within scope of the database and application changes listed below. Insert screen shot(s) in the User Interface Changes section if appropriate.* | |
| **Following changes will be implemented in the International Certification System Tool.** | |
| **Migrate to TFS:** | |
| Prior to the initial check in of code into TFS, please review the following guidelines which will assist in checking in an application for the first time. [TFS Check-in Guidelines](http://incooper/sites/QualityOpEx/IT/SDR/TFS%20Check-in%20Guidelines.docx) | |
| **Upgrade to VS2013:** | |
| Currently the application(s) are in VS2005 and needs to be upgraded to VS2013 with .NET Framework as 4.6.0  Updates Namespace of the projects in the solution as per cooper standards. | |
| **Log Exceptions:** | |
| Not in Scope | |
| **Sandcastle:** | |
| Currently the comments which are exists are not as per the sandcastle in the application.  Create a new comments/documentation such that Sandcastle can be used to generate .chm documentation files. All comment history shall be maintained and converted to Sandcastle form. The following is the template we would like to use for each method within a project.  **Sandcastle Sample:**  ''' <summary>  ''' Get curing information of the input cure.  ''' </summary>  ''' <param name="strCureNo">Cure No.</param>  ''' <returns>Cure Batch information.</returns>  ''' <exception cref="Exception">  ''' Throws exception if any error occurs.  ''' </exception>  ''' <remarks>  ''' <list type="table">  ''' <listheader>  ''' <term>Author</term>  ''' <description>Description</description>  ''' </listheader>  ''' <item>  ''' <term>N/A</term>  ''' <description>  ''' <para>N/A</para>  ''' <para>Original Code.</para>  ''' </description>  ''' </item>  ''' </list>  ''' </remarks> | |
| **Remove Hardcoded Values:** | |
| All hardcoded values will be moved to constant and user facing messages will be moved to resource files, i.e. define constants for the commonly used values in the utility project / page scope and all the messages to be moved to project level resource file. | |
| **Variables Initialization:** | |
| All variables will be initialized with default values, i.e. Integers with 0, Strings with String. Empty, Objects with Nothing, etc. | |
| **String manipulation:** | |
| Manipulation of string data for display or association will be carried with system functions only, i.e. using “String. Format”, “String. Compare”, etc. functions. | |
| **Localization of colors:** | |
| All hardcoded colors will be moved to resource files. | |
| **Set Compiler Settings to Error:** | |
| Each project within a given solution has a properties section and one of the tabs is labeled Compile. On this tab is a set of Warning Configurations. Each of these configurations needs set to Error under the Notification. Once these are all set to Error you must resolve any issues that up in the Error List. Build the project once all of the errors are corrected. Again every project within the solution needs to have these set to Error.  **NOTE:** Ignore the warning that System.Data.OracleClient is Obsolete. | |
| **Unused and commented code will be removed:** | |
| Will remove unused and commented code. | |
| **Localization:** | |
| Resource files will be created for each of the form in the application and also project level resource file for localization of messages (en-US only in the scope) | |
| **Parameter Validation:** | |
| Critical parameters are validated for null values and validation message will be displayed. | |
| **Update Cooper Tire Security** | |
| Cooper Tire Security library remains same. | |
| **ORACLE CHANGES** | |
| |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | Oracle Database Schema Details:   * Code standardization will happen in below ICS database Schemas. For TRACS Schemas we are not going to do any code standardization.   **Schema:**   * ICS   User ID: ICS / ICS\_PROCS  Password: \*\*\*   * TRACS   User ID: TRACS / TRACS\_PROCS  Password: \*\*\*  Below is the list of Packages which need to be standardized.   |  |  | | --- | --- | | S.No | Package Name | | 1 | APP\_MESSAGE\_OPERATIONS | | 2 | BOM\_ATTRIBUTES | | 3 | CERTIFICATION\_CRUD | | 4 | ICS\_COMMON\_FUNCTIONS | | 5 | ICS\_CRUD | | 6 | ICS\_MAINTANANCE | | 7 | IMARK\_LOAD | | 8 | PROD\_COUNTRY\_LOAD | | 9 | REPORTS\_PACKAGE | | 10 | SIMILAR\_TIRES | | 11 | SKU\_MAINTANANCE | | 12 | TESTRESULTS\_CURD |   Below is the list of procedures under procedures node which need to be standardized. Those highlighted in red do not need upgraded and can be removed from database   |  |  | | --- | --- | | S.No | Procedure Name | | 1 | CERT\_RENEWAL\_NOTIFICATION | | 2 | CERTIFICATEAPPROVALNOTICE | | 3 | CREATE\_NEW\_FAMILIES | | 4 | FIX\_ASPECT\_RATIO | | 5 | FIX\_IMARK | | 6 | FIX\_INSERT | | 7 | FIX\_LOADRANGE | | 8 | FIX\_PRODUCT\_FAMILY | | 9 | FIX\_PRODUCT\_FAMILY\_2 | | 10 | FIX\_PRODUCT\_FAMILY\_3 | | 11 | FIX\_RE\_XL | | 12 | FIX\_SPEED\_RATING | | 13 | FIX\_TIRETYPE | | 14 | FIXEMARKDATES | | 15 | FIXEXTENSIONS | | 16 | FIXTEMPCERT | | 17 | GETEMARKPASSENGERWITHTR\_JILL | | 18 | GETNOMCERTIFICATION | | 19 | GETTIRECHARACTERISTICS | | 20 | GSO\_DATA\_LOADER | | 21 | LOAD\_CCC | | 22 | LOAD\_CERT | | 23 | LOAD\_CERT\_117 | | 24 | LOAD\_IMARK | | 25 | LOAD\_JES\_FIX | | 26 | NOM\_DATA\_LOADER | | 27 | TESTWRITE | | 28 | UNLOAD\_CERTIFICATEACTIVITY | | 29 | UPDATEDISCSKU |   The below list of objects uses SKU\_MASTER\_MV reference, It needs to be removed and replaced with MATERIAL, MATERIAL\_ATTRIBUTE and MATERIAL\_ATTRIBUTE\_PLANT tables with appropriate columns and logic.   |  |  |  | | --- | --- | --- | | Object Name | Type | Procedure Names | | SKU\_MAINTENANCE | PACKAGE | Sku\_Backfeed and InsertSku procedures referred SKU\_MASTER\_MV view. | | REPORTS\_PACKAGE | PACKAGE | GetNOMCertificatio and getEceSimilarCertificates | | UPDATEDISCSKU | PROCEDURE |  | | FIX\_SPEED\_RATING | PROCEDURE | Used to get Speed\_rating from SKU\_MASTER\_MV |   Below is the list of Crystal Reports which need to be upgraded to latest version.   |  |  | | --- | --- | | S.No. | Report Name | | 1 | CCC Sequential Report keeps timing out | | 2 | CCC Product Description Report | | 3 | ECE approval numbers with similar materials report | | 4 | Material Master/ICS difference report | | 5 | Performance Report | | 6 | GSO Passenger Certification | | 7 | GSO Truck Certification | | 8 | Imark Certification | | 9 | Imark Conformity Mark Report | | 10 | Imark Sampling and Tire tests | | 11 | Imark ECE Authenticity Report | | 12 | NOM-086 SCFI-2010 | | 13 | NOM-086-1-SCFI-2011 | | 14 | Material Certification | | | |
| **USER INTERFACE CHANGES** | |
| **International Certification System Application:**  Upgrade International Certification System to the Microsoft Visual Studio version approved by the Architecture group. This application will run from a local workstation.  **C:\Users\csujitha\Desktop\thumbnail_image001.png** | |

| Business Logic enforcement |
| --- |
| *Type in a response to each item in the space immediately below it.* |
| **Integrity:** |
| N/A – Remains the same for the existing system. |
| **Error Handling:** |
| N/A – Remains the same for the existing system. |
| **Code Definition:** *Code outline for business logic* |
| N/A – Remains the same for the existing system. |

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| Reporting |
| **Reporting:** *Identify specific technical reporting requirements (i.e. Operational vs. Data Warehouse).* |
| N/A – Remains the same for the existing system. |

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| Tools |
| **Tools:** *List of tools to be used in the project, including 3rd party tools.* |
| N/A – Remains the same for the existing system. |

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| Technical Architecture |
| *Type in a response to each item in the space immediately below it.* |
| **Data Flow between systems:** |
| N/A – Remains the same for the existing system. |
| **Scalability:** *Systems ability to handle increase data and usage.* |
| N/A – Remains the same for the existing system. |
| **Extensibility:** *Provide for change while minimizing impact to existing system functions.* |
| N/A – Remains the same for the existing system. |
| **Portability:** *Readily transportable.* |
| N/A – Remains the same for the existing system. |
| **Failover/Redundancy:** |
| N/A – Remains the same for the existing system. |

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| System Configuration |
| *Type in a response to each item in the space immediately below it.* |
| **Hardware configuration:** *Describe Hardware Configuration and/or Development, Testing & Production Details* |
| N/A – Remains the same for the existing system. |
| **Software configuration:** *Describe Software Configuration and/or Development, Testing & Production Details* |
| Visual Studio 2013 with .NET 4.6.0 |

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| --- | --- | --- | --- |
| Contingency | | | |
| **Contingency:** *List any open issues and possible contingencies to mitigate risk. Update this section when resolutions are identified.* | | | |
| N/A – Remains the same for the existing system. | | | |
| Sign-off | | | | |
|  | **Name** | **Signature** | **Date** | |
| **I.T. Business Analyst group** |  |  |  | |
| **I.T. Deployment group** |  |  |  | |
| **I.T. Architecture group** |  |  |  | |
| **I.T. Application Support manager** |  |  |  | |
| **I.T. Project Services manager** |  |  |  | |

| Supplemental Data/References | |
| --- | --- |
| List all files supplemental to this specification here. Optional: Use filename to create hyperlink to document. | |
| **Document Name** | **Filename** |
| Coding Standards document | Cooper Tire Code Review Topics\_V1.6 |
| Cooper Tire Security | V3.0.0.0 |
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| Document History | | | |
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