

[서울시]청렴건설행정시스템_02차시 성우 스크립트_180206

02_01	In-depth Explanation on One-PMIS
02_02	This time, I will elaborate on the SMG's One-PMIS. One-PMIS is an online progress management system designed for the efficient management of construction projects.
02_03_01	One-PMIS workflow
02_03_02	First, let's learn the One-PMIS workflow, which is divided into a total of 7 stages. The table on the slide shows the types of work involved in each stage, the system users, and the time of system utilization. In stage 1, the system users and the project information (e.g. name, down payments, and scheduled completion date) are registered on One-PMIS as soon as a construction contract is signed. In stage 2, contractor registers SMG approved progress schedule on One-PMIS upon submission of project commencement report. In stage 3, the contractor carries out project management through One-PMIS and submits progress reports regularly - i.e. daily, weekly and monthly.
02_03_03	I would like to point out the fact that Korea has already made it obligatory for contractors to make regular offline progress reports on their construction projects through enactment of legislation. The SMG plans to establish a system in which construction progress reports are made through One-PMIS.
02_03_04	In stage 4, the SMG issues official work directives (i.e. project work orders) online through One-PMIS. These instructions are based on action reports submitted by contractors and supervisors. In stage 5, system users can register and search through a variety of documents generated in the project implementation process. In stage 6, SMG officials evaluate contractor's project performance at three points of construction process (upon 30%, 60% and 95% completion). One-PMIS accumulates all the data so that the system users and policy makers can refer to them. In stage 7, the final stage, the contractor registers as-built drawings on One-PMIS following the final inspection. The SMG makes the final progress payment to the contractor after all the drawings have been validated. Next, let's check the main menus and categories of One-PMIS, one by one.
02_04_01	Description of Main Menus and Categories of One-PMIS
02_04_02	One-PMIS consists of a total of 7 menus and 24 categories.
02_04_03	First, Project Overview is composed of the four categories of project status, contract status, organization and web camera.

02_04_04	In the category of Project Status, the overview of SMG's public construction projects is provided. Most notably, each project site is marked on a digital map. All provided information can be updated or modified.
02_04_05	In the Contract Status category, SMG monitors and manages construction contracts and payment details such as contract amount, the contract period, and the subcontract status.
02_04_06	In addition, through links to various other systems, one can even check the contractor's Subcontract execution and payment status.
02_04_07	Next, let's look into the Organization. This is the menu designed to carry out the integrated management of all project participants registered on One-PMIS. One ordering body, supervisor and contractor can be designated as the responsible parties as shown in above the table.
02_04_08	Next, Web Camera. The SMG has installed, on average, two web cameras at each construction site. Through the web cameras, images of each project site can be viewed in real time, which saves the time required to travel and inspect construction sites.
02_04_09	Each web camera is omni-directional in addition to having zoom-in and zoom-out features. The high-resolution images transmitted by the web cameras increase the transparency of construction site management, while reducing the eye strain of monitoring officials.
02_05_01	Next, let's move on to Progress Management, which consists of the four categories of work schedule, progress rate, construction photos, and resource management.
02_05_02	Contractor uploads and registers work schedule on the Work Schedule category. This process takes place immediately after submitting their project commencement report
02_05_03	The Progress Rate is displayed with visual effects, in one of the three categories of 'On-time, Slightly delayed, and Delayed', according to the progress of each work item specified in the progress schedule. This system allows for fast easy monitoring of the project progress status.
02_05_04	Next, Progress Photos for each work process. The contractor must register progress photos when submitting the progress reports. Through the photos, the project client (ordering body) can check the project progress through visual evidence. Therefore, the contractor must register recent photos. Most notably, the photos uploaded along with weekly progress reports are disclosed to citizens through Construction Allimi.

02_05_05	Next, Resource Management. A construction project uses different kinds of resources including manpower, equipment and materials. The SMG's One-PMIS manages the resource input status separately according to the three categories to produce more significant data and enable system users to monitor resources allocated to a particular project more systematically.
02_06_01	The next menu is Progress Reporting, which consists of the four categories of daily work report, weekly progress report, monthly progress report, and delay report.
02_06_02	First, Progress Reporting. Following the contract execution, the contractor must submit to the SMG the commencement report, and register the Project Implementation Schedule. During construction, the contractor must submit daily, weekly and monthly reports on the progress of each process.
02_06_03	The SMG has institutionalized an electronic approval system that imposes legal obligations on the approval of the progress report of each process. In addition, once a report is submitted to the SMG, neither the contractor nor the supervisor can modify its contents. According to the SMG's experience, the electronic approval system implemented through One-PMIS has increased the credibility of project reports.
02_06_04	The slide shows the SMG's standard template of daily work reports that the contractor must submit through One-PMIS. As you can see, the report includes quantitative information that indicates status of project components which can be compared with previous and targeted progress rate. The SMG's daily, weekly, and monthly reports registered on One-PMIS use the same format, with the exception of timeframes. The SMG automatically transmits weekly reports to Construction Allimi to disclose them to the general public.
02_07_01	Next, the Safety Management menu consists of the three categories of safety inspection, construction machinery safety check and safety manual.
02_07_02	First, Safety inspection. In the field of construction, Korea has enacted various laws on the obligatory implementation of safety checks in a number of areas. In addition, as separate regulations exist, contractors and supervisors need to implement prescribed safety checks which may vary in responsible actors, frequency and methods.
02_07_03	The contractor and the supervisor must carry out safety checks in accordance with the law. According to the results of safety checks, the client can take appropriate measures, ranging from orders to taking corrective actions to the imposition of penalties on the contractor and the supervisor that should be held accountable.

02_07_04	The safety management system implemented through One-PMIS, improves the efficiency of safety management. It also enables important data of various projects to be stored in one location, and the data can be used for the SMG's future safety management and relevant policy development.
02_07_05	Next, Construction Machinery Safety Check. During the past few years, construction sites in Korea have become larger and more complex contributing to an increase in the accident rate. As a result, the SMG has paid a lot of attention to enhancing the safety management of construction machinery used in various construction sites.
02_07_06	In such context, the SMG wanted to secure more efficient and systematic safety management on construction machinery used in construction sites, and thus added 'construction machinery safety check' feature in One-PMIS.
02_07_07	To that end, the SMG's One-PMIS is building an online database useful for the management of key construction machinery. Through the database, one can identify the utilization pattern, key weaknesses and check points for each type of construction machinery.
02_07_08	Next, Safety Manuals. Through One-PMIS, many different kinds of safety manuals are registered, and the SMG shares a number of important safety-related data with contractors and supervisors efficiently.
02_08_01	Next, the Project Document Management menu, which is composed of the three categories of electronic approval, document management and as-built drawing.
02_08_02	First, Electronic Approval is a feature that makes One-PMIS an attractive and powerful tool. The processing of work directives on One-PMIS is linked to the SMG's internal administrative system. The SMG drafts work directives about construction projects on One-PMIS, and electronic approval is made through the SMG's administrative network. This makes the documents authorized as 'official documents.'
02_08_03	Next, Document Management. One-PMIS provides sufficient storage space on its database so that users can store documents by project. In addition, it provides an easy information search feature so that stakeholders can share documents more efficiently.
02_08_04	Next, As-built Drawings. All as-built drawings are stored and managed on One-PMIS, and therefore the SMG can prevent the loss of as-built drawings, and implement effective maintenance of various facilities.
02_08_05	Following the SMG's final inspection, the contractor must register the as-built drawings on One-PMIS. The SMG checks the as-built drawings registered on One-

	PMIS and then makes the final payment to the contractor.
02_09_01	Next, History & Record Management, which is divided into the three categories of performance evaluation, accident history, and penalty management.
02_09_02	First, Performance Evaluation. With the feature, the SMG evaluates performance of designers, contractors, and supervisors, which are companies and individuals in charge, and accumulates the evaluation data on One-PMIS. Evaluators are requested to answer multiple-choice questions and make statements. The evaluation is made three times for each project at the progress rates of 30%, 60% and 95%.
02_09_03	Furthermore, the evaluation records are stored permanently, and the data can be used as reference material for the users' policy establishment, which makes One-PMIS is a valuable asset. The SMG also uses the evaluation data when selecting competitive companies and engineers for future projects. Through the evaluation system, the SMG has motivated all stakeholders in construction projects to pay closer attention to their work quality throughout the entire process.
02_09_04	Next, Accident History Management. On the occasion of two construction accidents that happened in July 2013, the SMG established an accident history management system on One-PMIS.
02_09_05	When an accident occurs in a construction site, the contractor must report the accident to the SMG immediately, and conduct an investigation to identify the cause of the accident and take corrective actions, and register all the details concerned on One-PMIS. If the contractor tries to hide the accident without reporting to it the client, the SMG can impose a penalty on the contractor according to relevant laws and regulations.
02_09_06	In addition, the SMG cross-checks accident reports and Industrial Accident Compensation Insurance to minimize the possibility of an accident cover-up.
02_09_07	This is the actual screen of the Accident History Management on One-PMIS. The page contains detailed information about accidents including information on victims. The accident records registered on One-PMIS are classified by various factors such as the project size, construction stage, and season. The records constitute an important database about numerous accident types and cases. The SMG can use the records as valuable data in the establishment of various policies and countermeasures.
02_09_08	Next, Penalty Management. Korea's Construction Technology Promotion Act allows the client to impose a penalty if the contractor or the supervisor fails to fulfill their

	obligations satisfactorily. Every six months, the SMG notifies the Ministry of Land, Infrastructure and Transport of such penalty records. Because such penalty records can be reviewed and considered in future project bidding and contractor selection processes, they can impact relevant contractors unfavorably.
02_09_09	Through One-PMIS, the SMG has been able to manage the penalties it imposes in a more systematic way.
02_09_10	Finally, the Search and Notice menu, which consists of the three categories of integrated search, notice, and help desk.
02_10	So far, we have explained how the SMG's One-PMIS is run and used. Through the system, the SMG has improved its administrative efficiency and convenience. Around 80% of the information collected by the system is disclosed to citizens through 'Construction Allimi. 'I hope that through this lesson, you have come to fully understand what the SMG's One-PMIS is all about. Thank you for your attention.