

DAY1.S2.  
블루프리즘 개발 및  
Control Room

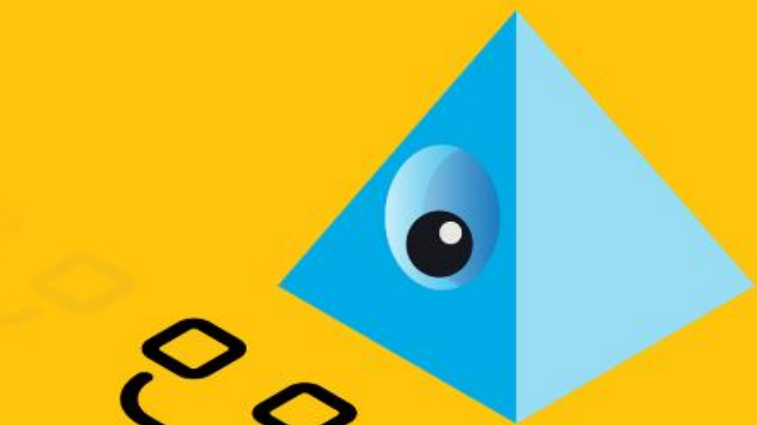
# 블루프리즘 스튜디오 및 컨트롤룸

## Interactive Client 둘러보기

- Interactive Client
- Process & Object Studio
- Control Room
- Analytics
- System

## 프로세스 & 오브젝트 스튜디오

- Hello World
- Dev Tools



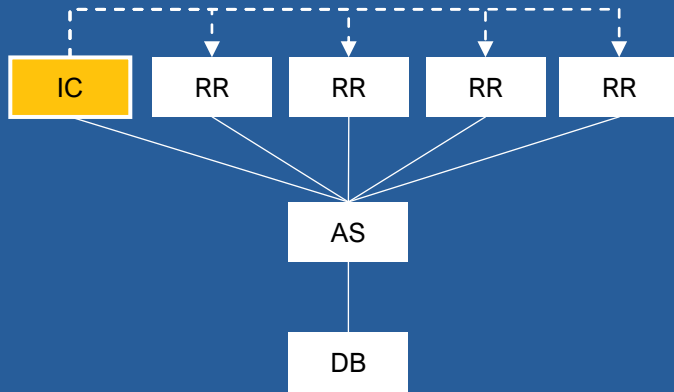
1. **Interactive Client 둘러보기**

2. 프로세스 & 오브젝트 :: Hello World



# Interactive Client

Interactive Client는 자동화 업무 개발을 위한 개발 도구와 운영 중인 RPA 자원 실시간 모니터링 및 관련 통계, 시스템 설정 정보 등을 통합적으로 제공하는 개발 및 관제 도구임.



Prep.

- 1) 제공된 Sample Release 를 Import.
- 2) [설치 폴더] 하위에 있는 VBO 모두 import  
(C:\Program Files\Blue Prism Limited\Blue Prism Automate\VBO)

Annotations above the screenshot:

- 홈 화면 대시보드 (Home Dashboard)
- 개발 도구 (Development Tools)
- RPA 자원 실시간 모니터링, 스케줄링 (RPA Resource Real-time Monitoring, Scheduling)
- RPA 운영통계 (RPA Operation Statistics)
- 릴리스 리스트 (Release List)
- DX (Digital Exchange)
- 시스템 설정 (System Settings)

Interface components:

- File menu
- Navigation tabs: Home, Studio, Control, Analytics, Releases, Digital Exchange, System, My Profile
- Home dashboard with charts: Average Handling Time, BPDS\_WQSnapshotTrend, Daily Productivity, BPDS\_QueueSnapshotComparison, Daily Utilisation Summary
- Footer: Licensed to BP Korea V7 10DW, Sign Out, Previous: 2023-05-09 오전 9:09, Current: 2023-05-11 오후 2:53, User: 'admin', Connection: 'BPServer', Connected To: 'HJ-BLUEPRISM'



# Process & Object Studio

1. 프로세스 스튜디오와 오브젝트 스튜디오로 엄격히 구분
2. 서브 페이지
3. Action 페이지
4. 개발 스테이지
5. 디버깅 도구 아이콘

The image displays two windows from the Blue Prism software suite. The top window is 'Process Studio - Edit - Login', showing a flowchart with steps like 'Start', 'Check Logged In', 'Is Logged In?', 'Check Lock', 'Send SAS?', 'Get Credential Name', 'Get Credentials', 'Log In', and 'End'. The bottom window is 'Object Studio - Edit - Login Agent', showing a flowchart with steps like 'Start', 'Authenticate', 'Check Response', 'Success', 'Error', and 'End'. A table in the Object Studio window shows version history for the 'Login' object.

Date and Time	Type of Edit	By User	Edit Summary	Available?
2022-05-24 오후 1:48:36	Modification	admin	-	Yes
2022-05-24 오후 1:47:03	Modification	admin	-	Yes
2022-05-24 오후 1:39:44	Modification	admin	-	Yes
2022-05-24 오후 1:24:13	Modification	admin	-	Yes
2022-05-24 오후 12:57:38	Modification	admin	-	Yes
2022-05-24 오후 11:25:15	Modification	admin	-	Yes

프로세스 스튜디오

오브젝트 스튜디오

# Control Room (1/3)



## 1. 세션 정보 조회

- 자동화 업무 처리상태 조회

## 2. 워크 큐 조회

- 워크큐 별 워크아이템
- 각 워크 아이템별 처리 상태

## 3. 스케줄러

- 자동화 업무 처리 스케줄 정의 (언제 무슨 업무를 어느 RR이 처리할 지)
- 자동화 업무 스케줄 조회
- 스케줄 폐기(Retired Schedule)

## 4. 프로세스

- 개발 완료 후 'publishing' 된 프로세스 목록

## 5. RR 상태

- 현재 가동중인 RR 상태

## 6. 각 기능별 상세 내용

### Exercise.

- 제공된 Sample process를 drag-n-drop으로 실행.

The screenshot displays the Blue Prism Control Room interface. The left sidebar contains navigation icons for Home, Studio, Control, Analytics, Releases, Digital Exchange, System, and My Profile. The main area is divided into several panels:

- Session Management (1):** Shows a tree view of sessions under 'Today'.
- Queue Management (2):** Shows a tree view of queues including 'BPK-WebAuto', 'MyTest\_Queue', 'Naver Shopping Item - Desker', 'opinet', 'Queue 1', 'Queue 2', 'SB-QUEUE', and 'SB-QUEUE2'.
- Scheduler (3):** Shows a tree view of scheduler items including 'Reports', 'Recent Activity', 'Timetables', 'Today & Tomorrow', 'Schedules', and 'Retired Schedules'.
- Available Processes (4):** Shows a list of processes such as 'Bootstrap', 'Login Agent', 'Change Password', 'Check Logged In', 'Login', 'Logout', 'Startup', 'BPK', 'BPK Training', 'Miscellaneous', 'MyTest', 'POC-Sendbird', 'Process Dependency Tracker', and 'Queue Report'.
- Resources (5):** Shows a list of resources including 'Default', 'DESKTOP-ACV0AU1', 'LAPTOP-6CKQDJEB', and several instances of 'LAPTOP-6CKQDJEB:8182' through '8186'.
- Table (6):** A table showing session details for a 'Login' process.
 

ID	Process	Resource	User	Status	Start Time	End Time
638	Login	LAPTOP-6CKQDJEB	admin	Completed	2022-08-01 오전 8:46:43	2022-08-01 오전 8:46:54

The bottom status bar shows: Sign Out Previous: 2022-08-01 오전 8:46, Current: 2022-08-01 오후 1:19, User: 'admin', Connection: 'BPServer (.NET Remoting Insecure)', Connected To: 'LAPTOP-6CKQDJEB'



# Control Room (2/3)

## Scheduling

### ① TASK / 세션 정의

- 프로세스를 RR에 할당 (맵핑)
- 허용된 동시세션 수 만큼 N개 세션을 정의하여 하나의 TASK로 묶음.

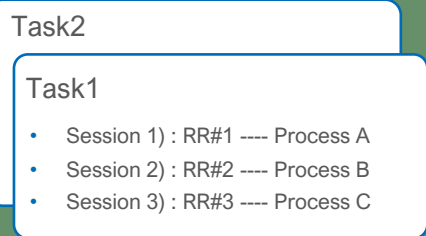
### ② TASK 완료 후 동작 정의 :: Stop vs Other TASK

### ③ 스케줄 정의

- 프로세스 수행 주기 설정

### Schedule

- Once/Hourly/Minutely/Daily...
- Starts on
- Run At



### Exercise.

- 스케줄 생성하기 (NOTE Learning Edition에서는 스케줄 실행 기능 미지원)

The screenshots show the Blue Prism Control Room interface. The top screenshot displays the 'Schedules - Configure schedules and associated tasks' window for '001-Infinite\_loop'. The 'On Complete' dropdown is set to 'Stop' (labeled with a blue '2'). The 'Available Resources' table shows several resources, including 'LAPTOP-6CKQDJEB:8182'.

The middle screenshot shows the 'Schedules' list in the left-hand navigation pane. '001-Infinite\_loop' is selected and highlighted with a red box (labeled with a blue '3').

The bottom screenshot shows the 'Schedules - Configure schedules and associated tasks' window for 'Schedule-Infinite\_loop1'. The 'Initial Task' is '001-Infinite\_loop'. The 'Schedule' section is configured with 'Runs' set to 'Once', 'Starts On' set to '2022-07-20', and 'Run At' set to '10:50:00'. A red box highlights the 'Initial Task' and 'Schedule' sections, with a red arrow labeled 'session' pointing to the 'Initial Task' and a red arrow labeled 'schedule' pointing to the 'Schedule' section.



# Control Room (3/3)

## RR status

State	Descriptions
Idle	유휴상태.
Working	프로세스 처리 중. 처리중인 업무(세션)는 Environment 구역에서 확인하며 처리상태는 Status 에 표시. e.g.) Pending(준비중), Running(처리중), Completed(완료), Terminated (중지됨) 등
Offline	오프라인 상태
Missing	네트워크 연결이 끊어짐
Warning	업무 프로세스 처리 중 특정 스테이지에서 일정 시간 이상 진행을 하지 못하고 머물러 있음.
Private	RR이 특정 사용자 권한으로 실행됨.
LoggedOut	시스템이 Log out되어 RR이 Login Agent 로 전환됨.
Pool	RR 이 Resource Pool 구성원임.

Analytics
Releases
Digital Exchange
System
My Profile

**Sessions - Control currently running sessions**

**Available Processes** - Drag and drop processes on t...

Name	Description
Bootstrap	
BPK	
BPK Training	
Miscellaneous	
MyTest	
POC-Sendbird	
Process Dependency Tracker	
Queue Report	
Training	
bpTravel	
OPINET Exercise	
OPINET Exercise Process	
Process Template 1 - Basic	A basic Pr...

**Resources** - Connected via application server: LAPTOP-6CKQDJEB.

Name	State	Session Info	Members	Connection
Default				
LAPTOP-6CKQDJEB	Working	1 active		via Application Server
LAPTOP-6CKQDJEB:8184	Offline			via Application Server
LAPTOP-6CKQDJEB:8185	Offline			via Application Server
RRPool#1			3	via Application Server
LAPTOP-6CKQDJEB:8183	Idle	* No sessions		
LAPTOP-6CKQDJEB:8186	Offline			
DESKTOP-ACV0AU1	Offline			
RRPool#2			1	via Application Server
LAPTOP-6CKQDJEB:8182	Idle	* No sessions		

Filter using selected Process
  Filter using selected Resource

**Environment**    [Start Selected Sessions](#)    [Stop Selected Sessions](#)    [Show Session Variables](#)

ID	Process	Resource	User	Status	Start Time	End Time	Latest Stage
654	Infinite loop	LAPTOP-6CKQDJEB	[Scheduler]	Running	2022-08-08 오후 3:41:08		Wait1
655	Infinite loop	LAPTOP-6CKQDJEB:8...	[Scheduler]	Completed	2022-08-08 오후 3:41:08	2022-08-08 오후 3:42:16	
653	Infinite loop	LAPTOP-6CKQDJEB:8...	[Scheduler]	Completed	2022-08-08 오후 3:41:08	2022-08-08 오후 3:42:13	
652	Login	LAPTOP-6CKQDJEB	admin	Completed	2022-08-08 오전 9:27:25	2022-08-08 오전 9:27:36	



# System



## 1. 프로세스 정보 조회

- 자동화 프로세스 목록
- 예외 처리 항목 정의
- 환경 변수 - Static 변수를 공통으로 정의하여 여러 프로세스가 공유

## 2. 오브젝트 정보 조회

- 예외 처리 항목 정의
- 환경 변수 - Static 변수를 공통으로 정의하여 여러 프로세스가 공유

## 3. RR 리소스 관리

- RR Pool 관리 (생성, 그룹핑)
- RR 목록 관리 (가용 vs 폐기)

## 4. 워크 큐 관리

- 워크 큐 생성/삭제/환경설정
- RR 목록 관리 (가용 vs 폐기)

## 5. 보안 관리

- 사용자 목록, 권한
- 인증 방식 설정 (default = Blue Prism native)
- Credentials
- Encryption Scheme (=Default Encryption Scheme)

Blue Prism - Robotic Process Automation Software - v7.1.0

File Home Studio Control Analytics Releases Digital Exchange System My Profile

System - Settings

Local Device Settings

- Start a personal Runtime Resource on this machine when users sign in to Blue Prism

System Wide Settings

General

- Automatically back up when editing a process or business object (every 1 minute)
- Force users to summarise their changes when saving a process or business object
- Password controls allow pasted passwords
- Allow latest Runtime Resource screen capture
- Hide the Digital Exchange tab
- Default session warning time (mins) (0 = disable warnings): 5

Runtime Resource Connectivity

- Require secure inbound instructional connections
- Allow anonymous public Runtime Resources
- Prevent registration of new Runtime Resources
- Resource registration and addressing: Register using machine (short) name, communicate using FQDN

Database

- Enable Unicode support for session logs
- Save environment data for clients, runtime resources and servers to the database

Application Manager Settings

- Tesseract engine: 3 Default, based on what is available

Environment Themes

Choose a name for this environment and select the colours to use for title and status bars

Name: Home

Background: [Color Picker] Foreground: [Color Picker]

Environment Theme Preview [Apply]

Offline Help

- Enable Offline Help
- Base URL: C:\Users\beeno\Desktop

Sign Out Previous: 2022-08-01 오후 2:31, Current: 2022-08-02 오후 2:11, User: 'admin', Connection: 'BPServer (.NET Remoting Insecure)', Connected To: 'LAPTOP-6CKQDJEB'

# Analytics



- Analytics에서 제공하는 함수를 이용해 원하는 정보를 시각화 하여 출력
- 통합 또는 워크큐 별 통계 산출

예)

- 워크 큐 통계
  - + 예외처리 건수
  - + 워크 아이템 평균 처리 시간
  - + 평균 재시도 수
  - + 워크 큐 볼륨
- 데이터 베이스 주요 테이블 크기
- 리소스 가용성 (Work Force Availability)

The screenshot displays the Blue Prism Analytics interface with several data visualizations and a configuration window.

**Dashboard Overview:** The main dashboard shows a 'New dashboard' view with a 'Tiles' library on the left. The tiles include: Average Handling Time, Average Retries, BPDS\_QueueSnapshotComparison, Exceptions, FTE Comparison, BPDS\_WQSnapshotTrend, Daily Utilisation Summary, Hours Spent Working Queues, Largest Database Tables, License Information, Pending Queue Volumes, Process Utilisation Yesterday, Queue Volumes Now, Resource Utilisation Yesterday, Total Automations, and Workforce Availability.

**Visualizations:**

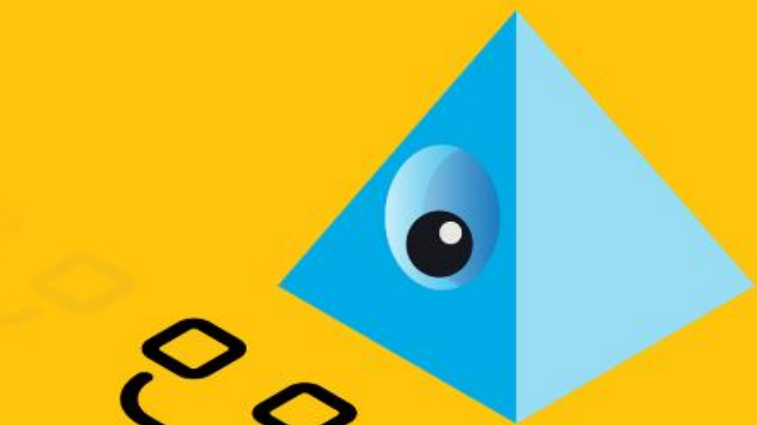
- Largest Database Tables:** A pie chart showing the largest five tables in the database (Mb). The data is as follows:
 

Table Name	Percentage
BPAuditEvents	57.87%
BPAProcess	40.16%
BPASessionLog_NonUnicode	1.14%
BPAWorkQueueItem	0.63%
BPAFont	0.21%
- Hours Spent Working Queues:** A bar chart showing hours spent by digital workers on one or more work queues on a monthly basis. The x-axis shows months from 2022-01 to 2022-06, and the y-axis shows 'HoursWorked' from 0.00 to 1.20.
- Total Automations:** A pie chart showing the number of objects and processes in the database.
- Resource Utilisation Yesterday:** A bar chart showing overall time spent running sessions. The y-axis shows 'Value' from 0.00 to 1.00. The legend includes time slots: 00:00, 02:00, 04:00, 06:00, 08:00, 10:00, 12:00, 14:00, 16:00, 18:00, 20:00, 22:00.
- Queue Volumes:** A bar chart showing queue volumes for different queues. The y-axis shows 'Value' from 0.00 to 1,000.00. The legend includes: Complete, Deferred, Exceptions, Pending.

**Configuration Window (Dashboard Tile):** A window titled 'Dashboard Tile' is open, showing the configuration for a chart titled 'Number of exceptions by queue'.
 

- Name:** Exceptions
- Description:** Number of exceptions by queue
- Display type:** Chart
- Auto-refresh:** Never
- Chart type:** Column
- Data source:** BPDS\_Exceptions
- Parameters:**

Name	Value
@BPQueueName	BPK-WebAuto
@NumberOfDays	30



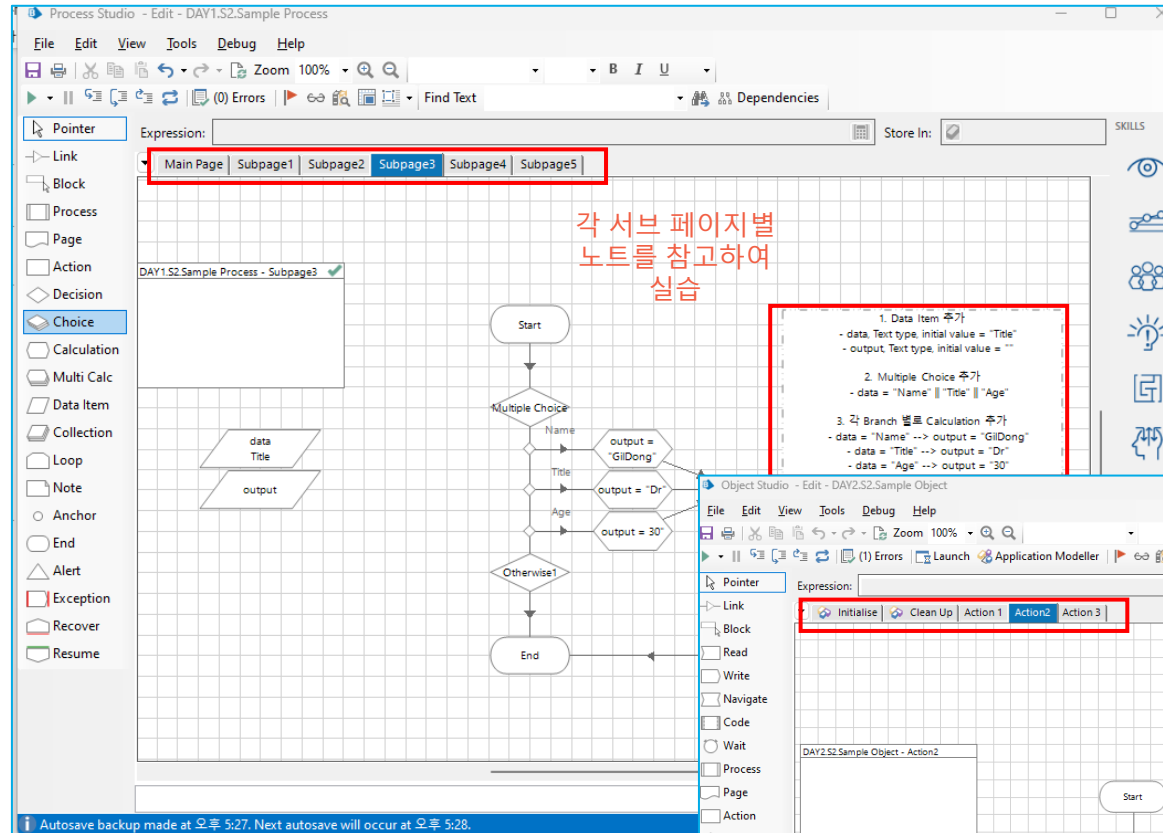
1. Interactive Client 둘러보기
2. 프로세스 & 오브젝트 스튜디오 :: Hello World



# 프로세스 & 오브젝트 스튜디오 (1/2) Hello World

## Practice . Hello World

1. 제공된 Sample Process, Sample Object를 이용해 각 스테이지 실습  
→ 각 스테이지 용법 숙지



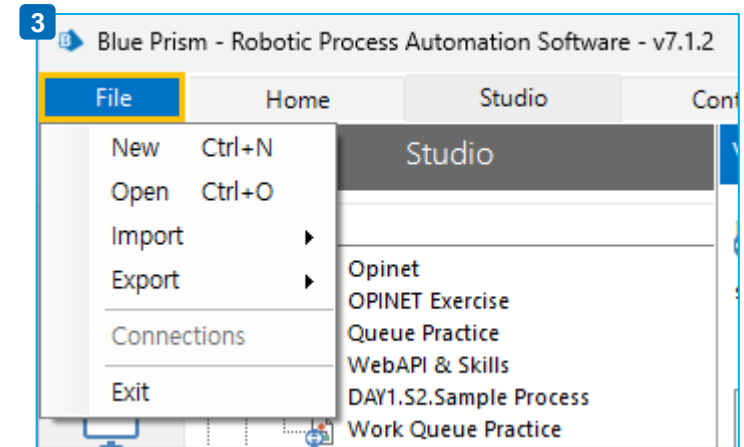
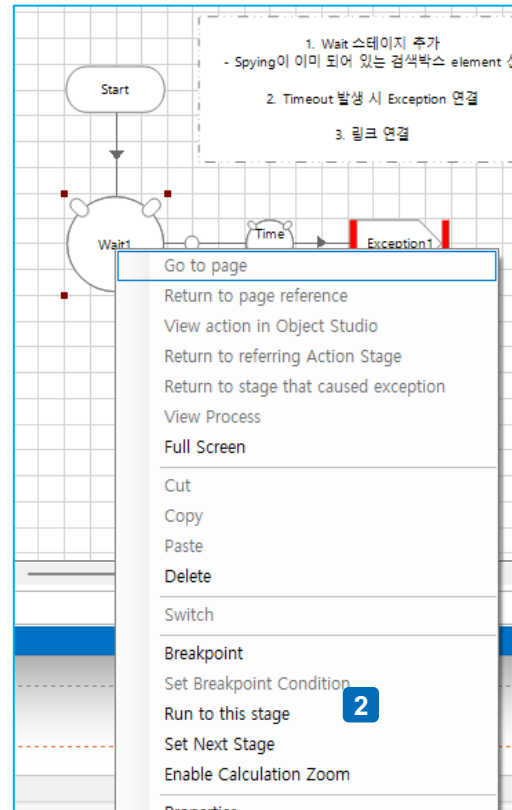
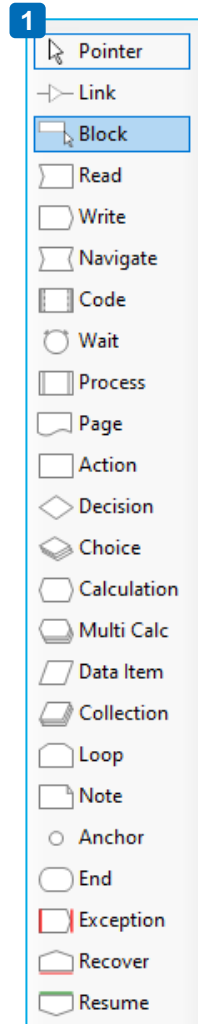


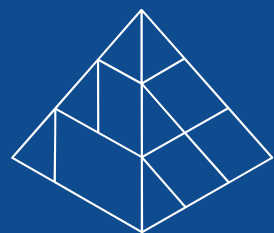
# 프로세스 & 오브젝트 스튜디오 (2/2) Dev tools

## Practice . Hello World

실습 과정에서 다음과 같은 기능도 함께 숙지

1. 프로세스 및 오브젝트 스튜디오 각 스테이지 별 사용법
2. 디버깅 도구 사용법
  - Step / Step Over / Step Out
  - Play speed
  - Reset
  - Error info
  - Break point / Set Next / Run
3. Import / Export





# blueprism<sup>®</sup>

A Digital Workforce for Every Enterprise