Module Address

IP Address 192.168.2.252
Subnet Mask: 255.255.255.0
Default gateway 192.168.2.2

Connection1 (Server)

Local Properties(Server)
    TSAP: 20.00
    Only this connection: 192.168.2.2
Remote Properties(Client)
    TSAP: 10.00

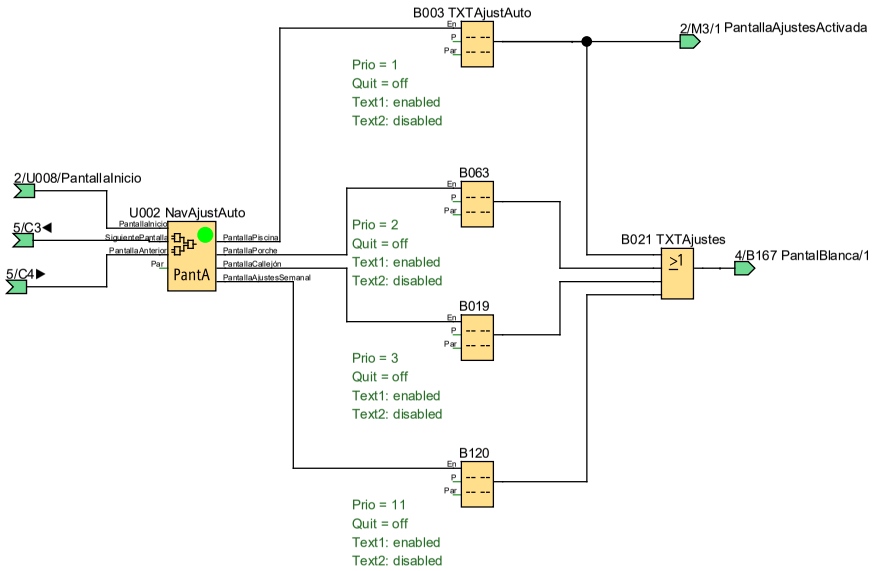
Parameter VM Mapping

ID	Block	Parameter	Type	Address
1	B048 T.MZPiscina [Off-Delay]	Off-Delay	Word	2
2	B048 T.MZPiscina [Off-Delay]	Off-Delay Time Base	Byte	4
3	B046 T.MZPorche [Off-Delay]	Off-Delay	Word	5
4	B046 T.MZPorche [Off-Delay]	Off-Delay Time Base	Byte	7
5	B044 T.MZCallejon [Off-Delay]	Off-Delay	Word	8
6	B044 T.MZCallejon [Off-Delay]	Off-Delay Time Base	Byte	10
7	B067 TAutoPiscina [Off-Delay]	Off-Delay	Word	11
8	B067 TAutoPiscina [Off-Delay]	Off-Delay Time Base	Byte	13
9	B069 TAutoPorche [Off-Delay]	Off-Delay	Word	14
10	B069 TAutoPorche [Off-Delay]	Off-Delay Time Base	Byte	16
11	B071 TAutoCallejo [Off-Delay]	Off-Delay	Word	17
12	B071 TAutoCallejo [Off-Delay]	Off-Delay Time Base	Byte	19
13	B061 TodasEstacio [Weekly Timer]	Weekday1	Byte	20
14	B061 TodasEstacio [Weekly Timer]	On Time1	Word	21
15	B061 TodasEstacio [Weekly Timer]	Off Time1	Word	23
16	B065 [Astronomical clock]	Sunrise offset	Word	25
17	B065 [Astronomical clock]	Sunrise Time	Word	27

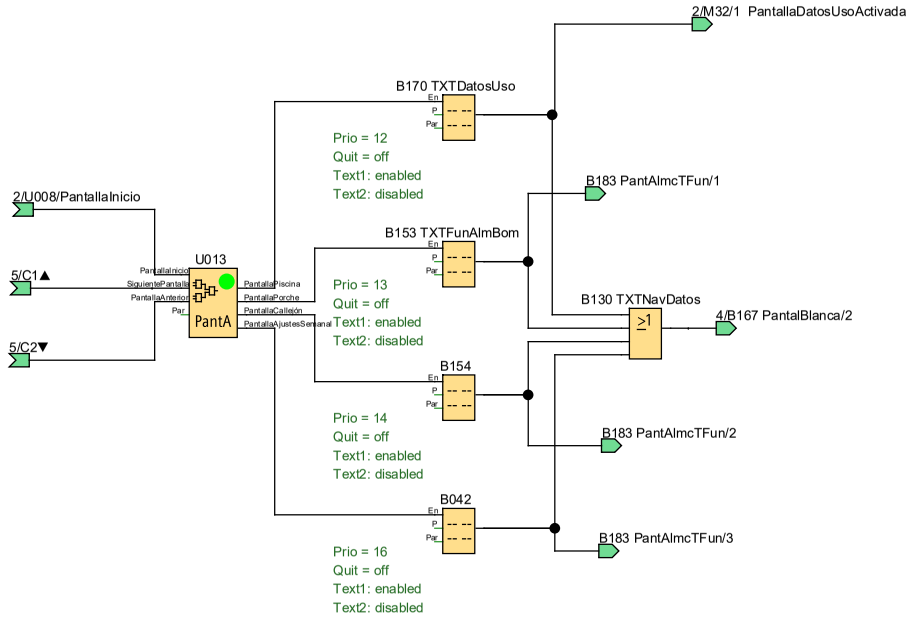
Parameter VM Mapping

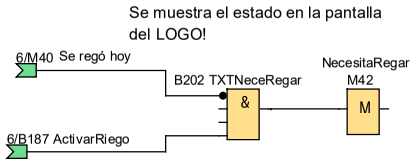
ID	Block	Parameter	Type	Address
18	B050 TRemotoPisci [Off-Delay]	Off-Delay	Word	29
19	B050 TRemotoPisci [Off-Delay]	Off-Delay Time Base	Byte	31
20	B072 TRemotoPorch [Off-Delay]	Off-Delay	Word	32
21	B072 TRemotoPorch [Off-Delay]	Off-Delay Time Base	Byte	34
22	B109 TRemotoCalle [Off-Delay]	Off-Delay	Word	35
23	B109 TRemotoCalle [Off-Delay]	Off-Delay Time Base	Byte	37

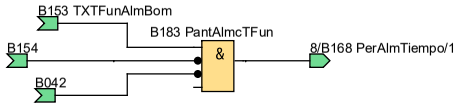
Navegación pantallas: Ajustes



Navegación pantallas: Datos de uso

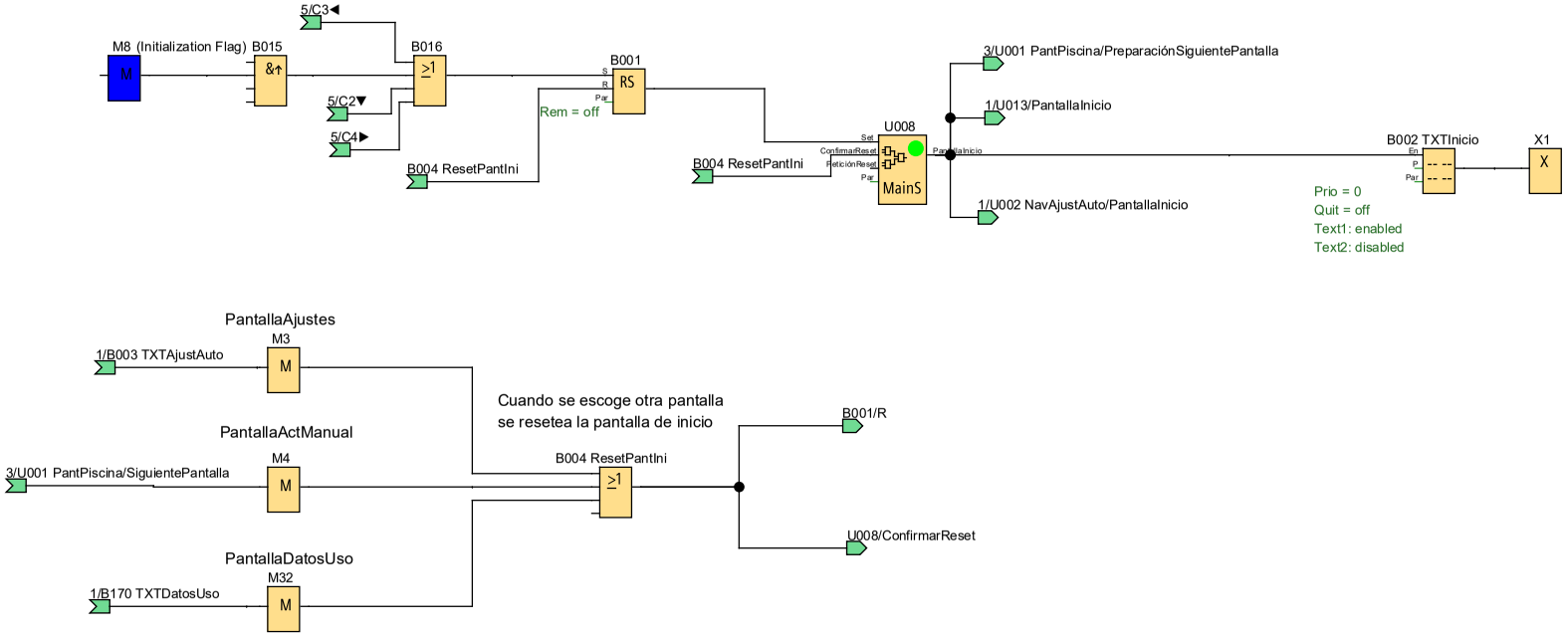






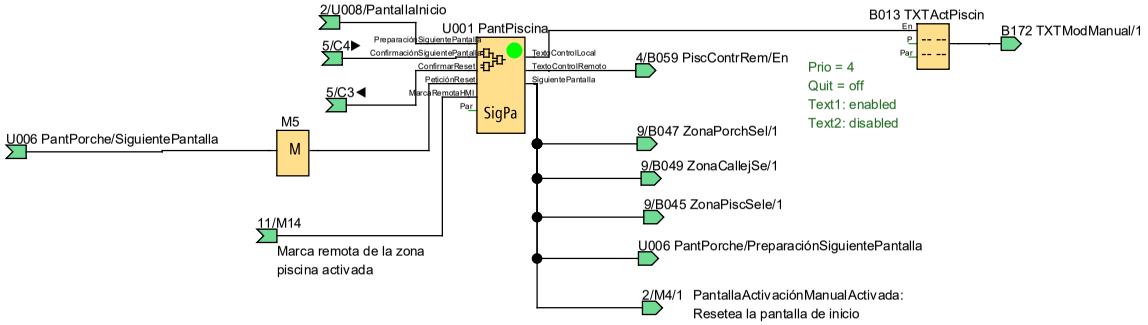
Creator:	simon		Project:		Customer:	
Checked:			Installation:		Diagram No.:	
Date:	11/5/25 1:41 AM/6/8/26 7:15 PM		File:	RiegoAutomático.lsc	Page:	4 / 31

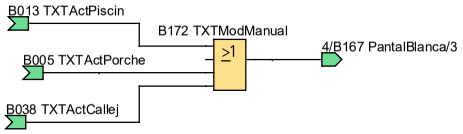
Navegación pantallas: Pantalla inicio

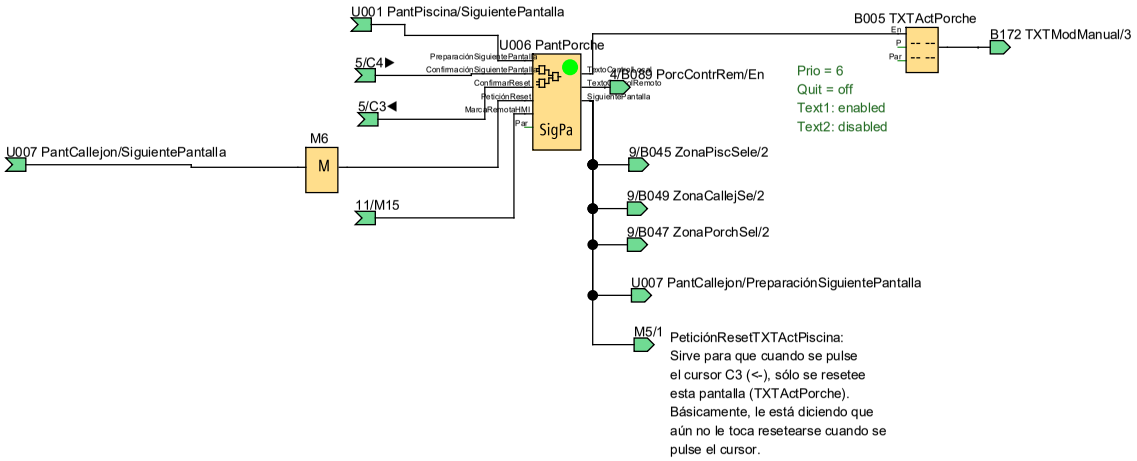


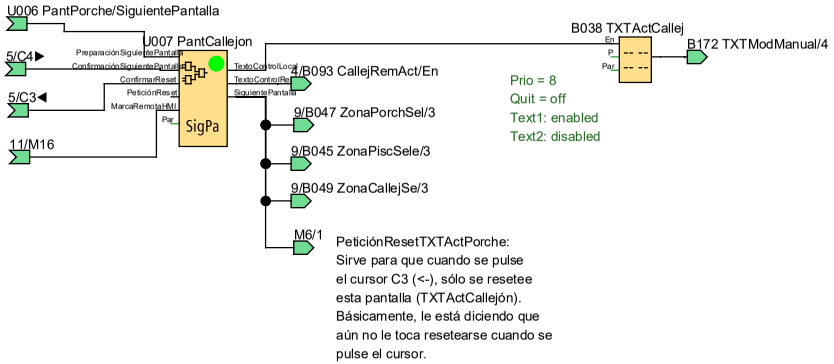
Creator:	simon		Project:		Customer:	
Checked:			Installation:		Diagram No.:	
Date:	11/5/25 1:41 AM/6/8/26 7:15 PM		File:	RiegoAutomático.lsc	Page:	5 / 31

Navegación pantallas: Modo manual



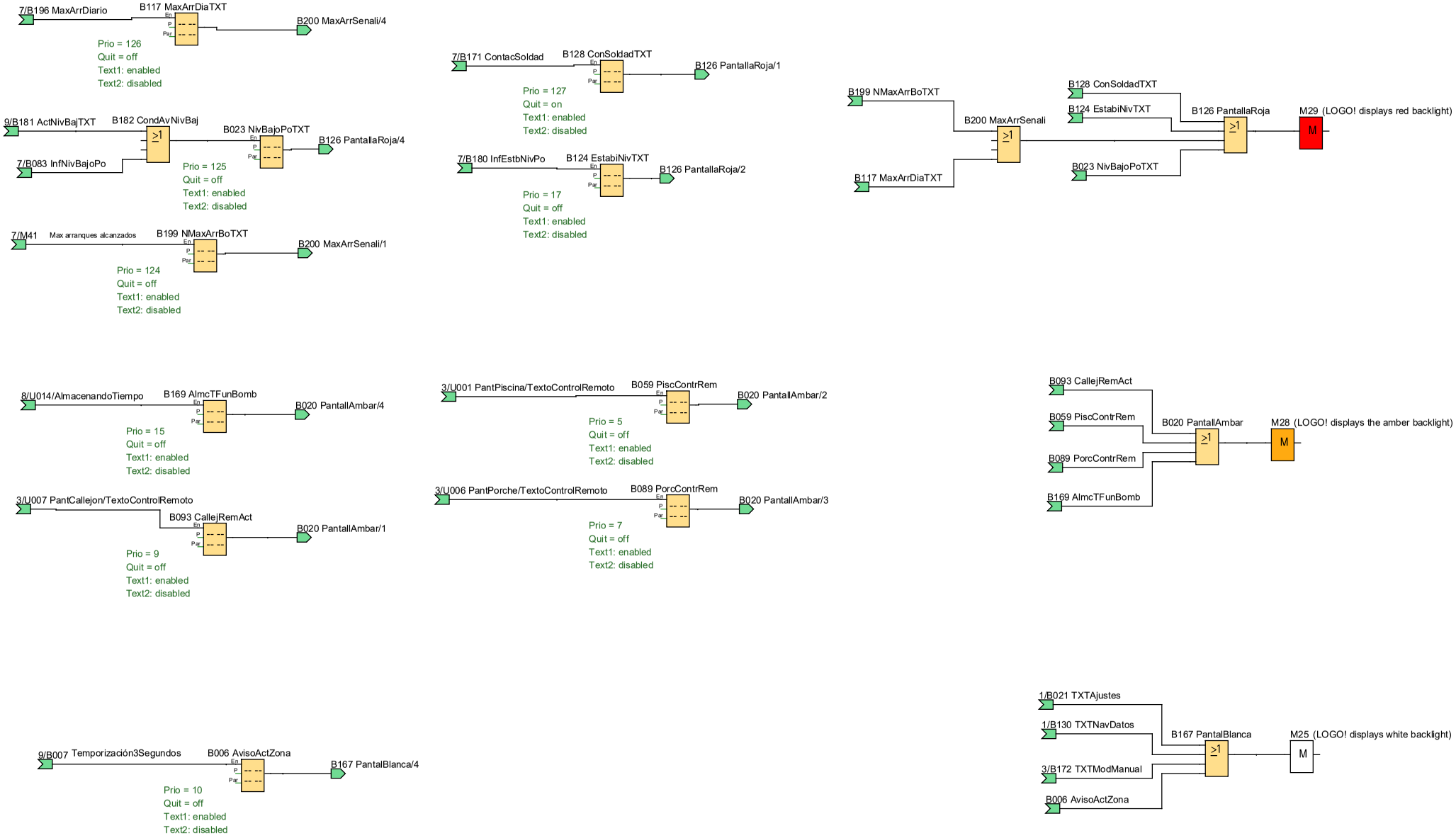






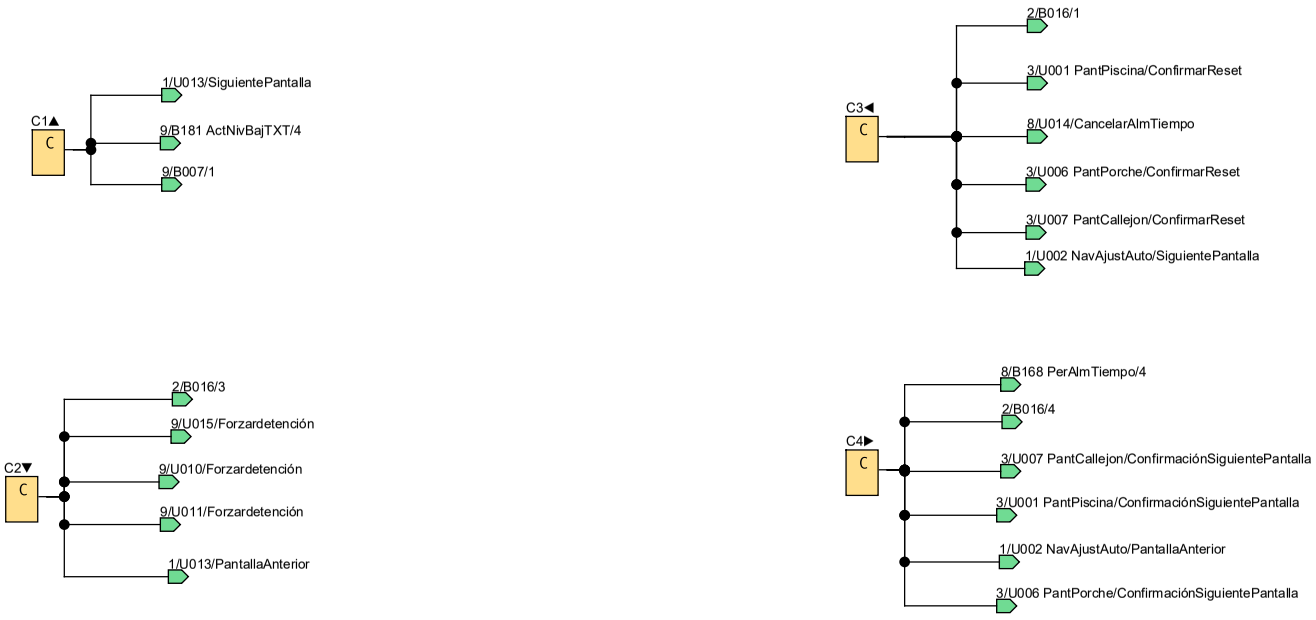
Creator:	simon		Project:		Customer:	
Checked:			Installation:		Diagram No.:	
Date:	11/5/25 1:41 AM/6/8/26 7:15 PM		File:	RiegoAutomático.lsc	Page:	6 / 31

Textos de aviso del sistema

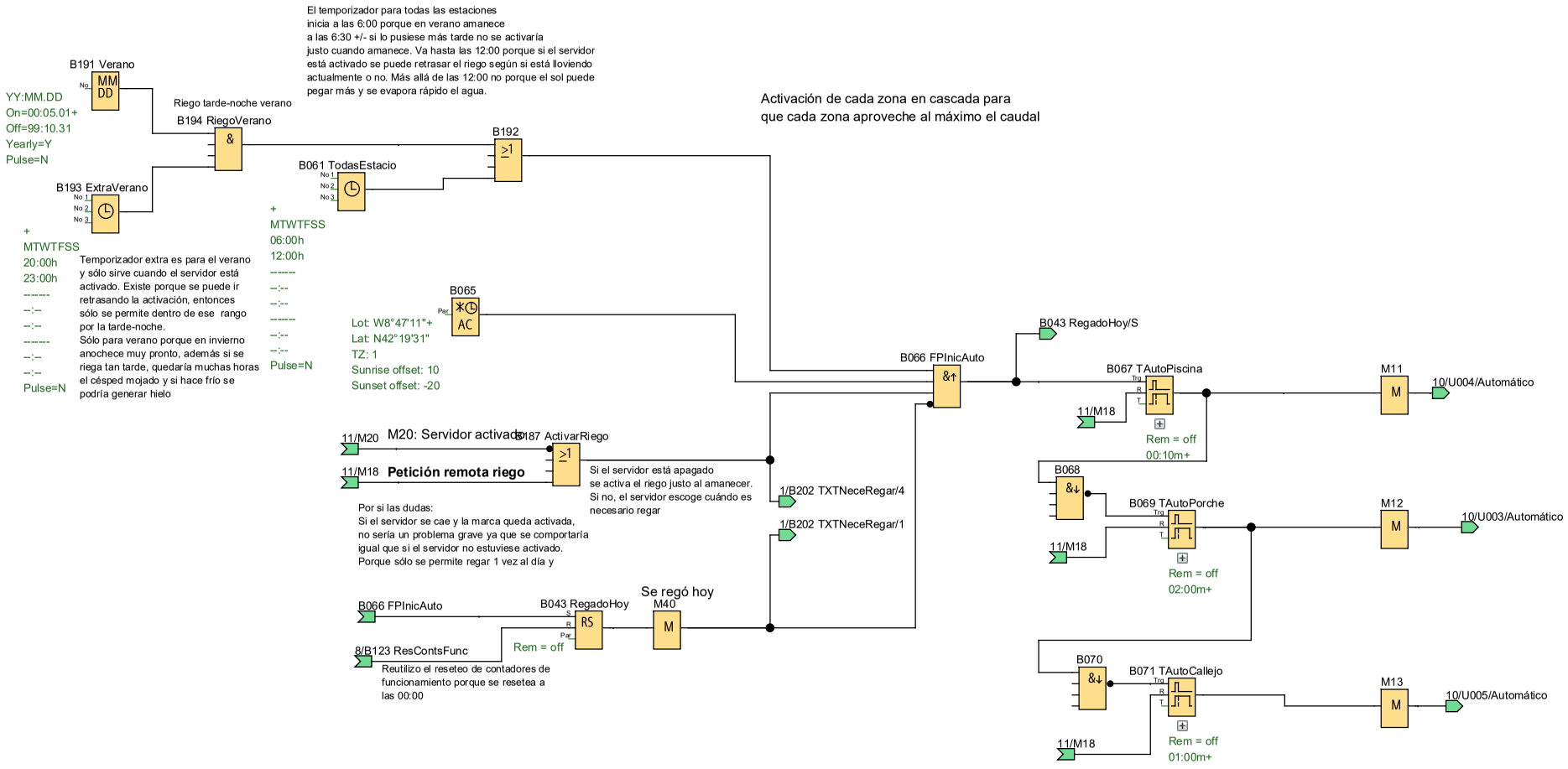


Creator:	simon		Project:		Customer:	
Checked:			Installation:		Diagram No.:	
Date:	11/5/25 1:41 AM/6/8/26 7:15 PM		File:	RiegoAutomático.lsc	Page:	7 / 31

Cursores de navegación

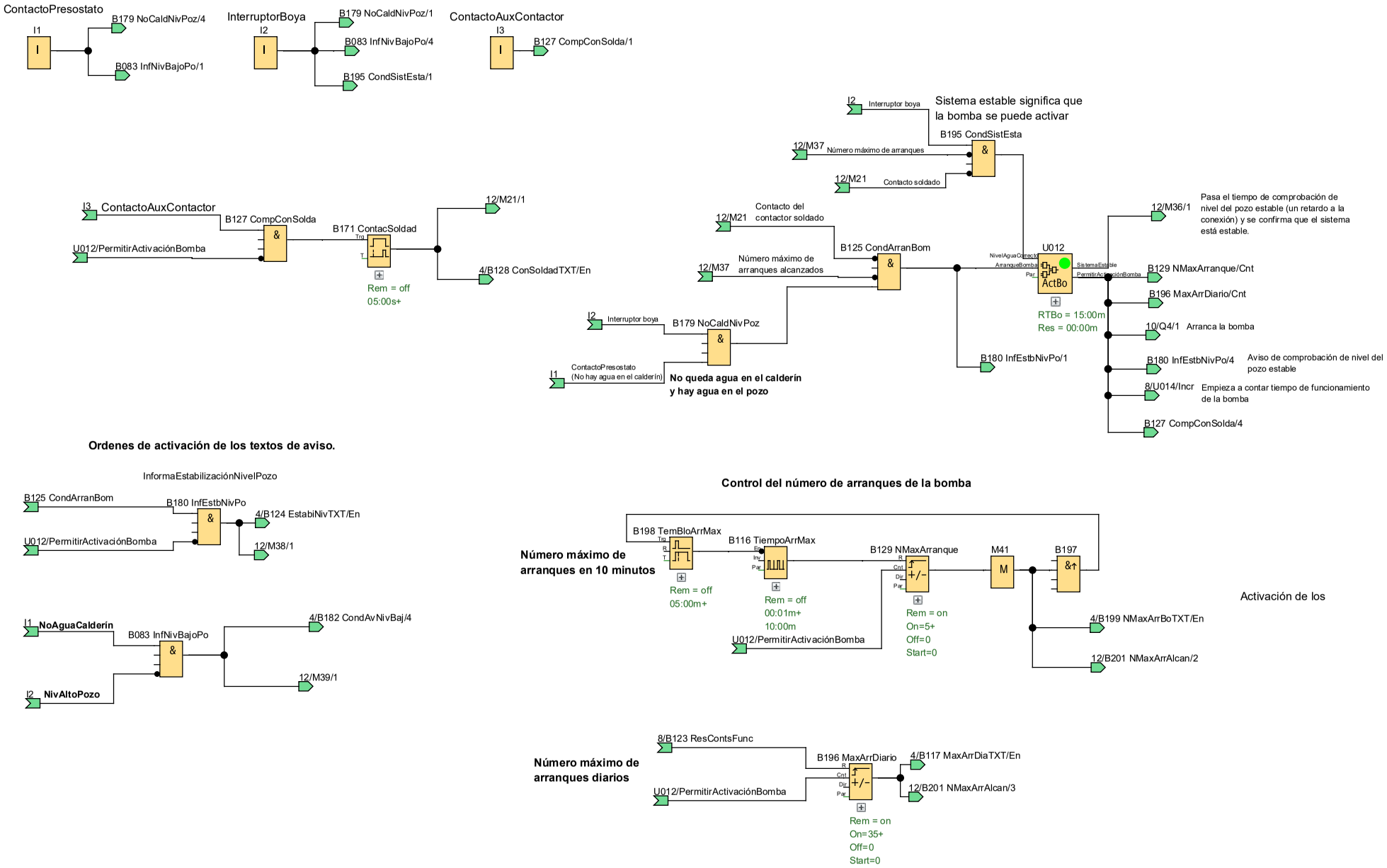


Modo automático



Creator:	simon		Project:		Customer:	
Checked:			Installation:		Diagram No.:	
Date:	11/5/25 1:41 AM/6/8/26 7:15 PM		File:	RiegoAutomático.lsc	Page:	9 / 31

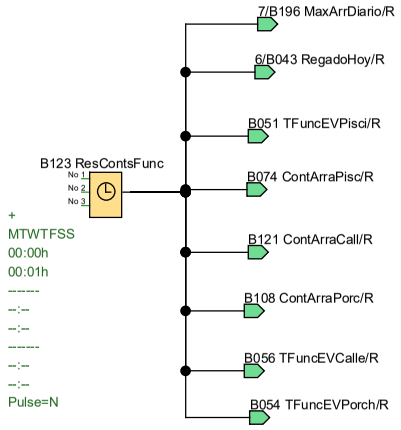
Protección bomba



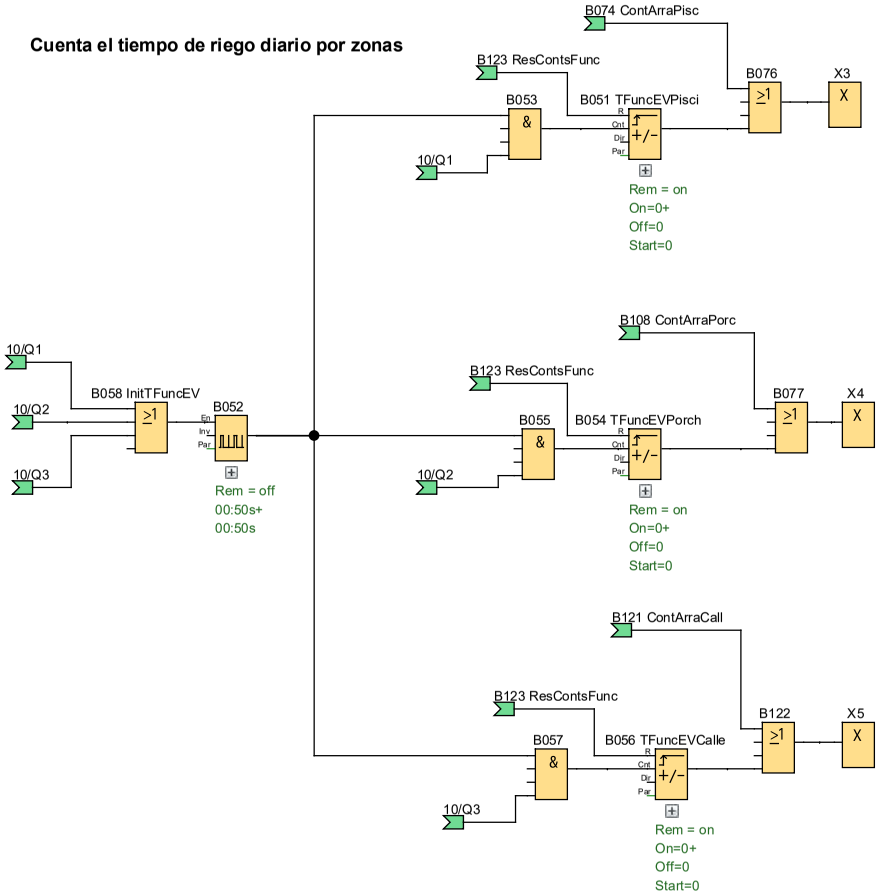
Creator:	simon		Project:		Customer:	
Checked:			Installation:		Diagram No.:	
Date:	11/5/25 1:41 AM/6/8/26 7:15 PM		File:	RiegoAutomático.lsc	Page:	10 / 31

Contadores de uso

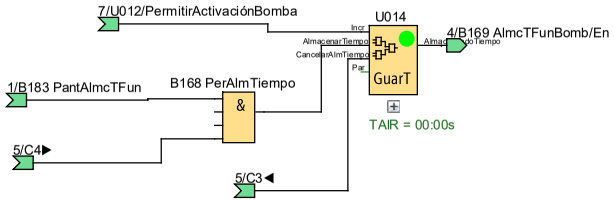
Reseteo diario



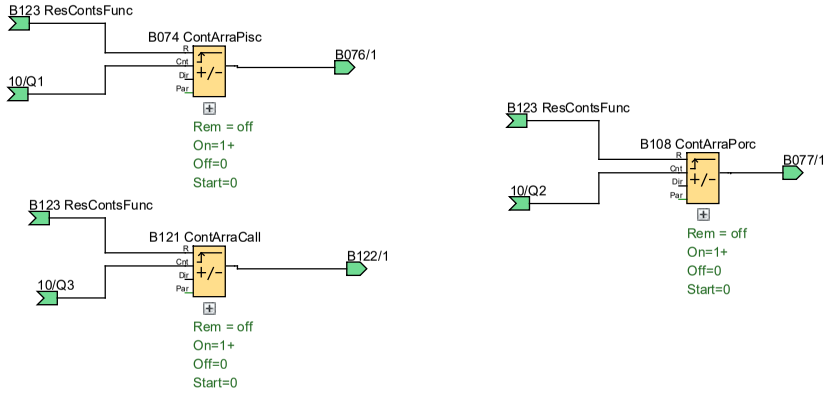
Cuenta el tiempo de riego diario por zonas



Guarda y cuenta el tiempo de funcionamiento de la bomba



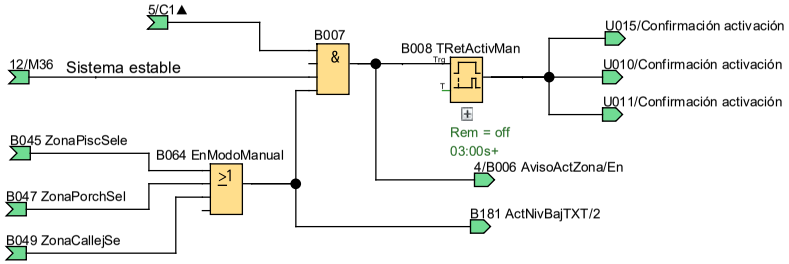
Cuenta el número de riegos diarios por zonas



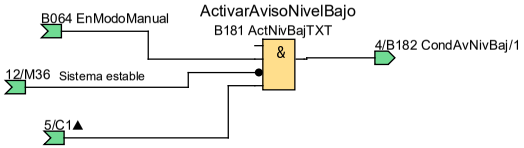
Creator:	simon		Project:		Customer:	
Checked:			Installation:		Diagram No.:	
Date:	11/5/25 1:41 AM/6/8/26 7:15 PM		File:	RiegoAutomático.lsc	Page:	11 / 31

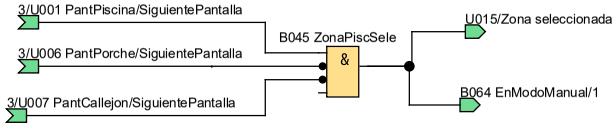
Modo manual

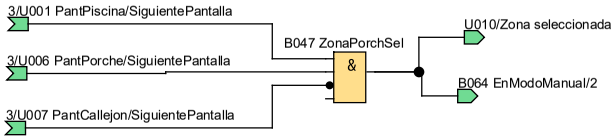
El tiempo de retardo de activación de cada zona
se activa siempre que se esté en modo manual,
el sistema sea estable y se quiera activar una zona.

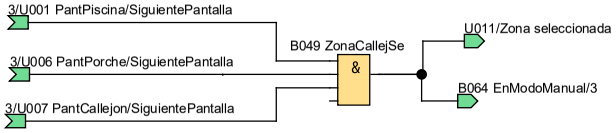


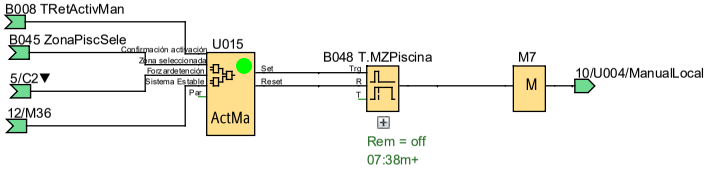
Si el nivel del pozo es bajo, al pulsar el cursor
de activación de la zona alerta sobre el nivel del pozo

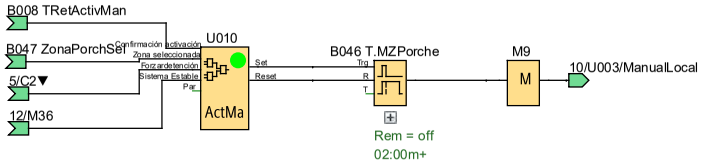


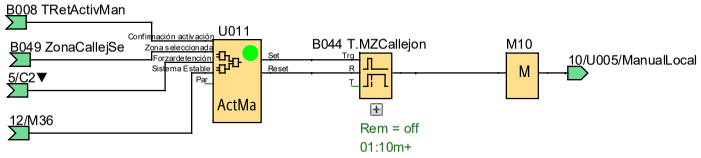










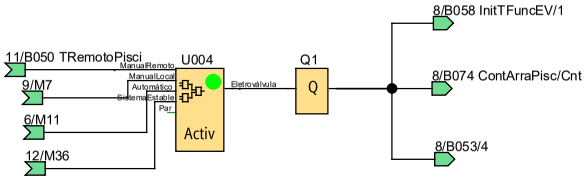


Creator:	simon		Project:		Customer:	
Checked:			Installation:		Diagram No.:	
Date:	11/5/25 1:41 AM/6/8/26 7:15 PM		File:	RiegoAutomático.lsc	Page:	12 / 31

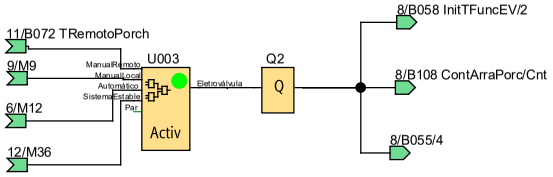
Activación salidas

Para futuros errores: Los UDFsd que tengan conectados a su salida una salida física, todas sus entradas deben de tener un estado marcado. O sea no pueden estar desconectadas porque aunque en la simulación funcione como un False físicamente no, por lo que se generan incongruencias entre la simulación y la realidad.

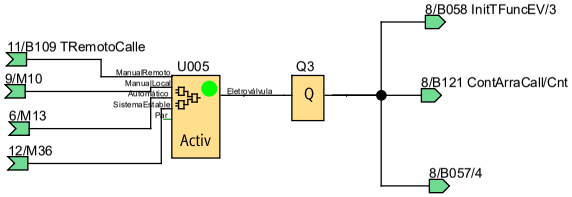
Q1



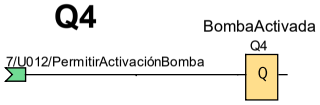
Q2



Q3



Q4

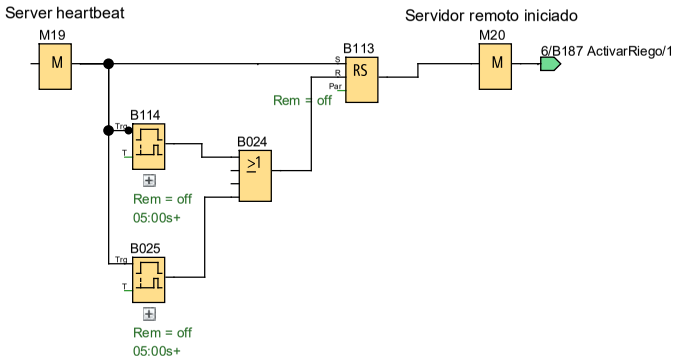


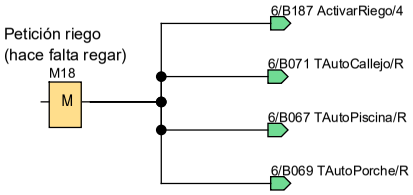
Creator:	simon		Project:		Customer:	
Checked:			Installation:		Diagram No.:	
Date:	11/5/25 1:41 AM/6/8/26 7:15 PM		File:	RiegoAutomático.lsc	Page:	13 / 31

Remoto: Escritura

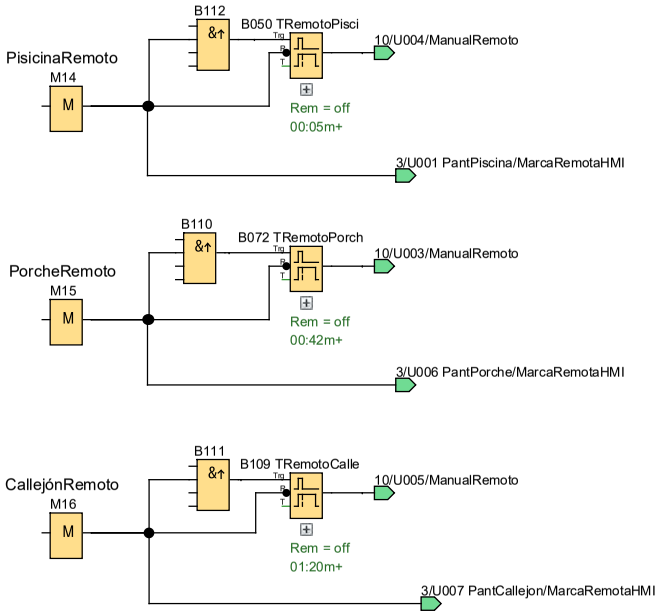
Las marcas son escritas a través de Snap7 con el servidor remoto

Si la marca se queda 5 segundos seguidos activada o desactivada es que el servidor remoto está apagado.





Activación de las zonas desde la interfaz web. El valor de los temporizadores se cambia desde la interfaz web.



Creator:	simon		Project:		Customer:	
Checked:			Installation:		Diagram No.:	
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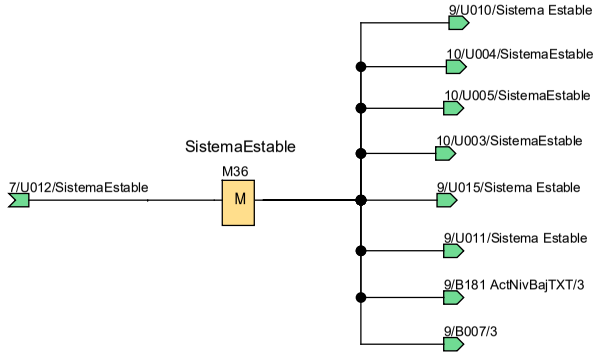
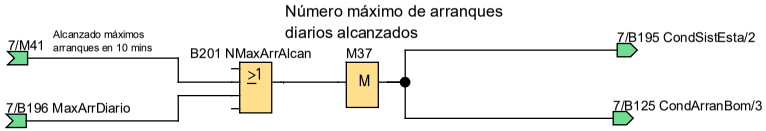
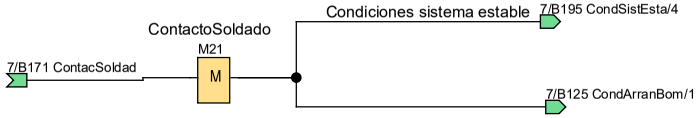
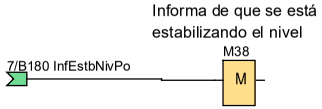
Remoto: Lectura

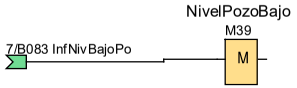
Mando estos estados al frontend simplemente para que se vea visualmente el estado del sistema.
No se usan como condiciones de activación fuera de este programa. Es decir, ni en Python ni mucho menos en JavaScript.





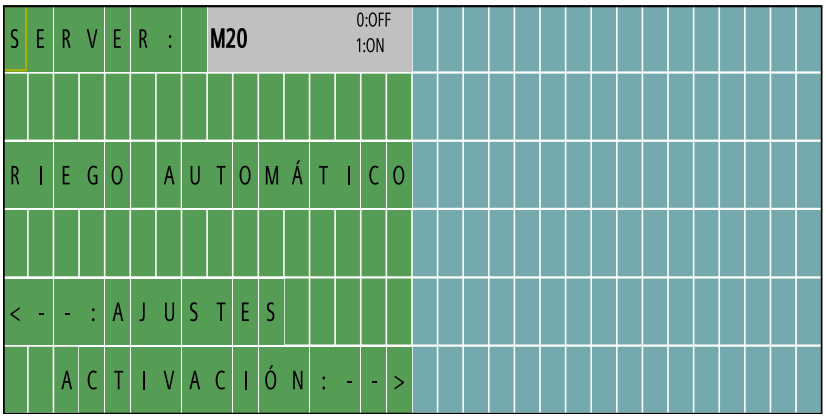






Creator:	simon		Project:		Customer:	
Checked:			Installation:		Diagram No.:	
Date:	11/5/25 1:41 AM/6/8/26 7:15 PM		File:	RiegoAutomático.lsc	Page:	15 / 31

Block Number (Type)	Parameter
B001(Latching Relay) :	Rem = off
B002 TXTInicio(Message texts) :	Prio = 0 Quit = off Text1: enabled Text2: disabled

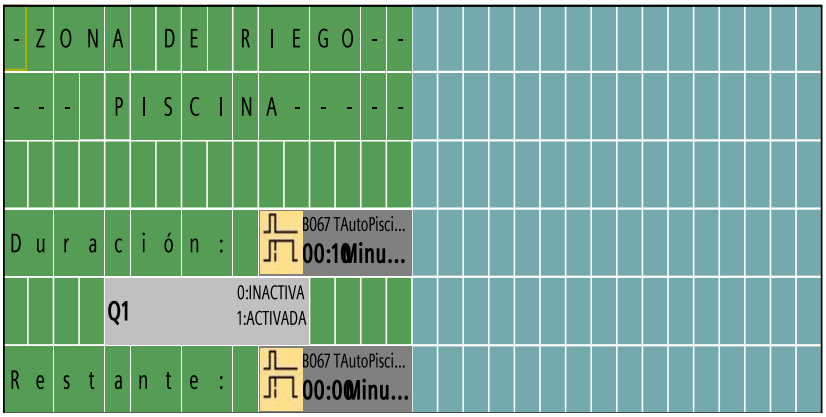


--> Ticker setting
- CBC
- Line1: N
- Line2: N
- Line3: N
- Line4: N
- Line5: N
- Line6: N

Message Destination
- Both

Line1.9 IOStatus: M20;Off="OFF";On="ON"

B003 TXTAjustAuto(Message texts) :	Prio = 1 Quit = off Text1: enabled Text2: disabled

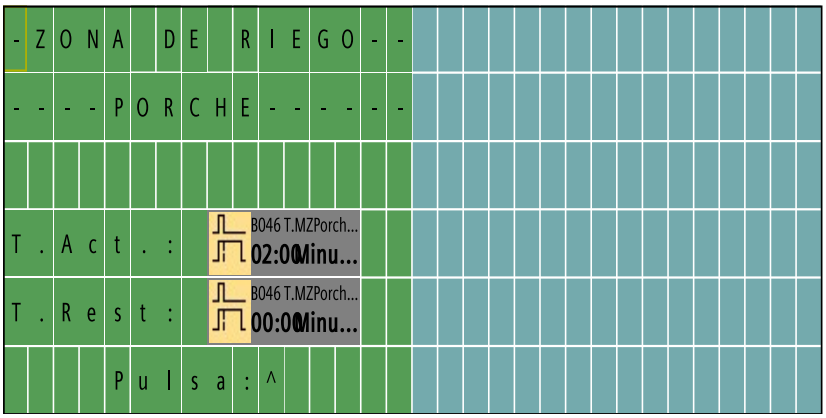
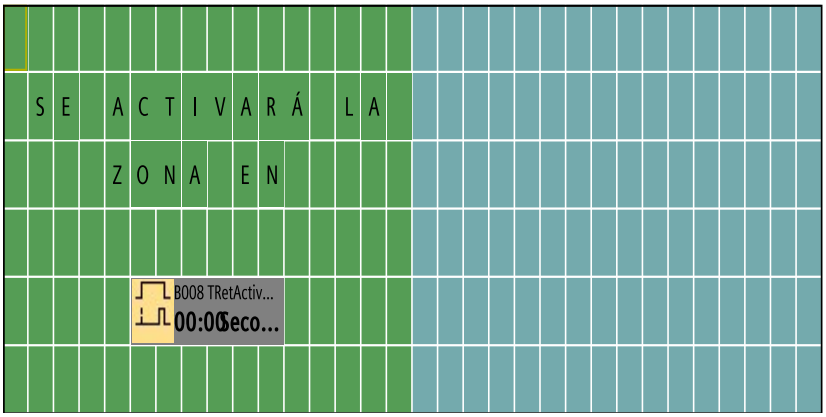


--> Ticker setting
- CBC
- Line1: N
- Line2: N
- Line3: N
- Line4: N
- Line5: N
- Line6: N

Message Destination
- Both

Line4.11 B067 TAutoPiscina-T
Line5.5 IOStatus: Q1;Off="INACTIVA";On="ACTIVADA"
Line6.11 B067 TAutoPiscina-TRest

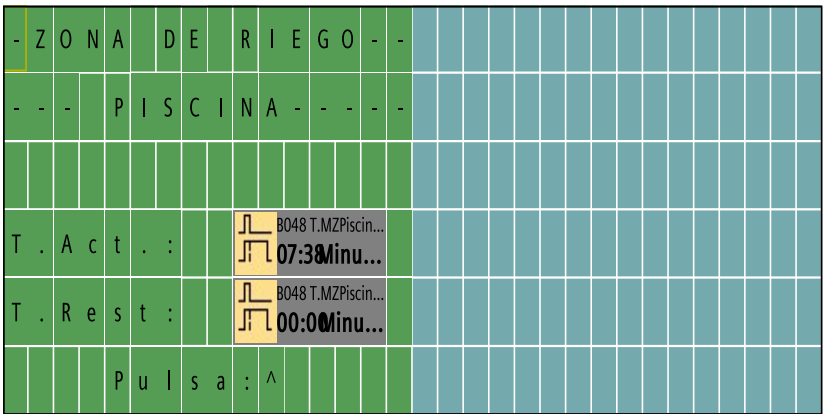
B004 ResetPantIni(OR) : Cuando se escoge otra pantalla se resetea la pantalla de inicio	

Block Number (Type)	Parameter
B005 TXTActPorche(Message texts) :  Line4.9 B046 T.MZPorche-T Line5.9 B046 T.MZPorche-TRest	Prio = 6 Quit = off Text1: enabled Text2: disabled --> Ticker setting - CBC - Line1: N - Line2: N - Line3: N - Line4: N - Line5: N - Line6: N Message Destination - Both
B006 AvisoActZona(Message texts) :  Line5.6 B008 TRetActivMan-TRest	Prio = 10 Quit = off Text1: enabled Text2: disabled --> Ticker setting - CBC - Line1: N - Line2: N - Line3: N - Line4: N - Line5: N - Line6: N Message Destination - Both
B008 TRetActivMan(On-Delay) :	Rem = off 03:00s+

Block Number (Type)	Parameter

B013 TXTActPiscin(Message texts) :

Prio = 4
Quit = off
Text1: enabled
Text2: disabled



-->

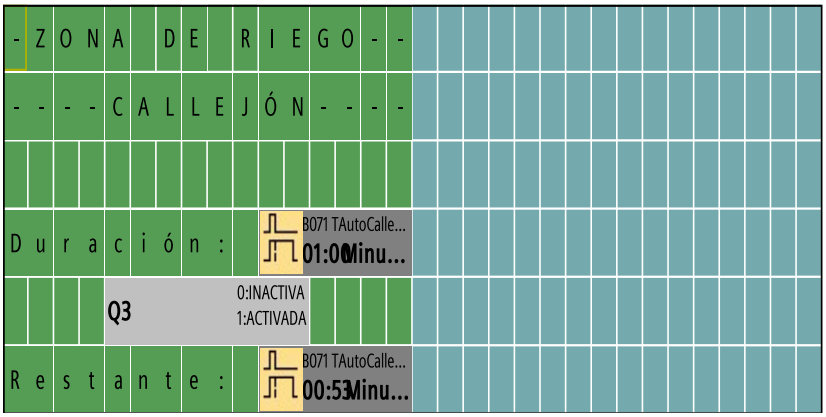
Ticker setting
- CBC
- Line1: N
- Line2: N
- Line3: N
- Line4: N
- Line5: N
- Line6: N

Message Destination
- Both

Line4.10 B048 T.MZPiscina-T
Line5.10 B048 T.MZPiscina-TRest

B019(Message texts) :

Prio = 3
Quit = off
Text1: enabled
Text2: disabled



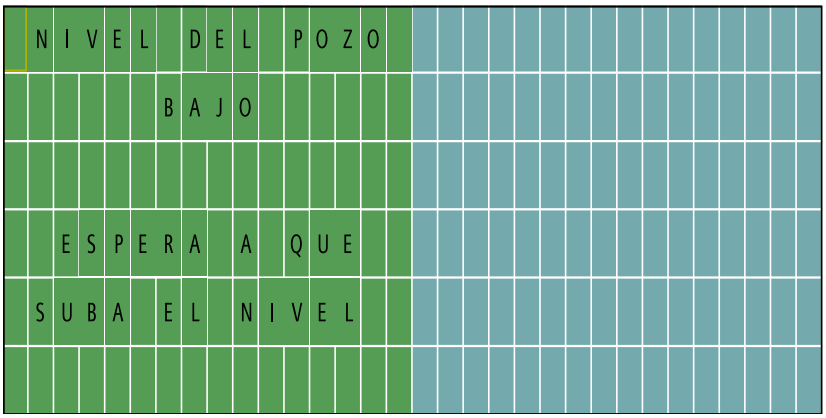
-->

Ticker setting
- CBC
- Line1: N
- Line2: N
- Line3: N
- Line4: N
- Line5: N
- Line6: N

Message Destination
- Both

Line4.11 B071 TAutoCallejo-T
Line5.5 IOStatus: Q3;Off="INACTIVA";On="ACTIVADA"
Line6.11 B071 TAutoCallejo-Ta

Block Number (Type)	Parameter
B023 NivBajoPoTXT(Message texts) :	Prio = 125 Quit = off Text1: enabled Text2: disabled

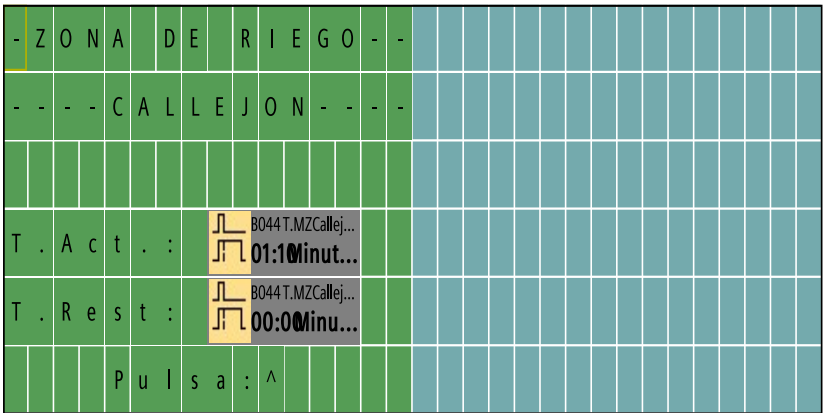


--> Ticker setting
- CBC
- Line1: N
- Line2: N
- Line3: N
- Line4: N
- Line5: N
- Line6: N

Message Destination
- Both

B025(On-Delay) :	Rem = off 05:00s+

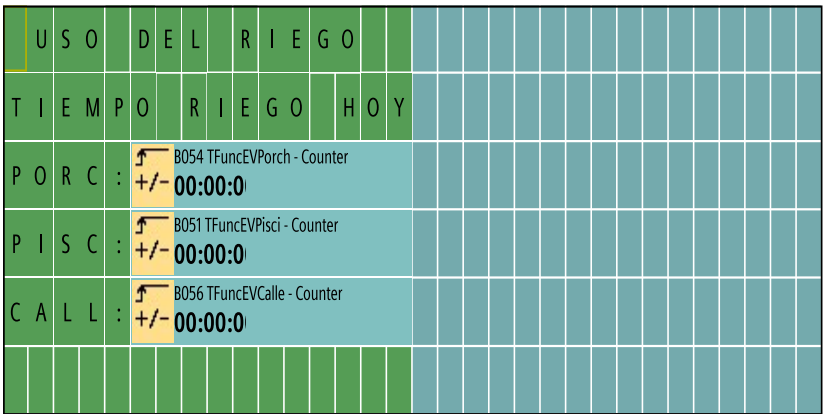
B038 TXTActCallej(Message texts) :	Prio = 8 Quit = off Text1: enabled Text2: disabled

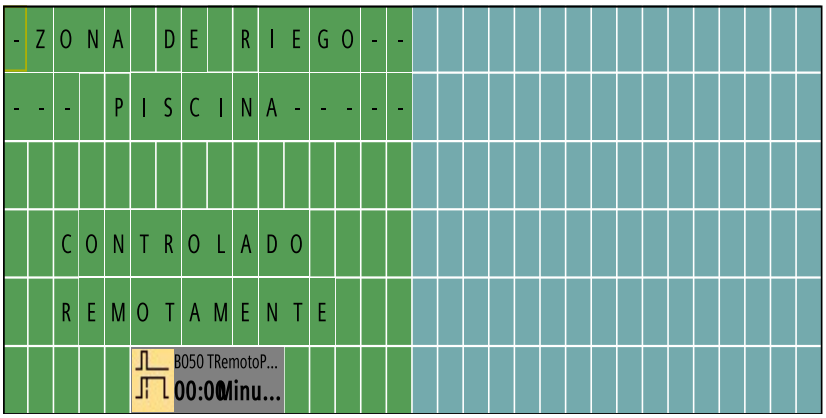
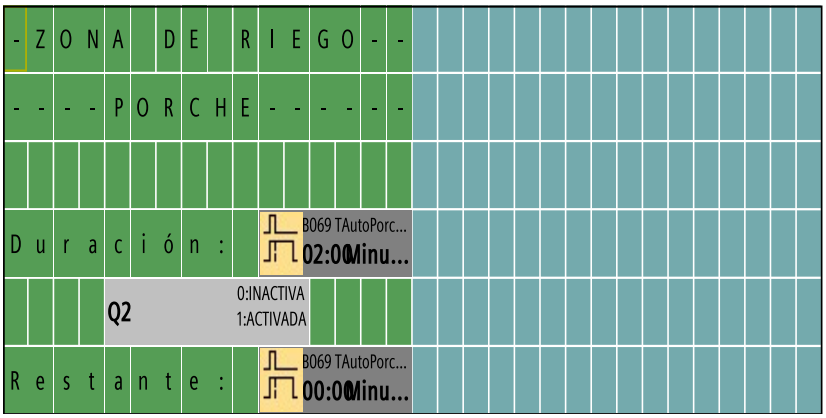


--> Ticker setting
- CBC
- Line1: N
- Line2: N
- Line3: N
- Line4: N
- Line5: N
- Line6: N

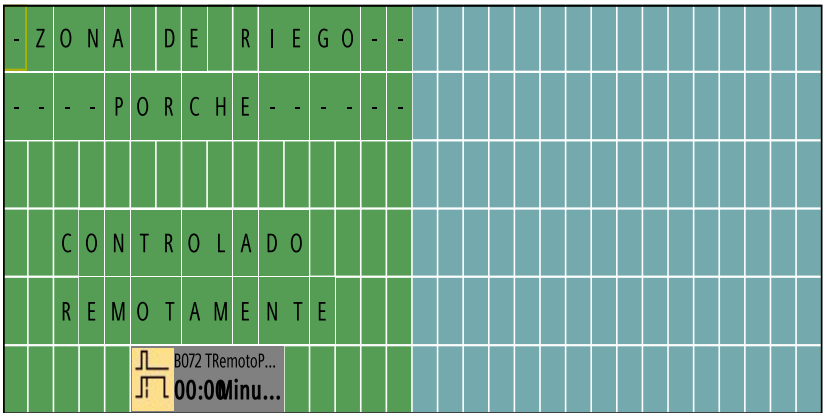
Message Destination
- Both

Line4.9 B044 T.MZCallejon-T
Line5.9 B044 T.MZCallejon-TRest

Block Number (Type)	Parameter
B042(Message texts) :  Line3.6 ScaleTime: B054 TFuncEVPorch-Cnt;s Line4.6 ScaleTime: B051 TFuncEVPisci-Cnt;s Line5.6 ScaleTime: B056 TFuncEVCalle-Cnt;s	Prio = 16 Quit = off Text1: enabled Text2: disabled --> Ticker setting - CBC - Line1: N - Line2: N - Line3: N - Line4: N - Line5: N - Line6: N Message Destination - Both
B043 RegadoHoy(Latching Relay) :	Rem = off
B044 T.MZCallejon(Off-Delay) :	Rem = off 01:10m+
B046 T.MZPorche(Off-Delay) :	Rem = off 02:00m+
B048 T.MZPiscina(Off-Delay) :	Rem = off 07:38m+
B050 TRemotoPisci(Off-Delay) :	Rem = off 00:05m+
B051 TFuncEVPisci(Up/Down counter) :	Rem = on On=0+ Off=0 Start=0
B052(Asynchronous Pulse Generator) :	Rem = off 00:50s+ 00:50s
B054 TFuncEVPorch(Up/Down counter) :	Rem = on On=0+ Off=0 Start=0
B056 TFuncEVCalle(Up/Down counter) :	Rem = on On=0+ Off=0 Start=0

Block Number (Type)	Parameter
B059 PiscContrRem(Message texts) :  Line6.6 B050 TRemotoPisci-TRest	Prio = 5 Quit = off Text1: enabled Text2: disabled --> Ticker setting - CBC - Line1: N - Line2: N - Line3: N - Line4: N - Line5: N - Line6: N Message Destination - Both
B061 TodasEstacio(Weekly Timer) :	+ MTWTFSS 06:00h 12:00h ------- --:-- --:-- ------- --:-- --:-- Pulse=N
B063(Message texts) :  Line4.11 B069 TAutoPorche-T Line5.5 IOStatus: Q2;Off="INACTIVA";On="ACTIVADA" Line6.11 B069 TAutoPorche-TRest	Prio = 2 Quit = off Text1: enabled Text2: disabled --> Ticker setting - CBC - Line1: N - Line2: N - Line3: N - Line4: N - Line5: N - Line6: N Message Destination - Both
B065(Astronomical clock) :	Lot: W8°47'11"+ Lat: N42°19'31" TZ: 1 Sunrise offset: 10 Sunset offset: -20

Block Number (Type)	Parameter
B067 TAutoPiscina(Off-Delay) :	Rem = off 00:10m+
B069 TAutoPorche(Off-Delay) :	Rem = off 02:00m+
B071 TAutoCallejo(Off-Delay) :	Rem = off 01:00m+
B072 TRemotoPorch(Off-Delay) :	Rem = off 00:42m+
B074 ContArraPisc(Up/Down counter) :	Rem = off On=1+ Off=0 Start=0
B089 PorcContrRem(Message texts) :	Prio = 7 Quit = off Text1: enabled Text2: disabled

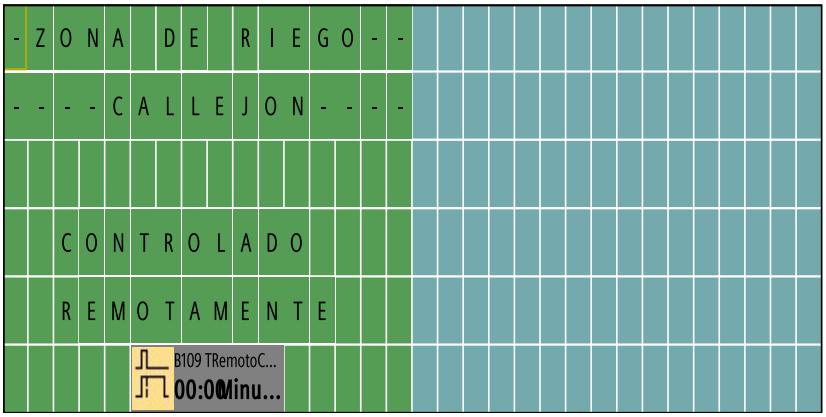


--> Ticker setting
- CBC
- Line1: N
- Line2: N
- Line3: N
- Line4: N
- Line5: N
- Line6: N

Message Destination
- Both

Line6.6 B072 TRemotoPorch-TRest

B093 CallejRemAct(Message texts) :	Prio = 9 Quit = off Text1: enabled Text2: disabled



--> Ticker setting
- CBC
- Line1: N
- Line2: N
- Line3: N
- Line4: N
- Line5: N
- Line6: N

Message Destination
- Both

Line6.6 B109 TRemotoCalle-TRest

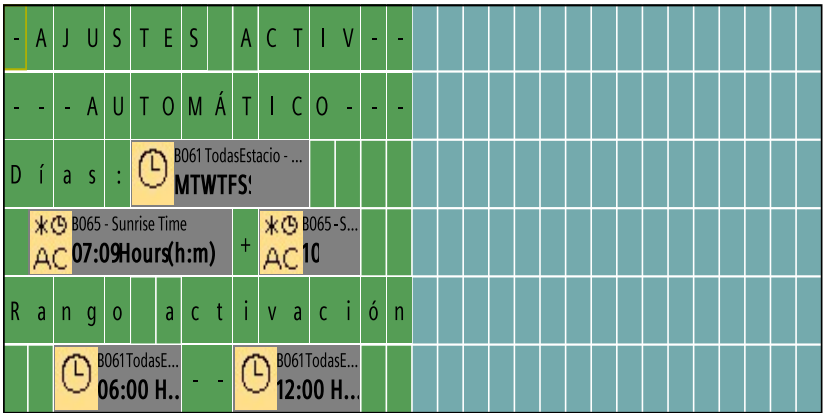
Block Number (Type)	Parameter
B108 ContArraPorc(Up/Down counter) :	Rem = off On=1+ Off=0 Start=0
B109 TRemotoCalle(Off-Delay) :	Rem = off 01:20m+
B113(Latching Relay) :	Rem = off
B114(On-Delay) :	Rem = off 05:00s+
B116 TiempoArrMax(Asynchronous Pulse Generator) :	Rem = off 00:01m+ 10:00m
B117 MaxArrDiaTXT(Message texts) :	Prio = 126 Quit = off Text1: enabled Text2: disabled

--> Ticker setting
- CBC
- Line1: N
- Line2: N
- Line3: N
- Line4: N
- Line5: N
- Line6: N

Message Destination
- Both

Line5.7 B196 MaxArrDiario-Cnt

B120(Message texts) :	Prio = 11 Quit = off Text1: enabled Text2: disabled



--> Ticker setting
- CBC
- Line1: N
- Line2: N
- Line3: N
- Line4: N
- Line5: N
- Line6: N

Message Destination
- Both

Line3.6 B061 TodasEstacio-D0
Line4.2 B065-TR
Line4.11 B065-TRO
Line6.3 B061 TodasEstacio-On0
Line6.10 B061 TodasEstacio-Off0

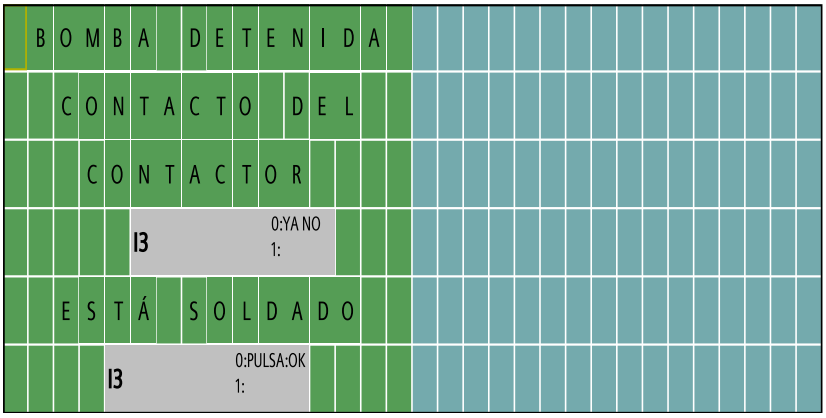
Block Number (Type)	Parameter
B121 ContArraCall(Up/Down counter) :	Rem = off On=1+ Off=0 Start=0
B123 ResContsFunc(Weekly Timer) :	+ MTWTFSS 00:00h 00:01h ------- --:-- --:-- ------- --:-- --:-- Pulse=N
B124 EstabiNivTXT(Message texts) :	Prio = 17 Quit = off Text1: enabled Text2: disabled

--> Ticker setting
- CBC
- Line1: N
- Line2: N
- Line3: N
- Line4: N
- Line5: N
- Line6: N

Message Destination
- Both

Line5.5 U012-Res

B128 ConSoldadTXT(Message texts) :	Prio = 127 Quit = on Text1: enabled Text2: disabled

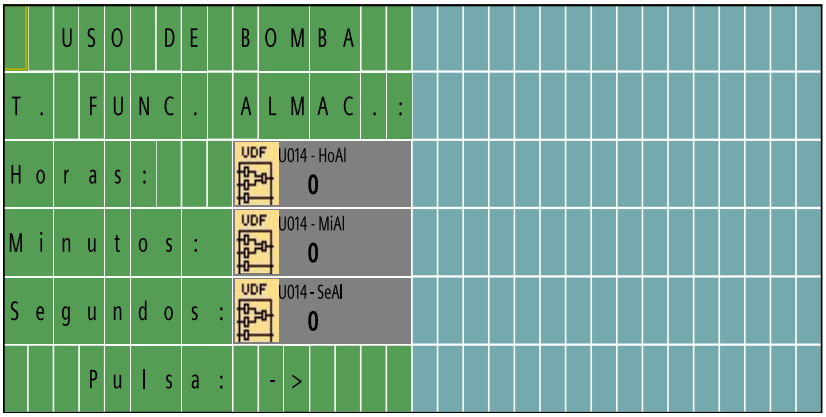


--> Ticker setting
- CBC
- Line1: N
- Line2: N
- Line3: N
- Line4: N
- Line5: N
- Line6: N

Message Destination
- Both

Line4.6 IOStatus: I3;Off="YA NO";On=""
Line6.5 IOStatus: I3;Off="PULSA:OK";On=""

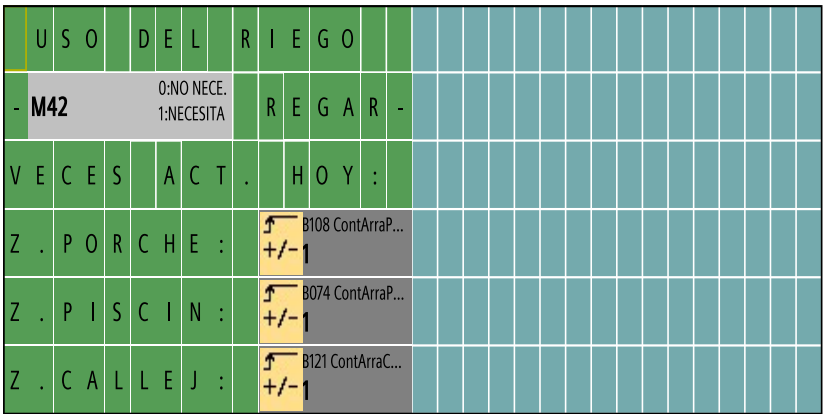
Block Number (Type)	Parameter
B129 NMaxArranque(Up/Down counter) :	Rem = on On=5+ Off=0 Start=0
B153 TXTFunAlmBom(Message texts) :	Prio = 13 Quit = off Text1: enabled Text2: disabled



--> Ticker setting
- CBC
- Line1: N
- Line2: N
- Line3: N
- Line4: N
- Line5: N
- Line6: N

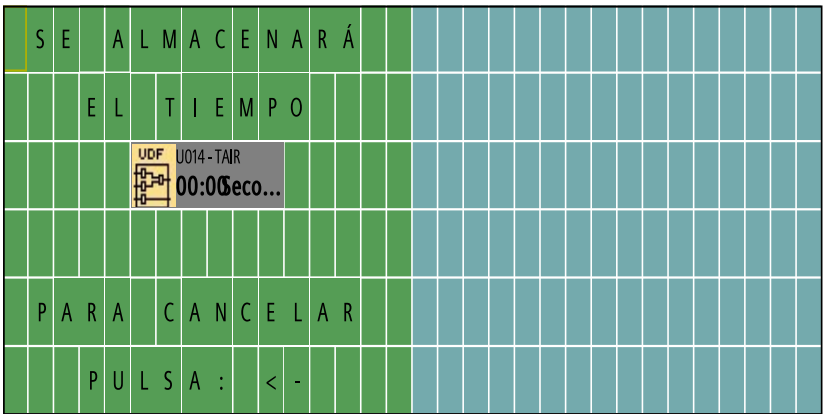
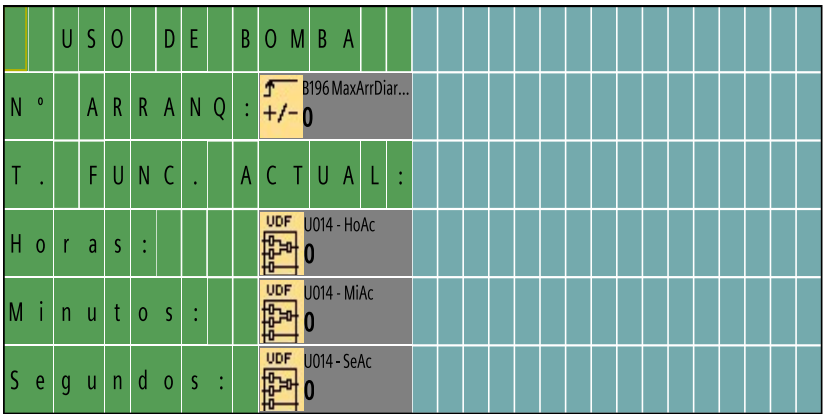
Message Destination
- Both

B154(Message texts) :	Prio = 14 Quit = off Text1: enabled Text2: disabled

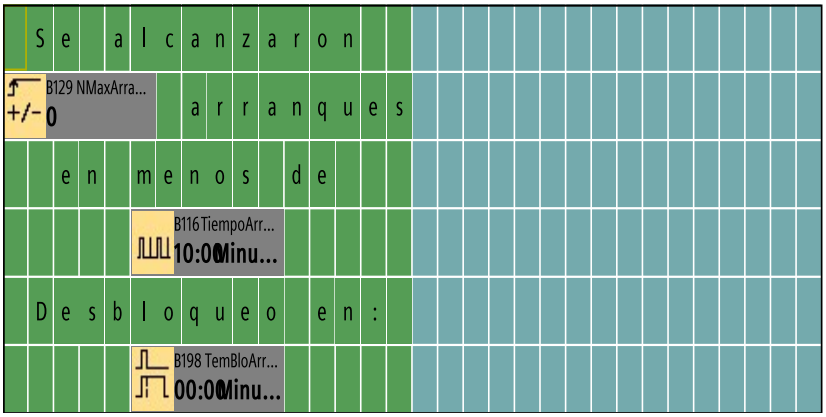


--> Ticker setting
- CBC
- Line1: N
- Line2: N
- Line3: N
- Line4: N
- Line5: N
- Line6: N

Message Destination
- Both

Block Number (Type)	Parameter
B169 AlmcTFunBomb(Message texts) :  Line3.6 U014-TAIR	Prio = 15 Quit = off Text1: enabled Text2: disabled --> Ticker setting - CBC - Line1: N - Line2: N - Line3: N - Line4: N - Line5: N - Line6: N Message Destination - Both
B170 TXTDatosUso(Message texts) :  Line2.11 B196 MaxArrDiario-Cnt Line4.11 U014-HoAc Line5.11 U014-MiAc Line6.11 U014-SeAc	Prio = 12 Quit = off Text1: enabled Text2: disabled --> Ticker setting - CBC - Line1: N - Line2: N - Line3: N - Line4: N - Line5: N - Line6: N Message Destination - Both
B171 ContacSoldad(On-Delay) :	Rem = off 05:00s+
B179 NoCaldNivPoz(AND) : No queda agua en el calderín y hay agua en el pozo	
B180 InfEstbNivPo(AND) : InformaEstabilizaciónNivelPozo	
B181 ActNivBajTXT(AND) : ActivarAvisoNivelBajo	
B187 ActivarRiego(OR) : Si el servidor está apagado se activa el riego justo al amanecer. Si no, el servidor escoge cuándo es necesario regar	

Block Number (Type)	Parameter
B191 Verano(Yearly Timer) :	YY:MM.DD On=00:05.01+ Off=99:10.31 Yearly=Y Pulse=N
B193 ExtraVerano(Weekly Timer) : Temporizador extra es para el verano y sólo sirve cuando el servidor está activado. Existe porque se puede ir retrasando la activación, entonces sólo se permite dentro de ese rango por la tarde-noche. Sólo para verano porque en invierno anochece muy pronto, además si se riega tan tarde, quedaría muchas horas el césped mojado y si hace frío se podría generar hielo	+ MTWTFSS 20:00h 23:00h ------- --:-- --:-- ------- --:-- --:-- Pulse=N
B194 RiegoVerano(AND) : Riego tarde-noche verano	
B195 CondSistEsta(AND) : Sistema estable significa que la bomba se puede activar	
B196 MaxArrDiario(Up/Down counter) :	Rem = on On=35+ Off=0 Start=0
B198 TemBloArrMax(Off-Delay) :	Rem = off 05:00m+
B199 NMaxArrBoTXT(Message texts) :	Prio = 124 Quit = off Text1: enabled Text2: disabled



--> Ticker setting
- CBC
- Line1: N
- Line2: N
- Line3: N
- Line4: N
- Line5: N
- Line6: N

Message Destination
- Both

Line2.1 B129 NMaxArranque-Cnt
Line4.6 B116 TiempoArrMax-TL
Line6.6 B198 TemBloArrMax-TRest

I1(Input) : ContactoPresostato	
I2(Input) : InterruptorBoya	

Block Number (Type)	Parameter
I3(Input) : ContactoAuxContactor	
M3(Flag) : PantallaAjustes	
M4(Flag) : PantallaActManual	
M14(Flag) : PisicinaRemoto	
M15(Flag) : PorcheRemoto	
M16(Flag) : CallejónRemoto	
M18(Flag) : Petición riego (hace falta regar)	
M19(Flag) : Server heartbeat	
M20(Flag) : Servidor remoto iniciado	
M21(Flag) : ContactoSoldado	
M32(Flag) : PantallaDatosUso	
M36(Flag) : SistemaEstable	
M37(Flag) : Número máximo de arranques diarios alcanzados	
M38(Flag) : Informa de que se está estabilizando el nivel	
M39(Flag) : NivelPozoBajo	
M40(Flag) : Se regó hoy	
M42(Flag) : NecesitaRegar	
Q4(Output) : BombaActivada	
U001 PantPiscina(User-Defined Function block) :	
U002 NavAjustAuto(User-Defined Function block) :	

Block Number (Type)	Parameter
U003(User-Defined Function block) :	
U004(User-Defined Function block) :	
U005(User-Defined Function block) :	
U006 PantPorche(User-Defined Function block) :	
U007 PantCallejon(User-Defined Function block) :	
U008(User-Defined Function block) :	
U010(User-Defined Function block) :	
U011(User-Defined Function block) :	
U012(User-Defined Function block) :	RTBo = 15:00m Res = 00:00m
U013(User-Defined Function block) :	
U014(User-Defined Function block) :	TAIR = 00:00s
U015(User-Defined Function block) :	

Connection	Label
C1▲	
C2▼	
C3◄	
C4►	
I1	
I2	
I3	
M3	
M4	
M5	
M6	
M7	
M8	Initialization Flag
M9	
M10	
M11	
M12	
M13	
M14	
M15	
M16	
M18	
M19	
M20	
M21	
M25	LOGO! displays white backlight
M28	LOGO! displays the amber backlight
M29	LOGO! displays red backlight
M32	
M36	
M37	
M38	
M39	
M40	
M41	

Connection	Label
M42	
Q1	
Q2	
Q3	
Q4	
X1	
X3	
X4	
X5	