

## TIPS VENDOR AGREEMENT

### TIPS RFP 240101 Technology Solutions, Products, and Services

The following Vendor Agreement (“Agreement”) creates a legal agreement between The Interlocal Purchasing System (“TIPS”), a government purchasing cooperative and Department of Texas Region 8 Education Service Center and (INSERT ENTITY NAME):

## Simtronics Corporation

(ENTER ENTITY NAME]

its owners, agents, subsidiaries, and affiliates (together, “Vendor”) (individually, “Party”, and collectively the “Parties”) and this agreement shall exclusively govern the contractual relationship (“Agreement”) between the Parties.

TIPS, a governmental entity and a national purchasing cooperative seeks to provide a valuable and necessary solution to public entities and qualifying non-profits by performing the public procurement solicitation process and awarding compliant contracts to qualified vendors. Then, where the law of a customer’s jurisdiction allows, instead of public entities and qualifying non-profits expending time, money, and resources on the extensive public procurement process, the use of TIPS allows public entities to quickly select and purchase their preferred products or services from qualified, competitively evaluated vendors through cooperative purchasing.

1. **Purpose.** The purpose of this Agreement is to identify the terms and conditions of the relationship between TIPS and Vendor. Public entities and qualifying non-profits that properly join or utilize TIPS (“TIPS Members”) may elect to “piggyback” off of TIPS’ procurements and agreements where the laws of their jurisdiction allow. TIPS Members are not contractual parties to this Agreement although terms and conditions of this Agreement may ensure benefits to TIPS Members.
2. **Authority.** The Parties agree that the signatories below are individual authorized to enter into this Agreement on behalf of their entity and that they are acting under due and proper authority under applicable law.
3. **Definitions.**
  - a. **TIPS Pricing:** The specific pricing, discounts, and other pricing terms and incentives which Vendor submitted and TIPS approved for each respective TIPS Contract awarded to Vendor and all permissible, subsequent pricing updates submitted by Vendor and accepted by TIPS, if any.
  - b. **Authorized Reseller:** A reseller or dealer authorized and added by a Vendor through their online TIPS Vendor Portal to make TIPS sales according to the terms and conditions herein.
4. **Entire Agreement.** This Agreement resulted from TIPS posting a “TIPS Solicitation” (RFP, RCSP, RFQ, or other) and Vendor submitting a proposal in response to that posted TIPS Solicitation for evaluation and award. The Parties agree that this Agreement consists of the provisions set forth herein and: (1) The TIPS solicitation document resulting in this Agreement; (2) Any addenda or clarifications issued in relation to the TIPS solicitation; (3) All solicitation information provided to Vendor by TIPS through the TIPS eBid System; (3) Vendor’s entire proposal response to the TIPS solicitation including all accepted required attachments, acknowledged notices and certifications, accepted negotiated terms, pricing, accepted responses to questions, and accepted written clarifications of Vendor’s proposal, and; any properly included attachments to this Agreement. All documentation and information listed is hereby incorporated by reference as if set forth herein verbatim. In the event of conflict between the terms herein and one of the incorporated documents the terms and conditions herein shall control.
5. **Vendor’s Specific Warranties, Terms, and License Agreements.** Because TIPS serves public entities and non-profits throughout the nation all of which are subject to specific laws and policies of their jurisdiction, as a matter of standard practice, TIPS does not typically accept a Vendor’s specific “Sale Terms” (warranties, license agreements, master agreements, terms and conditions, etc.) on behalf of all TIPS Members. TIPS may permit Vendor to attach those to this Agreement to display to interested customers what terms may apply to their Supplemental Agreement with Vendor (if submitted by Vendor for that purpose). However, unless this term of the Agreement is negotiated and modified to state otherwise, those specific Sale Terms are not accepted by TIPS on behalf of all TIPS Members and each Member may choose whether to accept, negotiate, or reject those specific Sale Terms, which must be reflected in a separate agreement between Vendor and the Member in order to be effective.

- 6. Vendor Identity and Contact Information.** It is Vendor's sole responsibility to ensure that all identifying vendor information (name, EIN, d/b/a's, etc.) and contact information is updated and current at all times within the TIPS eBid System and the TIPS Vendor Portal. It is Vendor's sole responsibility to confirm that all e-correspondence issued from tips-usa.com, ionwave.net, and tipsconstruction.com to Vendor's contacts are received and are not blocked by firewall or other technology security. Failure to permit receipt of correspondence from these domains and failure to keep vendor identity and contact information current at all times during the life of the contract may cause loss of TIPS Sales, accumulating TIPS fees, missed rebid opportunities, lapse of TIPS Contract(s), and unnecessary collection or legal actions against Vendor. It is no defense to any of the foregoing or any breach of this Agreement that Vendor was not receiving TIPS' electronic communications issued by TIPS to Vendor's listed contacts.
- 7. Initiation of TIPS Sales.** When a public entity initiates a purchase with Vendor, if the Member inquires verbally or in writing whether Vendor holds a TIPS Contract, it is the duty of the Vendor to verify whether the Member is seeking a TIPS purchase. Once verified, Vendor must include the TIPS Contract Number on all purchase communications and sales documents exchanged with the TIPS Member.
- 8. TIPS Sales and Supplemental Agreements.** The terms of the specific TIPS order, including but not limited to: shipping, freight, insurance, delivery, fees, bonding, cost, delivery expectations and location, returns, refunds, terms, conditions, cancellations, order assistance, etc., shall be controlled by the purchase agreement (Purchase Order, Contract, Invoice, etc.) (hereinafter "Supplemental Agreement") entered into between the TIPS Member Customer and Vendor only. TIPS is not a party to any Supplemental Agreement. All Supplemental Agreements shall include Vendor's Name, as known to TIPS, and TIPS Contract Name and Number. Vendor accepts and understands that TIPS is not a legal party to TIPS Sales and Vendor is solely responsible for identifying fraud, mistakes, unacceptable terms, or misrepresentations for the specific order prior to accepting. Vendor agrees that any order issued from a customer to Vendor, even when processed through TIPS, constitutes a legal contract between the customer and Vendor only. When Vendor accepts or fulfills an order, even when processed through TIPS, Vendor is representing that Vendor has carefully reviewed the order for legality, authenticity, and accuracy and TIPS shall not be liable or responsible for the same. In the event of a conflict between the terms of this TIPS Vendor Agreement and those contained in any Supplemental Agreement, the provisions set forth herein shall control unless otherwise agreed to and authorized by the Parties in writing within the Supplemental Agreement.
- 9. Right of Refusal.** Vendor has the right not to sell to a TIPS Member under the awarded agreement at Vendor's discretion unless otherwise required by law.
- 10. Reporting TIPS Sales.** Vendor must report all TIPS Sales to TIPS. If a TIPS sale is initiated by Vendor receiving a TIPS Member's purchase order from TIPS directly, Vendor may consider that specific TIPS Sale reported. Otherwise, with the exception of TIPS Automated Vendors, who have signed an exclusive agreement with TIPS regarding reporting, all TIPS Sales must be reported to TIPS by either: (1) Emailing the purchase order or similar purchase document (with Vendor's Name, as known to TIPS, and the TIPS Contract Name and Number included) to TIPS at [tipspo@tips-usa.com](mailto:tipspo@tips-usa.com) with "Confirmation Only" in the subject line of the email within three business days of Vendor's acceptance of the order, or; (2) Within 3 business days of the order being accepted by Vendor, Vendor must login to the TIPS Vendor Portal and successfully self-report all necessary sale information within the Vendor Portal and confirm that it shows up accurately on your current Vendor Portal statement. No other method of reporting is acceptable unless agreed to by the Parties in writing. Failure to report all sales pursuant to this provision may result in immediate cancellation of Vendor's TIPS Contract(s) for cause at TIPS' sole discretion. Please refer to the TIPS [Accounting FAQ's](#) for more information about reporting sales and if you have further questions, contact the Accounting Team at [accounting@tips-usa.com](mailto:accounting@tips-usa.com).
- 11. TIPS Administration Fees.** The collection of administrative fees by TIPS, a government entity, for performance of these procurement services is required pursuant to Texas Government Code Section 791.011 et. seq. The administration fee ("TIPS Administration Fee") is the amount legally owed by Vendor to TIPS for TIPS Sales made by Vendor. The TIPS Administration Fee amount is typically a set percentage of the amount paid by the TIPS Member for each TIPS Sale, less shipping cost, bond cost, and taxes if applicable and identifiable, which is legally due to TIPS, but the exact TIPS Administration Fee for this Contract is published in the corresponding solicitation and is incorporated herein by reference. TIPS Administration Fees are due to TIPS immediately upon Vendor's receipt of payment, including partial payment, for a TIPS Sale. The TIPS Administration Fee is assessed on the amount paid by the TIPS Member, not on the Vendor's cost or on the amount for which the Vendor sold the item to a dealer or Authorized Reseller. Upon receipt of payment for a TIPS Sale, including partial payment (which renders TIPS Administration Fees immediately due), Vendor shall issue to TIPS the corresponding TIPS Administration Fee payment as soon as possible but not later than thirty-one calendar days following Vendor's receipt of payment. Vendor shall pay TIPS via check unless otherwise agreed to by the Parties in writing. Vendor shall include clear documentation with the issued payment dictating to which sale(s) the amount should be applied. Vendor may create a payment report within their TIPS Vendor Portal which is the preferred documentation dictating to which TIPS Sale(s) the amount should be applied. Failure to pay all TIPS Administration Fees pursuant to this provision may result in immediate cancellation of Vendor's TIPS Contract(s) for cause at TIPS' sole discretion as well as the initiation of collection and legal actions by TIPS against Vendor to the extent permitted by law. Any overpayment of participation fees to TIPS by Vendor will be refunded to the Vendor.

within ninety (90) days of receipt of notification if TIPS receives written notification of the overpayment not later than the expiration of six (6) months from the date of overpayment and TIPS determines that the amount was not legally due to TIPS pursuant to this agreement and applicable law. Any notification of overpayment received by TIPS after the expiration of six (6) months from the date that TIPS received the payment will render the overpayment non-refundable. Region 8 ESC and TIPS reserve the right to extend the six (6) month deadline if approved by the Region 8 ESC Board of Directors. TIPS reserves all rights under the law to collect TIPS Administration Fees due to TIPS pursuant to this Agreement.

- 12. Term of the Agreement.** This Agreement with TIPS is for approximately five years with a one-year, consecutive option for renewal as described herein. Renewal options are not automatic and shall only be effective if offered by TIPS at its sole discretion. If TIPS offers a renewal option, the Vendor will be notified via email issued to Vendor's then-listed Primary Contact. The renewal option shall be deemed accepted by Vendor unless Vendor notifies TIPS of its objection to the renewal option in writing and confirms receipt by TIPS.

**Actual Effective Date:** Agreement is effective upon signature by authorized representatives of both Parties. The Effective Date does not affect the "Term Calculation Start Date."

**Term Calculation Start Date:** To keep the contract term consistent for all vendors awarded under a single TIPS contract, Vendor shall calculate the foregoing term as starting on the last day of the month that "Award Notifications" are anticipated as published in the Solicitation, regardless of the actual Effective Date.

**Example of Term Calculation Start Date:** If the anticipated "Award Date" published in the Solicitation is May 22, 2023, but extended negotiations delay award until June 27, 2023 (Actual Effective Date), the Term Calculation Start Date shall be May 31, 2023, in this example.

**Contract Expiration Date:** To keep the contract term consistent for all vendors awarded under a single TIPS contract, the term expiration date shall be five years from the Term Calculation Start Date.

**Example of Contract Expiration Date:** If the anticipated "Award Date" published in the Solicitation is May 22, 2023, but extended negotiations delay award until June 27, 2023 (Actual Effective Date), the Term Calculation Start Date shall be May 31, 2023, and the Contract Expiration Date of the resulting initial "five-year" term, (which is subject to an extension(s)) will be May 31, 2028 in this example.

**Option(s) for Renewal:** Any option(s) for renewal shall begin on the Contract Expiration Date, or the date of the expiration of the prior renewal term where applicable, and continue for the duration specified for the renewal option herein.

**Example of Option(s) for Renewal:** In this example, if TIPS offers a one-year renewal and the Contract Expiration Date is May 31, 2028, then the one-year renewal is effective from May 31, 2028 to May 31, 2029.

TIPS may offer to extend Vendor Agreements to the fullest extent the TIPS Solicitation resulting in this Agreement permits.

- 13. TIPS Pricing.** Vendor agrees and understands that for each TIPS Contract that it holds, Vendor submitted, agreed to, and received TIPS' approval for specific pricing, discounts, and other pricing terms and incentives which make up Vendor's TIPS Pricing for that TIPS Contract ("TIPS Pricing"). Vendor confirms that Vendor will not add the TIPS Administration Fee as a charge or line-item in a TIPS Sale. Vendor hereby certifies that Vendor shall only offer goods and services through this TIPS Contract if those goods and services are included in or added to Vendor's TIPS Pricing and approved by TIPS. TIPS reserves the right to review Vendor's pricing update requests as specifically as line-item by line-item to determine compliance. However, Vendor contractually agrees that all submitted pricing updates shall be within the original terms of the Vendor's TIPS Pricing (scope, proposed discounts, price increase limitations, and other pricing terms and incentives originally proposed by Vendor) such that TIPS may accept Vendors price increase requests as submitted without additional vetting at TIPS discretion. Any pricing quoted by Vendor to a TIPS Member or on a TIPS Quote shall never exceed Vendor's TIPS Pricing for any good or service offered through TIPS. TIPS Pricing price increases and modifications, if permitted, will be honored according to the terms of the solicitation and Vendor's proposal, incorporated herein by reference.

- 14. Indemnification of TIPS.** VENDOR AGREES TO INDEMNIFY, HOLD HARMLESS, AND DEFEND TIPS, TIPS MEMBERS, TIPS OFFICERS, TIPS EMPLOYEES, TIPS DIRECTORS, AND TIPS TRUSTEES (THE "TIPS INDEMNITEES") FROM AND AGAINST ALL CLAIMS AND SUITS BY THIRD-PARTIES FOR DAMAGES, INJURIES TO PERSONS (INCLUDING DEATH), PROPERTY DAMAGES, LOSSES, EXPENSES, FEES, INCLUDING COURT COSTS, ATTORNEY'S FEES, AND EXPERT FEES, ARISING OUT OF OR RELATING TO VENDOR'S PERFORMANCE UNDER THIS AGREEMENT (INCLUDING THE PERFORMANCE OF VENDOR'S OFFICERS, EMPLOYEES, AGENTS, AUTHORIZED RESELLERS, SUBCONTRACTORS, LICENSEES, OR INVITEES), REGARDLESS OF THE NATURE OF THE CAUSE OF ACTION, INCLUDING WITHOUT LIMITATION CAUSES OF ACTION BASED UPON COMMON, CONSTITUTIONAL, OR STATUTORY LAW OR BASED IN



WHOLE OR IN PART UPON ALLEGATIONS OF NEGLIGENT OR INTENTIONAL ACTS OR OMISSIONS ON THE PART OF VENDOR, ITS OFFICERS, EMPLOYEES, AGENTS, AUTHORIZED RESELLERS, SUBCONTRACTORS, LICENSEES, OR INVITEES. NO LIMITATION OF LIABILITY FOR DAMAGES FOR PERSONAL INJURY OR PROPERTY DAMAGE ARE PERMITTED OR AGREED TO BY TIPS. APART FROM THIS INDEMNIFICATION PROVISION REQUIRING INDEMNIFICATION OF THE TIPS INDEMNITEES' ATTORNEY'S FEES AS SET FORTH ABOVE, RECOVERY OF ATTORNEYS' FEES BY THE PREVAILING PARTY IS AUTHORIZED ONLY IF AUTHORIZED BY TEX. EDUC. CODE § 44.032(F).

- 15. Indemnification and Assumption of Risk – Vendor Data.** VENDOR AGREES THAT IT IS VOLUNTARILY PROVIDING DATA (INCLUDING BUT NOT LIMITED TO: VENDOR INFORMATION, VENDOR DOCUMENTATION, VENDOR'S PROPOSALS, VENDOR PRICING SUBMITTED OR PROVIDED TO TIPS, TIPS CONTRACT DOCUMENTS, TIPS CORRESPONDENCE, VENDOR LOGOS AND IMAGES, VENDOR'S CONTACT INFORMATION, VENDOR'S BROCHURES AND COMMERCIAL INFORMATION, VENDOR'S FINANCIAL INFORMATION, VENDOR'S CERTIFICATIONS, AND ANY OTHER VENDOR INFORMATION OR DOCUMENTATION, INCLUDING WITHOUT LIMITATION SOFTWARE AND SOURCE CODE UTILIZED BY VENDOR, SUBMITTED TO TIPS BY VENDOR AND ITS AGENTS) ("VENDOR DATA") TO TIPS. FOR THE SAKE OF CLARITY, AND WITHOUT LIMITING THE BREADTH OF THE INDEMNITY OBLIGATIONS IN SECTION 14 ABOVE, VENDOR AGREES TO PROTECT, INDEMNIFY, AND HOLD THE TIPS INDEMNITEES HARMLESS FROM AND AGAINST ANY AND ALL LOSSES, CLAIMS, ACTIONS, DEMANDS, ALLEGATIONS, SUITS, JUDGMENTS, COSTS, EXPENSES, FEES, INCLUDING COURT COSTS, ATTORNEY'S FEES, AND EXPERT FEES AND ALL OTHER LIABILITY OF ANY NATURE WHATSOEVER ARISING OUT OF OR RELATING TO: (I) ANY UNAUTHORIZED, NEGLIGENT OR WRONGFUL USE OF, OR CYBER DATA BREACH INCIDENT AND VIRUSES OR OTHER CORRUPTING AGENTS INVOLVING, VENDOR'S DATA, PRICING, AND INFORMATION, COMPUTERS, OR OTHER HARDWARE OR SOFTWARE SYSTEMS, AND; (II) ALLEGATIONS OR CLAIMS THAT ANY VENDOR DATA INFRINGES ON THE INTELLECTUAL PROPERTY RIGHTS OF A THIRD-PARTY OR VENDOR.
- 16. Procedures Related to Indemnification.** In the event that an indemnity obligation arises, Vendor shall pay all amounts set forth in Section 14 and 15 above (including any settlements) and – if it has accepted its indemnity obligation without qualification – control the legal defense to such claim or cause of action, including without limitation attorney selection, strategy, discovery, trial, appeal, and settlement, and TIPS shall, at Vendor's cost and expense (with respect to reasonable out of pocket costs and expenses incurred by TIPS which shall be reimbursed to TIPS by Vendor), provide all commercially reasonable assistance requested by Vendor. In controlling any defense, Vendor shall ensure that all assertions of governmental immunity and all applicable pleas and defenses shall be promptly asserted.
- 17. Indemnity for Underlying Sales and Supplemental Agreements.** Vendor shall be solely responsible for any customer claims or any disputes arising out of TIPS Sales or any Supplemental Agreement as if sold in the open-market. The Parties agree that TIPS shall not be liable for any claims arising out of Vendor's TIPS Sales or Supplemental Agreements, including but not limited to: allegations of product defect or insufficiency, allegations of service defect or insufficiency, allegations regarding delivery defect or insufficiency, allegations of fraud or misrepresentation, allegations regarding pricing or amounts owed for TIPS sales, and/or allegations regarding payment, over-payment, under-payment, or non-payment for TIPS Sales. Payment/Drafting, overpayment/over-drafting, under-payment/under-drafting, or non-payment for TIPS Sales between customer and Vendor and inspections, rejections, or acceptance of such purchases shall be the exclusive respective obligations of Vendor/Customer, and disputes shall be handled in accordance with the terms of the underlying Supplemental Agreement(s) entered into between Vendor and Customer. Vendor acknowledges that TIPS is not a dealer, subcontractor, agent, or reseller of Vendor's goods and services and shall not be responsible for any claims arising out of alleged insufficiencies or defects in Vendor's goods and services, should any arise.
- 18. Confidentiality of Vendor Data.** Vendor understands and agrees that by signing this Agreement, all Vendor Data is hereby released to TIPS, TIPS Members, and TIPS third-party administrators to effectuate Vendor's TIPS Contract except as provided for herein. The Parties agree that Vendor Data is accessible by all TIPS Members as if submitted directly to that TIPS Member Customer for purchase consideration. If Vendor otherwise considers any portion of Vendor's Data to be confidential and not subject to public disclosure pursuant to Chapter 552 Texas Gov't Code (the "Public Information Act") or other law(s) and orders, Vendor must have identified the claimed confidential materials through proper execution of the Confidentiality Claim Form which is required to be submitted as part of Vendor's proposal resulting in this Agreement and incorporated by reference. The Confidentiality Claim Form included in Vendor's proposal and incorporated herein by reference is the sole indicator of whether Vendor considers any Vendor Data confidential in the event TIPS receives a Public Information Request. If TIPS receives a request, any responsive documentation not deemed confidential by you in this manner will be automatically released. For Vendor Data deemed confidential by you in this manner, TIPS will follow procedures of controlling statute(s) regarding any claim of confidentiality and shall not be liable for any release of information required by law, including Attorney General determination and opinion. In the event that TIPS receives a written request for information pursuant to the Public Information Act that affects Vendor's interest in any information or data furnished to TIPS by Vendor, and TIPS requests an opinion from the Attorney General, Vendor may, at its own option and expense, prepare comments and submit information directly to the Attorney General stating why the requested information is exempt from disclosure pursuant to the requirements of the Public Information Act. Vendor is solely responsible for submitting the memorandum brief and information to the Attorney General

within the time period prescribed by the Public Information Act. Notwithstanding any other information provided in this solicitation or Vendor designation of certain Vendor Data as confidential or proprietary, Vendor's acceptance of this TIPS Vendor Agreement constitutes Vendor's consent to the disclosure of Vendor's Data, including any information deemed confidential or proprietary, to TIPS Members or as ordered by a Court or government agency, including without limitation the Texas Attorney General. Vendor agrees that TIPS shall not be responsible or liable for any use or distribution of information or documentation by TIPS Members or as required by law.

- 19. Vendor's Authorized Resellers.** TIPS recognizes that many vendors operate in the open market through the use of resellers or dealers. For that reason, TIPS permits Vendor to authorize Authorized Resellers within its Vendor Portal and make TIPS Sales through the Authorized Reseller(s). Once authorized by Vendor in the Vendor Portal, the Authorized Reseller(s) may make TIPS sales to TIPS Members. However, all purchase documents must include: (1) Authorized Reseller's Name; (2) Vendor's Name, as known to TIPS, and; (3) Vendor's TIPS Contract Name and Number under which it is making the TIPS Sale. Either Vendor or Reseller may report the sale pursuant to the terms herein. However, Vendor agrees that it is legally responsible for all reporting and fee payment as described herein for TIPS Sales made by Authorized Resellers. The TIPS Administration Fee is assessed on the amount paid by the TIPS Member, not on the Vendor's cost or on the amount for which the Vendor sold the item to a dealer or Authorized Reseller. The Parties intend that Vendor shall be responsible and liable for TIPS Sales made by Vendor's Authorized Resellers. Vendor agrees that it is voluntarily authorizing this Authorized Reseller and in doing so, Vendor agrees that it is doing so at its own risk and agrees to protect, indemnify, and hold TIPS harmless in accordance with Sections 14-17 above related to Authorized Reseller TIPS Sales made pursuant to this Agreement or purporting to be made pursuant to this Agreement that may be asserted against Vendor whether rightfully brought or otherwise. The Parties further agree that it is no defense to Vendor's breach of this Agreement that an Authorized Reseller caused Vendor of breach this Agreement.
- 20. Circumvention of TIPS Sales.** When a public entity initiates a purchase with Vendor, if the Member inquires verbally or in writing whether Vendor holds a TIPS Contract, it is the duty of the Vendor to verify whether the Member is seeking a TIPS purchase. Any request for quote, customer communication, or customer purchase initiated through or referencing a TIPS Contract shall be completed through TIPS pursuant to this Agreement. Any encouragement or participation by Vendor in circumventing a TIPS sale being completed may result in immediate termination of Vendor's TIPS Contract(s) for cause as well as preclusion from future TIPS opportunities at TIPS sole discretion.
- 21. State of Texas Franchise Tax.** By signature hereon, Vendor hereby certifies that Vendor is not currently delinquent in the payment of any franchise taxes owed to the State of Texas under Chapter 171 of the Texas Tax Code.
- 22. Termination.**
- A) Termination for Convenience. TIPS may, by written notice to Vendor, terminate this Agreement for convenience, in whole or in part, at any time by giving thirty (30) days' written notice to Vendor of such termination, and specifying the effective date thereof.
  - B) Termination for Cause. If Vendor fails to materially perform pursuant to the terms of this Agreement, TIPS shall provide written notice to Vendor specifying the default. If Vendor does not cure such default within thirty (30) days, TIPS may terminate this Agreement, in whole or in part, for cause. If TIPS terminates this Agreement for cause, and it is later determined that the termination for cause was wrongful, the termination shall automatically be converted to and treated as a termination for convenience.
  - C) Vendor's Termination. If TIPS fails to materially perform pursuant to the terms of this Agreement, Vendor shall provide written notice to TIPS specifying the default ("Notice of Default"). If TIPS does not cure such default within thirty (30) days, Vendor may terminate this Agreement, in whole or in part, for cause. If Vendor terminates this Agreement for cause, and it is later determined that the termination for cause was wrongful, the termination shall automatically be converted to and treated as a termination for convenience.
  - D) Upon termination, all TIPS Sale orders previously accepted by Vendor shall be fulfilled and Vendor shall be paid for all TIPS Sales executed pursuant to the applicable terms. All TIPS Sale orders presented to Vendor but not fulfilled by Vendor, prior to the actual termination of this agreement shall be honored at the option of the TIPS Member. TIPS shall submit to Vendor an invoice for any outstanding TIPS Administration Fees and approved expenses and Vendor shall pay such fees and expenses within 30 calendar days of receipt of such valid TIPS invoice. Vendor acknowledges and agrees that continued participation in TIPS is subject to TIPS' sole discretion and that any Vendor may be removed from the TIPS program at any time with or without cause. This

termination clause does not affect TIPS Sales Supplemental Agreements pursuant to this term regarding termination and the Survival Clause term.

- E) Vendor hereby waives any and all claims for damages, including, but not limited, to consequential damages or lost profits, that might arise from TIPS' act of terminating this Agreement.

- 23. Survival Clause.** It is the intent of the Parties that this Agreement and procurement method applies to any TIPS Sale made during the life of this Agreement even if made on or near the Contract Expiration Date as defined herein. Thus, all TIPS Sales, including but not limited to: leases, service agreements, license agreements, open purchase orders, warranties, and contracts, even if they extend months or years past the TIPS Contract Expiration Date, shall survive the expiration or termination of this Agreement subject to the terms and conditions of the Supplemental Agreement between Customer and Vendor or unless otherwise specified herein.
- 24. Audit Rights.** Due to transparency statutes and public accountability requirements of TIPS and TIPS Members, Vendor shall at their sole expense, maintain documentation of all TIPS Sales for a period of three years from the time of the TIPS Sale. In order to ensure and confirm compliance with this agreement, TIPS shall have authority to conduct audits of Vendor's TIPS Pricing or TIPS Sales with thirty-days' notice unless the audit is ordered by a Court Order or by a Government Agency with authority to do so without said notice. Notwithstanding the foregoing, in the event that TIPS is made aware of any pricing being offered to eligible entities that is materially inconsistent with Vendor's TIPS Pricing, TIPS shall have the ability to conduct the audit internally or may engage a third-party auditing firm to investigate any possible non-compliant conduct or may terminate the Agreement according to the terms of this Agreement. In the event of an audit, the requested materials shall be reasonably provided in the time, format, and at the location acceptable to TIPS. TIPS agrees not to perform a random audit the TIPS transaction documentation more than once per calendar year, but reserves the right to audit for just cause or as required by any governmental agency or court with regulatory authority over TIPS or the TIPS Member. These audit rights shall survive termination of this Agreement for a period of one (1) year from the effective date of termination.
- 25. Conflicts of Interest.** The Parties confirm that they have not offered, given, or accepted, nor intend to give at any time hereafter any economic opportunity, future employment, gift, loan, gratuity, special discount, trip, favor, service to the other in connection with this Agreement. Vendor affirms that, to the best of Vendor's knowledge, this Agreement has been arrived at independently, and is awarded without collusion with anyone to obtain information or gain any favoritism that would in any way limit competition or give an unfair advantage over other vendors in the award of this Agreement. Vendor agrees that it has disclosed any necessary affiliations with Region 8 Education Service Center and the TIPS Department, if any, through the Conflict of Interest attachment provided in the solicitation resulting in this Agreement.
- 26. Volume of TIPS Sales.** Nothing in this Agreement or any TIPS communication may be construed as a guarantee that TIPS or TIPS Members will submit any TIPS orders to Vendor at any time.
- 27. Compliance with the Law.** The Parties agree to comply fully with all applicable federal, state, and local statutes, ordinances, rules, and regulations applicable to their entity in connection with the programs contemplated under this Agreement.
- 28. Severability.** If any term(s) or provision(s) of this Agreement are held by a court of competent jurisdiction to be invalid, void, or unenforceable, then such term(s) or provision(s) shall be deemed restated to reflect the original intention of the Parties as nearly as possible in accordance with applicable law and the remainder of this Agreement, and the remainder of the provisions of this Agreement shall remain in full force and effect and shall in no way be affected, impaired or invalidated, unless such holding causes the obligations of the Parties hereto to be impossible to perform or shall render the terms of this Agreement to be inconsistent with the intent of the Parties hereto.
- 29. Force Majeure.** If by reason of Force Majeure, either party hereto shall be rendered unable wholly or in part to carry out its obligations under this Agreement through no fault of its own then such party shall give notice and full particulars of Force Majeure in writing to the other party within a reasonable time after occurrence of the event or cause relied upon. Upon delivering such notice, the obligation of the affected party, so far as it is affected by such Force Majeure as described, shall be suspended during the continuance of the inability then claimed but for no longer period, and such party shall endeavor to remove or overcome such inability with all reasonable dispatch. In the event that Vendor's obligations are suspended by reason of Force Majeure, all TIPS Sales accepted prior to the Force Majeure event shall be the legal responsibility of Vendor and the terms of the TIPS Sale Supplemental Agreement shall control Vendor's failure to fulfill for a Force Majeure event.
- 30. Immunity.** Vendor agrees that nothing in this Agreement shall be construed as a waiver of sovereign or government immunity; nor constitute or be construed as a waiver of any of the privileges, rights, defenses, remedies, or immunities available to Region 8 Education Service Center or its TIPS Department. The failure to enforce, or any delay in the enforcement of, any privileges, rights, defenses,



remedies, or immunities available to Region 8 Education Service Center or its TIPS Department under this Agreement or under applicable law shall not constitute a waiver of such privileges, rights, defenses, remedies, or immunities or be considered as a basis for estoppel.

- 31. Insurance Requirements.** Vendor agrees to maintain the following minimum insurance requirements for the duration of this Agreement. All policies held by Vendor to adhere to this term shall be written by a carrier with a financial size category of VII and at least a rating of "A-" by A.M. Best Key Rating Guide. The coverages and limits are to be considered minimum requirements and in no way limit the liability of the Vendor(s). Any immunity available to TIPS or TIPS Members shall not be used as a defense by the contractor's insurance policy. Only deductibles applicable to property damage are acceptable, unless proof of retention funds to cover said deductibles is provided. "Claims made" policies will not be accepted. Vendor's required minimum coverage shall not be suspended, voided, cancelled, non-renewed or reduced in coverage or in limits unless replaced by a policy that provides the minimum required coverage except after thirty (30) days prior written notice by certified mail, return receipt requested has been given to TIPS or the TIPS Member if a project or pending delivery of an order is ongoing. Upon request, certified copies of all insurance policies shall be furnished to the TIPS or the TIPS Member. Vendor agrees that when Vendor or its subcontractors are liable for any damages or claims, Vendor's policy, shall be primary over any other valid and collectible insurance carried by the Member or TIPS.

General Liability: \$1,000,000 each Occurrence/Aggregate

Automobile Liability: \$300,000 Includes owned, hired & non-owned

Workers' Compensation: Statutory limits for the jurisdiction in which the Vendor performs under this Agreement. If Vendor performs in multiple jurisdictions, Vendor shall maintain the statutory limits for the jurisdiction with the greatest dollar policy limit requirement.

Umbrella Liability: \$1,000,000 each Occurrence/Aggregate

- 32. Waiver.** No waiver of any single breach or multiple breaches of any provision of this Agreement shall be construed to be a waiver of any breach of any other provision. No delay in acting regarding any breach of any provision shall be construed to be a waiver of such breach.
- 33. Binding Agreement.** This Agreement shall be binding and inure to the benefit of the Parties hereto and their respective heirs, legal successors, and assigns.
- 34. Headings.** The paragraph headings contained in this Agreement are included solely for convenience of reference and shall not in any way affect the meaning or interpretation of any of the provisions of this Agreement.
- 35. Choice of Law and Venue.** This Agreement shall be governed by, construed, and enforced in accordance with the laws of the State of Texas. Any proceeding, claim, action, or alternative dispute resolution arising out of or relating to this Agreement or involving TIPS shall be brought in a State Court of competent jurisdiction in Camp County, Texas, or if Federal Court is legally required, a Federal Court of competent jurisdiction in the Eastern District of Texas, and each of the Parties irrevocably submits to the exclusive jurisdiction of said court in any such proceeding, waives any objection it may now or hereafter have to venue or to convenience of forum, agrees that all claims in respect of the proceeding shall be heard and determined only in any such court, and agrees not to bring any proceeding arising out of or relating to this procurement process or any contract resulting from or and contemplated transaction in any other court. The Parties agree that either or both of them may file a copy of this paragraph with any court as written evidence of the knowing, voluntary and freely bargained for agreement between the Parties irrevocably to waive any objections to venue or to convenience of forum.
- 36. Relationship of the Parties.** Nothing contained in this Agreement shall be construed to make one Party an agent of the other Party nor shall either party have any authority to bind the other in any respect, unless expressly authorized by the other party in writing. The Parties are independent contractors and nothing in this Agreement creates a relationship of employment, trust, agency or partnership between them.
- 37. Assignment.** No assignment of this Agreement or of any duty or obligation of performance hereunder, shall be made in whole or in part by a Party hereto without the prior written consent of the other Party. Written consent of TIPS shall not be unreasonably withheld.
- 38. Minimum Condition and Warranty Requirements for TIPS Sales.** All goods quoted or sold through a TIPS Sale shall be new unless clearly stated otherwise in writing. All new goods and services shall include the applicable manufacturers minimum standard warranty unless otherwise agreed to in the Supplemental Agreement.

- 39. Minimum Customer Support Requirements for TIPS Sales.** Vendor shall provide timely and commercially reasonable support for TIPS Sales or as agreed to in the applicable Supplemental Agreement.
- 40. Minimum Shipping Requirements for TIPS Sales.** Vendor shall ship, deliver, or provide ordered goods and services within a commercially reasonable time after acceptance of the order. If a delay in delivery is anticipated, Vendor shall notify the TIPS Member as to why delivery is delayed and provide an updated estimated time for completion. The TIPS Member may cancel the order if the delay is not commercially acceptable or not consistent with the Supplemental Agreement applicable to the order.
- 41. Minimum Vendor License Requirements.** Vendor shall maintain, in current status, all federal, state, and local licenses, bonds and permits required for the operation of the business conducted by Vendor. Vendor shall remain fully informed of and in compliance with all ordinances and regulations pertaining to the lawful provision of goods or services under the TIPS Agreement. TIPS and TIPS Members reserve the right to stop work and/or cancel a TIPS Sale or terminate this or any TIPS Sale Supplemental Agreement involving Vendor if Vendor's license(s) required to perform under this Agreement or under the specific TIPS Sale have expired, lapsed, are suspended or terminated subject to a 30-day cure period unless prohibited by applicable statute or regulation.
- 42. Minimum Vendor Legal Requirements.** Vendor shall remain aware of and comply with this Agreement and all local, state, and federal laws governing the sale of products/services offered by Vendor under this contract. Such applicable laws, ordinances, and policies must be complied with even if not specified herein.
- 43. Minimum Site Requirements for TIPS Sales (*when applicable to TIPS Sale*).**

**Cleanup:** When performing work on site at a TIPS Member's property, Vendor shall clean up and remove all debris and rubbish resulting from their work as required or directed by the TIPS Member or as agreed by the parties. Upon completion of work, the premises shall be left in good repair and an orderly, neat, clean and unobstructed condition.

**Preparation:** Vendor shall not begin a project for which a TIPS Member has not prepared the site, unless Vendor does the preparation work at no cost, or until TIPS Member includes the cost of site preparation in the TIPS Sale Site preparation includes, but is not limited to: moving furniture, installing wiring for networks or power, and similar pre-installation requirements.

**Registered Sex Offender Restrictions:** For work to be performed at schools, Vendor agrees that no employee of Vendor or a subcontractor who has been adjudicated to be a registered sex offender will perform work at any time when students are, or reasonably expected to be, present unless otherwise agreed by the TIPS Member. Vendor agrees that a violation of this condition shall be considered a material breach and may result in the cancellation of the TIPS Sale at the TIPS Member's discretion. Vendor must identify any additional costs associated with compliance of this term. If no costs are specified, compliance with this term will be provided at no additional charge.

**Safety Measures:** Vendor shall take all reasonable precautions for the safety of employees on the worksite, and shall erect and properly maintain all necessary safeguards for protection of workers and the public. Vendor shall post warning signs against all hazards created by the operation and work in progress. Proper precautions shall be taken pursuant to state law and standard practices to protect workers, general public and existing structures from injury or damage.

**Smoking:** Persons working under Agreement shall adhere to the TIPS Member's or local smoking statutes, codes, ordinances, and policies.

- 44. Payment for TIPS Sales.** TIPS Members may make payments for TIPS Sales directly to Vendor, Vendor's Authorized Reseller, or as otherwise agreed to in the applicable Supplemental Agreement after receipt of the invoice and in compliance with applicable payment statutes. Regardless of how payment is issued or received for a TIPS Sale, Vendor is responsible for all reporting and TIPS Administration Fee payment requirements as stated herein.
- 45. Marketing.** Vendor agrees to allow TIPS to use their name and logo within the TIPS website, database, marketing materials, and advertisements unless Vendor negotiates this term to include a specific acceptable-use directive. Any use of TIPS' name and logo or any form of publicity, inclusive of press release, regarding this Agreement by Vendor must have prior approval from TIPS which will not be unreasonably withheld. Request may be made by email to [tips@tips-usa.com](mailto:tips@tips-usa.com). For marketing efforts directed to TIPS Members, Vendor must request and execute a separate Joint Marketing Disclaimer, at [marketing@tips-usa.com](mailto:marketing@tips-usa.com), before TIPS can release contact information for TIPS Member entities for the purpose of marketing your TIPS contract(s). Vendor must adhere to strict Marketing Requirements once a disclaimer is executed. The Joint Marketing Disclaimer is a supplemental agreement specific to joint marketing efforts and has no effect on the terms of the TIPS Vendor Agreement. Vendor agrees that any images, photos, writing, audio, clip art,



music, or any other intellectual property ("Property") or Vendor Data utilized, provided, or approved by Vendor during the course of the joint marketing efforts are either the exclusive property of Vendor, or Vendor has all necessary rights, license, and permissions to utilize said Property in the joint marketing efforts. Vendor agrees that they shall indemnify and hold harmless TIPS and its employees, officers, agents, representatives, contractors, assignees, designees, and TIPS Members from any and all claims, damages, and judgments involving infringement of patent, copyright, trade secrets, trade or services marks, and any other intellectual or intangible property rights and/or claims arising from the Vendor's (including Vendor's officers', employees', agents', Authorized Resellers', subcontractors', licensees', or invitees') unauthorized use or distribution of Vendor Data and Property.

- 46. Tax Exempt Status of TIPS Members.** Most TIPS Members are tax exempt entities and the laws and regulations applicable to the specific TIPS Member customer shall control.
- 47. Automatic Renewal Limitation for TIPS Sales.** No TIPS Sale may incorporate an automatic renewal clause that exceeds month to month terms with which the TIPS Member must comply. All renewal terms incorporated into a TIPS Sale Supplemental Agreement shall only be valid and enforceable when Vendor received written confirmation of acceptance of the renewal term from the TIPS Member for the specific renewal term. The purpose of this clause is to avoid a TIPS Member inadvertently renewing an Agreement during a period in which the governing body of the TIPS Member has not properly appropriated and budgeted the funds to satisfy the Agreement renewal. Any TIPS Sale Supplemental Agreement containing an "Automatic Renewal" clause that conflicts with these terms is rendered void and unenforceable.
- 48. Choice of Law Limitation for TIPS Sales.** Vendor agrees that if any "Choice of Law" provision is included in any TIPS Sale agreement/contract between Vendor and a TIPS Member, that clause must provide that the "Choice of Law" applicable to the TIPS Sale agreement/contract between Vendor and TIPS Member shall be the state where the TIPS Member operates unless the TIPS Member expressly agrees otherwise. Any TIPS Sale Supplemental Agreement containing a "Choice of Law" clause that conflicts with these terms is rendered void and unenforceable.
- 49. Venue Limitation for TIPS Sales.** Vendor agrees that if any "Venue" provision is included in any TIPS Sale Agreement/contract between Vendor and a TIPS Member, that clause must provide that the "Venue" for any litigation or alternative dispute resolution shall be in the state and county where the TIPS Member operates unless the TIPS Member expressly agrees otherwise. Any TIPS Sale Supplemental Agreement containing a "Venue" clause that conflicts with these terms is rendered void and unenforceable.
- 50. Indemnity Limitation for TIPS Sales.** Texas and other jurisdictions restrict the ability of governmental entities to indemnify others. Vendor agrees that if any "Indemnity" provision which requires the TIPS Member to indemnify Vendor is included in any TIPS sales agreement/contract between Vendor and a TIPS Member, that clause must either be stricken or qualified by including that such indemnity is only permitted, "to the extent permitted by the laws and constitution of [TIPS Member's State]" unless the TIPS Member expressly agrees otherwise. Any TIPS Sale Supplemental Agreement containing an "Indemnity" clause that conflicts with these terms is rendered void and unenforceable.
- 51. Arbitration Limitation for TIPS Sales.** Vendor agrees that if any "Arbitration" provision is included in any TIPS Sale agreement/contract between Vendor and a TIPS Member, that clause may not require that the arbitration is mandatory or binding. Vendor agrees that if any "Arbitration" provision is included in any TIPS Sale agreement/contract between Vendor and a TIPS Member, that clause provides for only voluntary and non-binding arbitration unless the TIPS Member expressly agrees otherwise. Any TIPS Sale Supplemental Agreement containing a "Arbitration" clause that conflicts with these terms is rendered void and unenforceable.

In Witness Whereof, the parties hereto, each acting under due and proper authority, have signed this Agreement.

TIPS VENDOR AGREEMENT SIGNATURE

FORM TIPS RFP 240101 Technology Solutions, Products, and Services

Vendor Name: Simtronics Corporation

Vendor Address: PO Box 38

City: Little Silver State: NJ Zip Code: 07739

Vendor Authorized Signatory Name: Thomas B. Judge

Vendor Authorized Signatory Title: Managing Director

Vendor Authorized Signatory Phone: 732-219-7363

Vendor Authorized Signatory Email: tjudge@simtronics.com

Vendor Authorized Signature:  Date: 01-13-2024

*(The following is for TIPS completion only)*

TIPS Authorized Signatory Name: Dr. David Fitts

TIPS Authorized Signatory Title: Executive Director

TIPS Authorized Signature: David Wayne Fitts Date: 5/14/2024



**240101**

## **Simtronics Corporation Supplier Response**

### **Event Information**

Number: 240101

Title: Technology Solutions, Products, and Services

Type: Request for Proposal

Issue Date: 1/4/2024

Deadline: 2/16/2024 03:00 PM (CT)

Notes: This is a solicitation issued by The Interlocal Purchasing System (TIPS), a department of Texas Region 8 Education Service Center. It is an Indefinite Delivery, Indefinite Quantity ("IDIQ") solicitation. It will result in contracts that provide, through adoption/"piggyback" an indefinite quantity of supplies/services, during a fixed period of time, to TIPS public entity and qualifying non-profit "TIPS Members" throughout the nation. Thus, there is no specific project or scope of work to review. Rather this solicitation is issued as a prospective award for utilization when any TIPS Member needs the goods or services offered during the life of the agreement.

**IF YOU CURRENTLY HOLD ANY TIPS CONTRACT IN THE "TECHNOLOGY SOLUTIONS, PRODUCTS, AND SERVICES" CATEGORY, AND YOU ARE SATISFIED WITH IT, THERE IS NO NEED TO RESPOND TO THIS SOLICITATION.**

**IF YOU HOLD AN EXISTING TIPS "TECHNOLOGY SOLUTIONS, PRODUCTS, AND SERVICES" CONTRACT AND YOU CHOOSE TO RESPOND HEREIN, YOUR EXISTING TIPS "TECHNOLOGY SOLUTIONS, PRODUCTS, AND SERVICES" CONTRACT WILL BE TERMINATED AND REPLACED BY THIS CONTRACT.**



**ALSO IF YOU HOLD ANY OTHER TIPS CONTRACT OUTSIDE OF THE "TECHNOLOGY SOLUTIONS, PRODUCTS, AND SERVICES" CATEGORY WHICH COVERS ALL OF YOUR TECHNOLOGY OFFERINGS AND YOU ARE SATISFIED WITH IT, THERE IS NO NEED TO RESPOND TO THIS SOLICITATION UNLESS YOU PREFER TO HOLD BOTH CONTRACTS.**

## **Contact Information**

Address: Region 8 Education Service Center  
4845 US Highway 271 North  
Pittsburg, TX 75686  
Phone: +1 (866) 839-8477  
Email: bids@tips-usa.com

## Simtronics Corporation Information

Contact: Tim Judge  
Address: PO Box 38  
Little Silver, NJ 07739  
Phone: (732) 747-0322  
Fax: (722) 224-0009  
Toll Free: (800) 730-0760  
Email: [tjudge@simtronics.com](mailto:tjudge@simtronics.com)  
Web Address: <https://simtronics.com/>

By submitting your response, you certify that you are authorized to represent and bind your company.

Thomas B. Judge

*Signature*

[tjudge@simtronics.com](mailto:tjudge@simtronics.com)

*Email*

Submitted at 1/13/2024 01:55:47 PM (CT)

## Requested Attachments

### Alternate or Supplemental Pricing Documents

Simtronics Pricing DSS  
Educational North America  
2024.pdf

Optional. If when completing Pricing Form 1 & Pricing Form 2 you direct TIPS to view additional, alternate, or supplemental pricing documentation, you may upload that documentation.

### Vendor Logo (Supplemental Vendor Information Only)

Sim Logo Name Tag Sm RGB.jpg

Optional. If Vendor desires that their logo be displayed on their public TIPS profile for TIPS and TIPS Member viewing, Vendor may upload that logo at this location. These supplemental documents shall not be considered part of the TIPS Contract. Rather, they are Vendor Supplemental Information for marketing and informational purposes only.

### Disclosure of Lobbying Activities - Standard Form - LLL

No response

Do not upload this form unless Vendor has reportable lobbying activities. There are Attributes entitled, "2 CFR Part 200 or Federal Provision - Byrd Anti-Lobbying Amendment – Continued." Properly respond to those Attributes and only upload this form if applicable/instructed. If upload is required based on your response to those Attributes, the Disclosure of Lobbying Activities – Standard Form - LLL must be downloaded from the "Attachments" section of the IonWave eBid System, reviewed, properly completed, and uploaded to this location.

### Required Confidentiality Claim Form

240101 Required Confidentiality  
Claim Form - signed.pdf

The Required Confidentiality Claim Form must be downloaded from the "Attachments" section of the IonWave eBid System, reviewed, properly completed, and uploaded to this location. This is the only way for Vendor to assert confidentiality of any information submitted.

### Vendor Agreement

240101 Vendor Agreement -  
Simtronics - completed.pdf

The Vendor Agreement must be downloaded from the "Attachments" section of the IonWave eBid System, reviewed, Vendor Name placed in the line provided at the top, and uploaded to this location. If Vendor has proposed deviations to the Vendor Agreement, Vendor may assert so in the Attribute Questions and those shall be addressed during evaluation.

### Conflict of Interest Questionnaire - Form CIQ

No response

Do not upload this form unless you have a reportable conflict with TIPS. There is an Attribute entitled "Conflict of Interest Questionnaire Requirement" immediately followed by an Attribute entitled "Conflict of Interest Questionnaire Requirement – Form CIQ – Continued." Properly respond to those Attributes and only upload this form if applicable/instructed. If upload is required based on your response to those Attributes, the Conflict of Interest Questionnaire – Form CIQ must be downloaded from the "Attachments" section of the IonWave eBid System, reviewed, properly completed, and uploaded at this location.

Current Form W-9

Vendor must upload their current IRS Tax Form W-9. The legal name, EIN, and d/b/a's listed should match the information provided herein exactly. This form will be utilized by TIPS to properly identify your entity.

Vendor Agreement Signature Form

The Vendor Agreement Signature Form must be downloaded from the "Attachments" section of the IonWave eBid System, reviewed, properly completed, and uploaded to this location. If Vendor has proposed deviations to the Vendor Agreement, Vendor may leave the signature line of this page blank and assert so in the Attribute Questions and those shall be addressed during evaluation.

Certificates & Licenses (Supplemental Vendor Information Only)

Optional. If Vendor would like to display any applicable certificates or licenses (including HUB certificates) for TIPS and TIPS Member Customer consideration, Vendor may upload those at this location. These supplemental documents shall not be considered part of the TIPS Contract. Rather, they are Vendor Supplemental Information for marketing and informational purposes only.

Pricing Form 1

Pricing Form 1 must be downloaded from the "Attachments" section of the IonWave eBid System, reviewed, properly completed as instructed, and uploaded to this location.

Reference Form

The Reference Form must be downloaded from the "Attachments" section of the IonWave eBid System, reviewed, properly completed, and uploaded to this location. The Reference Form must be uploaded in Excel format.

Pricing Form 2

Pricing Form 2 must be downloaded from the "Attachments" section of the IonWave eBid System, reviewed, properly completed as instructed, and uploaded to this location.

Vendor's Warranties, Terms, and Conditions (Supplemental Vendor Information Only)

Optional. If Vendor would like to display any standard warranties, terms, or conditions which are often applicable to their offerings for TIPS and TIPS Member Customer consideration, Vendor may upload those at this location. These supplemental documents shall not be considered part of the TIPS Contract. Rather, they are Vendor Supplemental Information for marketing and informational purposes only.

Supplemental Vendor Information (Supplemental Vendor Information Only)

Optional. If Vendor would like to display or include any brochures, promotional documents, marketing materials, or other Vendor Information for TIPS and TIPS Member Customer consideration, Vendor may upload those at this location. These supplemental documents shall not be considered part of the TIPS Contract. Rather, they are Vendor Supplemental Information for marketing and informational purposes only.

Bid Attributes

Simtronics 2024 W-9.pdf

240101 Vendor Agreement Signature Form - completed.pdf

No response

240101 Pricing Form 1 (1) - completed.xlsx

240101 Reference Form (1) - completed.xls

240101 Pricing Form 2 - completed.xlsx

No response

Simtronics Catalog - June 2023.pdf

1	<div><div>Disadvantaged/Minority/Women Business &amp; Federal HUBZone</div><div>Some participating public entities are required to seek Disadvantaged/Minority/Women Business &amp; Federal HUBZone ("D/M/WBE/Federal HUBZone") vendors. Does Vendor certify that their entity is a D/M/WBE/Federal HUBZone vendor?</div><div>If you respond "Yes," you must upload current certification proof in the appropriate "Response Attachments" location.</div><div><div>NO</div></div></div>
---	---



**2 Historically Underutilized Business (HUB)**

Some participating public entities are required to seek Historically Underutilized Business (HUB) vendors as defined by the Texas Comptroller of Public Accounts Statewide HUB Program. Does Vendor certify that their entity is a HUB vendor?

If you respond "Yes," you must upload current certification proof in the appropriate "Response Attachments" location.

No

**3 National Coverage**

Can the Vendor provide its proposed goods and services to all 50 US States?

Yes - All 50 States

**4 States Served**

If Vendor answered "No" to the question entitled "National Coverage," please list all states where vendor can provide the goods and services proposed directly below. Your response may dictate which potential TIPS Member customers consider purchasing your offerings.

No response

**5 Description of Vendor Entity and Vendor's Goods & Services**

If awarded, this description of Vendor and Vendor's goods and services will appear on the TIPS website for customer/public viewing.

Simtronics Corporation provides Operator Training Simulators (OTS) for the Process Industries and the Educational Institutions that train Operators and Technicians. Training Simulators provide a realistic environment for operators, engineers, technicians, and students to practice real-life scenarios including start-ups, shutdowns, troubleshooting, and emergency response.

**6 Primary Contact Name**

Please identify the individual who will be primarily responsible for all TIPS matters and inquiries for the duration of the contract.

Thomas B. Judge

**7 Primary Contact Title**

Primary Contact Title

Managing Director

**8 Primary Contact Email**

Please enter a valid email address that will definitely reach the Primary Contact.

tjudge@simtronics.com

**9 Primary Contact Phone**

Numbers only, no symbols or spaces (Ex. 8668398477). The system will auto-populate your entry with commas once submitted which is appropriate and expected (Ex. 8,668,398,477).

Please provide the accurate and current phone number where the individual who will be primarily responsible for all TIPS matters and inquiries for the duration of the contract can be reached directly.

7327470322

10	<b>Primary Contact Fax</b> Numbers only, no symbols or spaces (Ex. 8668398477). The system will auto-populate your entry with commas once submitted which is appropriate and expected (Ex. 8,668,398,477). <input type="text" value="7322240009"/>
11	<b>Primary Contact Mobile</b> Numbers only, no symbols or spaces (Ex. 8668398477). The system will auto-populate your entry with commas once submitted which is appropriate and expected (Ex. 8,668,398,477). <input type="text" value="7328591430"/>
12	<b>Secondary Contact Name</b> Please identify the individual who will be secondarily responsible for all TIPS matters and inquiries for the duration of the contract. <input type="text" value="Steve Kallos"/>
13	<b>Secondary Contact Title</b> Secondary Contact Title <input type="text" value="Sales Director"/>
14	<b>Secondary Contact Email</b> Please enter a valid email address that will definitely reach the Secondary Contact. <input type="text" value="skallos@simtronics.com"/>
15	<b>Secondary Contact Phone</b> Numbers only, no symbols or spaces (Ex. 8668398477). The system will auto-populate your entry with commas once submitted which is appropriate and expected (Ex. 8,668,398,477).  Please provide the accurate and current phone number where the individual who will be secondarily responsible for all TIPS matters and inquiries for the duration of the contract can be reached directly. <input type="text" value="7704497564"/>
16	<b>Secondary Contact Fax</b> Numbers only, no symbols or spaces (Ex. 8668398477). The system will auto-populate your entry with commas once submitted which is appropriate and expected (Ex. 8,668,398,477). <input type="text" value="7322240009"/>
17	<b>Secondary Contact Mobile</b> Numbers only, no symbols or spaces (Ex. 8668398477). The system will auto-populate your entry with commas once submitted which is appropriate and expected (Ex. 8,668,398,477). <input type="text" value="7707782862"/>
18	<b>Administration Fee Contact Name</b> Please identify the individual who will be responsible for all payment, accounting, and other matters related to Vendor's TIPS Administration Fee due to TIPS for the duration of the contract. <input type="text" value="Thomas B. Judge"/>
19	<b>Administration Fee Contact Email</b> Please enter a valid email address that will definitely reach the Administration Fee Contact. <input type="text" value="tjudge@simtronics.com"/>

2  
0**Administration Fee Contact Phone**

Numbers only, no symbols or spaces (Ex. 8668398477). The system will auto-populate your entry with commas once submitted which is appropriate and expected (Ex. 8,668,398,477).

2  
1**Purchase Order and Sales Contact Name**

Please identify the individual who will be responsible for receiving and processing purchase orders and sales under the TIPS Contract.

2  
2**Purchase Order and Sales Contact Email**

Please enter a valid email address that will definitely reach the Purchase Order and Sales Contact.

2  
3**Purchase Order and Sales Contact Phone**

Numbers only, no symbols or spaces (Ex. 8668398477). The system will auto-populate your entry with commas once submitted which is appropriate and expected (Ex. 8,668,398,477).

2  
4**Company Website**

Company Website (Format - www.company.com)

2  
5**Entity D/B/A's and Assumed Names**

You must confirm that you are responding to this solicitation under your legal entity name. Go now to your Supplier Profile in this eBid System and confirm that your profile reflects your "Legal Name" as it is listed on your W9.

In this question, please identify all of your entity's assumed names and D/B/A's. Please note that you will be identified publicly by the Legal Name under which you respond to this solicitation unless you organize otherwise with TIPS after award.

2  
6**Primary Address**

Primary Address

2  
7**Primary Address City**

Primary Address City

2  
8**Primary Address State**

Primary Address State (2 Digit Abbreviation)

2  
9**Primary Address Zip**

Primary Address Zip



3  
0**Search Words Identifying Vendor**

Please list all search words and phrases to be included in the TIPS database related to your entity. **Do not** list words which are not associated with the bid category/scope (See bid title for general scope). This will help users find you through the TIPS website search function. You may include product names, manufacturers, specialized services, and other words associated with the scope of this solicitation.

3  
1**Certification of Vendor Residency (Required by the State of Texas)**

Does Vendor's parent company or majority owner:

(A) have its principal place of business in Texas; **or** (B) employ at least 500 persons in Texas?

Texas Education Code Section 44.031 requires that this information be considered in evaluation for certain contracts. However, Vendor response does not affect points, scoring, or potential award.

3  
2**Vendor's Principal Place of Business (City)**

In what city is Vendor's principal place of business located?

3  
3**Vendor's Principal Place of Business (State)**

In what state is Vendor's principal place of business located?

3  
4**Vendor's Years in Business**

How many years has the business submitting this proposal been operating in its current capacity and field of work?

3  
5**Certification Regarding Entire TIPS Agreement**

Vendor agrees that, if awarded, Vendor's final TIPS Contract will consist of the provisions set forth in the finalized TIPS Vendor Agreement, Vendor's responses to these attribute questions, and: (1) The TIPS solicitation document resulting in this Agreement; (2) Any addenda or clarifications issued in relation to the TIPS solicitation; (3) All solicitation information provided to Vendor by TIPS through the TIPS eBid System; (3) Vendor's entire proposal response to the TIPS solicitation including all accepted required attachments, acknowledged notices and certifications, accepted negotiated terms, accepted pricing, accepted responses to questions, and accepted written clarifications of Vendor's proposal, and; any properly included attachments to the TIPS Contract.

Does Vendor agree?

3  
6**Minimum Percentage Discount Offered to TIPS Members on all Goods and Services (READ CAREFULLY)**

**Please read thoroughly and carefully as an error on your response can render your contract award unusable.**

TIPS Members often turn to TIPS Contracts for ease of use and to receive discounted pricing.

***What is the minimum percentage discount that you can offer TIPS Members off of all goods and service pricing (whether offered through Pricing Form 1, Pricing Form 2, or in another accepted format) that you offer? Only limited goods/services specifically identified and excluded from this discount in Vendor's original proposal may be excluded from this discount.***

Vendor must respond with a percentage from 0%-100%. The percentage discount that you input below will be applied to your "Catalog Pricing", as defined in the solicitation, for all TIPS Sales made during the life of the contract. You cannot alter this percentage discount once the solicitation legally closes. You will always be required to discount every TIPS Sale by the percentage included below with the exception of limited goods/services specifically identified and excluded from this discount in Vendor's original proposal. If you add goods or services to your "Catalog Pricing" during the life of the contract, you will be required to sell those new items with this discount applied.

**Example:** In this example, you enter a 10% minimum percentage discount below. In year-one of your TIPS Contract, your published "Catalog Pricing" (website/store/published pricing) for "Tablet A" is \$100 and for "Tablet Set-Up Service" is \$100. In this example, you must sell those items under the TIPS Contract at the proposed 10% discounted price of: "Tablet A" - \$90, "Tablet Set-Up Service" - \$90. In year two of your TIPS Contract, you update your "Catalog Pricing" with the market. You add "Tablet B" to your "Catalog Pricing" for \$200 and have increased the price of "Tablet A" to \$110 and the price of "Tablet Set-Up Service" to \$110. In this example, after the "Catalog Pricing" update, you must still sell those items under the TIPS Contract at the proposed 10% discounted price of: "Tablet A" - \$99, "Tablet Set-Up Service" - \$99, and "Tablet B" - \$180.00.

With the exception of limited goods/services specifically identified and excluded from this discount in Vendor's original proposal, if you cannot honor the discount on all goods and items now included or which may be added in the future with certainty, then you should offer a lesser discount percentage below.

***What is the minimum percentage discount that you can offer TIPS Members off of all goods and service pricing (whether offered through Pricing Form 1, Pricing Form 2, or in another accepted format) that you offer?***

3  
7**Honoring Vendor's Minimum Percentage Discount**

Vendor is asked in these Attribute Questions to provide a Minimum Percentage Discount offered to TIPS Members on all goods and services sold under the TIPS Contract. Points will be assigned for your response and scoring of your proposal will be affected. A "YES" answer will be awarded the maximum 10 points and a "NO" answer will be awarded 0 points.

Does Vendor agree to honor the Minimum Percentage Discount off of their TIPS "Catalog Pricing" that Vendor proposed for all TIPS Sales made for the duration of the TIPS Contract?

3  
8**Volume and Additional Discounts**

In addition to the Minimum Percentage Discount proposed herein, does Vendor ever expect and intend to offer additional, greater, or volume discounts to TIPS Members?

Point(s) may be assigned for your response in the category of "Pricing" during scoring and evaluation.

3  
9

### "Catalog Pricing" and Pricing Requirements

**This is a requirement of the TIPS Contract and is non-negotiable.**

In this solicitation and resulting contract, "Catalog Pricing" shall be defined as:

"The then available list of goods or services, in the most current listing regardless of date, that takes the form of a catalog, price list, price schedule, shelf-price or other viewable format that:

- A. is regularly maintained by the manufacturer or Vendor of an item; and
- B. is either published or otherwise available for review by TIPS or a customer during the purchase process;
- C. to which the Minimum Percentage Discount proposed by the proposing Vendor may be applied.

If awarded on this TIPS Contract, for the duration of the contract, Vendor agrees to provide, upon request, their then current "Catalog Pricing." Or, in limited circumstances where Vendor has proposed the Percentage Mark-Up method of pricing in this proposal, proof of Vendor's "cost" may be accepted by TIPS in place of catalog pricing.

YES

4  
0

### EXCEPTIONS & DEVIATIONS TO TIPS STANDARD TERMS AND CONDITIONS

Vendor agrees that, if awarded, Vendor's final TIPS Contract will consist of the provisions set forth in the finalized TIPS Vendor Agreement, Vendor's responses to these attribute questions, and: (1) The TIPS solicitation document resulting in this Agreement; (2) Any addenda or clarifications issued in relation to the TIPS solicitation; (3) All solicitation information provided to Vendor by TIPS through the TIPS eBid System; (3) Vendor's entire proposal response to the TIPS solicitation including all accepted required attachments, acknowledged notices and certifications, accepted negotiated terms, accepted pricing, accepted responses to questions, and accepted written clarifications of Vendor's proposal, and; any properly included attachments to the TIPS Contract. In the event of conflict between the terms of the finalized Vendor Agreement and one of the incorporated documents the terms and conditions which are in the best interest of governmental/qualifying non-profit TIPS Members shall control at TIPS sole discretion.

If Vendor responds, "No, Vendor does not agree" to this Attribute, after this solicitation legally closes and TIPS begins evaluating Vendor's file, TIPS will provide Vendor with a draft Word Document version of the Vendor Agreement and will be instructed to include all requested negotiations as redline edits for TIPS consideration. This is the only proper way to submit proposed deviations for TIPS consideration. TIPS reserves the right to accept, decline, or modify Vendor's requested negotiated terms. For this reason, answering "No, Vendor does not agree" may ultimately delay or prevent award.

Does Vendor agree with TIPS standard terms and conditions as presented in the TIPS solicitation document (RFP, RCSP, RFQ, or other) and the TIPS Vendor Agreement document?

Yes, Vendor agrees

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#### **TIPS Sales Reporting Requirements**

**This is a requirement of the TIPS Contract and is non-negotiable.**

By submitting this proposal, Vendor certifies that Vendor will properly report all TIPS sales. With the exception of TIPS Automated Vendors, who have signed an exclusive agreement with TIPS regarding reporting, all TIPS Sales must be reported to TIPS by either:

(1) Emailing the purchase order or similar purchase document (with Vendor's Name, as known to TIPS, and the TIPS Contract Name and Number included) to TIPS at tipspo@tips-usa.com with "Confirmation Only" in the subject line of the email within three business days of Vendor's acceptance of the order, or;

(2) Within 3 business days of the order being accepted by Vendor, Vendor must login to the TIPS Vendor Portal and successfully self-report all necessary sale information within the Vendor Portal and confirm that it shows up accurately on your current Vendor Portal statement.

No other method of reporting is acceptable unless agreed to by the Parties in writing. Failure to report all sales pursuant to this provision may result in immediate cancellation of Vendor's TIPS Contract(s) for cause at TIPS' sole discretion.

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#### **TIPS Administration Fee Requirement and Acknowledgment**

**This is a requirement of the TIPS Contract and is non-negotiable.**

The collection of fees by TIPS, a government entity, for performance of these procurement services is required pursuant to Texas Government Code Section 791.011 et. seq. The TIPS Administration Fee is the amount legally owed by Vendor to TIPS for TIPS Sales made by Vendor. The TIPS Administration Fee amount is typically a set percentage of each TIPS Sale legally due to TIPS, but the exact TIPS Administration Fee for this Contract is published in the corresponding RFP or RCSP document. TIPS Administration Fees are due to TIPS immediately upon Vendor's receipt of payment, including partial payment, for a TIPS Sale.

By submitting a proposal, Vendor agrees that it has read, understands, and agrees to the published TIPS Administration Fee amount, calculation, and payment requirements. By submitting a proposal Vendor further confirms that all TIPS Pricing includes the TIPS Administration Fee and Vendor will not show adding the TIPS Administration Fee as a charge or line-item in any TIPS Sale.

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#### **TIPS Member Access to Vendor Proposal & Documentation**

**This is a requirement of the TIPS Contract and is non-negotiable.**

Notwithstanding any other information provided in this solicitation or Vendor designation of certain documentation as confidential or proprietary, Vendor's submission of this proposal constitutes Vendor's express consent to the disclosure of Vendor's comprehensive proposal, including any information deemed confidential or proprietary, **to TIPS Members**. The proposing Vendor agrees that TIPS shall not be responsible or liable for any use or distribution of information or documentation to TIPS Members or by TIPS Members. By submitting this proposal, Vendor certifies the foregoing.

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#### **Non-Collusive Bidding Certificate**

**This is a requirement of the TIPS Contract and is non-negotiable.**

By submission of this proposal, the Vendor certifies that:

- 1) This proposal has been independently arrived at without collusion with any other entity, bidder, or with any competitor;
- 2) This proposal has not been knowingly disclosed and will not be knowingly disclosed, prior to the opening of bids, or proposals for this project, to any other bidder, competitor or potential competitor;
- 3) No attempt has been or will be made to induce any other person, partnership or corporation to modify, submit, or not to submit a bid or proposal; and
- 4) The person signing this bid or proposal certifies that they are duly authorized to execute this proposal/contract on behalf of Vendor and they have fully informed themselves regarding the accuracy of the statements contained in this certification, and under the penalties being applicable to the bidder as well as to the person signing in its behalf;

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#### **Antitrust Certification Statements (Tex. Government Code § 2155.005)**

**This is a requirement of the TIPS Contract and is non-negotiable.**

By submission of this bid or proposal, Vendor certifies under penalty of perjury of the laws of the State of Texas that:

- (1) I am duly authorized to execute this proposal/contract on my own behalf or on behalf of the company, corporation, firm, partnership or individual (Vendor) identified herein;
- (2) In connection with this proposal, neither I nor any representative of Vendor has violated any provision of the Texas Free Enterprise and Antitrust Act, Tex. Bus. & Comm. Code Chapter 15;
- (3) In connection with this proposal, neither I nor any representative of the Vendor has violated any federal antitrust law;
- (4) Neither I nor any representative of Vendor has directly or indirectly communicated any of the contents of this bid to a competitor of the Company or any other company, corporation, firm, partnership or individual engaged in the same line of business as the Company.

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#### **Limitation on Out-of-State Litigation - Texas Business and Commerce Code § 272**

**This is a requirement of the TIPS Contract and is non-negotiable.**

Texas Business and Commerce Code § 272 prohibits a construction contract, or an agreement collateral to or affecting the construction contract, from containing a provision making the contract or agreement, or any conflict arising under the contract or agreement, subject to another state's law, litigation in the courts of another state, or arbitration in another state. If included in Texas construction contracts, such provisions are voidable by a party obligated by the contract or agreement to perform the work.

By submission of this proposal, Vendor acknowledges this law and ***if Vendor enters into a construction contract with a Texas TIPS Member*** under this procurement, Vendor certifies compliance.



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7**Required Confidentiality Claim Form****This is a requirement of the TIPS Contract and is non-negotiable.**

TIPS provides the required TIPS Confidentiality Claim Form in the "Attachments" section of this solicitation. Vendor must execute this form by either signing and waiving any confidentiality claim, or designating portions of Vendor's proposal confidential. If Vendor considers any portion of Vendor's proposal to be confidential and not subject to public disclosure pursuant to Chapter 552 Texas Gov't Code or other law(s) and orders, Vendor must have identified the claimed confidential materials through proper execution of the Confidentiality Claim Form.

If TIPS receives a public information act or similar request, any responsive documentation not deemed confidential by you in this manner will be automatically released. For Vendor documents deemed confidential by you in this manner, TIPS will follow procedures of controlling statute(s) regarding any claim of confidentiality and shall not be liable for any release of information required by law, including Attorney General determination and opinion.

Notwithstanding any other Vendor designation of Vendor's proposal as confidential or proprietary, Vendor's submission of this proposal constitutes Vendor's agreement that proper execution of the required TIPS Confidentiality Claim Form is the only way to assert any portion of Vendor's proposal as confidential.

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8**Non-Discrimination Statement and Certification****This is a requirement of the TIPS Contract and is non-negotiable.**

In accordance with Federal civil rights law, all U.S. Departments, including but not limited to the USDA, USDE, FEMA, are prohibited from discriminating based on race, color, national origin, religion, sex, gender identity (including gender expression), sexual orientation, disability, age, marital status, family/parental status, income derived from a public assistance program, political beliefs, or reprisal or retaliation for prior civil rights activity, in any program or activity conducted or funded by federal funds (not all bases apply to all programs).

Vendor certifies that Vendor will comply with applicable Non-Discrimination and Equal Opportunity provisions set forth in TIPS Member Customers' policies and other regulations at the local, state, and federal levels of governments.

☒ Yes, I certify4  
9**Limitation of Vendor Indemnification and Similar Clauses****This is a requirement of the TIPS Contract and is non-negotiable.**

TIPS, a department of Region 8 Education Service Center, a political subdivision, and local government entity of the State of Texas, is prohibited from indemnifying third-parties (pursuant to the Article 3, Section 52 of the Texas Constitution) except as otherwise specifically provided for by law or as ordered by a court of competent jurisdiction. Article 3, Section 52 of the Texas Constitution states that "no debt shall be created by or on behalf of the State ... " and the Texas Attorney General has opined that a contractually imposed obligation of indemnity creates a "debt" in the constitutional sense. Tex. Att'y Gen. Op. No. MW-475 (1982). Thus, contract clauses which require TIPS to indemnify Vendor, pay liquidated damages, pay attorney's fees, waive Vendor's liability, or waive any applicable statute of limitations must be deleted or qualified with "to the extent permitted by the Constitution and Laws of the State of Texas."

Does Vendor agree?

☒ Yes, I Agree

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**Alternative Dispute Resolution Limitations****This is a requirement of the TIPS Contract and is non-negotiable.**

TIPS, a department of Region 8 Education Service Center, a political subdivision, and local government entity of the State of Texas, does not agree to binding arbitration as a remedy to dispute and no such provision shall be permitted in this Agreement with TIPS. Vendor agrees that any claim arising out of or related to this Agreement, except those specifically and expressly waived or negotiated within this Agreement, may be subject to non-binding mediation at the request of either party to be conducted by a mutually agreed upon mediator as prerequisite to the filing of any lawsuit arising out of or related to this Agreement. Mediation shall be held in either Camp or Titus County, Texas. Agreements reached in mediation will be subject to the approval by the Region 8 ESC's Board of Directors, authorized signature of the Parties if approved by the Board of Directors, and, once approved by the Board of Directors and properly signed, shall thereafter be enforceable as provided by the laws of the State of Texas.

Does Vendor agree?

51

**No Waiver of TIPS Immunity****This is a requirement of the TIPS Contract and is non-negotiable.**

Vendor agrees that nothing in this Agreement shall be construed as a waiver of sovereign or government immunity; nor constitute or be construed as a waiver of any of the privileges, rights, defenses, remedies, or immunities available to Region 8 Education Service Center or its TIPS Department. The failure to enforce, or any delay in the enforcement, of any privileges, rights, defenses, remedies, or immunities available to Region 8 Education Service Center or its TIPS Department under this Agreement or under applicable law shall not constitute a waiver of such privileges, rights, defenses, remedies, or immunities or be considered as a basis for estoppel.

Does Vendor agree?

☒ Yes, Vendor agrees

52

**Payment Terms and Funding Out Clause****This is a requirement of the TIPS Contract and is non-negotiable.**

Vendor agrees that TIPS and TIPS Members shall not be liable for interest or late-payment fees on past-due balances at a rate higher than permitted by the laws or regulations of the jurisdiction of the TIPS Member.

Funding-Out Clause: Vendor agrees to abide by the applicable laws and regulations, including but not limited to Texas Local Government Code § 271.903, or any other statutory or regulatory limitation of the jurisdiction of any TIPS Member, which requires that contracts approved by TIPS or a TIPS Member are subject to the budgeting and appropriation of currently available funds by the entity or its governing body.

Does Vendor agree?

☒ Yes, Vendor agrees

53

**Certification Regarding Prohibition of Certain Terrorist Organizations (Tex. Gov. Code 2270)**

Vendor certifies that Vendor is not a company identified on the Texas Comptroller's list of companies known to have contracts with, or provide supplies or services to, a foreign organization designated as a Foreign Terrorist Organization by the U.S. Secretary of State.

Does Vendor certify?

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4**Certification Regarding Prohibition of Boycotting Israel (Tex. Gov. Code 2271)**

If (a) Vendor is not a sole proprietorship; (b) Vendor has ten (10) or more full-time employees; and (c) this Agreement or any agreement with a TIPS Member under this procurement has value of \$100,000 or more, the following certification shall apply; otherwise, this certification is not required. Vendor certifies, where applicable, that neither the Vendor, nor any affiliate, subsidiary, or parent company of Vendor, if any, boycotts Israel, and Vendor agrees that Vendor and Vendor Companies will not boycott Israel during the term of this Agreement. For purposes of this Agreement, the term "boycott" shall mean and include refusing to deal with, terminating business activities with, or otherwise taking any action that is intended to penalize, inflict economic harm on, or limit commercial relations with Israel, or with a person or entity doing business in Israel or in an Israeli-controlled territory but does not include an action made for ordinary business purposes.

When applicable, does Vendor certify?

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5**Certification Regarding Prohibition of Contracts with Certain Foreign-Owned Companies (Tex. Gov. Code 2274)**

Certain public entities are prohibited from entering into a contract or other agreement relating to critical infrastructure that would grant Vendor direct or remote access to or control of critical infrastructure in this state, excluding access specifically allowed by a customer for product warranty and support purposes.

Vendor certifies that neither it nor its parent company nor any affiliate of Vendor or its parent company, is (1) owned by or the majority of stock or other ownership interest of the company is held or controlled by individuals who are citizens of China, Iran, North Korea, Russia, or a designated country; (2) a company or other entity, including governmental entity, that is owned or controlled by citizens of or is directly controlled by the government of China, Iran, North Korea, Russia, or a designated country; or (3) headquartered in China, Iran, North Korea, Russia, or a designated country.

For purposes of this certification, "critical infrastructure" means "a communication infrastructure system, cybersecurity system, electric grid, hazardous waste treatment system, or water treatment facility." Vendor certifies that Vendor will not grant direct or remote access to or control of critical infrastructure, except for product warranty and support purposes, to prohibited individuals, companies, or entities, including governmental entities, owned, controlled, or headquartered in China, Iran, North Korea, Russia, or a designated country, as determined by the Governor.

When applicable, does Vendor certify?

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6**Certification Regarding Prohibition of Discrimination Against Firearm and Ammunition Industries (Tex. Gov. Code 2274)**

If (a) Vendor is not a sole proprietorship; (b) Vendor has at least ten (10) full-time employees; and (c) this Agreement or any Supplemental Agreement with certain public entities have a value of at least \$100,000 that is paid wholly or partly from public funds; (d) the Agreement is not excepted under Tex. Gov. Code 2274 and (e) the purchasing public entity has determined that Vendor is not a sole-source provider or the purchasing public entity has not received any bids from a company that is able to provide this written verification, the following certification shall apply; otherwise, this certification is not required.

Vendor certifies that Vendor, or association, corporation, partnership, joint venture, limited partnership, limited liability partnership, or limited liability company, including a wholly owned subsidiary, majority-owned subsidiary parent company, or affiliate of these entities or associations, that exists to make a profit, does not have a practice, policy, guidance, or directive that discriminates against a firearm entity or firearm trade association and will not discriminate during the term of this contract against a firearm entity or firearm trade association.

For purposes of this Agreement, "discriminate against a firearm entity or firearm trade association" shall mean, with respect to the entity or association, to: "(1) refuse to engage in the trade of any goods or services with the entity or association based solely on its status as a firearm entity or firearm trade association; (2) refrain from continuing an existing business relationship with the entity or association based solely on its status as a firearm entity or firearm trade association; or (3) terminate an existing business relationship with the entity or association based solely on its status as a firearm entity or firearm trade association."

"Discrimination against a firearm entity or firearm trade association" does not include: "(1) the established policies of a merchant, retail seller, or platform that restrict or prohibit the listing or selling of ammunition, firearms, or firearm accessories; and (2) a company's refusal to engage in the trade of any goods or services, decision to refrain from continuing an existing business relationship, or decision to terminate an existing business relationship to comply with federal, state, or local law, policy, or regulations or a directive by a regulatory agency, or for any traditional business reason that is specific to the customer or potential customer and not based solely on an entity's or association's status as a firearm entity or firearm trade association."

When applicable, does Vendor certify?

Yes, Vendor certifies

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7**Certification Regarding Termination of Contract for Non-Compliance (Tex. Gov. Code 552.374)**

If Vendor is not a governmental body and (a) this Agreement or any Supplemental Agreement with a public entity has a stated expenditure of at least \$1 million in public funds for the purchase of goods or services by certain public entities; or (b) this Agreement or any Supplemental Agreement results in the expenditure of at least \$1 million in public funds for the purchase of goods or services by certain public entities in their fiscal year, the following certification shall apply; otherwise, this certification is not required.

As required by Tex. Gov. Code 552.374, the following statement is included in the RFP and the Agreement (unless the Agreement is (1) related to the purchase or underwriting of a public security; (2) is or may be used as collateral on a loan; or (3) proceeds from which are used to pay debt service of a public security of loan): "The requirements of Subchapter J, Chapter 552, Government Code, may apply to this solicitation and Agreement and the Vendor agrees that this Agreement and any applicable Supplemental Agreement can be terminated if Vendor knowingly or intentionally fails to comply with a requirement of that subchapter."

Pursuant to Chapter 552 of the Texas Government Code, Vendor certifies that Vendor shall: (1) preserve all contracting information related to this Agreement as provided by the records retention requirements applicable to TIPS or the purchasing TIPS Member for the duration of the Agreement; (2) promptly provide to TIPS or the purchasing TIPS Member any contracting information related to the Agreement that is in the custody or possession of Vendor on request of TIPS or the purchasing TIPS Member; and (3) on completion of the Agreement, either (a) provide at no cost to TIPS or the purchasing TIPS Member all contracting information related to the Agreement that is in the custody or possession of Vendor, or (b) preserve the contracting information related to the Agreement as provided by the records retention requirements applicable to TIPS or the purchasing TIPS Member.

When applicable, does Vendor certify?

Yes, Vendor certifies

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**Certification Regarding Prohibition of Boycotting Certain Energy Companies (Tex. Gov. Code 2274)**

If (a) Vendor is not a sole proprietorship; (b) Vendor has ten (10) or more full-time employees; and (c) this Agreement or any Supplemental Agreement with certain public entities has a value of \$100,000 or more that is to be paid wholly or partly from public funds, the following certification shall apply; otherwise, this certification is not required.

Vendor certifies that Vendor, or any wholly owned subsidiary, majority-owned subsidiary, parent company, or affiliate of these entities or business associations, if any, do not boycott energy companies and will not boycott energy companies during the term of the Agreement or any applicable Supplemental Agreement.

For purposes of this certification the term "company" shall mean an organization, association, corporation, partnership, joint venture, limited partnership, limited liability partnership, or limited liability company, that exists to make a profit.

The term "boycott energy company" shall mean "without an ordinary business purpose, refusing to deal with, terminating business activities with, or otherwise taking any action intended to penalize, inflict economic harm on, or limit commercial relations with a company because the company (a) engages in the exploration, production, utilization, transportation, sale, or manufacturing of fossil fuel-based energy and does not commit or pledge to meet environmental standards beyond applicable federal and state law, or (b) does business with a company described by paragraph (a)." (See Tex. Gov. Code 809.001).

When applicable, does Vendor certify?

Yes, Vendor certifies

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**Felony Conviction Notice - Texas Education Code 44.034**

Texas Education Code, Section 44.034, Notification of Criminal History, Subsection (a), states, "a person or business entity that enters into a contract with a school district must give advance notice to the district if the person or an owner or operator of the business entity has been convicted of a felony. The notice must include a general description of the conduct resulting in the conviction of a felony."

Subsection (b) states, "a school district may terminate a contract with a person or business entity if the district determines that the person or business entity failed to give notice as required by Subsection (a) or misrepresented the conduct resulting in the conviction. The district must compensate the person or business entity for services performed before the termination of the contract."

Subsection (c) states, "This section does not apply to a publicly held corporation."

Vendor certifies one of the following:

- A. My firm is a publicly held corporation; therefore, this reporting requirement is not applicable, or;
- B. My firm is not owned nor operated by anyone who has been convicted of a felony, or;
- C. My firm is owned or operated by the following individual(s) who has/have been convicted of a felony.

If Vendor responds with Option (C), Vendor is required to provide information in the next attribute.

B. My firm is not owned nor operated by felon.



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**Felony Conviction Notice - Texas Education Code 44.034 - Continued**

If Vendor selected Option (C) in the previous attribute, Vendor must provide the following information herein:

1. Name of Felon(s)
2. The Felon(s) title/role in Vendor's entity, and
3. Details of Felon(s) Conviction(s).

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**Conflict of Interest Questionnaire Requirement**

Vendor agrees that it has looked up, read, and understood the current version of Texas Local Government Code Chapter 176 which generally requires disclosures of conflicts of interests by Vendor hereunder if Vendor:

(1) has an employment or other business relationship with a local government officer of our local governmental entity, or a family member of the officer, described by Section 176.003(a)(2)(A);

(2) has given a local government officer of our local governmental entity, or a family member of the officer, one or more gifts with the aggregate value specified by Section 176.003(a)(2)(B), excluding any gift described by Section 176.003(a-1); or

(3) has a family relationship with a local government officer of our local governmental entity.

(4) Any other financial, commercial, or familial relationship with our local government that may warrant reporting under this statute.

Does Vendor certify that it has NO reportable conflict of interest?

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**Conflict of Interest Questionnaire Requirement - Form CIQ - Continued**

If you responded "No, Vendor does not certify - VENDOR HAS CONFLICT" to the Conflict of Interest Questionnaire question above, you are required by law to fully execute and upload the form attachment entitled "Conflict of Interest Questionnaire - Form CIQ." If you accurately claimed no conflict above, you may disregard the form attachment entitled "Conflict of Interest Questionnaire - Form CIQ."

Have you uploaded this form if applicable?

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**Upload of Current W-9 Required**

Vendors are required by TIPS to upload a current, accurate W-9 Internal Revenue Service (IRS) Tax Form for your entity. This form will be utilized by TIPS to properly identify your entity.

You must confirm that you are responding to this solicitation under your legal entity name. Go now to your Supplier Profile in this eBid System and confirm that your profile reflects your "Legal Name" as it is listed on your W9.

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**Regulatory Good Standing Certification**

Does Vendor certify that its entity is in good standing will all government entities and agencies, whether local, state, or federal, that regulate any aspect of Vendor's field of work or business operations?

If Vendor selects "No", Vendor must provide explanation on the following attribute question.

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### Regulatory Good Standing Certification - Explanation - Continued

If Vendor responded to the prior attribute that "No", Vendor is not in good standing, Vendor must provide an explanation of that lack of good standing here for TIPS consideration.

No response

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### Instructions Only - Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion

#### Instructions for Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion

1. By answering yes to the next Attribute question below, the vendor and prospective lower tier participant is providing the certification set out herein in accordance with these instructions.

2. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification in addition to other remedies available to the federal government, the department or agency with which this transaction originated may pursue available remedies, including suspension and / or debarment.

3. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

4. The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," "participants," "person," "primary covered transaction," "principal," "proposal" and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations.

5. The prospective lower tier participant agrees by submitting this form that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.

6. The prospective lower tier participant further agrees by submitting this form that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction" without modification in all lower tier covered transactions and in all solicitations for lower tier covered transactions.

7. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that it is not debarred, suspended, ineligible or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the Nonprocurement List.

8. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

9. Except for transactions authorized under paragraph 5 of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible or voluntarily excluded from participation in this transaction, in addition to other remedies available to the federal government, the department or agency with which this transaction originated may pursue available remedies, including suspension and / or debarment.

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7**Suspension or Debarment Certification**

Read the instructions in the attribute above and then answer the following accurately.

Vendor certifies that neither it nor its principals are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

Does Vendor certify?

Yes, Vendor certifies

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8**Vendor Certification of Criminal History - Texas Education Code Chapter 22**

Texas Education Code Chapter 22 requires entities that contract with school districts to provide services to obtain criminal history record information regarding covered employees. Contractors must certify to the district that they have complied. Covered employees with disqualifying criminal histories are prohibited from serving at a school district pursuant to this law.

**DEFINITIONS**

**Covered employees:** Employees of a contractor or subcontractor who have or will have continuing duties related to the service to be performed at the District and have or will have direct contact with students. The District will be the final arbiter of what constitutes direct contact with students.

**Disqualifying criminal history:** Any conviction or other criminal history information designated by the District, or one of the following offenses, if at the time of the offense, the victim was under 18 or enrolled in a public school: (a) a felony offense under Title 5, Texas Penal Code; (b) an offense for which a defendant is required to register as a sex offender under Chapter 62, Texas Code of Criminal Procedure; or (c) an equivalent offense under federal law or the laws of another state.

**Vendor certifies:**

**NONE (Section A):** None of the employees of Vendor and any subcontractors are covered employees, as defined above. If this box is checked, I further certify that Contractor has taken precautions or imposed conditions to ensure that the employees of Vendor and any subcontractor will not become covered employees. Contractor will maintain these precautions or conditions throughout the time the contracted services are provided under this procurement.

**OR**

**SOME (Section B):** Some or all of the employees of Vendor and any subcontractor are covered employees. If this box is checked, I further certify that: (1) Vendor has obtained all required criminal history record information regarding its covered employees. None of the covered employees has a disqualifying criminal history; (2) If Vendor receives information that a covered employee subsequently has a reported criminal history, Vendor will immediately remove the covered employee from contract duties and notify the purchasing entity in writing within 3 business days; (3) Upon request, Vendor will provide the purchasing entity with the name and any other requested information of covered employees so that the purchasing entity may obtain criminal history record information on the covered employees; (4) If the purchasing entity objects to the assignment of a covered employee on the basis of the covered employee's criminal history record information, Vendor agrees to discontinue using that covered employee to provide services at the purchasing entity.

Which option does Vendor certify?

Yes, I certify - NONE (Section A)

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### **Certification Regarding "Choice of Law" Terms with TIPS Members**

Vendor agrees that if any "Choice of Law" provision is included in any sales agreement/contract between Vendor and a TIPS Member, that clause must provide that the "Choice of Law" applicable to the sales agreement/contract between Vendor and TIPS Member shall be the state where the TIPS Member operates unless the TIPS Member expressly agrees otherwise. Any TIPS Sale Supplemental Agreement containing a "Choice of Law" clause that conflicts with these terms is rendered void and unenforceable.

If Vendor disagrees, after this solicitation legally closes and TIPS begins evaluating Vendor's file, TIPS will provide Vendor with a draft Word Document version of the Vendor Agreement and will be instructed to include all requested negotiations as redline edits for TIPS consideration.

Does Vendor agree?

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### **Certification Regarding "Venue" Terms with TIPS Members**

Vendor agrees that if any "Venue" provision is included in any sales agreement/contract between Vendor and a TIPS Member, that clause must provide that the "Venue" for any litigation or alternative dispute resolution is shall be in the state and county where the TIPS Member operates unless the TIPS Member expressly agrees otherwise. Any TIPS Sale Supplemental Agreement containing a "Venue" clause that conflicts with these terms is rendered void and unenforceable.

If Vendor disagrees, after this solicitation legally closes and TIPS begins evaluating Vendor's file, TIPS will provide Vendor with a draft Word Document version of the Vendor Agreement and will be instructed to include all requested negotiations as redline edits for TIPS consideration.

Does Vendor agree?

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### **Certification Regarding "Automatic Renewal" Terms with TIPS Members**

Vendor agrees that no TIPS Sale may incorporate an "Automatic Renewal" clause that exceeds month to month terms with which the TIPS Member must comply. All renewal terms incorporated into a TIPS Sale Supplemental Agreement shall only be valid and enforceable when Vendor received written confirmation of acceptance of the renewal term from the TIPS Member for the specific renewal term. The purpose of this clause is to avoid a TIPS Member inadvertently renewing a Supplemental Agreement during a period in which the governing body of the TIPS Member has not properly appropriated and budgeted the funds to satisfy the Agreement renewal. Any TIPS Sale Supplemental Agreement containing an "Automatic Renewal" clause that conflicts with these terms is rendered void and unenforceable.

If Vendor disagrees, after this solicitation legally closes and TIPS begins evaluating Vendor's file, TIPS will provide Vendor with a draft Word Document version of the Vendor Agreement and will be instructed to include all requested negotiations as redline edits for TIPS consideration.

Does Vendor agree?

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2**Certification Regarding "Indemnity" Terms with TIPS Members**

Texas and other jurisdictions restrict the ability of governmental entities to indemnify others. Vendor agrees that if any "Indemnity" provision which requires the TIPS Member to indemnify Vendor is included in any sales agreement/contract between Vendor and a TIPS Member, that clause must either be stricken or qualified by including that such indemnity is only permitted, "to the extent permitted by the laws and constitution of [TIPS Member's State]" unless the TIPS Member expressly agrees otherwise. Any TIPS Sale Supplemental Agreement containing an "Indemnity" clause that conflicts with these terms is rendered void and unenforceable.

If Vendor disagrees, after this solicitation legally closes and TIPS begins evaluating Vendor's file, TIPS will provide Vendor with a draft Word Document version of the Vendor Agreement and will be instructed to include all requested negotiations as redline edits for TIPS consideration.

Does Vendor agree?

7  
3**Certification Regarding "Arbitration" Terms with TIPS Members**

Vendor agrees that if any "Arbitration" provision is included in any TIPS Sale agreement/contract between Vendor and a TIPS Member, that clause may **not** require that the arbitration is mandatory or binding. Vendor agrees that if any "Arbitration" provision is included in any TIPS Sale agreement/contract between Vendor and a TIPS Member, that clause provides for only voluntary and non-binding arbitration unless the TIPS Member expressly agrees otherwise. Any TIPS Sale Supplemental Agreement containing a "Arbitration" clause that conflicts with these terms is rendered void and unenforceable.

If Vendor disagrees, after this solicitation legally closes and TIPS begins evaluating Vendor's file, TIPS will provide Vendor with a draft Word Document version of the Vendor Agreement and will be instructed to include all requested negotiations as redline edits for TIPS consideration.

Does Vendor agree?

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4**2 CFR PART 200 AND FEDERAL CONTRACT PROVISIONS EXPLANATION**

TIPS and TIPS Members will sometimes seek to make purchases with federal funds. In accordance with 2 C.F.R. Part 200 of the Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards (sometimes referred to as "EDGAR"), Vendor's response to the following questions labeled "2 CFR Part 200 or Federal Provision" will indicate Vendor's willingness and ability to comply with certain requirements which may be applicable to TIPS purchases paid for with federal funds, if accepted by Vendor.

Your responses to the following questions labeled "2 CFR Part 200 or Federal Provision" will dictate whether TIPS can list this awarded contract as viable to be considered for a federal fund purchase. **Failure to certify all requirements labeled "2 CFR Part 200 or Federal Provision" will mean that your contract is listed as not viable for the receipt of federal funds. However, it will not prevent award.**

If you do enter into a TIPS Sale when you are accepting federal funds, the contract between you and the TIPS Member will likely require these same certifications.



7  
5**2 CFR Part 200 or Federal Provision - Vendor Willingness to Accept Federal Funds**

This certification is not required by federal law. However, TIPS Members are public entities and qualifying non-profits which often receive federal funding and grants (ESSER, CARES Act, EDGAR, etc.) ***Accepting such funds often requires additional required certifications and responsibilities for Vendor.*** The following attribute questions include these required certifications. Your response to this questions, the following certifications, and other factors will determine whether your contract award will be deemed as eligible for federal fund expenditures by TIPS Members.

If awarded, is Vendor willing to accept payment for goods and services offered under this contract paid for by a TIPS Member with federal funds?

7  
6**2 CFR Part 200 or Federal Provision - Contracts**

Contracts for more than the simplified acquisition threshold currently set at \$250,000 (2 CFR § 200.320), which is the inflation adjusted amount determined by the Civilian Agency Acquisition Council and the Defense Acquisition Regulations Council (Councils) as authorized by 41 U.S.C. 1908, must address administrative, contractual, or legal remedies in instances where contractors violate or breach contract terms, and provide for such sanctions and penalties as appropriate.

Notice: Pursuant to the above, when federal funds are expended by ESC Region 8 and TIPS Members, ESC Region 8 and TIPS Members reserve all rights and privileges under the applicable laws and regulations with respect to this procurement in the event of breach of contract by either party.

Does vendor agree?

7  
7**2 CFR Part 200 or Federal Provision - Termination**

Termination for cause and for convenience by the grantee or subgrantee including the manner by which it will be effected and the basis for settlement. (All contracts in excess of \$10,000)

Pursuant to the above, when federal funds are expended by ESC Region 8 and TIPS Members, ESC Region 8 and TIPS Members reserve the right to terminate any agreement in excess of \$10,000 resulting from this procurement process for cause after giving the vendor an appropriate opportunity and up to 30 days, to cure the causal breach of terms and conditions. ESC Region 8 and TIPS Members reserve the right to terminate any agreement in excess of \$10,000 resulting from this procurement process for convenience with 30 days notice in writing to the awarded vendor. The Vendor would be compensated for work performed and goods procured as of the termination date if for convenience of the ESC Region 8 and TIPS Members. Any award under this procurement process is not exclusive and the ESC Region 8 and TIPS reserves the right to purchase goods and services from other vendors when it is in the best interest of the ESC Region 8 and TIPS.

Does vendor agree?

**7 2 CFR Part 200 or Federal Provision - Clean Air Act**

**8**

Clean Air Act (42 U.S.C. 7401-7671q.) and the Federal Water Pollution Control Act (33 U.S.C. 1251-1387), as amended—Contracts and subgrants of amounts in excess of \$150,000 must contain a provision that requires the non-Federal award to agree to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401-7671q) and the Federal Water Pollution Control Act as amended (33 U.S.C. 1251-1387). Violations must be reported to the Federal awarding agency and the Regional Office of the Environmental Protection Agency (EPA).

Pursuant to the Clean Air Act, et al above, when federal funds are expended by ESC Region 8 and TIPS Members, ESC Region 8 and TIPS Members require that the proposer certify that during the term of an award by the ESC Region 8 and TIPS Members resulting from this procurement process the vendor agrees to comply with all of the above regulations, including all of the terms listed and referenced therein.

Does vendor agree?

Yes, Vendor agrees

**7 2 CFR Part 200 or Federal Provision - Byrd Anti-Lobbying Amendment**

**9**

Byrd Anti-Lobbying Amendment (31 U.S.C. 1352)—Contractors that apply or bid for an award exceeding \$100,000 must file the required certification. Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant or any other award covered by 31 U.S.C. 1352. Each tier must also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Such disclosures are forwarded from tier to tier up to the non-Federal award.

Pursuant to the above, when federal funds are expended by ESC Region 8 and TIPS Members, ESC Region 8 and TIPS Members require the proposer certify that during the term and during the life of any contract with ESC Region 8 and TIPS Members resulting from this procurement process the vendor certifies that it is in compliance with all applicable provisions of the Byrd Anti-Lobbying Amendment (31 U.S.C. 1352).

Does Vendor agree?

Yes, Vendor agrees

80

**2 CFR Part 200 or Federal Provision - Byrd Anti-Lobbying Amendment - Continued**

Applicable to Grants, Subgrants, Cooperative Agreements, and Contracts Exceeding \$100,000 in Federal Funds

Submission of this certification is a prerequisite for making or entering into this transaction and is imposed by the Byrd Anti-Lobbying Amendment (31 U.S.C. 1352). This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

**The undersigned certifies, to the best of his or her knowledge and belief, that:**

(1) No Federal appropriated funds have been paid or will be paid by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of congress, or an employee of a Member of Congress in connection with the awarding of a Federal contract, the making of a Federal grant, the making of a Federal loan, the entering into a cooperative agreement, and the extension, continuation, renewal, amendment, or modification of a Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of congress, or an employee of a Member of Congress in connection with this Federal grant or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "disclosure Form to Report Lobbying," in accordance with its instructions.

(3) The undersigned shall require that the language of this certification be included in the award documents for all covered subawards exceeding \$100,000 in Federal funds at all appropriate tiers and that all subrecipients shall certify and disclose accordingly.

Does Vendor certify that it has NOT lobbied as described herein?

Yes, Vendor certifies - NO Reportable Lobbying

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**2 CFR Part 200 or Federal Provision - Byrd Anti-Lobbying Amendment - Continued**

If you answered "No, Vendor does not certify - Lobbying to Report" to the above attribute question, you must download, read, execute, and upload the attachment entitled "Disclosure of Lobbying Activities - Standard Form - LLL", as instructed, to report the lobbying activities you performed or paid others to perform.

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**2 CFR Part 200 or Federal Provision - Federal Rule**

Compliance with all applicable standards, orders, or requirements issued under section 306 of the Clean Air Act (42 U.S.C. 1857(h)), section 508 of the Clean Water Act (33 U.S.C. 1368), Executive Order 11738, and Environmental Protection Agency regulations (40 CFR part 15). (Contracts, subcontracts, and subgrants of amounts in excess of \$100,000)

Pursuant to the above, when federal funds are expended by ESC Region 8 and TIPS Members, ESC Region 8 and TIPS Members requires the proposer certify that in performance of the contracts, subcontracts, and subgrants of amounts in excess of \$250,000, the vendor will be in compliance with all applicable standards, orders, or requirements issued under section 306 of the Clean Air Act (42 U.S.C. 1857(h)), section 508 of the Clean Water Act (33 U.S.C. 1368), Executive Order 11738, and Environmental Protection Agency regulations (40 CFR part 15).

Does vendor certify compliance?

Yes, Vendor certifies

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## 2 CFR Part 200 or Federal Provision - Procurement of Recovered Materials

A non-Federal entity that is a state agency or agency of a political subdivision of a state and its contractors must comply with section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act. The requirements of Section 6002 include: (1) procuring only items designated in guidelines of the Environmental Protection Agency (EPA) at 40 CFR part 247 that contain the highest percentage of recovered materials practicable, consistent with maintaining a satisfactory level of competition, where the purchase price of the item exceeds \$10,000 or the value of the quantity acquired during the preceding fiscal year exceeded \$10,000; (2) procuring solid waste management services in a manner that maximizes energy and resource recovery; and establishing an affirmative procurement program for procurement of recovered materials identified in the EPA guidelines.

Does vendor certify that it is in compliance with these provisions?

Yes, Vendor certifies

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## 2 CFR Part 200 or Federal Provision - Rights to Inventions

If the Federal award meets the definition of "funding agreement" under 37 CFR §401.2 (a) and the recipient or subrecipient wishes to enter into a contract with a small business firm or nonprofit organization regarding the substitution of parties, assignment or performance of experimental, developmental, or research work under that "funding agreement," the recipient or subrecipient must comply with the requirements of 37 CFR Part 401, "Rights to Inventions Made by Nonprofit Organizations and Small Business Firms Under Government Grants, Contracts and Cooperative Agreements," and any implementing regulations issued by the awarding agency.

Pursuant to the above, when the foregoing applies to ESC Region 8 and TIPS Members, Vendor certifies that during the term of an award resulting from this procurement process, Vendor agrees to comply with all applicable requirements as referenced in the Federal rule above.

Does vendor certify?

Yes, Vendor certifies

**2 CFR Part 200 or Federal Provision - Domestic Preferences for Procurements and Compliance with Buy America Provisions**

As appropriate and to the extent consistent with law, TIPS Member Customers, to the greatest extent practicable under a Federal award, may provide a preference for the purchase, acquisition, or use of goods, products, or materials produced in the United States (including but not limited to iron, aluminum, steel, cement, and other manufactured products). Vendor agrees that the requirements of this section will be included in all subawards including all contracts and purchase orders for work or products under this award, to the greatest extent practicable under a Federal award. For purposes of 2 CFR Part 200.322, "Produced in the United States" means, for iron and steel products, that all manufacturing processes, from the initial melting stage through the application of coatings, occurred in the United States. Moreover, for purposes of 2 CFR Part 200.322, "Manufactured products" means items and construction materials composed in whole or in part of non-ferrous metals such as aluminum, plastics and polymer-based products such as polyvinyl chloride pipe, aggregates such as concrete, glass, including optical fiber, and lumber.

Vendor certifies that it is in compliance with all applicable provisions of the Buy America Act. Purchases made in accordance with the Buy America Act must still follow the applicable procurement rules calling for free and open competition. For purposes of 2 CFR Part 200.322,

"Produced in the United States" means, for iron and steel products, that all manufacturing processes, from the initial melting stage through the application of coatings, occurred in the United States.

"Manufactured products" means items and construction materials composed in whole or in part of non-ferrous metals such as aluminum; plastics and polymer-based products such as polyvinyl chloride pipe; aggregates such as concrete; glass, including optical fiber; and lumber.

Pursuant to the above, when federal funds are expended by ESC Region 8 and TIPS Members, Vendor certifies that to the greatest extent practicable Vendor will provide a preference for the purchase, acquisition, or use of goods, products, or materials produced in the United States (including but not limited to iron, aluminum, steel, cement, and other manufactured products).

Does Vendor Certify?

Yes, Vendor certifies

**2 CFR Part 200 or Federal Provision - Ban on Foreign Telecommunications**

ESC 8 and TIPS Members are prohibited from obligating or expending Federal financial assistance, to include loan or grant funds, to: (1) procure or obtain, (2) extend or renew a contract to procure or obtain, or (3) enter into a contract (or extend or renew a contract) to procure or obtain, equipment, services, or systems that use "covered telecommunications" equipment or services as a substantial or essential component of any system, or as critical technology as part of any system. "Covered telecommunications" equipment is telecommunications equipment produced by Huawei Technologies Company or ZTE Corporation (or any subsidiary or affiliate of such entities), and physical security surveillance of critical infrastructure and other national security purposes, and video surveillance and telecommunications equipment produced by Hytera Communications Corporation, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company (or any subsidiary or affiliate of such entities) for the purpose of public safety, security of government facilities, physical security surveillance of critical infrastructure, and other national security purposes detailed in 2 CFR § 200.216.

Pursuant to the above, when federal funds are expended by ESC Region 8 and TIPS Members, Vendor certifies that Vendor will not purchase equipment, services, or systems that use "covered telecommunications", as defined by 2 CFR §200.216 equipment or services as a substantial or essential component of any system, or as critical technology as part of any system.

Does vendor certify?

Yes, Vendor certifies



**8 7 2 CFR Part 200 or Federal Provision - Contract Cost & Price**

For contracts more than the simplified acquisition threshold currently set at \$250,000, a TIPS Member may, in very rare circumstances, be required to negotiate profit as a separate element of the price pursuant to 2 C.F.R. 200.324(b). Under those circumstances, Vendor agrees to provide information and negotiate with the TIPS Member regarding profit as a separate element of the price. However, Vendor certifies that the total price charged by the Vendor shall not exceed the Vendor's TIPS pricing and pricing terms proposed.

Does Vendor certify?

Yes, Vendor certifies

**8 8 2 CFR Part 200 or Federal Provision - Equal Employment Opportunity**

Except as otherwise provided under 41 CFR Part 60, all contracts that meet the definition of "federally assisted construction contract" in 41 CFR Part 60-1.3 must include the equal opportunity clause provided under 41 CFR 60-1.4(b), in accordance with Executive Order 11246, "Equal Employment Opportunity" (30 FR 12319, 12935, 3 CFR Part, 1964-1965 Comp., p. 339), as amended by Executive Order 11375, "Amending Executive Order 11246 Relating to Equal Employment Opportunity," and implementing regulations at 41 CFR part 60, "Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor."

Pursuant to the above, when federal funds are expended by ESC Region 8 and TIPS Members on any federally assisted construction contract, the equal

opportunity clause is incorporated by reference here.

Does Vendor Certify?

Yes, Vendor certifies

**8 9 2 CFR Part 200 or Federal Provision - Davis Bacon Act Compliance**

Texas Statute requires compliance with Davis-Bacon Act, as amended (40 U.S.C. 3141-3148). When required by Federal program legislation, all prime construction contracts in excess of \$2,000 awarded by non-Federal entities must include a provision for compliance with the Davis-Bacon Act (40 U.S.C. 3141-3144, and 3146- 3148) as supplemented by Department of Labor regulations (29 CFR Part 5, "Labor Standards Provisions Applicable to Contracts Covering Federally Financed and Assisted Construction"). In accordance with the statute, contractors must be required to pay wages to laborers and mechanics at a rate not less than the prevailing wages specified in a wage determination made by the Secretary of Labor. In addition, contractors must be required to pay wages not less than once a week. The non- Federal entity must place a copy of the current prevailing wage determination issued by the Department of Labor in each solicitation. The decision to award a contract or subcontract must be conditioned upon the acceptance of the wage determination. The non-Federal entity must report all suspected or reported violations to the Federal awarding agency. The contracts must also include a provision for compliance with the Copeland "Anti-Kickback" Act (40 U.S.C. 3145), as supplemented by Department of Labor regulations (29 CFR Part 3, "Contractors and Subcontractors on Public Building or Public Work Financed in Whole or in Part by Loans or Grants from the United States"). The Act provides that each contractor or subrecipient must be prohibited from inducing, by any means, any person employed in the construction, completion, or repair of public work, to give up any part of the compensation to which he or she is otherwise entitled. The non-Federal entity must report all suspected or reported violations to the Federal awarding agency.

Pursuant to state and federal requirements, Vendor certifies that it will be in compliance with all applicable Davis-Bacon Act provisions if/when applicable.

Does Vendor certify?

Yes, Vendor certifies

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**2 CFR Part 200 or Federal Provision - Contract Work Hours and Safety Standards**

Where applicable, all contracts awarded by ESC 8 and TIPS Members in excess of \$100,000 that involve the employment of mechanics or laborers must include a provision for compliance with 40 U.S.C. 3702 and 3704, as supplemented by Department of Labor regulations (29 CFR Part 5). Under 40 U.S.C. 3702 of the Act, each contractor must be required to compute the wages of every mechanic and laborer on the basis of a standard work week of 40 hours. Work in excess of the standard work week is permissible provided that the worker is compensated at a rate of not less than one and a half times the basic rate of pay for all hours worked in excess of 40 hours in the work week. The requirements of 40 U.S.C. 3704 are applicable to construction work and provide that no laborer or mechanic must be required to work in surroundings or under working conditions which are unsanitary, hazardous or dangerous. These requirements do not apply to the purchases of supplies or materials or articles ordinarily available on the open market, or contracts for transportation or transmission of intelligence.

Pursuant to the above, when federal funds are expended by ESC Region 8 and TIPS Members, Vendor certifies that during the term of an award for all contracts resulting from this procurement process, Vendor will be in compliance with all applicable provisions of the Contract Work Hours and Safety Standards Act.

Does Vendor certify?

Yes, Vendor certifies

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**2 CFR Part 200 or Federal Provision - FEMA Fund Certification & Certification of Access to Records**

**If and when** Vendor accepts a TIPS purchase paid for in full or part with FEMA funds, Vendor certifies that:

(1) Vendor agrees to provide the TIPS Member, the FEMA Administrator, the Comptroller General of the United States, or any of their authorized representatives access to and rights to reproduce any books, documents, papers, and records of the Contractor which are directly pertinent to this contract, or any contract resulting from this procurement, for the purposes of making audits, examinations, excerpts, and transcriptions. This right also includes timely and reasonable access to Vendor's personnel for the purpose of interview and discussion relating to such documents. Vendor agrees to provide the FEMA Administrator or an authorized representatives access to construction or other work sites pertaining to the work being completed under the contract. Vendor acknowledges and agrees that no language in this contract or the contract with the TIPS Member is intended to prohibit audits or internal reviews by the FEMA Administrator or the Comptroller General of the United States.

(2) The Vendor shall not use the Department of Homeland Security's seal(s), logos, crests, or reproductions of flags or likenesses of DHS agency officials without specific FEMA pre-approval.

(3) The Vendor will comply with all applicable Federal law, regulations, executive orders, FEMA policies, procedures, and directives.

(4) The Federal Government is not a party to this contract and is not subject to any obligations or liabilities to the non-Federal entity, contractor, or any other party pertaining to any matter resulting from the contract.

(5) The Vendor acknowledges that 31 U.S.C. Chap. 38 (Administrative Remedies for False Claims and Statements) applies to the Vendor's actions pertaining to this contract.

Does Vendor certify?

Yes, Vendor certifies

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**2 CFR Part 200 or Federal Provision - Certification of Compliance with the Energy Policy and Conservation Act**

When appropriate and to the extent consistent with the law, Vendor certifies that it will comply with the Energy Policy and Conservation Act (42 U.S.C. 6321 et seq; 49 C.F.R. Part 18) and any state mandatory standards and policies relating to energy efficiency which are contained in applicable state energy conservation plans issued in compliance with the Act.

Does Vendor certify?

Yes, Vendor certifies

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3**2 CFR Part 200 or Federal Provision - Certification of Compliance with Never Contract with the Enemy**

Where applicable, all contracts awarded by ESC 8 and TIPS Members in excess of \$50,000.00, within the period of performance, and which are performed outside of the United States, including U.S. territories, are subject to the regulations implementing Never Contract with the Enemy in 2 CFR part 183. Per 2 CFR part 183, in the situation specified, ESC 8 and TIPS Members shall terminate any contract or agreement resulting from this procurement which violates the Never Contract with the Enemy regulation in 2 CFR part 183, including if Vendor is actively opposing the United States or coalition forces involved in a contingency operation in which members of the the Armed Forces are actively engaged in hostilities. Vendor certifies that it is neither an excluded entity under the System for Award Management (SAM) nor Federal Awardee Performance and Integrity Information System (FAPIS) for any contract terminated due to Never Contract with the Enemy as a Termination for Material Failure to Comply.

Does Vendor certify?

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4**2 CFR Part 200 or Federal Provision - Certification of Compliance with EPA Regulations**

For contracts resulting from this procurement, in excess of \$100,000.00 and paid for with federal funds, Vendor certifies that Vendor will comply with all applicable standards, orders, regulations, and/or requirements issued pursuant to the Clean Air Act of 1970, as amended (42 U.S.C. 1857(h)), Section 508 of the Clean Water Act, as amended (33 U.S.C. 1368), Executive Order 117389 and Environmental Protection Agency Regulation, 40 CFR Part 15.

Does Vendor certify?

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5**2 CFR Part 200 or Federal Provision - Record Retention Requirements**

For contracts resulting from this procurement, paid for by ESC 8 or TIPS Members with federal funds, Vendor certifies that Vendor will comply with the record retention requirements detailed in 2 CFR § 200.334. Vendor certifies that Vendor will retain all records as required by 2 CFR § 200.334 for a period of three years after final expenditure or financial reports, as applicable, and all other pending matters are closed.

Does Vendor certify?

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6**2 CFR Part 200 or Federal Provision - Subcontracting and Affirmative Steps for Small and Minority Businesses, Women's Business Enterprises, and Labor Surplus Area Firms.**

Do you ever anticipate the possibility of subcontracting any of your work under this award if you are successful?

If you respond "Yes", you must respond to the following attribute question accurately. If you respond "No", you may skip the following attribute question.

**2 CFR Part 200 or Federal Provision - If "Yes" Response to Above Attribute - Continued - Subcontracting and Affirmative Steps for Small and Minority Businesses, Women's Business Enterprises, and Labor Surplus Area Firms.**

**Only respond to this question if you responded "Yes" to the attribute question directly above. Skip this question if you responded "No" to the attribute question directly above.**

Does Vendor certify that it will follow the following affirmative steps? Federal Regulation 2 CFR §200.321 Contracting with small and minority businesses, women's business enterprises, and labor surplus area firms. (a) The non-Federal entity must take all necessary affirmative steps to assure that minority businesses, women's business enterprises, and labor surplus area firms are used when possible.

(b) Affirmative steps must include:

- (1) Placing qualified small and minority businesses and women's business enterprises on solicitation lists;
- (2) Assuring that small and minority businesses, and women's business enterprises are solicited whenever they are potential sources;
- (3) Dividing total requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation by small and minority businesses, and women's business enterprises;
- (4) Establishing delivery schedules, where the requirement permits, which encourage participation by small and minority businesses, and women's business enterprises;
- (5) Using the services and assistance, as appropriate, of such organizations as the Small Business Administration and the Minority Business Development Agency of the Department of Commerce ; and
- (6) Requiring the prime contractor, if subcontracts are to be let, to take the affirmative steps listed in paragraphs(1) through (5) of this section.

Does Vendor certify?

*No response*

**ACKNOWLEDGMENT & BINDING CORPORATE AUTHORITY**

By submitting this proposal, the individual(s) submitting on behalf of the Vendor certify that they are authorized by Vendor to complete and submit this proposal on behalf of Vendor and that this proposal was duly submitted on behalf of Vendor by authority of its governing body, if any, and within the scope of its corporate powers.

Vendor further certifies that it has read, examined, and understands all portions of this solicitation including but not limited to all attribute questions, attachments, solicitation documents, bid notes, and the Vendor Agreement(s). Vendor certifies that, if necessary, Vendor has consulted with counsel in understanding all portions of this solicitation.

TIPS 240101 Technology Solutions, Products, and Services	Simtronics Corporaton
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## TIPS REFERENCE FORM

All requested information must be typed and uploaded in Excel format. Do not handwrite or upload in any format other than Excel. Emails provided must be current and active. Do not include TIPS/Region 8 employees as a reference. The entities that you provide must be paying customers, not affiliates/partners/manufacturers/resellers, etc.

You must provide below at least three (3) references from three different entity customers, preferably government or non-profit entities, who have purchased goods or services from your vendor entity within the last three years.

[illegible]

## REQUIRED CONFIDENTIALITY CLAIM FORM

(VENDOR MUST COMPLETE THE FOLLOWING VENDOR INFORMATION)

Vendor Entity Name: Simtronics Corporation

Vendor Authorized Signatory Name: Thomas B Judge

Vendor Authorized Signatory Title: Managing Director

Vendor Authorized Signatory Email: tjudge@simtronics.com

Vendor Address: PO Box 38

City: Little Silver State: NJ Zip Code: 07739

Vendor agrees that it is voluntarily providing its data (including but not limited to: Vendor information, Vendor documentation, Vendor's proposal, Vendor pricing submitted or provided to TIPS, TIPS contract documents, TIPS correspondence, Vendor logos and images, Vendor's contact information, Vendor's brochures and commercial information, Vendor's financial information, Vendor's certifications, and any other Vendor information or documentation submitted to TIPS by Vendor and its agents) (Hereinafter, "Vendor Data") to TIPS. Vendor understands and agrees that TIPS is a government entity subject to public information laws including but not limited to Texas Government Code (TGC) Chapter 552. Vendor agrees that regardless of confidentiality designations herein, Vendor's submission of a proposal constitutes Vendor's consent to the disclosure and release of Vendor's Data and comprehensive proposal, including any information deemed confidential or proprietary herein, to and by TIPS Members.

Notwithstanding the foregoing permissible release to TIPS Members, if Vendor considers any portion of Vendor's proposal to be otherwise confidential and not subject to public disclosure pursuant to public information laws, including but not limited to TGC Chapter 552, Vendor must properly execute **Option 1 only** below, attach to this PDF all documents and information that Vendor deems confidential, and upload the consolidated documentation. Regardless of the Option selected below, this form must be completed and uploaded to the "Response Attachments" section of the eBid System entitled "Required Confidentiality Claim Form." Execution and submission of this form is the sole indicator of whether Vendor considers any Vendor Data confidential in the event TIPS receives a request, a Public Information Request, or subpoena. If TIPS receives a request, any responsive documentation not deemed confidential by you through proper execution of Option 1 of this form will be automatically released. For information deemed confidential by you through proper execution of Option 1 of this form, TIPS will follow procedures of controlling statute(s) regarding withholding that documentation and shall not be liable for any release of information required by law, including Attorney General opinion or court order.

(VENDOR MUST COMPLETE ONE OF THE TWO OPTIONS AND UPLOAD IN THE EBID SYSTEM)

**OPTION 1 – DESIGNATING CONFIDENTIAL MATERIALS – YES, VENDOR HAS ATTACHED CONFIDENTIAL MATERIALS**

(Confirm each bullet point and sign below)

- Vendor claims some Vendor Data confidential to the extent permitted by TGC Chapter 552 and other applicable law.
- Vendor attached to this PDF all potentially confidential Vendor Data and listed the number of attached pages below.
- Vendor's authorized signatory has signed below and shall upload this document in the proper location in the eBid System.
- Vendor agrees that TIPS shall not be liable for any release of confidential information required by law.

Number of pages attached deemed confidential: \_\_\_\_\_

Authorized Signature: \_\_\_\_\_

**OPTION 2 – WAIVER OF CONFIDENTIALITY – NO, VENDOR HAS NOT ATTACHED CONFIDENTIAL MATERIALS**

(Confirm each bullet point and sign below)

By signing for Option 2 below, Vendor expressly waives any confidentiality claim for all Vendor Data submitted in relation to this proposal and resulting contract. Vendor confirms that TIPS may freely release Vendor Data submitted in relation to this proposal or resulting contract to any requestor. Vendor agrees that TIPS shall not be responsible or liable for any use or distribution of Vendor Data by TIPS or TIPS Members.

- Vendor's authorized signatory has signed below and shall upload this document in the proper location in the eBid System.
- Vendor agrees that TIPS shall not be liable for any release of confidential information required by law.

Authorized Signature: Thomas B. Judge Digitally signed by Thomas B. Judge  
Date: 2024.01.13 13:28:26 -05'00'

## **VENDOR SUPPLEMENTAL INFORMATION**

TIPS permits Vendors to submit supplemental documentation and information (“Vendor Supplemental Information”) with their proposals to display to TIPS Member Customers their qualifications, offerings, and special terms. The following documents are for marketing and informational purposes only. They are not terms of Vendor’s TIPS Contract. If the Vendor Supplemental Information herein contains any warranties, terms, or conditions, the TIPS Member Customer may review and determine whether or not those are applicable and acceptable for any TIPS purchase before proceeding. If the Vendor Supplemental Information contains any licenses or certificates, TIPS encourages the TIPS Member Customer to ensure current accuracy at the time of a TIPS purchase.





# simtronics



OTS POWERED BY INNOVATION

# CATALOG

Information: 1-800-730-0760  
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simtronics

Combining experience and the latest technology to deliver a proven, progressive, and exciting simulator system.

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This PDF utilizes interactive elements.

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## Simtronics is a world leader in the development of innovative OTS software for the Process Industries and the Educational Institutions which support them.

Our Operator Training Simulator (OTS) and suite of dynamic, real-time process models maximizes customer value by delivering a cost-effective, intuitive, high-fidelity solution where trainees experience meaningful real-world scenarios. Backed by our proven and continuously enhanced technology, the OTS incorporates state-of-the-art features—including performance evaluation tools, sophisticated fault capabilities, and integrated equipment tutorials—that keep you ahead of the learning curve.

Since 1992, Simtronics® has developed and delivered innovative OTS for the Process Industries and the educational institutions that train Operators and Technicians. Simtronics brings extensive simulation and training experience together with the latest technology for a proven, progressive, and exciting simulator system.

### OTS solutions to fit every need

From global petrochemical companies to process technology training institutes, our clients have chosen Simtronics to provide the most cost-effective solution to their training and simulation needs.

The DSS runs in the Windows environment, either on a standalone PC or over a network. Instructors can perform central administration while trainees run the simulator at their networked PC's.

Our latest innovation—SimCirrus—is a next generation SAAS OTS solution providing anywhere, anytime access to Simtronics high fidelity process models and tools. It is NOT Windows in the cloud, but an entirely new and dynamic OTS written in JavaScript and optimized for the internet. SimCirrus is secure, isolated, scalable, and efficient—delivering faster performance. And Simtronics is responsible for setup, upgrades, and ongoing maintenance of the applications.

Choose from our extensive library of high fidelity standard process models or work with Simtronics to develop custom process models particular to your site's requirements.



**The DSS: a unique combination of sophistication and ease**  
Highly sophisticated, yet easy to use, the Simtronics Dynamic Simulator System DSS and generic Standard Process Model (SPM Series) library are unique among commercial simulators. The flexibility of the system makes it an ideal choice for all levels of training: from entry level or college degree programs all the way up to highly experienced incumbent operators. The DSS can be easily configured to match the capabilities of virtually any level of trainee.

This functionality allows the simulator to be used more broadly (and therefore deliver more value) than other simulators on the market.

The DSS is an interactive, dynamic, real-time process simulator. Easy to use, loaded with continuously upgraded features, and very affordable, the DSS can meet your needs for student education and operator training and qualification.

**A state-of-the-art, dynamic, real-time process training simulator**

The DSS is designed to run on a standalone PC or a network. The simulator's intuitive interface enables 'point and click' access to virtually every feature in the simulator.

Implementing the DSS is easy. Simtronics provides numerous faults that can be used instantaneously or on a timed basis. Simtronics also provides numerous initial conditions (training exercises) implementing these faults on a timed basis.

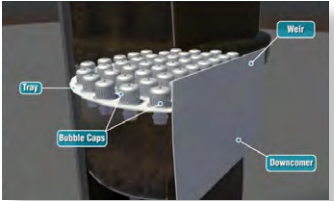
The Simtronics DSS Dynamic Simulator System can help you meet your—and the government's—operator training requirements. Out of the box, the DSS can be implemented immediately. You can start training and get results—fast.

**Integrated network support**

The DSS software can run on a single machine or a peer to peer network. The Instructor Software loads a TCP/IP Server that provides all communication for the system. The Operator/ Student Software provides all the Standard Process Models (SPM Series). All data generated by individual simulator runs are stored on the central server. Classroom Data setup, Password setup, PSU Report generation, and Operator/Student Monitoring are also available from the Instructor Software.

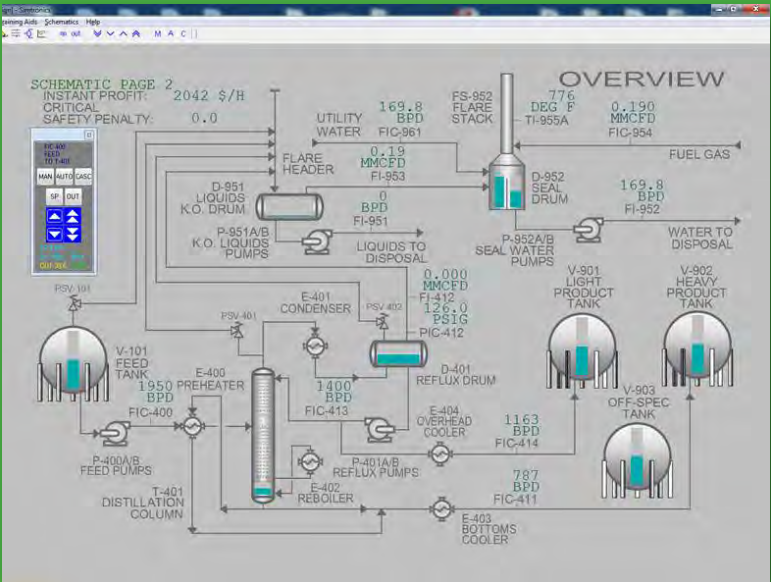
**Integrated 3D tutorials**

Integrated animations provide supplemental instruction on the principles of process and specific equipment components.



[Click for more information](#)

**Distillation Overview Schematic**



**New Version 7.1 Features**

- **All New Graphics – Traditional Black and New Gray**  
— The Simtronics DSS has a new Menu Bar item called **Themes**. From here either Black Graphics or Gray Graphics can be selected. All of the original Black Graphics have been updated with thicker process lines and improved icons.
- **New Standard Process Model (SPM Series)**  
— Simtronics has released a number of new Standard Process Models (SPM's). These include Power Generation SPM Series, Water SPM Series, Refrigeration SPM Series and additional Oil & Gas Processing SPM Series. Simtronics now has 90+ SPM's.
- **Better Screen Navigation**  
— The Simtronics DSS has a new Menu Bar item called **Schematics** to allow for an immediate view of all available schematics for selection. This makes navigation between different sections (pages) of the unit much easier.
- **Multiple Screens**  
— The Simtronics DSS has a new Menu Bar item called **Browse** that can open multiple DSS screens. These can be viewed on the main computer screen or dragged to other connected monitors. The number of monitors is only limited by MS Windows and your graphics cards.
- **New 3D Equipment Tutorials**  
— Simtronics has integrated 80+ new **3D Equipment Tutorials** into the DSS.
- **New Dynamic Training Aids are Now Available from the DSS**  
— **Hazard Sheets, Daily Log Sheets, & One Page P&ID's** are available from a new **Training Aids** Menu Bar item.

**NEW**



**Introducing SimCirrur:**  
the anywhere, any time cloud-based OTS solution

The **new** Simtronics SimCirrur application is offered as a SaaS (Software as a Service). As part of this offering, Simtronics is responsible for setup, upgrades, and ongoing maintenance of the applications. This reduces IT infrastructure, allowing you to focus on training and leaving the rest to Simtronics.

Simtronics leverages Microsoft Azure for delivering SaaS. We setup our environments to be secure, isolated, scalable, efficient and with faster performance. This service is subscription based with annual commitments.

SimCirrur is NOT Windows in the Cloud. It is an entirely new dynamic operator training simulator written in JavaScript and optimized for the internet. Simtronics continuously monitors SimCirrur performance. The software auto scales to multiple cloud servers as needed. The software is updated/upgraded every weekend.

The SimCirrur Administration module is used for tracking instructors, trainees, and simulation run data. It is used for developing exercises and performance standards. There are levels for corporate and site administrators and instructors. The Admin module can be logged on from anywhere at any time.

**Features include:**

- DCS Faceplates include:
  - Experion PKS, Experion, GUS
  - Delta V
  - Centum VP, CS-3000
  - Evo, I/A
  - Symphony Plus, 800xA
  - InTouch, PlantPAx
- Gray and Black Graphics
- New JavaScript software
- Supports Chrome, Edge, etc.
- Device agnostic, supports touchscreen

**Benefits include:**

- Zero Infrastructure
- Seamless Upgrades
- Guaranteed Levels of Service
- Backups and Data Recovery
- Secure Encrypted Data
- Available 24 / 7 / 365
- Scalable
- Annual Subscriptions
- Quick Deployment
- 100+ Standard Process Models

**Admin features include:**

- Overall Administrator
- Setup Sites & Departments
- Setup Site & Dept. Admins
- Add / Delete Trainees
- SPM's available
- Eventlog & Trend data
- Develop Exercises & Standards
- Multiple Scoring Methodologies
- Setting Default parameters
- Single Sign On (SSO)



SimCirrur SPM-700 Distillation



SimCirrur – Group



SimCirrur – Trend



SimCirrur – Admin Module

[Click for more information](#)





Description

Session Manager provides Instructors with administrative capabilities such as creating secure classroom logon ID's for Instructors and trainees, assigning users to specific classes, monitoring simulator activity, and selecting completed simulation runs for reporting by the PSU. Working seamlessly with the DSS, the Session Manager also collects all simulation run data from the network and stores it in one location, centralizing and simplifying administrative tasks. The newest release now includes Remote Session Manager, an option which allows Instructors to perform tasks even when they are not at the Session Manager computer. Choose from one of the three views to perform the desired task.

Monitor View

Monitor online simulator activity. All users currently running a simulation model are listed in this view. The information includes the computer address, the trainee's name, the granted access level of the trainee, the current process model, and the current exercise.

Also displayed is information for your IT department to help maintain network efficiencies.

Classroom Data

Create User IDs and assign passwords and access levels to the users. Then optionally assign them to a class, which can be used to easily sort through extensive lists of results. Each user is assigned an access level. Assign trainees an access level of either Operator or Technician. Assign Instructors an access level of Instructor and/or Standard.

The granted access level controls the features that are available to a user. Users with Technician access can tune instrumentation while Operators cannot. Granting Instructor access allows the user to access the Instructor Tools on the DSS, the Session Manager, and the PSU.

Reports

Use the Report view to collect and store data from the DSS simulation runs performed on the network. Like the Monitor view, the information displayed includes the trainee's name, class, process model, and exercise. It also displays the date of the simulation run.

Use these fields to select the simulation runs that you want to review. Once selected, the reports are generated by the PSU. Results are compared to a Performance Standard. Reports include the following:

PSU Reports	
Score Summary	Assigns 0-100% grades in six categories
Score Detail	Displays actual values used for scoring
Event Comparison	Compare Eventlog to Performance Standard
Trend Comparison	Plot Trending and Performance Standard
Notes	Review trainee's online logbook

Session Manager – Monitor

Address	Class	Name	Access	Process	Exercise
192.168.1.3	Afternoon	Debbie Doe	operator	spm700	1
192.168.1.4	Morning	Joe Technician	technician	spm1500	1

Session Manager – Classroom Data

Last Name	First Name	Password	Class	Access
Teacher	Joe	texes	Morning	Instructor
Operator	Joe	elaberna	Morning	operator
Technician	Joe	mississippi	Morning	technician
Smith	Sam	utah	Morning	operator
Jones	Jimmy	elberta	Morning	operator
Doe	Debbie	singapore	Afternoon	operator
Brown	Bob	dubai	Afternoon	operator

Session Manager – Reports

Process	Exercise	Class	Name	Date
spm100	2	Afternoon	Bob Brown	9/30/2004
spm100	4	Morning	Sam Smith	9/30/2004
spm100	2	Morning	Jimmy Jones	10/6/2004
spm100	4	Morning	Jimmy Jones	9/30/2004
spm100	2	Afternoon	Debbie Doe	12/27/2004
spm100	4	Afternoon	Debbie Doe	9/30/2004
spm100	4	Afternoon	Debbie Doe	9/30/2004
spm100	4	Afternoon	Debbie Doe	9/30/2004
spm1500	1	Morning	Joe Technician	12/28/2004
spm1900	2		Operator	10/29/2004
spm1900	2		Operator	10/29/2004
spm2300	1		Operator	10/29/2004
spm2400	1		Operator	10/29/2004
spm3000	3		Operator	11/11/2004

The PSU is a set of Performance Scoring Utilities designed to help an instructor evaluate operator performance and progress. The primary objective of the PSU is to provide documented training results to help meet requirements of ISO 9000, API RP-750, and in particular OSHA 1910.119. But the PSU does much more. It also teaches individual trainees how to improve their performance by creating printable side by side comparisons of their eventlogs and trends with those of an instructor created Performance Standard. This allows trainees to clearly see where they may have deviated from standard operating procedure, and the effect that action had on the process.

The PSU:

- Documents your training
- Provides reports for OSHA 1910.119 requirements
- Allows for self-paced instruction
- Delivers proven methodology for operator certification
- Stimulates competitive spirit
- Provides targets for operators
- Provides recognition for achievement of quantitative goals
- Archives all operator data
- Provides extensive data reporting for instructors

Performance Standards

The SPM Series come with pre-recorded Performance Standards for start-up, shut down, and several troubleshooting scenarios. An instructor may also choose to create their own new exercises and complementary Performance Standards. Trainee's scores are determined through an objective comparison of their performance to that of the Performance Standard.

Performance Analysis

The Simtronics PSU analyzes the collected data for a trainee and/or a group of trainees. An analysis is performed on the data as compared to the performance standard. Scores are generated for the trainee in the following categories:

- Time to Complete Training Exercise
- Adherence to Standard Operating Procedure
- Safety
- Alarms
- Deviation from Design Conditions
- Product Quality

There is a set of data for each Initial Condition in each Process Model. There may be 40 Initial Conditions for Distillation. Each Initial Condition is an exercise. For example: design conditions with feed pump failure, cold start conditions with steam failure, intermediate conditions with upstream composition changes, etc. The DSS automatically records and time-stamps every procedural move made by the trainee. This includes all trends and events, such as changing setpoints, acknowledging alarms, and tuning an instrument. The PSU then analyzes this data and assigns an objective score based on the exercise's Performance Standard. This data is extensive, but simple and measurable.

Student	Duration	Procedure	Safety	Alarms	Deviation	Quality	Average
Tim Judge	83	100	41	100	49	82	63
Steve Murtha	100	100	75	100	79	94	90
Tim Elander (test)	100	100	67	100	72	53	76
Dave Young	87	89	25	0	29	2	26
Average	93	97	52	75	57	48	

System Advantages

- Selection criteria allows you to view simulation runs based on the Standardized Process Model (SPM) run, the SPM's exercise number, date of simulation run, and/or the trainee's assigned class.
- Create your own exercises and corresponding Performance Standards. This allows you to control the standard operating procedures and the scoring criteria for your trainees.
- Five reports are available—Score Summary, Score Detail, Trend Comparison, Event Comparison, and Notes. Any of these reports can be displayed or printed.
- Report data can be copied to an external program such as a spreadsheet, Training Records Management System (TRMS), or Learning Management System (LMS) using familiar editing commands.
- Compare the scores of several trainees or an entire class using the Score Summary report. Or you can track an individual's progress as the same exercise is run several times. In one concise report, view multiple simulation runs and their scores on a 0 - 100% scale. The comparison, the graph can be resized to show more detail.





## SPM Series

Simtronics offers an extensive library of highly sophisticated, yet easy to use, dynamic Standard Process Models (SPMs). These models are designed to address the training needs for fundamental, intermediate, and advanced training requirements. The SPM Series include many basic and advanced units found in refineries, petrochemical plants, chemical plants, and many other process plants. Some models are designed to build upon each other in order to teach how basic units work together in a more complex process.

### First principle mathematical process modeling

produces a superior, high fidelity simulation solution. Our state-of-the-art modeling software is constantly creating dynamic composition profiles of all internal process phenomena. This includes liquid and vapor traffic, chemical composition and ongoing reactions, heat and mass balance, and thermodynamic equilibrium. Our software integrates the results and produces an accurate, real-time process model.

Our standard library includes models in both the English and Metric engineering units. The models are presented here in functional groups, however, you can mix and match models to meet your specific training requirements.

Simtronics continues to add to the SPM Series library with Units from the following Process Industries:

Refining	Petrochemicals	Chemicals
Upstream	Midstream	LNG & GTL
Refrigeration	Power Generation	Water & Wastewater
Pulp & Paper	Mining	Pharmaceuticals
	Green Energy	Renewable Energy



## CUSTOM PROCESS MODELS

## CPM Series

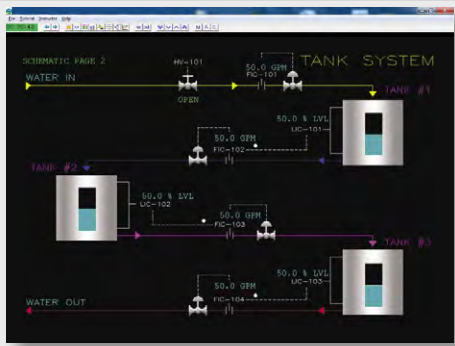
Where your specific training and engineering requirements are not fulfilled by one of Simtronics' Standard Process Models, a Custom Process Model can be developed to simulate a specific unit or process of your plant. Our simulation engineers work in conjunction with you to develop and implement a cost-effective solution that accurately models your physical plant. Typical reasons for a Custom Process Model include new plant start-ups, complex or proprietary processes, and unit specific training to satisfy operator experience, management's philosophy, or regulations like OSHA 1910.119 and ISO 9000.





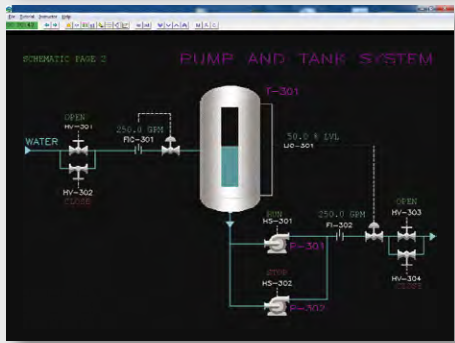
SPM-100 Tank System

The objective of the SPM-100 Tank System Process is to teach the fundamental principles of fluid flow and tank level control. Water is supplied to a system of 3 holdup tanks in series. The water enters the system by draining into the first tank from a water supply system. The water drains from the first tank into the second tank, which in turn drains into the third tank. The water is held up in each tank and then is discharged from the third tank by draining into a water sewer system.



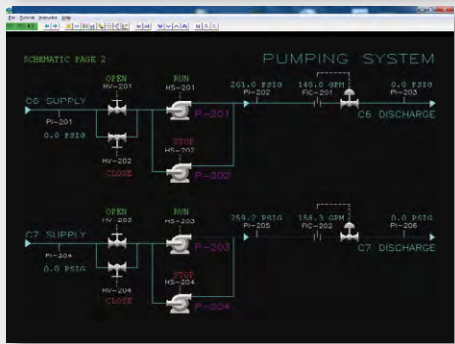
SPM-110 Pump and Tank System

The objective of the SPM-110 Pump and Tank System Process is to teach the fundamental principles of fluid flow and tank level control where water flow to the hold-up tank is controlled by a flow controller and water is pumped from the bottom of the tank by a centrifugal pump through a level control valve. A basic tank and pump system, this loop demonstrates a non-self-regulating (integrating) process with a natural tendency to move away from equilibrium in a linear fashion.



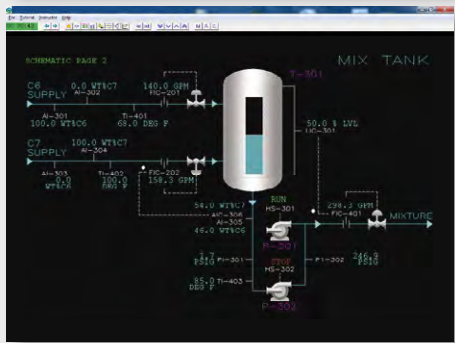
SPM-200 Pumping System

The objective of the SPM-200 Pumping System Process is to pump the two paraffins hexane (C6) and heptane (C7) to a downstream unit for further processing. The unit consists of two independent feed flow loops. The hexane feed flow loop has two supply block valves (HV-201 and HV-202) in parallel and two pumps (P-201 and P-202) in parallel. The heptane feed flow loop has two supply block valves (HV-203 and HV-204) in parallel and two pumps (P-203 and P-204) in parallel. The hexane flow loop is modulated by a flow control valve (V-201) with linear flow characteristics. The heptane flow loop is modulated by a flow control valve (V-202) with equal percentage flow characteristics. Each of the flow loops (valves and piping) have been designed to supply a maximum of approximately 500 GPM or 100 M3/HR of fluid.



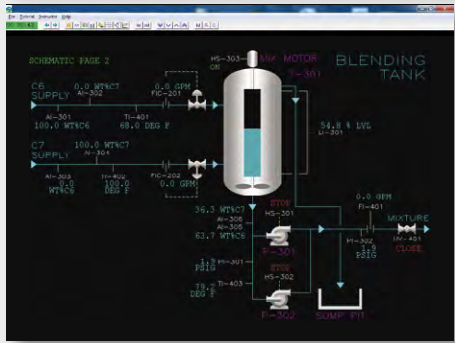
SPM-300 Mix Tank

The objective of the SPM-300 Mix Tank Process is to blend the two paraffins hexane (C6) and heptane (C7) to a specific product composition. The mixture is then pumped from the bottom of the mix tank to another unit for further processing. The unit consists of two independent feed flow loops, a mix tank (T-301), a product flow loop, a primary product pump (P-301), and a spare product pump (P-302). The hexane flow loop is modulated by a flow control valve (V-201) with linear flow characteristics. The heptane flow loop is modulated by a flow control valve (V-202) with equal percentage flow characteristics. Each of the flow loops (valves and piping) have been designed to supply a maximum of approximately 500 GPM or 100 M3/HR of fluid. Sufficient upstream pressures are provided to accomplish this task. The product flow loop is modulated by a flow control valve (V-401) with parabolic characteristics.



SPM-310 Blending Tank

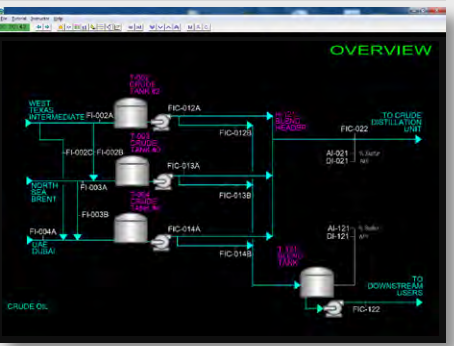
The objective of the SPM-310 Blending Tank Process is to blend the two paraffins hexane (C6) and heptane (C7) to a specific product composition. The mixture is then pumped from the bottom of the mix tank to another unit for further processing. The hexane feed flow loop is outfitted with a composition analyzer that measures weight percent hexane and heptane (AI-301 and AI-302 respectively). Feed temperature is measured by TI-401 and flow is controlled by flow controller FIC-201. The heptane feed flow loop is outfitted with a composition analyzer that measures weight percent hexane and heptane (AI-303 and AI-304 respectively). Feed temperature is measured by TI-402 and flow is controlled by flow controller FIC-202. Blending Tank level is indicated by level indicator LI-301. Product composition is measured by AI-305 (WT % C6) and AI-306 (WT % C7). Product temperature is indicated by TI-403. The Mix Motor is operated by hand switch HS-303.



SPM-320 Oil Blending System

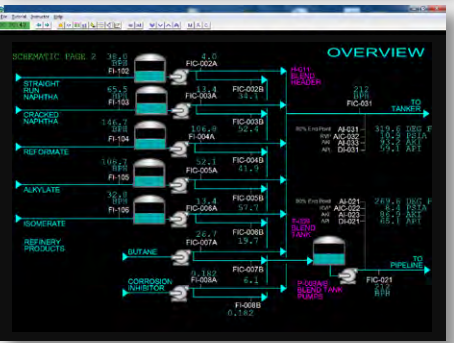
The Crude Oil Blending Unit consists of 6 storage tanks each having a pair of centrifugal pumps for feeding a crude distillation unit. The crude oil in each tank has independently adjustable compositions. The pumps discharge into a mix line which is routed to a crude distillation unit at battery limits under flow control. The following properties are indicated on the simulator for each tank and the mixed feed: gravity, temperature, pressure and sulfur content.

The control system allows both manual and automatic control of the flows from each tank. In manual control, the operator must set the flow rate from each tank to meet a desired feed specification. In automatic mode, the operator selects three tanks whose flows will be adjusted to meet the mixed feed specification (flow, gravity and sulfur). Flows from any of the other unselected tanks may be set manually in automatic mode.



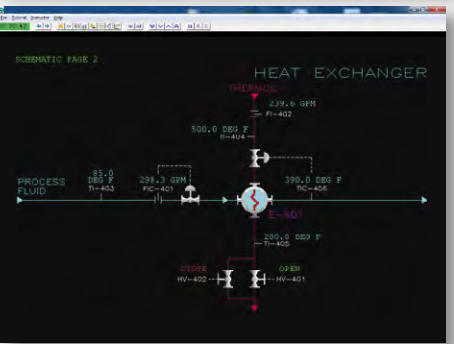
SPM-330 Product Blending System

SPM-330 simulates a blending system for refined hydrocarbon products. The blending system permits mixing of four typical raw gasoline products from their respective storage tanks with ethanol and butane to meet any of the following specifications: octane number, Reid vapor pressure and ethanol volume percent. Additional blending stocks are jet fuel, kerosene and heavy fuel oil so that a tailored middle distillate fuel can also be blended to industry standard specifications. The specifications of all the raw products are adjustable so that the simulation can be set up to match a variety of industrial conditions. A set of feedback control loops for each product specification are provided to automate the blending operation. The supply tank levels and the makeup raw product flows are dynamic to allow training of various product inventory scenarios in conjunction with blending operation. Blended product is delivered to a gasoline storage tank, a fuel oil storage tank, a tanker and a pipeline.



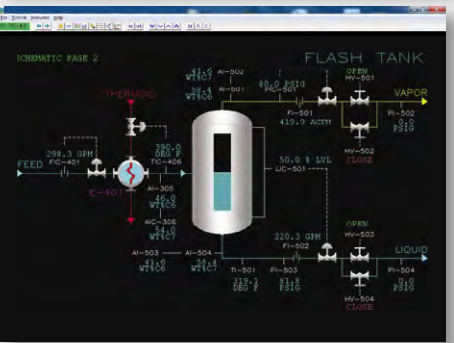
SPM-400 Heat Exchanger

The objective of the SPM-400 Heat Exchanger Process is to raise the temperature of a process fluid consisting of the two paraffins hexane (C6) and heptane (C7) in a countercurrent tube and shell type heat exchanger. The process fluid then goes on to another unit for further processing. The unit consists of a countercurrent tube and shell type heat exchanger (E-401). The process fluid passes through the heat exchanger on the shell side while the hot ThermOil passes through on the tube side. The process flow loop is modulated by a flow control valve (V-401) with parabolic flow characteristics. The ThermOil flow loop is modulated by a temperature control valve (V-406) with linear flow characteristics. The process flow loop (valves and piping) has been designed to supply a maximum of approximately 500 GPM or 100 M3/HR of fluid. The ThermOil flow loop (valves and piping) has been designed to supply a maximum of approximately 1000 GPM or 200 M3/HR of fluid. Sufficient upstream pressures are provided to accomplish this task.



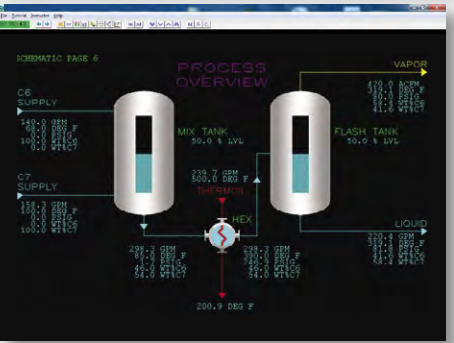
SPM-500 Flash Tank

The objective of the SPM-500 Flash Tank Process is to separate a mixture of the two paraffins hexane and heptane by virtue of the difference in their boiling point temperatures. The separated products are then sent to other units for further processing. The unit consists of a feed preheater (E-401), a flash tank (T-501), an overhead vapor line, and a bottoms liquid line. The mixture flow loop is modulated by a flow control valve (V-401) with parabolic flow characteristics. The overhead vapor line is modulated by a pressure control valve (V-501) with quick opening flow characteristics. The bottoms liquid line is modulated by a level control valve with linear flow characteristics. The unit (valves, piping, and vessel) has been designed to process a maximum of approximately 500 GPM or 100 M3/HR of feed. Sufficient upstream pressures and pre-heating capacity are provided to accomplish this task.



SPM-600 Unit Operations of Chemical Processing

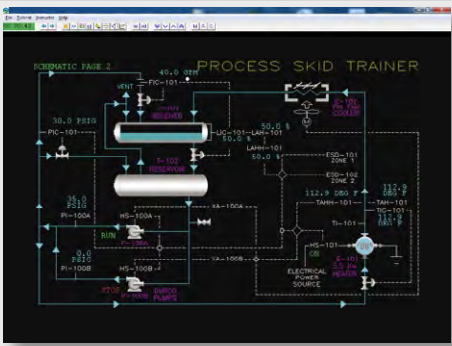
The objective of this process simulation is to blend the two paraffins C6 and C7 to a specific product composition by pumping them into a mix tank. The mixture is pumped through a countercurrent tube and shell type heat exchanger where the temperature of the process fluid is raised. The mixture is then separated into its constituent components in a flash tank by virtue of the difference in the boiling point temperatures.





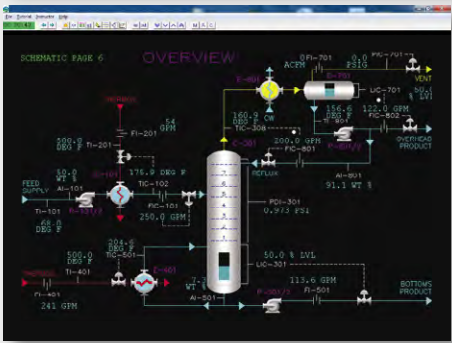
SPM-610 Total Trainer

The objective of the SPM-610 Total Trainer is to teach the fundamental principles of controls and the use of a programmable logic controller (PLC) for four types of control loops – level, pressure, flow, and temperature. In the process there are two stream flows. In the first, fluid is pumped from a reservoir tank to a receiver tank by two parallel pumps. Both tanks are vented. A level control loop controls the fluid level in the receiver. A pressure control loop located between the tanks, downstream of the pumps, controls the fluid pressure into the receiver. A second side stream is pumped from the reservoir through a fixed wattage heater and then an air-cooled heat exchanger before entering the receiver tank. The loop is closed with the return of the fluid from the receiver to the reservoir.



SPM-700 Distillation

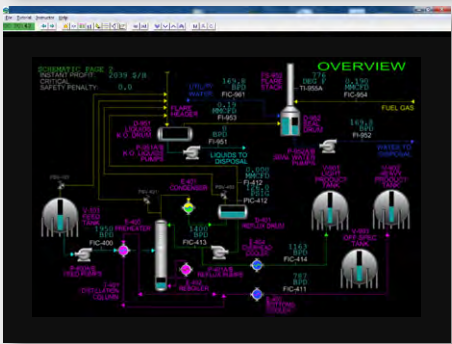
The distillation column can be configured to separate a binary mixture of any two of the paraffins C1 through C8. Any feed tray can be selected. The column feed is pumped through a preheater where its temperature is raised to the optimum temperature of the feed tray. The column is heated with a thermosyphon type reboiler. The bottoms product is pumped out of the column. The overhead vapors are condensed in an condenser and enter a reflux drum where the liquid is accumulated. The uncondensed vapors can be vented. Reflux pumps draw liquid from the reflux drum and pump part of the liquid back to the column. The balance of the liquid draw from the reflux drum is overhead product and is sent to storage.



SPM-720 Advanced Distillation

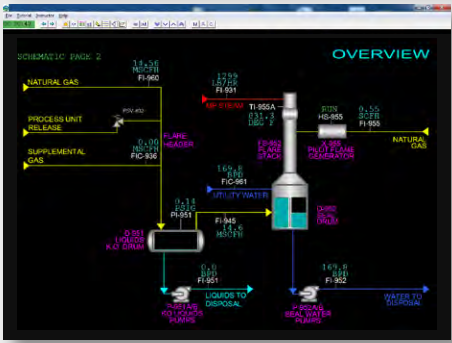
Simtronics' Advanced Distillation simulator program represents a typical industrial distillation plant consisting of a distillation column, feed storage tank, two product storage tanks, an off-spec tank and a flare system. The feed to the unit is a raw light gasoline feed produced from primary fractionation of natural gas liquids (NGL). In the petroleum industry the distillation column is commonly called a debutanizer since it removes butane and lighter compounds from the feed to produce a stabilized (less volatile) liquid product.

The feed mainly contains a range of alkane hydrocarbons: propane through hexane. The purpose of the unit is to separate the lighter components (principally butane and lighter components) from the heavier components (pentane and heavier components). All products are removed as liquids and are routed to product storage tanks. Off-Spec product can be transferred to the Off-Spec Storage Tank. A flare system is included in the model and is present in the event that a small amount of light gas is produced.



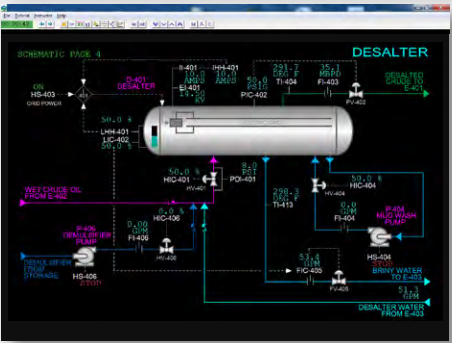
SPM-730 Advanced Flare System

Simtronics' Advanced Flare System program represents a typical Flare System with a flare header, knockout drum, knockout liquids pump system, water seal drum and a flare stack. In addition, there is a steam system which injects primary steam (normal flow conditions) or secondary steam (low flow conditions). The steam serves to promote overall flare mixing and to cool combustion gases. At low flow conditions, the steam also draws additional air into the stack via steam eductors to ensure complete combustion.



SPM-740 Desalter

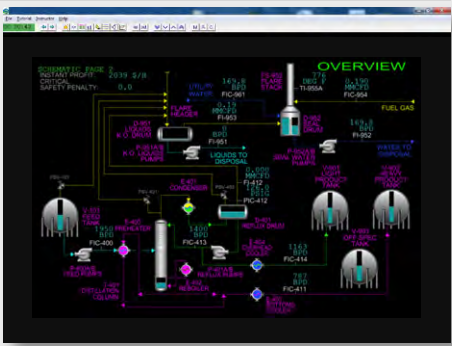
If the separated oil contains unacceptable amounts of salts, they can be removed in an electrostatic desalter. The salts, which may be sodium, calcium or magnesium chlorides come from reservoir water and are also dissolved in the oil. Desalters are used in Refineries in front of the Crude Unit and in GOSP Plants after the first or second stage separator depending on the Gas Oil Ratio (GOR) and water cut.



SPM-750 Advanced Distillation with Major Emergency Management (MEM)

Simtronics' Advanced Distillation with Major Emergency Management (MEM) is a full-scope process simulator of a complete distillation unit with tank farm, flare system and utility systems with added emergency management instrumentation and controls that permit training of response to serious problems such as fires, leaks, and security breaches. A wide variety of scenarios are pre-configured on the simulator for realistic MEM training right "out of the box." These include:

- Storage tank leaks and fires
- Pump seal failures and fires
- Pipe leaks and fires in various parts of the process including associated pipe racks
- Perimeter intrusion

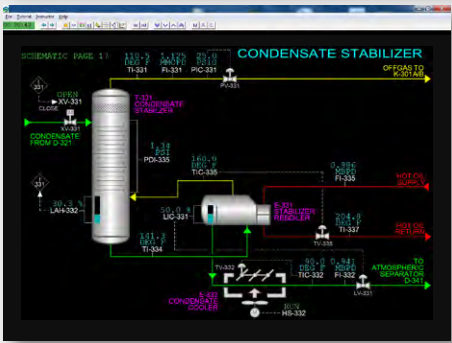


SPM-760 Condensate Stabilizer

Unstabilized condensate from the LP Condensate Recovery Separator flows through an isolation valve and to the top tray of Condensate Stabilizer. The condensate is heated as it contacts warm vapor rising. At a lower pressure and temperature, the lighter compounds in the condensate feed are vaporized and sent overhead to the Offgas Header and on Vapor Recovery Compressors.

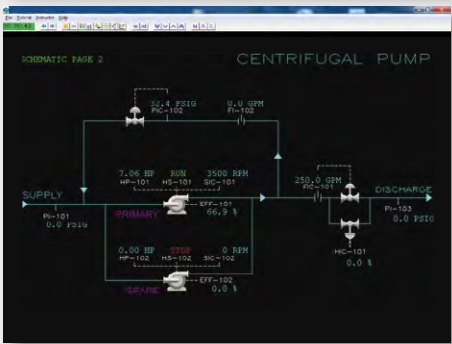
Condensate reaching the base is routed by gravity to the Stabilizer Reboiler. Vapor is returned below the bottom tray and flows upward through the 10 trays in the Condensate Stabilizer.

The Stabilizer Reboiler is a kettle-type reboiler that uses circulating hot oil to generate vapor from condensate.



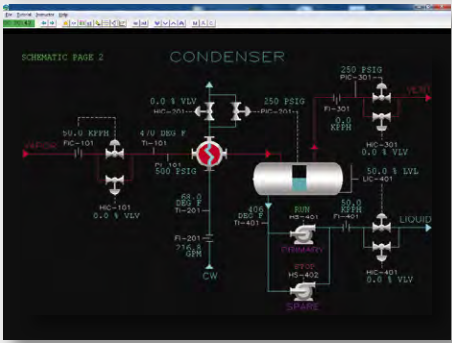
SPM-800 Centrifugal Pump

The SPM-800 Centrifugal Pump can be configured to pump any liquid by varying liquid density. Upstream and downstream pressures may also be varied. The default configuration pumps water from an atmospheric upstream pressure to an atmospheric downstream pressure. Two pumps are provided. The pumps may be operated independently or in parallel. A recirculation line is provided to maintain flow through the pumps in the event that the flow controller completely closes.



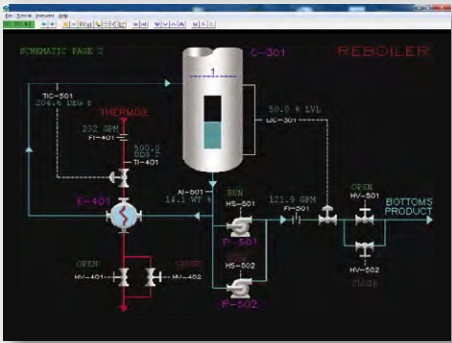
SPM-900 Condenser

The SPM-900 Condenser can be configured to condense either saturated or superheated steam at a variety of process conditions. Steam vapor enters a countercurrent tube and shell type heat exchanger on the shell side. Cooling water on the tube side is used to condense the steam. The condensate enters an accumulator, where the condensed liquid is drawn off by a pump. A vent line is provided to prevent over pressuring or for partial condenser operations.



SPM-910 Reboiler

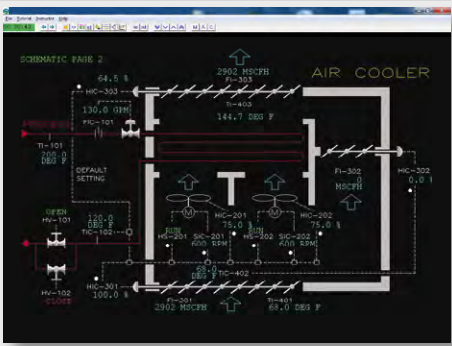
A thermosyphon type reboiler (E-401) heats the distillation column's (C-301) bottoms output to the optimum temperature and is returned to the distillation column's bottoms. The remaining bottoms product is pumped (P-501/2) out of the distillation column (C-301) to a product storage facility. The reboiler (E-401) is a thermosyphon countercurrent tube and shell type heat exchanger. The process fluid passes through the reboiler (E-401) on the shell side, while the hot ThermOil passes through the reboiler (E-401) on the tube side. The ThermOil flow rate is modulated by a temperature control valve (TCV-501) with linear flow characteristics. Block valves (BV-401 and BV-402) are provided to block in the hot ThermOil. The ThermOil flow loop is designed to provide a maximum of approximately 1,000 GPM of hot ThermOil to the reboiler (E-401).





SPM-1000 Air Cooler

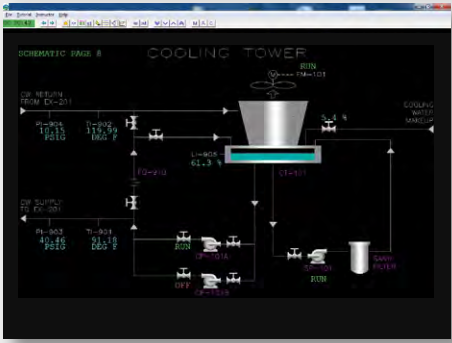
The Air Cooler represents a conventional air cooler, where the air side of the heat exchanger is completely open to the atmosphere. For handling of process fluids that congeal or freeze at temperatures above the winter ambient temperature, the air cooler has been provided with a recirculation system to maintain air temperature entering the tube bundle at a sufficiently high level to prevent congealing or freezing. For close control of process fluid outlet temperature, the air cooler has been provided with top and bottom louver position controls, auto variable pitch fan hubs, and variable speed fan motors.



SPM-1010 Cooling Tower

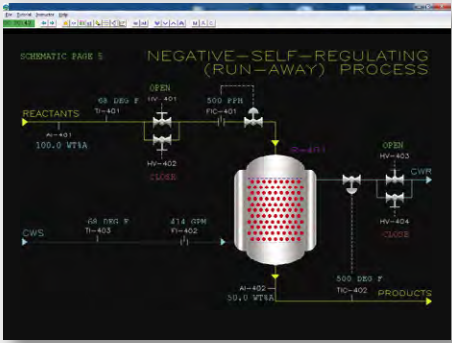
Cool circulating water is pumped from the basin of the Cooling Tower through the cooling water supply header to three process heat exchangers to provide cooling of process fluids. Warm cooling water from the heat exchangers is combined in the cooling water return header and returned to the top of the Cooling Tower. The return water flow is normally split equally to both sides of the Cooling Tower.

The warm water falls through packing on both sides within the Cooling Tower and contacts ambient air drawn into the Cooling Tower by a fan at the top of the Cooling Tower. The cooling water releases heat to the air by both evaporation and sensible heat exchange with the air as it falls to the basin. Adjustable louvers on the exterior of the Cooling Tower allow control of the air flow drawn into the Cooling Tower to prevent overcooling/icing during cold ambient operation.



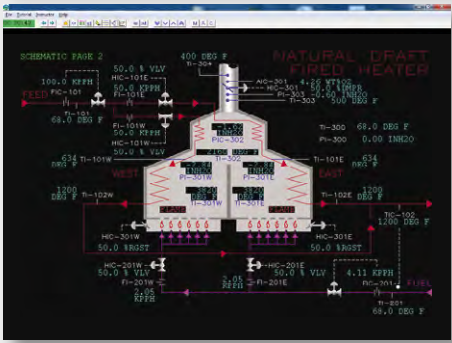
SPM-1100 Instrumentation I – Process Characteristics

The SPM-1100 Instrumentation I Process Characteristics consists of four independent process loops. Each one of these process loops exhibits one of the four basic process characteristics seen in most typical chemical processing equipment. (1) Basic Flow Process demonstrates the need for digital filtering (TD) for process response times faster than the controller sampling rate. (2) Self Regulating Process demonstrates a process with a natural tendency to move towards an equilibrium point. (3) Non Self Regulating (Integrating) Process demonstrates a process with a natural tendency to move away from equilibrium in a linear fashion. (4) Negative Self Regulating (Run Away) Process demonstrates a process with a natural tendency to move away from equilibrium exponentially.



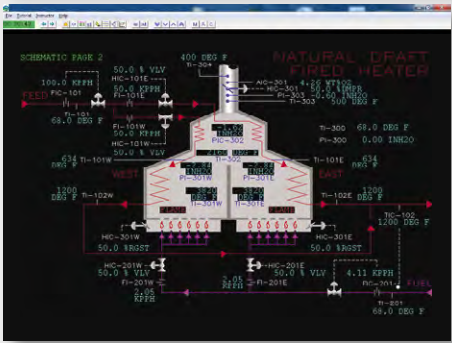
SPM-1200 Natural Draft Fired Heater

Process fluid is fed to both the east pass and the west pass of the natural draft fired heater. The process fluid is heated in the convection section first and then the radiant section before leaving the furnace. Fuel is fed to both the east and west burners at the bottom of the furnace where it is ignited and burned. Air enters the furnace through the air registers by natural draft. The combustion gases leave the furnace through the stack.



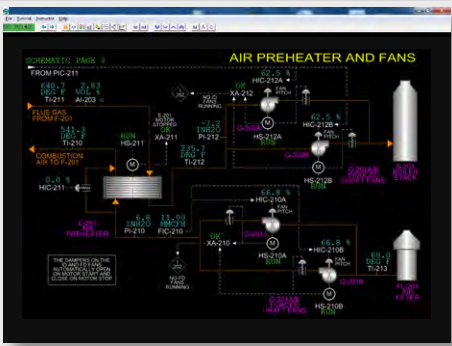
SPM-1210 Natural Draft Fired Heater w/o Interlocks

The Balanced Draft Heater is a gas-fired process heater that uses both forced draft and induced draft fans to provide air to and exhaust flue gas from the heater firebox. The heater is outfitted with a rotating element air preheater. The heater may also be run in natural draft mode at a reduced capacity in case either fan is out of service. In this mode, the air preheater is bypassed and combustion air is admitted directly from atmosphere into the combustion air plenum using natural draft. The system includes a typical firing control scheme to safely manage fuel gas and combustion air flows to meet process fluid outlet temperature requirements. The heater is also outfitted with protective interlocks to prevent unsafe operation of the unit.



SPM-1220 Advanced Fired Heater

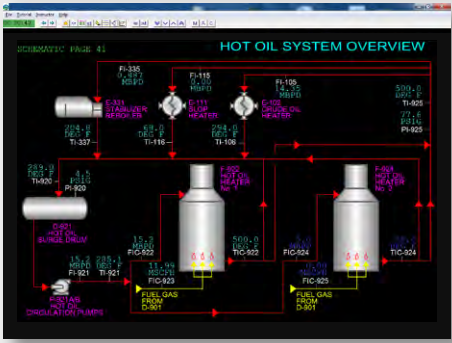
The Advanced Fired Heater is a gas-fired process heater that uses both forced draft and induced draft fans to provide air to and exhaust flue gas from the heater firebox. The heater is outfitted with a rotating element air preheater. The heater may also be run in natural draft mode at a reduced capacity in case either fan is out of service. In this mode, the air preheater is bypassed, and combustion air is admitted directly from atmosphere into the combustion air plenum using natural draft. The system includes a typical firing control scheme to safely manage fuel gas and combustion air flows to meet process fluid outlet temperature requirements. The heater is also outfitted with protective interlocks to prevent unsafe operation of the unit.



SPM-1230 Hot Oil System

Cooled oil returned from process heaters is collected in the Hot Oil Surge Drum is supplied to the Hot Oil Circulation Pumps. These pumps circulate oil through Hot Oil Fired Heaters. Heated hot oil from the Hot Oil Heaters is then supplied to a header supplying the process heaters.

Cooled oil returned from the three process heaters that use hot oil is combined with minimum flow streams from the Hot Oil Heaters. The hot oil system is a closed liquid system, and the Hot Oil Surge Drum is sized to accommodate expansion and contraction of the hot oil in the system.



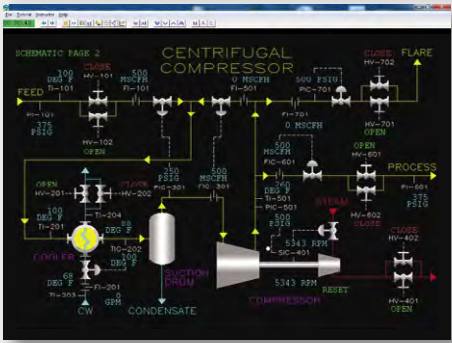
SPM-1300 Reciprocating Compressor

Process gas enters the suction of the first stage of the reciprocating compressor through a suction pressure control valve. The make up process gas is mixed with the kickback flow before passing through the inlet cooler. The process gas leaving the first stage of the compressor passes through an inter cooler before being compressed by the second stage of the compressor. The compressed process gas is then drawn off by users from the discharge of the second stage. Excess gas may either be sent back to the suction of the first stage through the discharge pressure control valve, or may be vented.



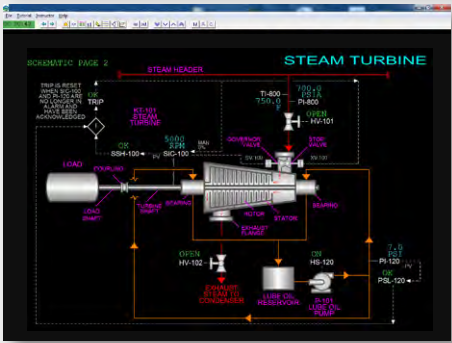
SPM-1400 Centrifugal Compressor

The Centrifugal Compressor compresses gas from a supply pressure to a pressure high enough to flow into the downstream process. A wide variety of gases are simulated by varying the molecular weight. The default configuration is for dry air. Supply gas passes through a suction valve, combines with hot recycle gas and is cooled in a heat exchanger before entering the suction drum. Any condensate present in the cooled gas will be knocked out in the suction drum before the gas enters the centrifugal compressor. The centrifugal compressor takes suction from the drum and compresses the gas into the discharge manifold for distribution to the downstream process. If the demand for compressed gas is less than the minimum recommended compressor flow (surge point), then a portion of the compressed gas will be recycled back to the suction to protect the compressor from surging. A vent/flare line is also provided to prevent over-pressuring the system. The speed of the compressor is controlled with a steam turbine.



SPM-1410 Steam Turbine

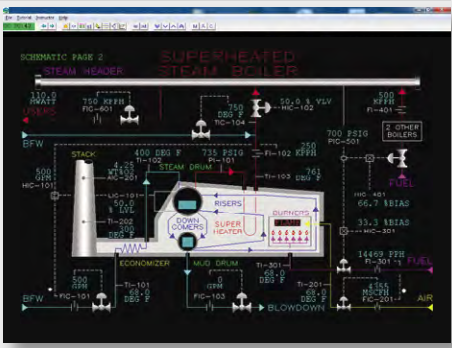
The SPM-1410 Steam Turbine represents a typical steam turbine used in a processing plant. High pressure steam flows through a block valve and into the turbine. Steam flows through nozzles and pushes against the rotor blades to drive the turbine. The exhausted steam flows through another block valve and into a steam recovery system. Steam enters the turbine at 700 psia or 48.26 BARS and 750 F or 399 C and leaves at atmospheric pressure. The load on the turbine is proportional to the turbine speed. The steam turbine can rotate in the range of 0 to 10000 RPM. The governor limits the speed to 7000 RPM.





SPM-1500 Superheated Steam Boiler

Boiler feed water is preheated in a heat exchanger called an economizer before entering the steam drum. The economizer uses hot combustion gases to preheat the boiler feed water in order to minimize the amount of heat lost to the stack. Saturated steam is generated in the risers of the boiler. Before going to the steam header, the saturated steam leaves the steam drum and passes through the superheater where it reenters the firebox of the boiler and is superheated. Two other boilers of similar design and capacity as the main boiler provide superheated steam to the steam header. Steam users then draw the superheated steam from the steam header. Fuel and air enter the firebox of the boiler where they are ignited and burned. The superheater, the downcomers, and risers are heated both by radiant and convective heat transfer. The hot combustion gases then preheat the boiler feed water in the economizer before passing out the stack. A blowdown line is provided, where water is periodically drawn off to prevent a buildup of minerals and sediment in the boiler.

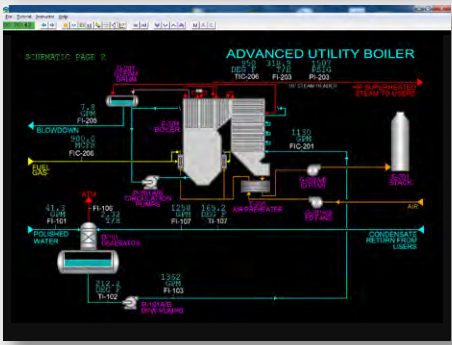


SPM-1510 Advanced Utility Boiler

Simtronics' Advanced Utility Boiler simulator represents a typical large-scale utility boiler for supplying steam to a process plant or for the generation of electric power in a thermal power plant. The boiler consists of the following sections:

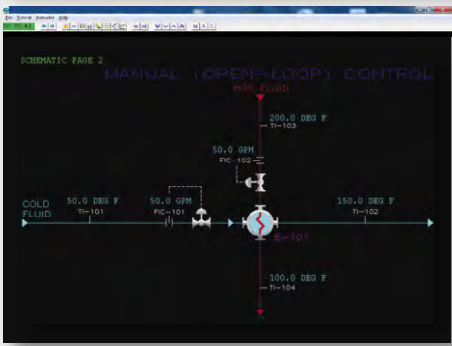
- Boiler feedwater system (deaeration and pumping)
- Fired boiler
- Steam distribution system (simplified, at 3 pressure levels)
- Condensate return system

The Boiler is a water-wall design which is typical for large-scale boilers. A water-wall boiler has many tubes containing circulating water along the walls of the radiant section of the Boiler which absorb the heat from combusted fuel gas. The water is circulated from the Steam Drum through the tubes using a centrifugal pump.



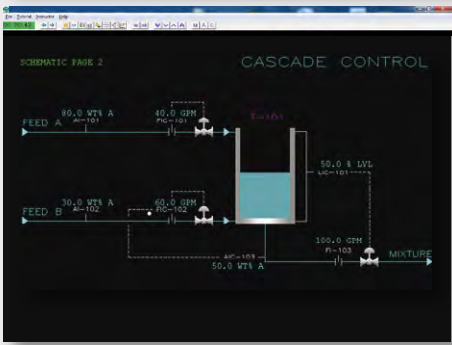
SPM-1600 Instrumentation II – Basic Control Concepts

The SPM-1600 Instrumentation II Basic Control Concepts consists of four identical but independent process loops. The four process loops include Manual (Open Loop) Control, Automatic Feedback (Closed Loop) Control, Feedforward Control, and the Feedforward Control with Feedback. Each one of these process loops is configured to demonstrate one of the four basic control concepts seen in most typical chemical processing plants. Each of the four process loops consists of a countercurrent tube and shell type heat exchanger. Cold water on the shell side is to be heated up with hot water on the tube side. The process variable to be controlled is the cold fluid outlet temperature.



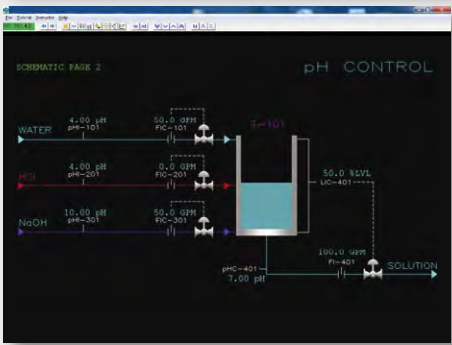
SPM-1700 Instrumentation III – Multi-Element Control

The SPM-1700 Instrumentation III Multi-Element Control consists of four independent process loops. Each one of these process loops demonstrates one of four basic multi element control strategies. The first process loop is Cascade Control, the second is Bias Control, the third is Ratio Control, and the fourth is Auctioneering (Selector) Control. Each of the four process loops consist of a mix tank where components A and B are to be mixed to a specified composition. The resulting mixture leaves the mix tank by gravity.



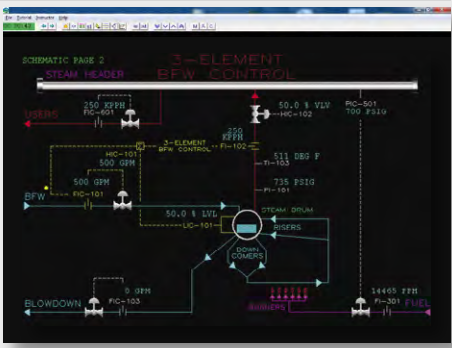
SPM-1800 Instrumentation IV – pH Control

Water enters a mix tank where it can be neutralized by either an HCl (acid) solution or an NaOH (base or caustic) solution depending on its pH. The neutralized solution leaves the bottom of the tank by gravity. The pH of the solution may be neutralized by manually adjusting the setpoints of the acid or the caustic flow controllers (FIC-201 or FIC-301). Alternatively, the solution pH controller (pHC-401) may be cascaded to either the acid or caustic flow controllers (FIC-201 or FIC-301) in a master/slave type arrangement.



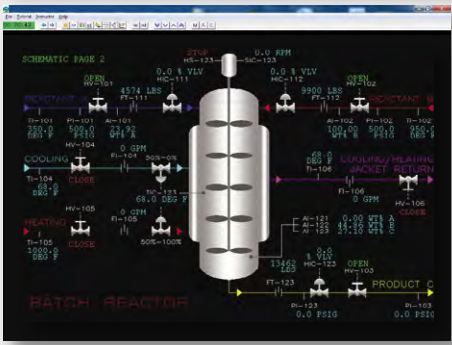
SPM-1900 Instrumentation V – 3 Element BFW Control

This control scheme is known as Three-Element Boiler Feed Water Control. With this type of control, three inputs are used to control the drum level. The three elements are drum level (LIC-101), feedwater flow (FIC-101), and steam flow (FI-102). When operating, the steam flow signal acts as a feedforward signal to the drum level controller. This permits the feedwater control valve to respond when steam flow changes without having to wait for a change in drum level.



SPM-2000 Batch Reactor

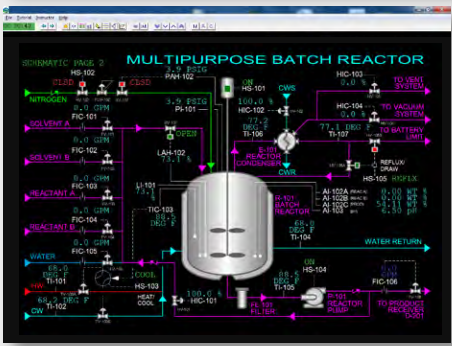
The Batch Reactor Process Simulation can be configured to react any two gases. The reaction can be exothermic or endothermic. The default configuration reacts ethylene (reactant A) with benzene (reactant B), an exothermic reaction, to produce ethylbenzene (product C), an intermediate used in the manufacture of styrene. There are no side or competing reactions simulated. Reactants A and B are fed to the Batch Reactor where they are completely mixed with an agitator. Reactant A comes from a typical refinery FCC. Consequently, there is a substantial concentration of inerts. Since the reaction is highly exothermic, the inerts serve to dilute the feed and aid in preventing a reactor run-away. Reactant B is assumed to be of the highest available industrial grade. The reactor is sized to convert all of reactant A to product. The molar ratio of reactant B to reactant A is maintained at 3.25:1.



SPM-2010 Multi-Purpose Batch Reactor

The Multi-Purpose Batch Reactor is a liquid-phase batch reactor program that simulates a continuously stirred tank reactor (CSTR) typically found in the pharmaceutical and fine chemical industries. Two (2) organic solvent feed streams and two (2) reactant feed streams to the Batch Reactor R-101 are provided. Makeup water is provided for dilution of the reactants and for cleanout of the Batch Reactor.

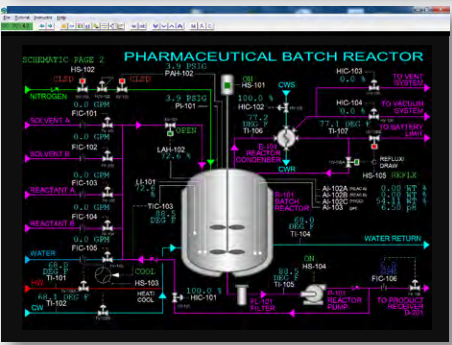
The Batch Reactor is jacketed for cooling or heating of the mixture, depending on the particular thermodynamic characteristic of the reaction (endothermic or exothermic). A motor-driven agitator and a Circulation Pump P-101 are provided to ensure consistent mixing of the reactants and solvents within the Batch Reactor, especially if the system forms two liquid phases. The Circulation Pump also serves to transfer the reactor product to the Product Receiver D-201.



SPM-2020 Pharmaceutical Batch Reactor

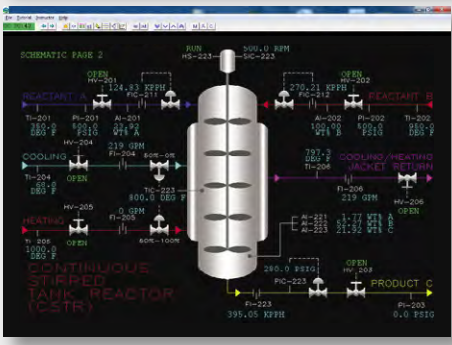
The Pharmaceutical Batch Reactor is a liquid-phase batch reactor program that simulates a continuously stirred tank reactor (CSTR) typically found in the pharmaceutical and fine chemical industries. Two (2) organic solvent feed streams and two (2) reactant feed streams to the Batch Reactor R-101 are provided. Makeup water is provided for dilution of the reactants and for cleanout of the Batch Reactor.

The Batch Reactor is jacketed for cooling or heating of the mixture, depending on the particular thermodynamic characteristic of the reaction (endothermic or exothermic). A motor-driven agitator and a Circulation Pump P-101 are provided to ensure consistent mixing of the reactants and solvents within the Batch Reactor, especially if the system forms two liquid phases. The Circulation Pump also serves to transfer the reactor product to the Product Receiver D-201.



SPM-2100 Continuous Stirred Tank Reactor (CSTR)

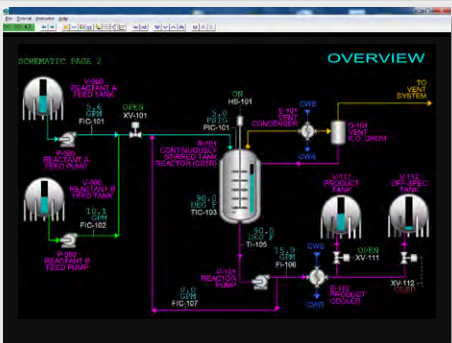
The Continuous Stirred Tank Reactor (CSTR) Process Simulation can be configured to react any two gases. The reaction can be exothermic or endothermic. The default configuration reacts ethylene (reactant A) with benzene (reactant B), an exothermic reaction, to produce ethylbenzene (product C), an intermediate chemical used in the manufacture of styrene monomer. There are no side or competing reactions simulated. Reactants are fed to the reactor where they are completely mixed with an agitator. Reactant A comes from a typical refinery FCC. Consequently, there is a substantial concentration of inerts. Since the reaction is highly exothermic, the inerts serve to dilute the feed and aid in preventing a reactor run-away. Reactant B is assumed to be of the highest available industrial grade. The reactor is sized to convert most of reactant A to product. The molar ratio of reactant B to reactant A is maintained at 3.25:1.





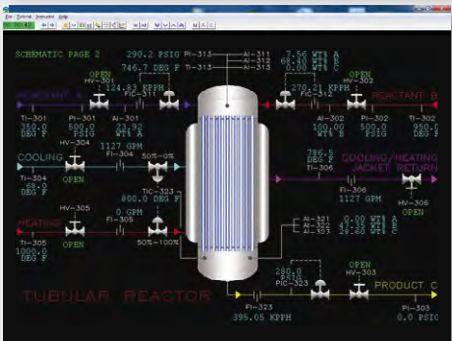
SPM-2110 CSTR with Tank Farm

Simtronics’ Continuously Stirred Tank Reactor (CSTR) with Tank Farm simulator enables detailed training of the operating principles of continuous liquid-phase reactors commonly found in the pharmaceutical, food, biochemical and fine chemicals industries. The CSTR with Tank Farm simulates the reaction between two aqueous feeds with the liberation of heat (exothermic reaction). The reactor vessel is jacketed and normally cools the reactor’s contents using cooling water. The CSTR with Tank Farm simulator can also be set up to make the reaction take in heat (endothermic reaction) if desired. In this case, the reactor’s jacket can be supplied with hot water to maintain the proper temperature inside the reactor.



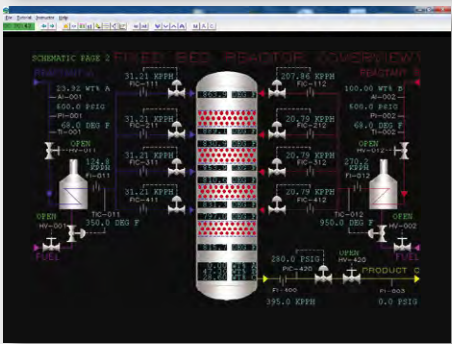
SPM-2200 Tubular Reactor

The Tubular Reactor Process Simulation can be configured to react any two gases. The reaction can be exothermic or endothermic. The default configuration catalytically reacts ethylene (reactant A) with benzene (reactant B), an exothermic reaction, to produce ethylbenzene (product C), an intermediate used in the manufacture of styrene. There are no side or competing reactions simulated. Reactants are fed to the inlet of the reactor where they are completely mixed before entering the catalyst packed tubes. Reactant A comes from a typical refinery FCC with a substantial concentration of inerts. Since the reaction is highly exothermic, the inerts serve to dilute the feed and aid in preventing a reactor run-away. Reactant B is of the highest available industrial grade. The reactor tubes are sized to convert all of reactant A to product. The inlet molar ratio of reactants B to A is maintained at 3.25:1.



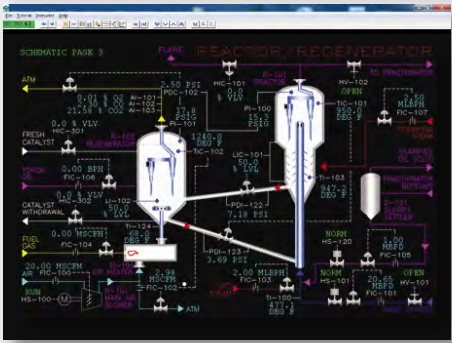
SPM-2300 Fixed Bed Reactor

The Fixed Bed Reactor can be configured to react any two gases. The reaction can be exothermic or endothermic. The default configuration catalytically reacts ethylene (reactant A) with benzene (reactant B), an exothermic reaction, to produce ethylbenzene (product C), an intermediate used in the manufacture of styrene. No side or competing reactions are simulated. Reactants A and B are fed to each of four fixed beds through fired heaters where their temperatures are raised to the optimum reaction temperature. Reactant A temperature is maintained substantially lower than reactant B to allow for inter-bed quenching. Reactant A feedstock comes from a typical refinery FCC with a substantial concentration of inerts. The inerts serve to dilute the feed and aid in preventing a reactor run-away. Reactant B is of the highest available industrial grade. The reactor beds are sized to convert all of reactant A to product.



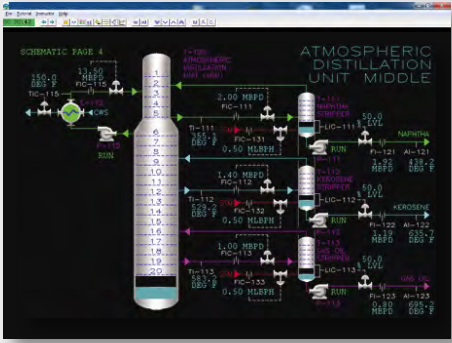
SPM-2400 Fluidized Catalytic Cracking Unit (FCCU)

The Fluidized Catalytic Cracking Unit (FCCU) includes the Feed Preheat Exchanger Train, Slurry Settler, Reactor, Riser, Stripper, Regenerator, Air Blower, Air Heater, Main Fractionator, LCO Stripper, HCO Stripper, four pumparounds, Reflux Drum, Wet Gas Compressor, and High Pressure Separator systems. Feedstock is preheated via the Feed Preheat Train, reacted in the Riser, and fed to the Main Fractionator for separation. Approximately 65 volume % of the Feedstock is converted to LPG and Wild Cat Gasoline, which is sent to a Stabilizer Unit for final gasoline production. Gasoline quality is maintained at the top of the Main Fractionator by controlling the overhead temperature and pressure. Light Ends are also taken from the overhead of the Main Fractionator and sent to a fuel gas system. Side draw products include LCO and HCO, both of which are sent on for further processing. Bottoms Slurry is produced and is sent on for further processing. A portion of the Slurry is recycled back to the Reactor.



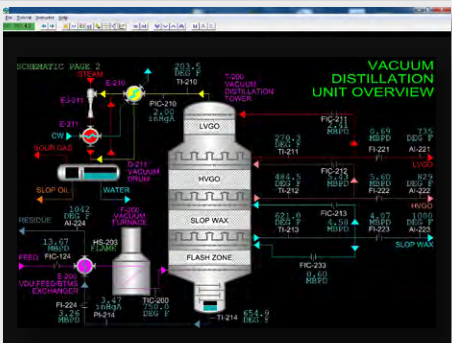
SPM-2500 Atmospheric Distillation Unit (ADU)

The ADU (Atmospheric Distillation Unit) separates most of the lighter end products such as gas, gasoline, naphtha, kerosene, and gas oil from the crude oil. The bottoms of the ADU is then sent to the VDU (Vacuum Distillation Unit). Crude oil is preheated by the bottoms feed exchanger, further preheated and partially vaporized in the feed furnace and passed into the atmospheric tower where it is separated into off gas, gasoline, naphtha, kerosene, gas oil, and bottoms.



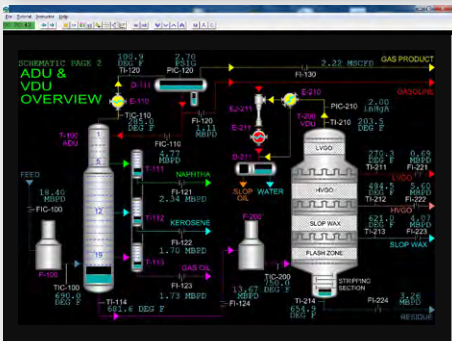
SPM-2600 Vacuum Distillation Unit (VDU)

The VDU (Vacuum Distillation Unit) takes the residuum from the ADU (Atmospheric Distillation Unit) and separates the heavier end products such as vacuum gas oil, vacuum distillate, slop wax, and residue. Heavy crude oil is preheated by the bottoms feed exchanger, further preheated and partially vaporized in the feed furnace, and passed into the vacuum tower where it is separated into slop oil, vacuum gas oil, vacuum distillate, slop wax, and bottoms residue.



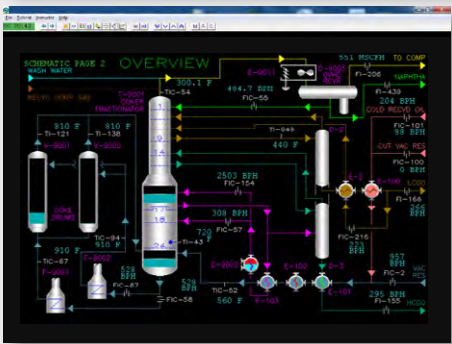
SPM-2700 Crude Distillation Units (ADU and VDU combined)

The ADU (Atmospheric Distillation Unit) separates most of the lighter end products such as gas, gasoline, naphtha, kerosene, and gas oil from the crude oil. The bottoms of the ADU is then sent to the VDU (Vacuum Distillation Unit). Crude oil is preheated by the bottoms feed exchanger, further preheated and partially vaporized in the feed furnace and passed into the atmospheric tower where it is separated into off gas, gasoline, naphtha, kerosene, gas oil, and bottoms. The VDU (Vacuum Distillation Unit) takes the residuum from the ADU (Atmospheric Distillation Unit) and separates the heavier end products such as vacuum gas oil, vacuum distillate, slop wax, and residue. Heavy crude oil is preheated by the bottoms feed exchanger, further preheated and partially vaporized in the feed furnace, and passed into the vacuum tower where it is separated into slop oil, vacuum gas oil, vacuum distillate, slop wax, and bottoms residue.



SPM-2800 Delayed Coking Unit (DCU)

The Delayed Coking Unit converts low value residual products to lighter products of higher value and to produce a coke product, whose value will depend on its properties such as sulfur, metals, etc. The conversion is accomplished by heating the feed and introducing it into a large drum to provide soaking or residence time for the reactions to take place. Fresh feed is preheated through a heat exchange system prior to entering the bottom of the coker fractionating tower. The fresh feed, mixed with recycle from the unit, is then pumped through two fired heaters to bring the mixture up to temperature. The heaters have facilities to add steam to the heater coils. The effluent from the heaters then enters the bottom of one of the coking drums where the gaseous products pass out the top and the liquid soaks in the drum until it cracks into lighter products that will exit the top of the drum or forms coke that stays in the drum and builds up from the bottom of the drum.

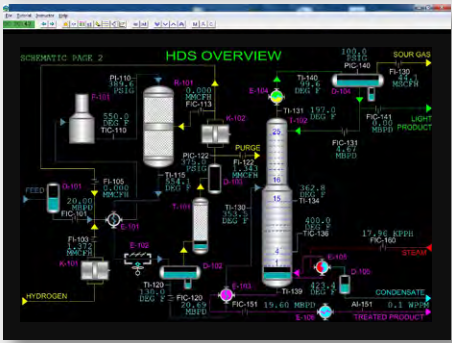


SPM-2900 Hydrodesulfurization Unit (HDS)

The following instructor features allow SPM-2900 operating conditions to be set up to reflect typical refinery HDS units if so desired:

- Adjustable hydrocarbon feed composition to represent feedstocks ranging from naphtha to heavy fuel oil
- Adjustable feed sulfur and olefin concentrations
- Adjust hydrogen content of makeup hydrogen stream
- Adjustable reactor activity
- Adjustable recycle compressor capacity
- Adjustable reboiler steam supply pressure
- Adjustable heat transfer capacity in all exchangers and the fired heater

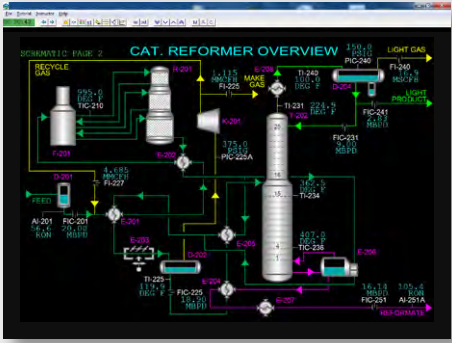
Additionally, SPM-2900 is engineered with wide instrument ranges on pressure and temperature controllers to allow operation at desired process conditions.



SPM-2910 Catalytic Reformer

The Catalytic Reformer Unit is a typical 3-bed reforming reactor found in the refining industry. Naphtha feed is reacted in a system comprised of a feed/effluent heat exchanger, gas-fired feed heater and a 3-bed reactor with interbed reheat in the feed heater. The reactor effluent is cooled and reformate liquid is separated from hydrogen-rich gas produced by the reforming reaction. The hydrogen-rich gas is recycled to the reactor feed by a compressor.

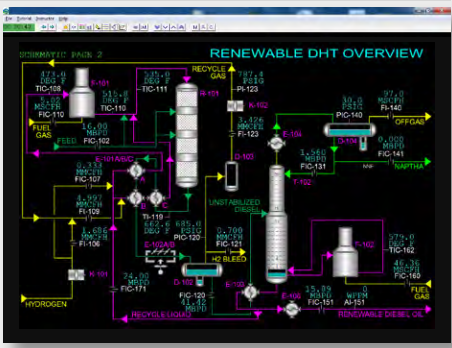
Reformate liquid from the reactor loop separator is rich in ringed-carbon compounds but has significant concentrations of lighter hydrocarbons dissolved in it. The raw reformate is sent to a debutanizer distillation column to separate out these lighter hydrocarbons from the reformate. The debutanizer is a conventional distillation process consisting of a feed/bottoms heat exchanger, distillation column, steam reboiler, condenser, reflux drum and reflux pumps.





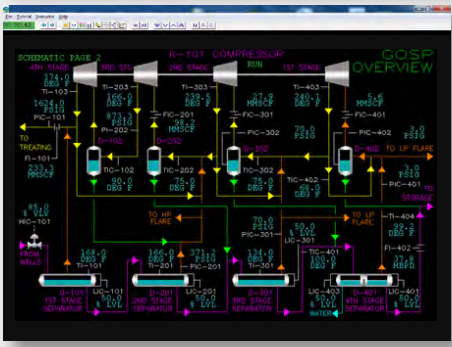
SPM-2920 Renewable Diesel Hydrotreater

Simtronics’ Renewable Diesel Hydrotreater catalytically converts a mixture of plant-derived oils to an environmentally-friendly diesel fuel suitable for use in transportation (so-called biodiesel). Plant-derived oils are of high molecular weight and contain consist of a high amount of oxygen in the oil molecules. This makes them unsuitable as a transportation fuel in diesel engines. The Renewable Diesel Hydrotreater process is similar to a conventional fuels hydrotreater found in the crude oil refining industry with a few key differences. The Renewable Diesel Hydrotreater uses higher pressures and temperatures to react feed oils with makeup and recycled hydrogen over 8 catalyst beds operating in series. The hydrotreating reactions, particularly the conversion of the oxygen in the feed oil to water, release large amounts of heat. Therefore, the feed is distributed to the first three reactor beds so as to limit the temperature rise in those beds. In the subsequent catalyst beds, cool recycle gas, rich in hydrogen, is used to quench the hot reactor outlet streams leaving the upstream beds.



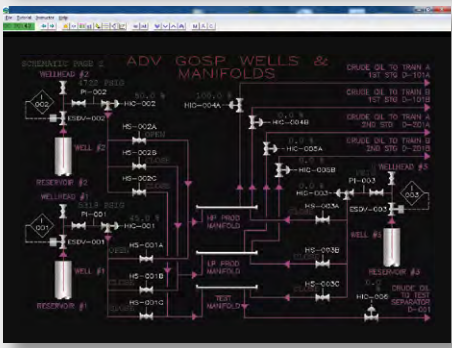
SPM-3000 Gas Oil Separation Process (GOSP)

The Gas-Oil Separation Process separates gas from crude oil in a 4-stage separation process. The oil is sent to storage, and the recovered gas is recompressed in a 4-stage centrifugal compressor, and sent to treating. Crude oil is produced from the wells in the first-stage separator. The gas leaving the first stage separator blends with the 4th stage compressor effluent, and is sent to treating. The oil leaves the first-stage separator and enters the second-stage separator. The gas leaving the second stage separator blends with the gas from the 2nd stage compressor and the liquid from the 4th stage suction knock-out drum, and is cooled and sent to a knock-out drum before it is compressed in the 3rd stage compressor. The gas from the 3rd stage compressor is cooled and sent to a knockout drum before being compressed in the 4th stage compressor.



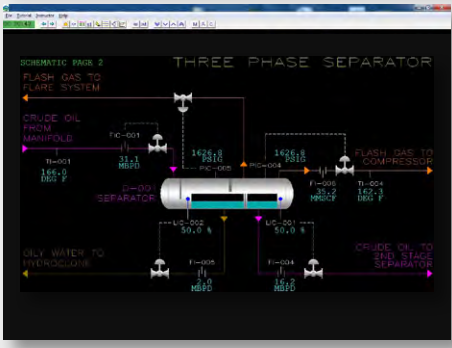
SPM-3010 Advanced GOSP

The Advanced Gas-Oil Separation Process includes three crude oil production wells, high and low pressure production manifolds, a test manifold, a test separator, and two parallel gas-oil-water separation trains. Crude oil from the wells can be routed to any of the three collection manifolds. Crude oil from the two production manifolds is routed to either of the 3-stage separation trains. Crude oil from the test manifold is routed to the test separator to determine a well’s characteristics before placing the well into production service. Each separation train consists of three 3-phase separators operating at successively lower pressures to separate the crude oil into oil, gas and water streams. Gas released from the second- and third-stage separators is compressed and combined with gas from the first-stage separator and sent to treating. Water from each separator is collected and sent to water treating for disposal.



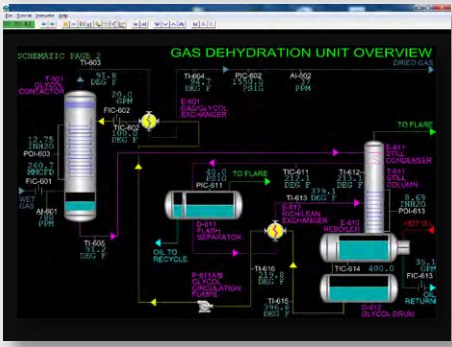
SPM-3020 Three Phase Separator

Crude oil from the Manifold is brought into one end of the Three Phase Separator, D-001 and enters the upper section of the vessel which contains a baffle to minimize the disturbances from slugs of oil and water entering with the feed. Oil, water and gas in the feed flow under this baffle into the main separation compartment of the Three Phase Separator. Gas flashes and separates into the vapor space at the top of the vessel, while immiscible water and oil separate by gravity and form two liquid layers in the separation compartment. The separation compartment is bounded by another baffle extending from the bottom of the vessel to halfway between the top and bottom of the vessel. Separated water and oil collect on the feed side of this baffle. The water/oil interface level is controlled at halfway up the separation baffle (which, therefore, is one quarter of the height of the vessel) by LIC-002 which adjusts the takeoff flow of water from the bottom of the separation compartment.



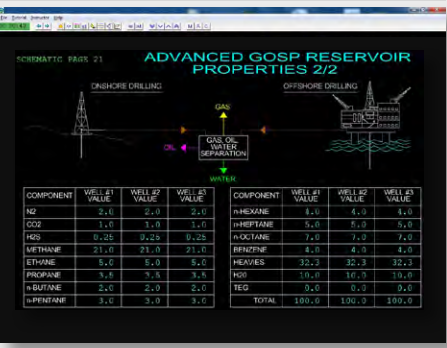
SPM-3030 Gas Dehydration

Gas saturated with water enters near the bottom of the Contactor and flows upwards through the internal trays. Lean TEG from the Regeneration Section is cooled by exchanging heat with the dry gas from the Contactor and enters the Contactor near the top and flows down through the Contactor internals, making contact with the up-flowing gas stream. The counter-current flow path of the TEG and the high contact surface area permits absorption of water in the gas stream by the TEG. Rich TEG is passed through a heat exchanger in the top of the Still Column to gain some heat before entering the Flash Drum. The Flash Drum allows separation of any adsorbed gas from the Contactor before the rich TEG is sent to the Still Column. The flashed rich TEG is then passed through a set of Filters to remove particulates and to remove any dissolved hydrocarbon and/or chemical compounds.



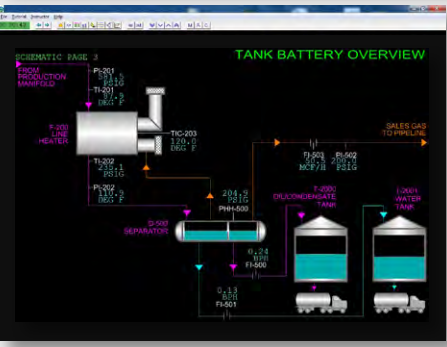
SPM-3040 Advanced GOSP with Gas Dehydration

The Advanced Gas-Oil Separation Process includes three crude oil production wells, High and Low Pressure Production Manifolds, a Test Manifold, a Test Separator, and two parallel gas-oil-water separation trains. Each separation train consists of three 3-phase separators operating at successively lower pressures to separate the crude oil into oil, gas and water streams. Gas released from the 2nd and 3rd Stage separators is compressed and combined with gas from the 1st Stage Separator and sent to treating. Water from each separator is collected and sent to water treating for disposal. Gas saturated with water enters near the bottom of the Contactor and flows upwards through the internal trays. Lean TEG from the Regeneration Section is cooled by exchanging heat with the dry gas from the Contactor and enters the Contactor near the top and flows down through the Contactor internals, making contact with the up-flowing gas stream.



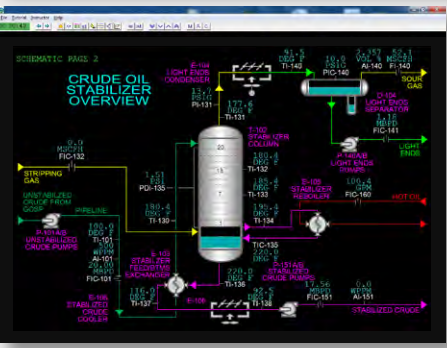
SPM-3050 Tank Battery

The Tank Battery Unit receives gas, hydrocarbon condensates, crude oil and water from three types of production wells and separates the gas, water and hydrocarbon liquids in a Three Phase Separator. Fluids produced by the three wells are combined in a production manifold and routed through the Line Heater to inhibit the formation of hydrates and ice from possible cooling resulting from the depressurization to the Three Phase Separator’s pressure. Produced gas is taken off the Separator to a gathering pipeline for treatment at a central gas processing plant. The hydrocarbon condensates/crude oil and the produced water streams from the Separator are sent to separate on-site storage tanks to await transport by motor vehicle to off-site treatment facilities.



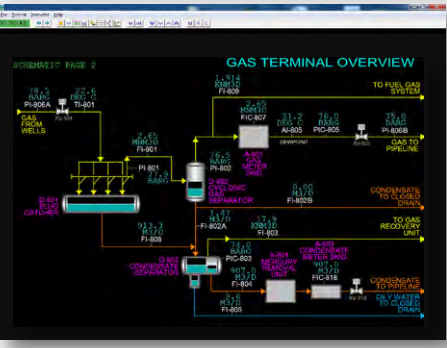
SPM-3060 Crude Oil Stabilizer

The Crude Oil Stabilizer unit removes hydrogen sulfide and light gases such as methane, ethane, and propane from raw crude oil received from a Gas Oil Separation Plant (GOSP) to produce a stabilized crude oil which is safe to store and transport at atmospheric pressure. These volatile compounds are present in the raw crude oil produced by a GOSP because the final stage of gas/oil separation in these plants occurs at pressures much higher than atmospheric pressure. As a result, a significant concentration of these volatile compounds are dissolved in the raw crude produced by the GOSP.



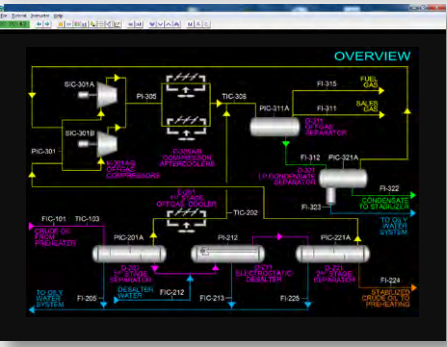
SPM-3070 Gas Terminal

High pressure gas from production fields is fed to the Gas Terminal. Associated liquids in the raw gas feed are separated in a Slug Catcher which is specially designed to handle highly variable liquid rates in the feed gas. The gas from the Slug Catcher is sent to the Gas Separator to remove any entrained liquids. Most of the raw natural gas from the Gas Separator is metered and sent to a gas pipeline at battery limits. A portion of this gas is used as fuel gas in the terminal. Liquids from the Slug Catcher and the Gas Separator are combined and depressured in the Condensate Separator which produces an off gas along with a stabilized liquid. The liquid is pumped, passed through a Mercury Removal Unit, metered and sent to a pipeline at battery limits. The off gas is sent to a gas recovery unit at battery limits.



SPM-3080 Oil Terminal

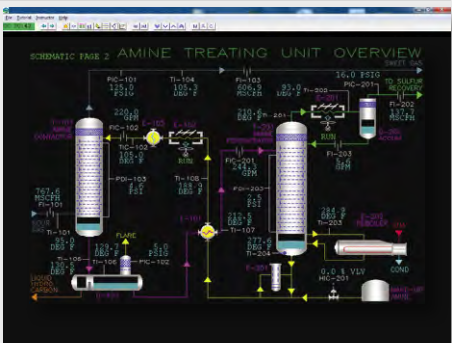
Crude oil from production fields is fed to the Oil Terminal at high pressure. The oil is preheated and stabilized by flashing of lighter components at successively lower pressures and by removal of water in a series of three separators. Stabilized oil is sent to tanks and then pumped and metered into a pipeline at battery limits. Oil in the produced water is separated in the Oily Water Treating section. Crude oil can be diverted to the Slop Tank and pumped back for stabilization at a later time. High pressure flash gas produced from the crude oil is cooled and sent to battery limits. Low pressure flash gas produced from the crude oil is compressed and cooled in the Vapor Recovery Unit and sent to battery limits. Liquid produced in the VRU is stabilized in the Condensate Recovery Unit, stored, pumped and metered before being remixed into the exported crude oil.





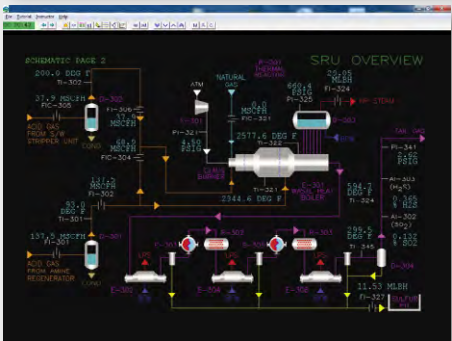
SPM-3100 Amine Treating Unit (ATU)

The Amine Treating Unit removes CO2 and H2S from sour gas and hydrocarbon streams in the Amine Contactor. The amine (MDEA) is regenerated in the Amine Regenerator, and recycled to the Amine Contactor. The sour gas stream enters the bottom of the Amine Contactor. The cooled lean amine is trim cooled and enters the top of the contactor column. The sour gas flows upward counter-current to the lean amine solution. An acid-gas-rich-amine solution leaves the bottom of the column at an elevated temperature, due to the exothermic absorption reaction. The sweet gas, after absorption of H2S by the amine solution, flows overhead from the Amine Contactor. The Rich Amine Surge Drum allows separation of hydrocarbons from the amine solution. Condensed hydrocarbons flow over a weir and are pumped to the drain.



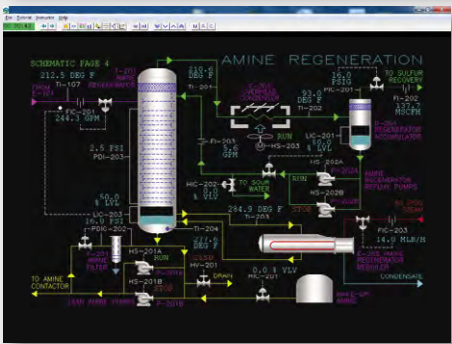
SPM-3200 Sulfur Recovery Unit (SRU)

The Sulfur Recovery Unit (SRU) converts H2S in acid gas feeds to elemental liquid sulfur using a 3-stage Claus process. Feed streams from both an Amine Regenerator and a Sour Water Stripper are combusted and reacted with process air in the Thermal Reactor where the feed H2S is converted to sulfur without the need for catalyst because of the process air's high combustion temperature. Process gas leaving the Boiler is cooled in Sulfur Condenser No. 1 by generating low pressure steam. Liquid sulfur is removed at the condenser outlet by a specially designed seal leg and sent to the Sulfur Storage Pit. Reheater No. 1 process gas is sent to Catalytic Reactor No. 1 where additional sulfur conversion occurs. Reactor outlet gas is cooled in Sulfur Condenser No. 2 and another seal leg removes liquid sulfur. Another reheater, catalytic reactor, and sulfur condenser helps achieve over 95% conversion of the feed H2S to sulfur. The tailgas is sent downstream.



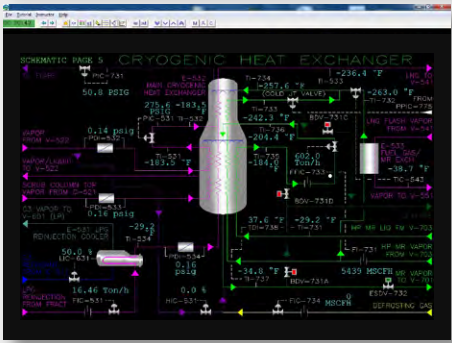
SPM-3300 Sulfur Plant (ATU and SRU combined)

The ATU removes CO2 and H2S from sour gas and hydrocarbon streams in the Amine Contactor. Amine is regenerated in the Regenerator and recycled to the Contactor. Sour gas streams enter the Contactor bottom. Cooled lean amine enters the Contactor top. An acid-gas-rich-amine solution leaves the column bottom. Sweet gas flows overhead. The Rich Amine Surge Drum allows separation of hydrocarbons from the amine solution. The SRU accepts acid gas streams from the Regenerator and a Sour Water Stripper and converts H2S to elemental liquid sulfur. A Thermal Reactor converts the feed H2S to sulfur. Heat is recovered in the Waste Heat Boiler. Exiting gas is cooled in Sulfur Condenser No.1. Liquid sulfur is removed at the condenser outlet by a seal leg. Reheater No. 1 process gas is sent to Catalytic Reactor No. 1 which converts additional sulfur. Cooled again, more liquid sulfur is removed. Another reheater, catalytic reactor, and sulfur condenser convert over 95% H2S to sulfur.



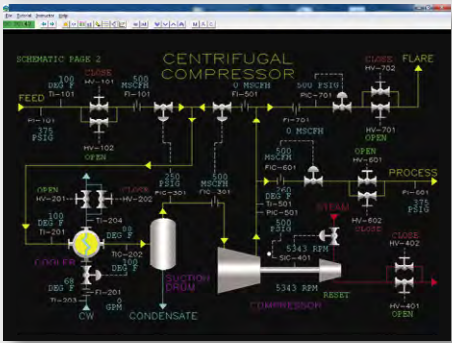
SPM-3400 LNG Plant

The LNG plant takes sweet, desulfurized feedgas and produces liquefied natural gas from it. There are 4 main processing steps: chilling and dehydration of the feedgas, separation of the heavier compounds from the feedgas, liquefaction of the feedgas, and removal of nitrogen from the liquefied product. Additionally there are two closed refrigeration systems to chill the feedgas. These systems are the mixed refrigerant system and the propane refrigeration system. The feed to the LNG plant is mostly methane with additional quantities of nitrogen, ethane, propane, butanes, pentanes, and trace amounts of heavier hydrocarbons. The feed also contains water vapor and trace amounts of methyl mercaptans, other sulfur compounds, and mercury.



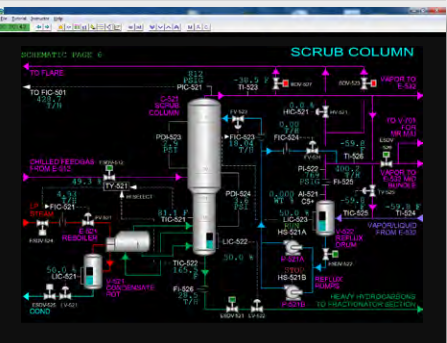
SPM-3410 LNG Regasification Plant

Liquefied natural gas (LNG) at atmospheric pressure is offloaded from an LNG Tanker via submerged pumps and sent to one of two LNG Storage Tanks. During tanker unloading any vapor that is displaced in the tanks is returned to the LNG Tanker to maintain atmospheric pressure in the tanker's storage vessels. LNG from the Storage Tanks is pumped out by the 1st Stage Sendout Pumps that are submersed in the LNG. The LNG is sent to the Recondenser to absorb any LNG vapors produced from the LNG Storage Tanks. Because LNG stored at near-atmospheric pressure is very cold, the walls of the tanks will pass heat from the atmosphere despite being well-insulated. This so-called heat leak will result in the vaporization of some of the LNG in the tanks. The vapor from an LNG Storage Tank is compressed by its Boil-Off Gas Compressor and sent to the Recondenser for contacting with LNG pumped from the Storage Tanks.



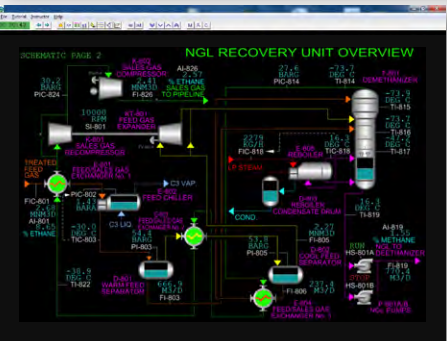
SPM-3420 Cascade LNG Plant

The feedstock is a lean raw natural gas containing about 92 vol% of methane. The levels of nitrogen and carbon dioxide are also relatively low. The generic process is a conventional cascade refrigeration process. The plant contains two equal capacity trains for gas processing, including treating to remove carbon dioxide and water. Liquid petroleum gases are separated into byproduct natural gasoline, mixed C3/C4 LPG and fuel gas in a single train unit. The fuel gas is consumed within the plant. The plant produces all its utilities. The production concept uses two 50% liquefaction trains with gas turbines. The performance of the gas turbine is a key factor in establishing the LNG production rate. Waste heat is being recovered.



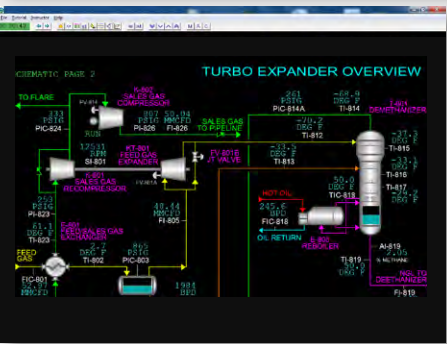
SPM-3500 NGL Recovery Unit

Treated, raw natural gas is fed to the cooling train consisting of two Feed Coolers, the Feed Chiller and the Feed Gas Expander. Heavier hydrocarbons in the feed that condense in the Feed Chiller are collected in the Low Temperature Separator and fed to the lower section of the Demethanizer. Medium weight hydrocarbons that condense in Feed Cooler No. 2 are collected in the Cold Separator and fed to the top of the Demethanizer. Vapor from the Cold Separator chills in the Expander by expansion and extraction of work to recompress the vapor from the Demethanizer in the Recompressor. The two-phase stream from the Expander is fed to the middle section of the Demethanizer. Demethanizer overhead vapor from the Recompressor is compressed to the natural gas pipeline pressure in the Gas Compressor.



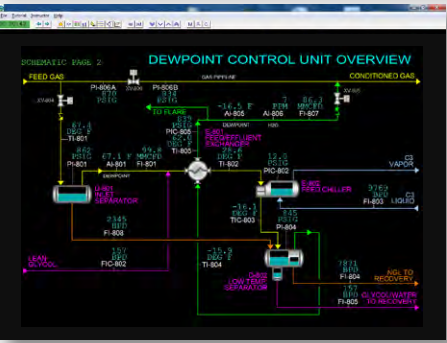
SPM-3510 Turbo-Expander

The Turbo-Expander program represents a typical gas expander found in process plants, especially where cryogenic conditions are required. The Turbo-Expander depressures feed gas by expansion of the gas across a turbine. The Turbo-Expander drives a Gas Compressor used to recompress a large part of the expanded gas after downstream processing. The depressuring and extraction of work from the feed gas stream result in a fairly large decrease in the gas temperature. Depending on the feedgas composition, this temperature decrease can cause some of the heavier components in the gas to liquefy, despite the lower outlet pressure of the Turbo-Expander. Flow through the Turbo-Expander is regulated by adjustment of the inlet guide vane. The Turbo-Expander is protected against overspeed and mechanical trouble by automatic closure of the inlet guide vane and concurrent opening of the expander bypass line.



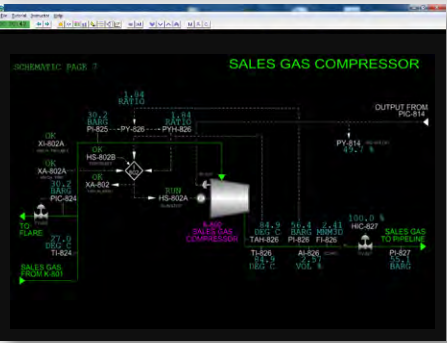
SPM-3520 Dew Point Control Unit

SPM-3530 simulates a typical dewpoint control unit found in natural gas operations. The unit consists of an inlet separator to remove any liquid slugs in the feed gas. The separator outlet gas is mixed with ethylene glycol which absorbs water from the gas. The gas/glycol mixture is then cooled in a feed-effluent heat exchanger and further chilled in a propane evaporator. Chilling causes heavier hydrocarbons to be condensed which reduces the hydrocarbon dewpoint and ensures the creation of liquid slugs in the downstream pipeline will be minimized. The glycol and condensed hydrocarbons are removed in the low temperature separator (LTS) for further processing at battery limits. The cold gas from the LTS is warmed in the feed-effluent heat exchanger and is sent to a pipeline. A packaged propane refrigeration system is included in the simulator. The feed composition, pressure and temperature and the product pipeline pressure can be adjusted to match most industrial operating conditions.



SPM-3530 Gas Compression Plant

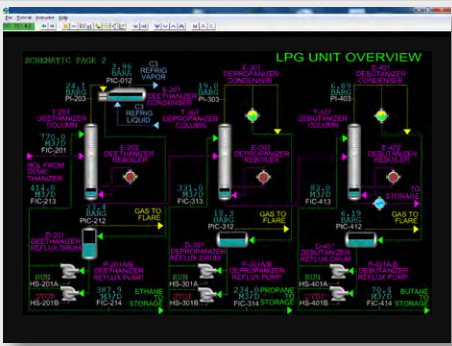
The Gas Compression Plant consists of multiple centrifugal compressors. Each centrifugal compressor will have the following characteristics. Gas passes through a suction valve before entering the suction drum. If the process gas demand is less than the minimum recommended compressor flow (surge point), then the makeup gas will mix with the kickback flow. The gas then passes through a cooler, where the temperature is lowered to prevent excessive compressor discharge temperatures. Any condensate present in the gas will be knocked out in the suction drum before the gas enters the compressor. The compressed gas is then drawn off from the discharge side of the compressor by users. In the event of a decrease in process gas demand by the users, a minimum compressor flow line (kickback or spillback) is provided to allow the recycling of gas to prevent compressor surging. A vent/flare line is also provided to prevent an over pressuring of the system.





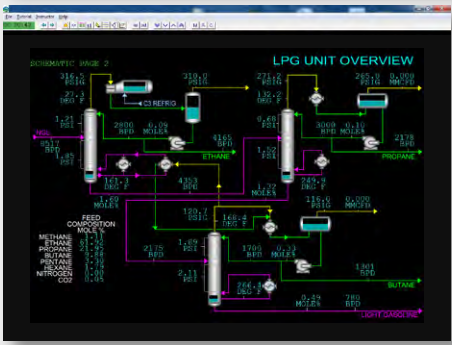
SPM-3600 LPG Unit

The LPG Unit consists of three distillation columns to separate natural gas liquid (NGL) into ethane, propane, butane and stabilized condensate liquid streams. The three lighter products are known as liquefied petroleum gases (LPG) and are valued as chemical feedstocks and fuels. The Deethanizer is a distillation column with a condenser, reboiler, reflux drum and reflux pumps. Its condenser uses propane refrigerant to completely condense ethane. Ethane product is pumped from the reflux drum to storage. The bottoms is fed to the Depropanizer. The Depropanizer and Debutanizer are similarly configured like the Deethanizer except that their condensers use cooling water to completely condense the overhead products. The Depropanizer produces propane product from the Depropanizer Reflux Drum which is pumped to storage. The bottoms from the Depropanizer is fed to the Debutanizer. The Debutanizer produces butane product from the Debutanizer Reflux Drum which is pumped to storage.



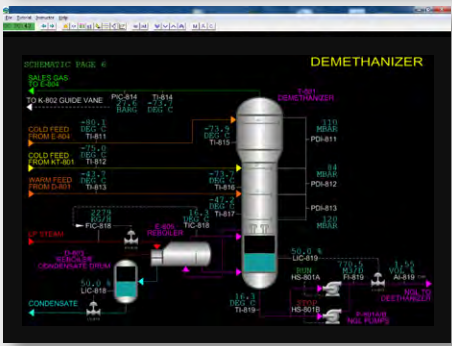
SPM-3610 LPG Unit II

Simtronics' LPG (liquefied petroleum gases) Unit II program represents a typical LPG Unit that would be found in a natural gas processing facility, e.g., natural gas straddle plant or liquefied natural gas (LNG) plant. The feed to the unit is natural gas liquid (NGL) produced from the bottom of either a Demethanizer Column (in the case of a straddle plant) or a Scrub Column (in the case of an LNG plant). The feed mainly contains a range of alkane hydrocarbons: ethane through hexane. Methane, nitrogen and carbon dioxide are also present in small concentrations. The purpose of the LPG Unit is to separate out ethane, propane, and butane from the feed as fairly pure products, leaving a light natural gasoline product. All products are removed as liquids and are routed to storage facilities at the battery limits where they may be transported by rail, truck, or pipeline to their final destination.



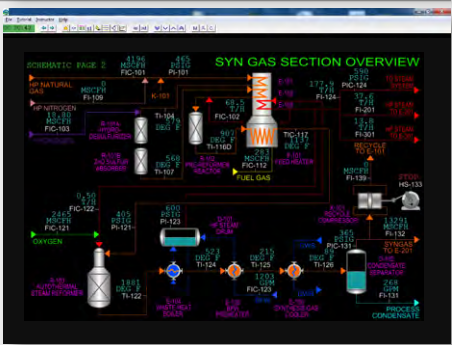
SPM-3700 NGL Plant

The NGL Plant combines the NGL Recovery Unit (SPM-3500) with the LPG Unit (SPM-3600). The NGL plant processes raw natural gas to produce a high methane-content pipeline gas from the NGL Recovery Unit along with liquid ethane, propane, butane and stabilized condensate products from the LPG Unit. The NGL Plant also includes a single-stage propane refrigeration system consisting of compressor, condenser and propane accumulator. Propane refrigerant is provided to both the NGL Recovery Unit and the LPG Unit. The totally integrated operation allows realistic training for commercial NGL plants.



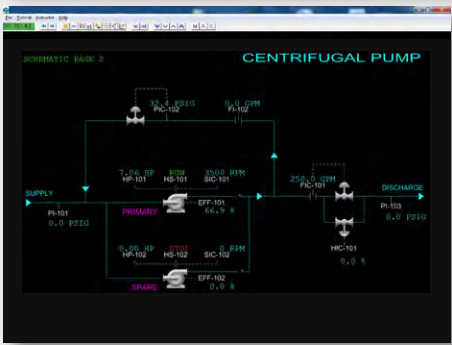
SPM-3800 GTL Plant

The GTL Plant process is the conversion of natural gas to liquid hydrocarbons using a series of reactors. The front end of the plant is a conventional synthesis gas unit that employs steam reforming reactors to produce a synthesis gas rich in carbon monoxide (CO) and hydrogen (H2) from natural gas, steam and oxygen. After removal of most of the process condensate, the synthesis gas is converted to hydrocarbons ranging from ethane C2 to C16 in a two-stage reaction process. Hydrocarbons formed in the first stage reactor are removed and the unreacted synthesis gas is further converted to hydrocarbons in the second stage reactor. The plant produces a mixture of hydrocarbons which are sent off to battery limit for production of fuels and chemical plant feedstocks by distillation and hydroprocessing.



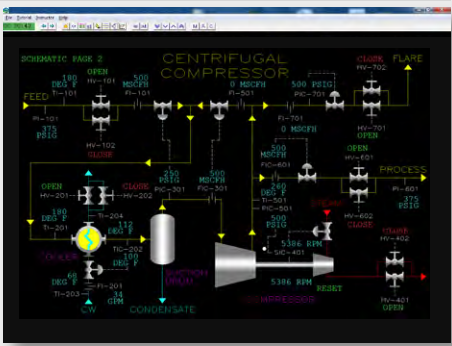
SPM-3900 Liquid Pipeline System

The supply liquid is transported over a long pipeline segment to Booster Pump Station No. 1 in order to increase the pressure of the liquid so it will continue flowing through the next pipeline segment. The booster pumps are configured in series, but only one can be operated at a time. Bypass lines with check valves ensure flow automatically continues around any stopped pump. The electric motor of each pump is served by a common variable frequency drive (VFD) which modifies the electrical line voltage characteristics which therefore changes the speed of the motor. The VFD "speed" is modulated by a system of multiple process controllers to regulate either the suction pressure of the pump station, the discharge pressure of the pump station or the total electricity consumed by the pumps. A selector circuit ensures the controller closest to its setpoint is in control of the VFD "speed."



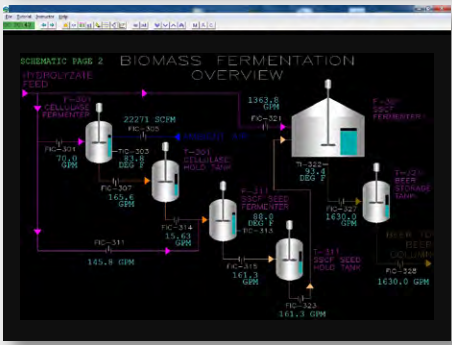
SPM-3910 Gas Pipeline System

The supply gas is transported over a long pipeline segment to Compressor Station No. 1 in order to increase the pressure of the gas so it will continue flowing through the next pipeline segment. The booster compressors are centrifugal type with electric motor drive. Compressor Station No. 1 can be bypassed in case the compressor station needs to be isolated for maintenance. Interlock logic prevents bypassing the station unless no compressors are operating. The compressor station includes equipment to remove liquid slugs from the gas before compression and to filter the gas to remove any solid particulates. The control system includes the ability to regulate either the inlet or outlet pressure from the compressor station.



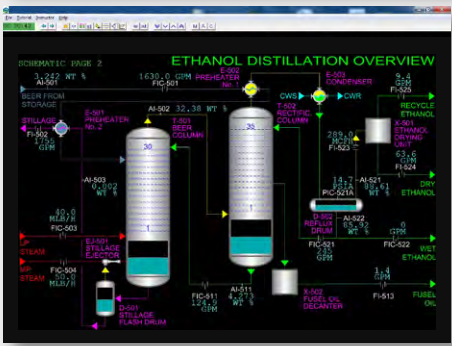
SPM-4000 Biomass Fermentation

The Biomass Fermentation process converts a cellulosic, biomass-derived feed into a solution of ethanol and water and smaller amounts of byproducts and solids (beer). This solution can be distilled into fuel-quality ethanol. There are three main processing sections. All three sections use an acid-treated feed derived from ground wood chips as a main reactant/carrier. Cellulase is produced the first section and is used in both of the other sections. Saccharification of cellulose and fermentation of sugars occur simultaneously in the process. Therefore the process is characterized by simultaneous saccharification and co-fermentation (SSCF).



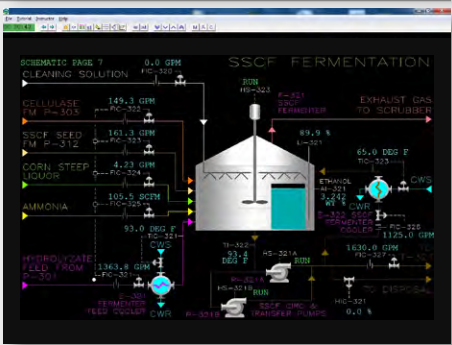
SPM-4100 Ethanol Distillation

SPM-4100 represent a typical ethanol distillation unit for producing ethanol from fermented biomass or corn. Feed from the fermenter is fed to the Beer Column to partially increase the purity of the alcohol prior to being fed to the Rectification Column where alcohol of 95% concentration (azeotropic) is produced as vapor. Water is removed from the ethanol vapor by a molecular sieve drier and the ethanol is condensed to produce motor fuel.



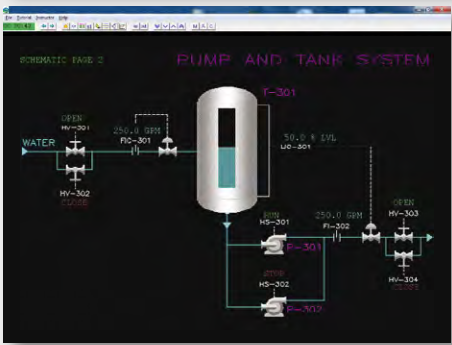
SPM-4200 Ethanol Plant

The Ethanol Plant consists of the Biomass Fermentation Unit and the Ethanol Distillation Unit. The Biomass Fermentation Unit converts a cellulosic, biomass-derived feed into a solution of ethanol and water and smaller amounts of byproducts and solids (beer). This solution can be distilled into fuel-quality ethanol. There are three main processing sections. All three sections use an acid-treated feed derived from ground wood chips as a main reactant/carrier. Cellulase is produced the first section and is used in both of the other sections. The Ethanol Distillation Unit represents a typical ethanol distillation unit for producing ethanol from fermented biomass or corn. Feed from the Fermentation Unit is first fed to a Beer Column to partially increase the purity of the alcohol prior to being fed to the Rectification Column where alcohol of 95% concentration (azeotropic) is produced as vapor. Water is removed from the ethanol vapor by a molecular sieve drier and the ethanol is condensed to produce motor fuel.



SPM-4300 Green Energy Microgrid

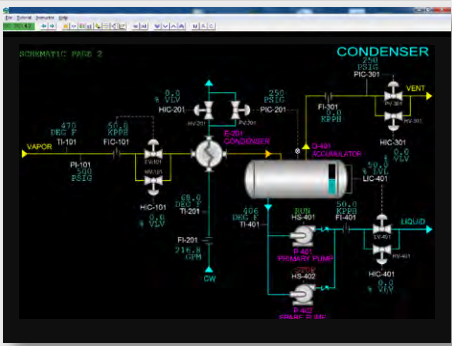
The Green Energy Microgrid simulator represents a small electric grid supplying a manufacturing facility with electric power produced by a wind farm, a solar photovoltaic (PV) farm with battery storage, a pair of swing-duty diesel engine-powered generators and a main grid connection with power import and export. These types of microgrids are becoming very commonplace as the technology of green energy equipment improves and capital costs decrease. The Microgrid normally operates in island mode where it is disconnected from the main electrical grid. The voltage and frequency of the Microgrid is under control of one of the Diesel Generators in this situation.





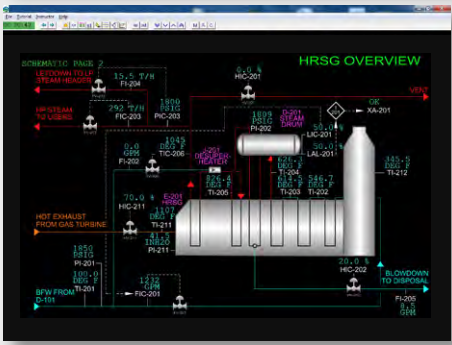
SPM-4400 Hydrogen Electrolyzer

The Hydrogen Electrolyzer represents a commercial hydrogen generation unit based on the Proton Exchange Membrane (PEM) electrolysis process. The heart of this process is the PEM Electrolyzer Module which consists of a specially designed membrane that allows hydrogen atoms (i.e. protons, or H+) to diffuse through it. The hydrogen atoms are formed by electrolysis of feed water on the anode side of the membrane. The hydrogen atoms diffuse through the membrane to the anode side of the membrane and combine at the cathode to form hydrogen molecules (H2). Oxygen molecules (O2) form on the cathode side of the membrane by the electrolysis reaction.



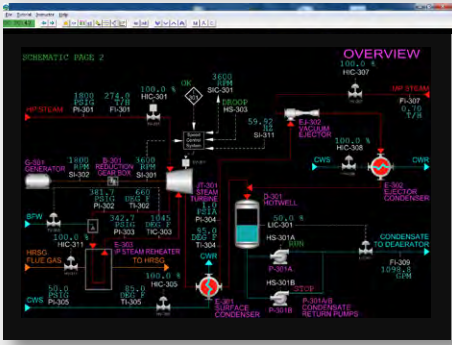
SPM-5000 Heat Recovery Steam Generator (HRSG)

The Heat Recovery Steam Generator (HRSG) program represents a typical steam generator found in a Combined Heat and Power Plant (CHP). Waste heat from gas turbine exhaust or process heater flue gas is recovered by generating high pressure steam in the HSRG. The Boiler Feedwater Pumps provide water to the Steam Drum. The HRSG has coils for preheating boiler feedwater, steam generation and steam superheating. Superheated steam is routed to steam users such as a steam turbine for electric power generation.



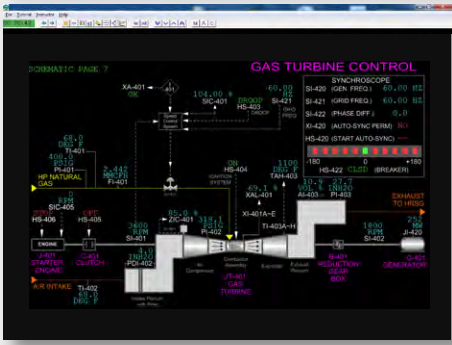
SPM-5100 Steam Turbine with Generator

The Steam Turbine with Generator program represents a typical three-stage steam turbine for generating electrical power. High pressure (HP) steam is fed to the high-pressure stage of the Steam Turbine. Intermediate pressure (IP) steam is withdrawn from the outlet of the HP stage, reheated in an external Reheater and is returned to the IP stage. The steam leaving the IP stage is internally routed to the low pressure (LP) stage. Exhaust steam from the LP stage is condensed in the Surface Condenser using cooling water. The Surface Condenser operates under vacuum. Steam condensate from the Surface Condenser is collected in the Hotwell and pumped by the Condensate Pumps back to the Deaerator. Electric power is generated in the Generator which is attached to the shaft of the Steam Turbine. Auxiliary lube oil and sealing systems are simulated.



5110 Generator

The Electric Generator is a typical large-capacity power generator. It is driven by a generic turbine which provides the input power. It is connected to a large power grid via a circuit breaker. The generator features include the exciter, power factor controller, and power controller. The power controller operates in 3 control modes: manual, droop and MW. During startup, closing of the circuit breaker to connect to the grid can be done manually or by an auto-synch system. A protective system for faults such as low/high voltage, loss of phase, etc. is also provided.



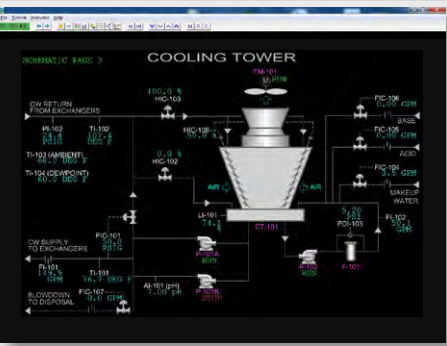
SPM-5200 Gas Turbine with Generator

The Gas Turbine with Generator program represents a typical gas turbine used for power generation. Ambient air is the working fluid for the Gas Turbine. Air is compressed by the Air Compressor. Fuel is injected into the compressed air and combusted in the Combustor. Hot, high pressure gas from the Combustor is expanded in the Expander. Electric power is generated in the Generator which is attached to the shaft of the Gas Turbine. Auxiliary lube oil and sealing systems are simulated.



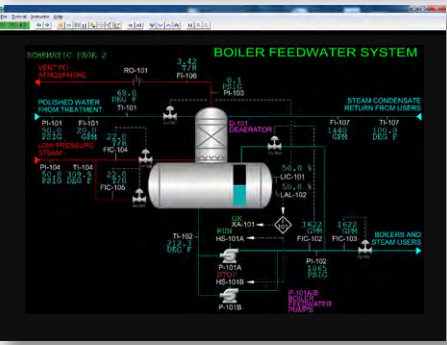
SPM-5300 Condenser with Cooling Tower

The Condenser with Cooling Tower program represents a typical condenser system for a steam turbine. Exhaust steam from the low pressure (LP) stage of the steam turbine is condensed in the Surface Condenser using cooling water. The Surface Condenser operates under vacuum. Steam condensate from the Surface Condenser is collected in the Hotwell and pumped by the Condensate Pumps back to the Deaerator. Cooling water for the Surface Condenser is supplied from the basin of the Cooling Tower by the Cooling Water Pumps. Warm cooling water is returned to the top of the Cooling Tower. The warm water falls through packing in the Cooling Tower and contacts ambient air drawn into the Cooling Tower by fans at the top of the Cooling Tower. The cooled water is collected in a basin and supplies the Cooling Water Pumps.



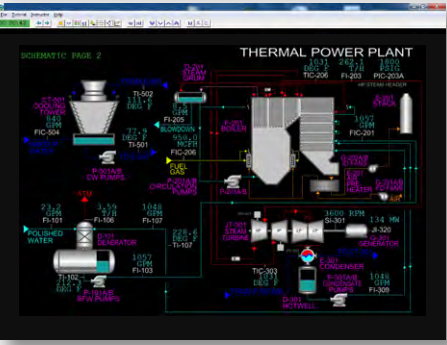
SPM-5400 Boiler Feedwater System (BFW)

The Boiler Feedwater System program represents a typical boiler feedwater system found in a thermal power plant or process plant that generates steam. Makeup water and return condensate are supplied to the top of the Deaerator. The Deaerator is a packed column which is fed with low pressure steam at the bottom. The steam strips out any dissolved or entrained gases from the feed water. Deaerated boiler feedwater is collected in the bottom of the Deaerator and pumped to the Steam Drum by the Boiler Feedwater Pumps. Steam is produced in the Steam Drum by heat from the Boiler for use by turbines and heaters. Steam condensate from these users is collected and returned to the Deaerator. The Boiler and Steam Users are simulated as a "black box" for ease of use in training the concepts of the Boiler Feedwater System.



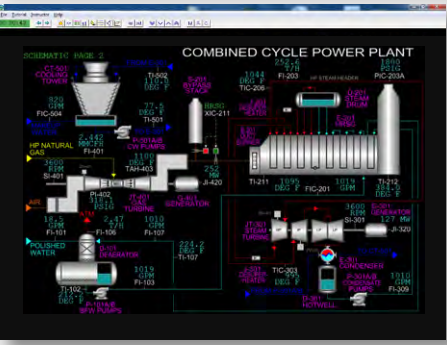
SPM-5500 Thermal Power Plant

The Thermal Power Plant program represents a basic power plant that generates electricity solely by steam generation in a boiler with electricity generation using a steam turbine to drive the electrical generator. The Thermal Power Plant includes the following main units: a Boiler Feedwater System to deaerate returned condensate and makeup boiler water, a Boiler to generate high pressure (HP) superheated steam, a Steam Turbine-Driven Generator to produce electricity, and a Cooling Tower to exhaust the low level heat from the power plant to atmosphere. The steam turbine includes extraction and reheat of intermediate pressure (IP) steam to improve the Rankine cycle efficiency of the plant.



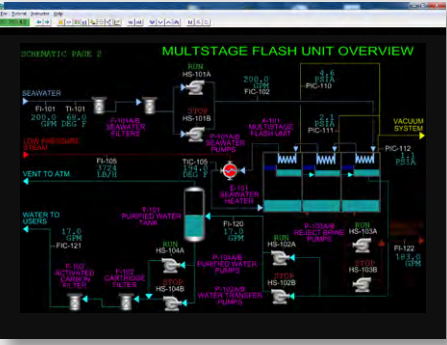
SPM-5600 Combined Cycle Power Plant

The Combined Cycle Power Plant program represents a basic power plant that generates electricity by a combination of a gas turbine (Brayton Cycle) and a steam turbine (Rankine Cycle) to drive two separate generators. Instead of a fired boiler as is used a thermal power plant, steam is generated from hot gas turbine exhaust using a Heat Recovery Steam Generator (HRSG). By recovery of the waste heat of the gas turbine exhaust, the Combined Cycle Power Plant is more efficient than either a standalone gas turbine-driven generator or a thermal power plant. The Combined Cycle Power Plant includes the following main units: a Boiler Feedwater System to deaerate returned condensate and makeup boiler water, a Gas Turbine-Driven Generator, an HRSG to produce steam, a Steam Turbine-Driven Generator to produce electricity, and a Cooling Tower to exhaust the low level heat from the power plant to atmosphere.



SPM-6000 Multi-stage Flash Evaporator

Simtronics' Multistage Flash Evaporator (MSF) process produces potable water from seawater. The seawater is provided from battery limits. Potable water is produced from the successive flashing (evaporation) and condensing of preheated seawater. This produces very pure water with a very low salt concentration. The salt water is returned to the sea. Simtronics' Multistage Flash Evaporator simulator consists of 3 flash/condensing cells. The water levels, temperature and pressure of each stage are indicated so that the principles of stage operation and interactions between stages can be demonstrated to the operator. Real commercial units often employ more than 20 cells, but the operating principles are still the same. The MSF simulator represents a once-through process so that the basic principles of the MSF process may be demonstrated without the added complexity of the recycle process.

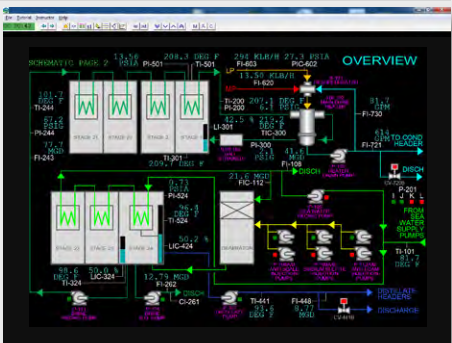




SPM-6010 Advanced Multi-stage Flash Evaporator

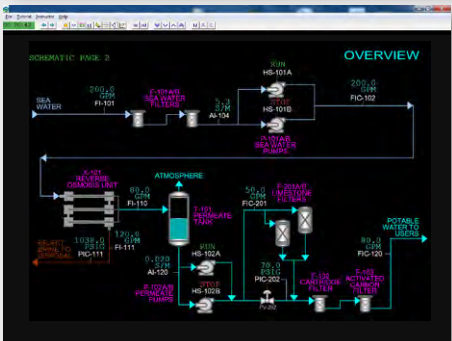
Simtronics' Advanced Multistage Flash Evaporator (MSF) process produces potable water from seawater. The seawater is provided from battery limits. Potable water is produced from the successive flashing (evaporation) and condensing of preheated seawater. This produces very pure water with a very low salt concentration. The salt water is returned to the sea.

Simtronics' Advanced Multistage Flash Evaporator simulator consists of 3 flash/condensing cells. The water levels, temperature and pressure of each stage are indicated so that the principles of stage operation and interactions between stages can be demonstrated to the operator. Real commercial units often employ more than 20 cells, but the operating principles are still the same. The MSF simulator represents a once-through process so that the basic principles of the MSF process may be demonstrated without the added complexity of the recycle process.



SPM-6100 Reverse Osmosis

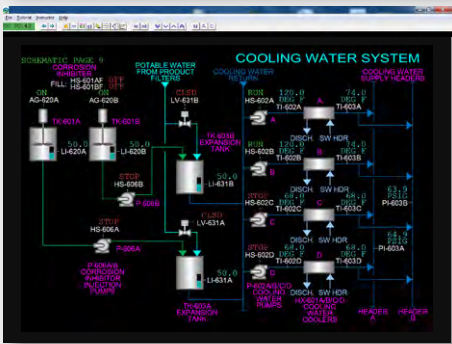
Simtronics' Reverse Osmosis (RO) process produces potable water from brackish water. The brackish water is provided from battery limits. Brackish water is purified by selective diffusion of water molecules through a permeable membrane. The membrane will not pass most of the impurities present in the brackish water. The purified water is collected on the permeate side of the membrane and is filtered and distributed to users. Some of the feed water and most of the impurities (brine) are collected at the outlet of the feed side of the membrane and are discharged to disposal facilities.



SPM-6110 RO with Sea Water Pre-treating Unit

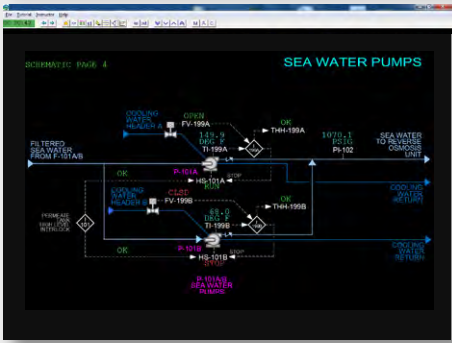
Simtronics' Reverse Osmosis with Sea Water Pre-treating Unit produces potable (drinkable) water from sea water. Raw, screened sea water is provided from battery limits and is processed in the Pre-treating Unit to remove suspended solids prior to being fed to the Reverse Osmosis (RO) Unit. The permeate (water with low salt concentration) is processed for general distribution in the Permeate Section.

The Pre-treating Unit consists of a single Dissolved Air Flotation (DAF) Unit and dual Ultrafiltration (UF) section. Sea water is pumped into the DAF Unit which uses flocculant and air injection into circulating sea water to help coalesce much of the suspended solids in the sea water. This forms a sludge which floats to the surface of the DAF Basin, assisted by the injected air. The sludge is skimmed off to a trough and pumped to battery limits for processing.



SPM-6120 Dissolved Air Flotation Unit

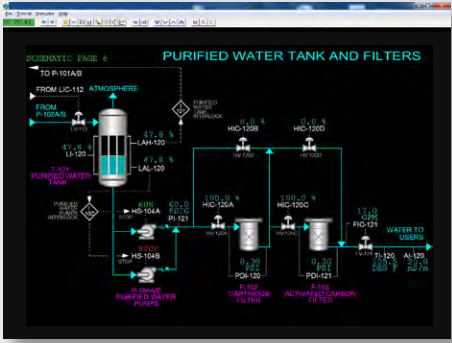
The Dissolved Air Flotation Unit consists of a single Dissolved Air Flotation (DAF) Unit and dual Ultrafiltration (UF) section. Sea water is pumped into the DAF Unit which uses flocculant and air injection into circulating sea water to help coalesce much of the suspended solids in the sea water. This forms a sludge which floats to the surface of the DAF Basin, assisted by the injected air. The sludge is skimmed off to a trough and pumped to battery limits for processing.



SPM-6200 Potable Water Plant

Simtronics Potable Water Plant simulator replicates a typical process for producing drinking water for municipal distribution.

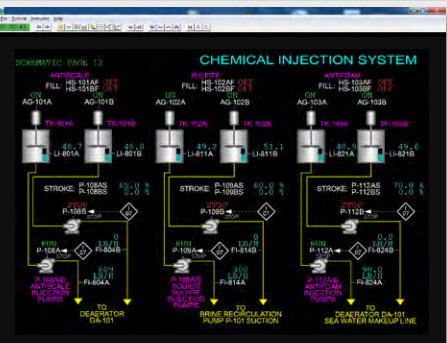
Raw water taken from a surface source such as a lake or river flows by gravity to the debris screen. Coarse filters remove debris and large objects from the raw water prior to entering the settling tank. The debris is collected and sent off to a landfill for disposal. The raw water flows over a weir into the collection compartment of the debris screen. Raw water flows by gravity from the debris screen to the settling tank. Any sludge settles to the bottom of the settling tank and is removed by pumping to disposal. Settled raw water from this large, open tank is pumped by the low lift pumps to the ozonators where it is mixed with ozone produced by ozone generators. Ozone is a strong oxidizer and, therefore, disinfects the water by quickly attacking many bacterial agents in the raw water.



SPM-6300 Wastewater Treatment Plant

Simtronics Wastewater Treatment Plant simulator replicates a typical process for treating raw municipal sewage so it can be safely discharged to the environment.

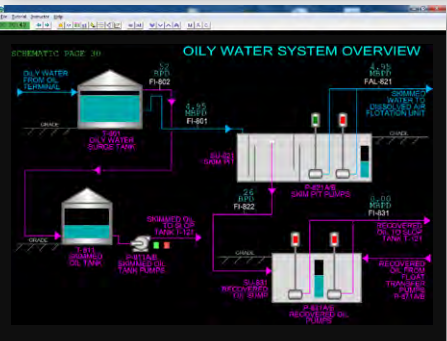
Raw sewage from the municipal collection system flows to the inlet holding tank which provides surge capacity. Coarse screens then remove debris and large objects from the sewage that flows into the process from the holding tank. After debris removal, the sewage flows into the grit chambers. The grit chambers employ engineered baffles and weirs designed to reduce the velocity of suspended inorganic solids, so they separate and fall to the bottom of the grit chambers. Lighter density organic solids will tend to stay suspended in the liquid phase so they will be carried out with the water exiting the grit chambers. The grit chambers have mechanical scrapers to remove the grit from the bottom of the grit chambers. This grit is sent off-site for disposal.



SPM-6400 Oily Water System

Oily water is sent to the Oily Water Surge Tank which serves as the first stage for separating entrained oil from the oily water. The residence time of the water in the Tank allows some of the oil to coalesce and float to the top of the water phase. The drained water from the Tank flows by gravity to the Skim Pit.

Coalesced oil in the Tank rises and floats on top of the water phase until it accumulates high enough to reach the height of the drainpipe for the recovered oil. Oil flows through this pipe by gravity to the Skimmed Oil Tank. Accumulated oil in the Tank is pumped by Skimmed Oil Pumps as needed to the Slop Tank.

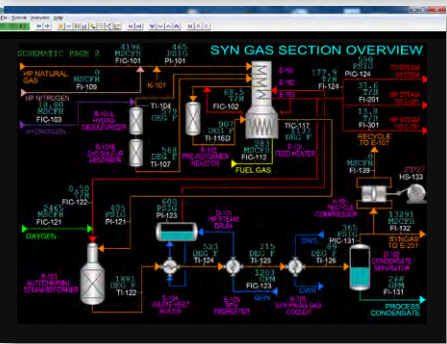


SPM-7000 Hydrogen Plant w/PSA

The Hydrogen Plant produces hydrogen in a series of reactors:

- hydrodesulfurizer to remove sulfur from light hydrocarbon feedgas
- pre-reformer to partially steam reform feedgas and feed steam to a mixture primarily containing H<sub>2</sub>, CO, CO<sub>2</sub>, H<sub>2</sub>O and CH<sub>4</sub>
- fired steam reformer to provide additional conversion of CH<sub>4</sub> to H<sub>2</sub>, CO and CO<sub>2</sub> and to provide the heat input for the reactions
- medium temperature shift (MTS) converter to convert most of the CO to CO<sub>2</sub> and produce additional H<sub>2</sub>

After the reaction section, the process gas is cooled and fed to a PSA unit to remove the residual concentrations of CO, CO<sub>2</sub> and H<sub>2</sub>O in the process gas to produce a highly pure hydrogen product.

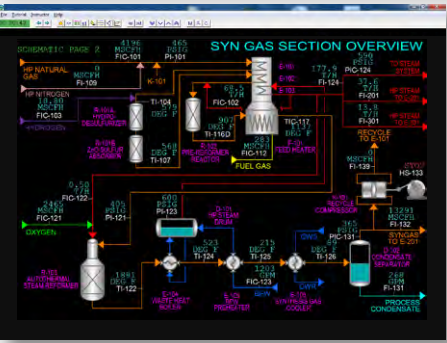


SPM-7010 Hydrogen Plant w/CCS

The Hydrogen Plant with Carbon Capture Storage produces hydrogen in a series of reactors:

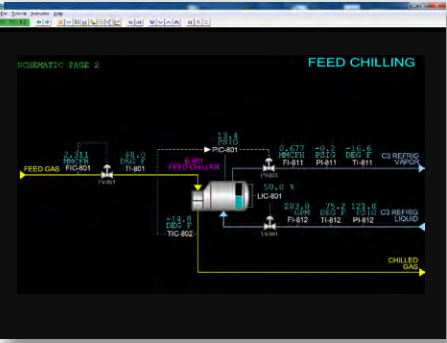
- hydrodesulfurizer to remove sulfur from light hydrocarbon feedgas
- pre-reformer to partially steam reform feedgas and feed steam to a mixture primarily containing H<sub>2</sub>, CO, CO<sub>2</sub>, H<sub>2</sub>O and CH<sub>4</sub>
- fired steam reformer to provide additional conversion of CH<sub>4</sub> to H<sub>2</sub>, CO and CO<sub>2</sub> and to provide the heat input for the reactions
- medium temperature shift (MTS) converter to convert most of the CO to CO<sub>2</sub> and produce additional H<sub>2</sub>

After the reaction section, the process gas is cooled and fed to a PSA unit to remove the residual concentrations of CO, CO<sub>2</sub> and H<sub>2</sub>O in the process gas to produce a highly pure hydrogen product. Then the CO<sub>2</sub> is liquified and sent to underground storage.



SPM-8000 Refrigerant Chiller

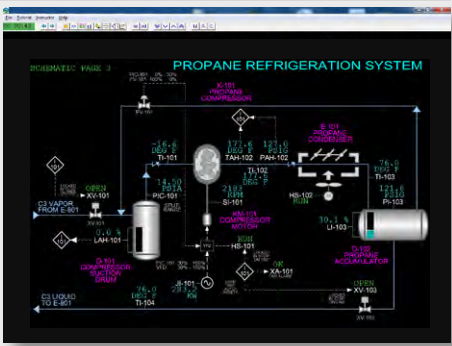
The purpose of the Simtronics Refrigerant Chiller is to cool down a process stream using liquid refrigerant in a specially designed heat exchanger to handle boiling of the liquid refrigerant by heat absorbed from the process stream. Liquid refrigerants provide chilling capability because they partially vaporize as they are depressured across a control valve. This vaporization (also called flashing) results in a large decrease of the refrigerant's temperature so it can be used to chill a process stream.





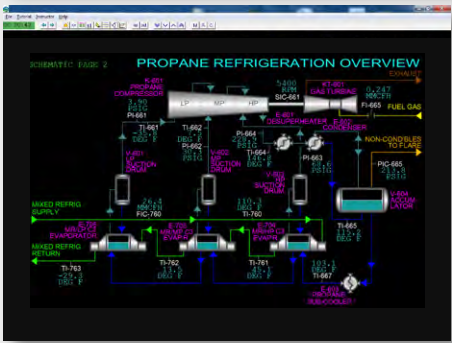
SPM-8010 Single-Stage Refrigeration System

The purpose of the Simtronics Single-stage Refrigeration System is to cool a process stream to a temperature significantly below ambient temperature. This is accomplished in a closed system which circulates a compound that will chill to low temperatures when it is depressured in the liquid phase and whose vapor will condense at temperatures above ambient when compressed. Such compounds are called refrigerants. In this system, propane is the compound of choice.



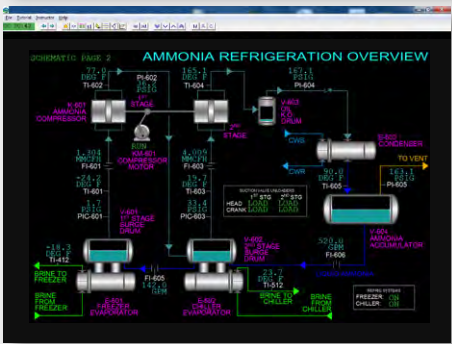
SPM-8020 Propane Refrigeration System

Simtronics' Propane Refrigeration System simulator enables comprehensive training and familiarization for a traditional single component (propane) centrifugal compressor based refrigeration system. Refrigeration systems are common to hydrocarbon processes requiring separation of light hydrocarbons components (for example, methane, ethane or propane from heavier hydrocarbon components). The Liquefied Natural Gas (LNG) industry makes use of these types of refrigeration systems to condense light hydrocarbons for ease of product transport. The centrifugal compressor includes multiple stages so the compressor could efficiently provide multiple levels of refrigeration for this purpose. The refrigeration system will facilitate separation by cooling and condensing a portion of the opposing stream, making physical separation and purification of specific components much easier.



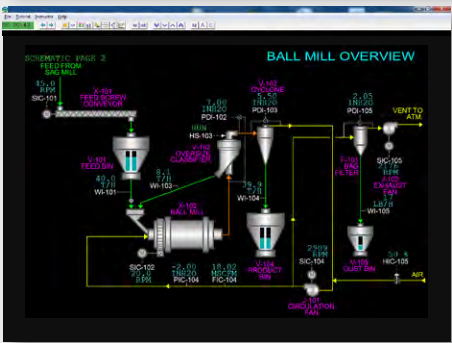
SPM-8030 Ammonia Refrigeration System

Simtronics' Ammonia Refrigeration System simulator enables comprehensive training and familiarization for a typical 2-stage reciprocating compressor-based ammonia refrigeration system used for chilling and freezing of packaged foods and other temperature-sensitive products. The Ammonia Refrigeration System employs circulating brine (salt solution) between the ammonia refrigeration equipment and two large warehouses (a freezer and a chiller) to minimize the risk of a toxic leak that would affect employees and property. This design allows the ammonia-containing equipment to be located at a safe distance from the warehouses. Ammonia refrigeration systems are extremely common in the food industry because ammonia is an excellent refrigerant. The two stages of compression in the Ammonia Refrigeration System provide two separate temperature levels which can be independently controlled.



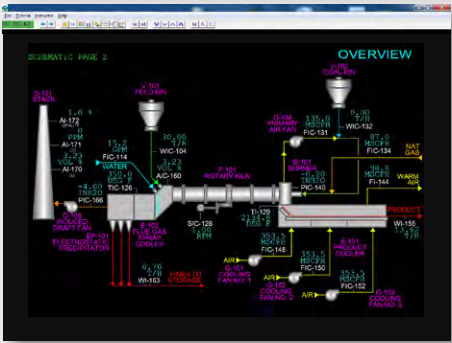
SPM-8100 Ball Mill

The Ball Mill simulator represents a dry grinding process for materials such as ore, rock or other hard minerals that need to be ground into smaller particles before they can be processed. Raw material is fed from the Feed Bin into the Ball Mill which grinds the raw material into smaller particles. Air circulates into and through the Ball Mill to transport the ground material to the Oversize Separator which recovers larger particles that are recycled back via gravity and the Screw Conveyor to the Ball Mill for re-grinding. The balance of the ground material is sent to the Cyclone which separates most of the ground material from the circulation air. The ground particles collected in the Cyclone are sent to the Coarse Particle Bin. The circulating air leaving the cyclone has a significant concentration of fine particles and is recirculated back to the Ball Mill by the Circulation Fan.



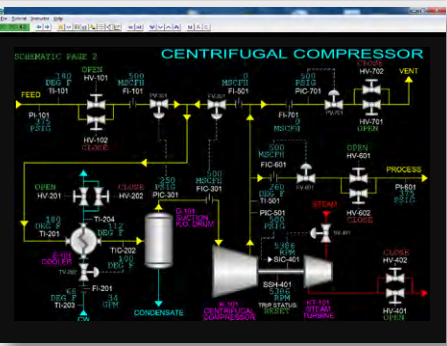
SPM-8200 Rotary Kiln

The Rotary Kiln simulator represents a typical rotary kiln found in bulk dry chemical industries such as cement, lime and alumina manufacturing. It is also used extensively in ore processing and pulp & paper. Raw, ground material from the Feed Bin is fed into the exhaust end of the Rotary Kiln which is elevated above the burner end. The Rotary Kiln slowly rotates causing the feed mixture to gradually move toward the burner end. As the feed mixture moves toward the Coal Burner it gets hotter due to convection and radiation of heat from the burner flue gas. Depending on the composition of the feed mixture, the increasing temperature will result in various reactions to occur along the length of the kiln. The hot, reacted material, referred to as clinker, exits into the Kiln Hood and falls onto a reciprocating grate in the Clinker Cooler.



SPM-8300 Air Separation Plant

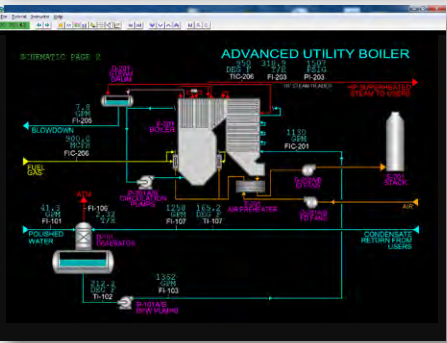
The Air Separation Plant simulator represents a typical commercial plant to produce very pure oxygen for use in various process industries. Fairly pure nitrogen is produced as a byproduct. Oxygen and nitrogen are produced by chilling ambient air to very low temperatures where it liquefies. The liquefied air is then distilled at high and then low pressure to separate the oxygen and the nitrogen. The cold oxygen and nitrogen streams are warmed by exchanging heat with the feed air and the oxygen is delivered as vapor to a pipeline at battery limits.



SPM-8500 Building Automation Systems

The Building Automation Systems represents a typical mid-sized commercial building consisting of 2 occupied floors for commercial activity and a basement which contains the simulated building automation systems. The following systems are simulated:

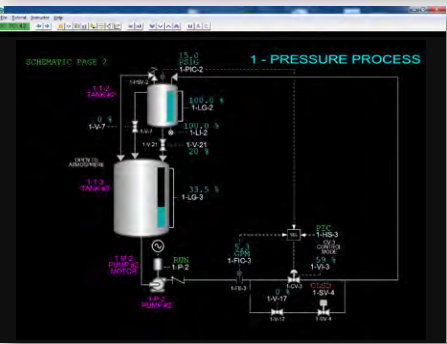
- HVAC System
- Chilled Water System
- Hot Water System
- Potable Water System
- Firefighting System
- Entry Security Control
- Interior Lighting Control
- Elevators
- Electrical Systems
- Outdoor Lighting Control
- Outdoor Irrigation System



CPM-200 Advanced Process Trainer

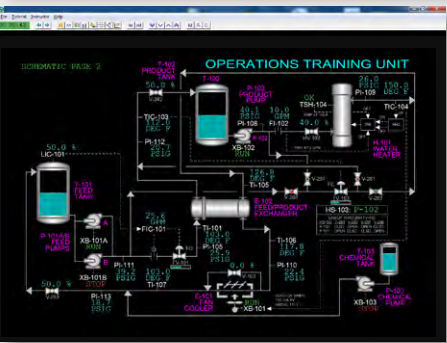
The CPM-200 Advanced Process Trainer simulator represents the four process configurations of a physical trainer unit:

- Pressure Process
- Level Process
- Flow Process
- Temperature Process



CPM-300 Polaris Operations Training Unit

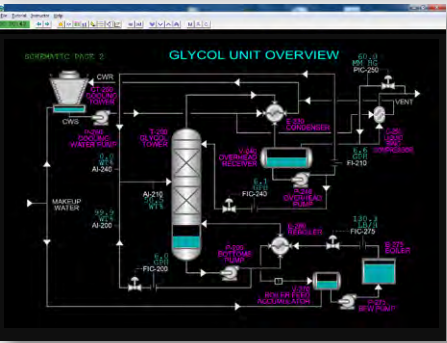
The CPM-300 Operations Training Unit (OTU) simulator represents the Polaris Hands On Trainer (H.O.T.) Model 01 – Operations Training Unit. The OTU process consists of circulating water which is pumped between two tanks. The two water flows between the tanks are represented as a feed and a product circuit and are used to demonstrate material balance control as well as hydraulic issues such as parallel pump operation and system pressure adjustment. The OTU also includes a heater, a feed/product heat exchanger and an air cooler to demonstrate heat exchange and unit heat balance principles. All of the DCS instrumentation controls and interlocks on the actual OTU are simulated in CPM-300. In addition, several key hand valves are also simulated to allow field adjustment of flows and pressures and to allow an alternate flow lineup of a temperature control valve.



CPM-400 Polaris Glycol Fractionation Unit

The CPM-400 Glycol Fractionation Unit (GFU) simulator represents the Polaris Hands On Trainer (H.O.T.) Model 03 – Glycol Fractionation Unit. The GFU consists of a distillation tower that separates a mixture of ethylene glycol and water into a nearly pure top product of water and a bottom product that is highly concentrated in ethylene glycol. The following process equipment types are found in the GFU:

- Distillation tower
- Separation drum
- Centrifugal pump
- Heat exchanger
- Package utility boiler
- Liquid ring compressor
- Cooling tower





A new dimension in training

The VFO is an interactive 3D virtual training environment that enables the learner to better understand and visualize the real world operating environment. VFO expands the training opportunities to include the field operator's roles and responsibilities. Learners can navigate through virtual units, tracing flows and locating equipment. Learners use local gauges and panels to observe actual operating conditions, start/stop pumps, and open/close valves to interact with the process.



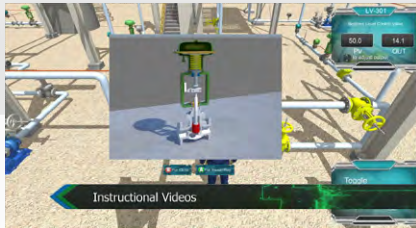
Click for more information



Realistic walkthrough views of the entire plant



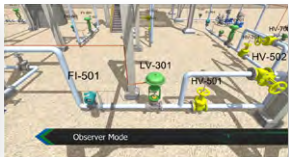
Realtime process values with DSS support



Embedded equipment videos and instructional content



Three view modes



IMMERSIVE TRAINING SIMULATOR (ITS)

Robust 360° Immersive Training

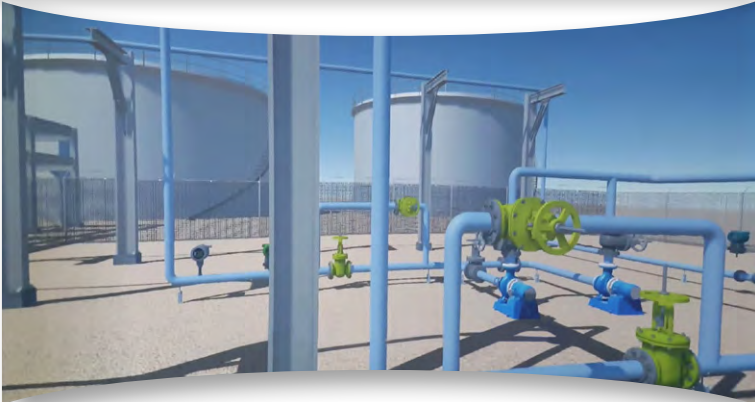
The ITS is an immersive structure with 360° wraparound sound and vision that takes virtual reality to the next level. It is the perfect environment to use for group training as it resembles a real life plant without the need for heavy or cumbersome equipment. The ITS is connected to the simulator similarly as the VFO. Trainees will be able to interact with the equipment and controls as they are able to with the VFO. The ITS allows you to train your field operators in a safe and realistic environment. The ITS is available in various sizes from compact to massive to fit your specific training needs.

ITS Product Line\*

SimPod-7' 180°	SimCylinder-20' 360°	SimDome-20' 360°
SimPod-12' 220°	SimCylinder-30' 360°	SimDome-30' 360°
SimPod-16' 270°		SimDome-40' 360°
		SimDome-70' 360°



Click for more information



\* The first number indicates the structure's diameter; the second number indicates the degree of wraparound

Training Workbooks

These workbooks use the P<sup>3</sup>OPT™ methodology, which is a layered approach that combines hands-on exercises with application of knowledge and theory to ensure competency achievement. Learning is divided into modules, so you have the flexibility to tailor your program and integrate simulation into your existing operator training. Each module relies on concepts mastered in the previous modules, while presenting new knowledge and skills.

Imbedded in the materials are opportunities to reinforce technical and functional competencies such as information management, critical thinking, use of log books, effective rounds, and reading drawings. Where possible, the methodology allows operators to see the linkage between the simulation model and the work they do every day.

P<sup>3</sup>OPT™ helps you to make implementing simulation training quick and easy because the structure and exercises have all been developed for you. P<sup>3</sup>OPT™ workbooks can be used in the classroom, lab or self-paced.



Click for more information

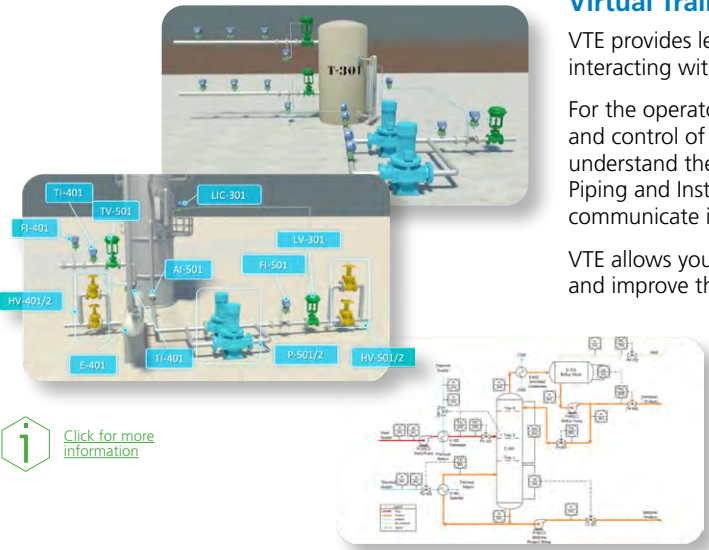


Virtual Training Environment (VTE)

VTE provides learners with the ability to better visualize the simulation models by interacting with a library of movies, 3D visualizations, diagrams, and DCS screens.

For the operator, the ability to troubleshoot the process relies on understanding the flow and control of the unit. The 3D visualizations and movies allow the operator to better understand the process by seeing the configuration of equipment and instrumentation. Piping and Instrumentation Diagrams and DCS screens are representations of the unit that communicate important information to the operator.

VTE allows you to teach and reinforce the ability to read and interpret process information and improve the level of process knowledge and trouble-shooting skills.



Click for more information

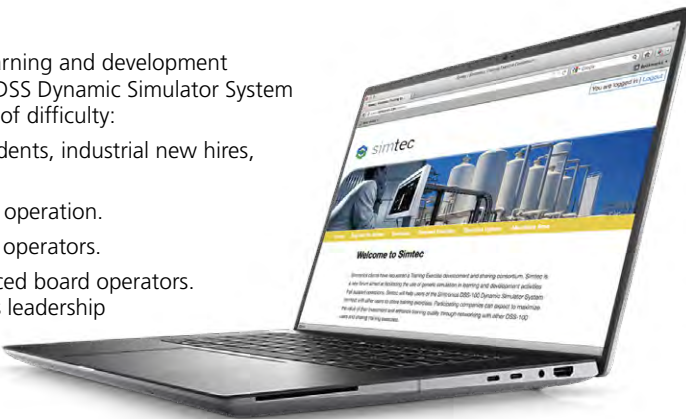
Simtec Training Exercise Library

Simtec is a new forum to facilitate the integration of generic simulation into learning and development activities that support process operations. Simtec helps users of the Simtronics DSS Dynamic Simulator System connect with other users to share training exercises, which are rated by degree of difficulty:

- 1) Beginner** – Easy exercises appropriate for vocational process technology students, industrial new hires, or those new to simulator use.
- 2) Skill Builder** – Simple exercises that teach and reinforce basic skills of board operation.
- 3) Competent** – Exercises intended to reinforce skills required of trained board operators.
- 4) Advanced** – Exercises of sufficient complexity to be challenging to experienced board operators. These exercises draw on skills not only of console operation, but also process leadership and crew management.
- 5) Expert** – Advanced exercises intended to challenge highly skilled, experienced practitioners and engineers. These exercises are appropriate for building team troubleshooting or abnormal situation management skills.



Click for more information





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Innovative OTS solutions for the Process Industries

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